# A

# INITIAL STUDY/NOTICE OF PREPARATION

ADP No: 100114-003

# Notice of Preparation

# City Dock No.1
# Marine Research Center Project

*Prepared by:*

Environmental Management Division
Los Angeles Harbor Department
425 S. Palos Verdes Street
San Pedro, CA 90731

*with assistance from:*
Environmental Science Associates

December 2010

THE PORT OF LOS ANGELES

THE PORT
OF LOS ANGELES

425 S. Palos Verdes Street Post Office Box 151 San Pedro, CA 90733-0151 TEL/TDD 310 SEA-PORT www.portoflosangeles.org

Antonio R. Villaraigosa | *Mayor, City of Los Angeles*

Board of Harbor Commissioners | Cindy Miscikowski *President* | David Arian *Vice President* | Kaylynn L. Kim | Robin M. Kramer | Douglas P. Krause

Geraldine Knatz, Ph.D. | *Executive Director*

December 3, 2010

**SUBJECT: RELEASE OF A NOTICE OF PREPARATION (NOP) FOR THE CITY DOCK NO. 1 MARINE RESEARCH CENTER PROJECT ENVIRONMENTAL IMPACT REPORT**

The Environmental Management Division of the Los Angeles Harbor Department will be preparing an Environmental Impact Report (EIR) for the following project in the Port of Los Angeles:

CITY DOCK NO. 1 MARINE RESEARCH CENTER PROJECT

We transmit this Notice of Preparation, Initial Study, and Environmental Assessment Checklist to you for review, in accordance with current City of Los Angeles Guidelines for the Implementation of the California Environmental Quality Act (CEQA) of 1970, Article I, adopted by the Los Angeles City Council; the State CEQA Guidelines, Article 7, Sections 15086 and 15087; and the California Public Resources Code Section 21153.

A Public Scoping Meeting will be held to further define and accept input on the scope of this EIR on January 13, 2011 at 6:00 pm at the Port of Los Angeles Board Room.

Please submit your comments, concerns, mitigation measures, and any other pertinent information that may enable us to prepare a comprehensive and meaningful EIR for the project. It is requested that your comments be sent to Christopher Cannon, Director of Environmental Management, Los Angeles Harbor Department, 425 South Palos Verdes Street, San Pedro, CA 90731 or via e-mail to ceqacomments@portla.org. Comments sent via email should include the project title in the e-mail's subject line and a valid mailing address within the email. Comments must be returned to this office by January 31, 2001. If you have any questions, please contact Jan Green Rebstock, Environmental Project Manager at (310) 732-3949.

Sincerely,

CHRISTOPHER CANNON
Director of Environmental Management

ADP No.:100114-003
Enclosures

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Geraldine Knatz, Ph.D. | *Executive Director*

1° DE DICIEMBRE DE 2010

REF.: PUBLICACIÓN DE AVISO DE PREPARACIÓN DE INFORME DE IMPACTO AMBIENTAL PARA EL PROYECTO DE CENTRO DE INVESTIGACIONES MARÍTIMAS EN EL MUELLE N° 1 DE LA CIUDAD

La División de Gestión Ambiental del Departamento de Puertos de Los Ángeles va a preparar un Informe de Impacto Ambiental respecto del siguiente proyecto para el puerto de Los Ángeles:

PROYECTO DE CENTRO DE INVESTIGACIONES MARÍTIMAS EN EL MUELLE N° 1 DE LA CIUDAD

Por el presente presentamos a su revisión un Aviso de Preparación de un Estudio Inicial y un Listado de Control de Evaluación Ambiental Preliminar, de conformidad con los requisitos del Capítulo I de las directivas vigentes en la ciudad de Los Ángeles para la implementación de la Ley de Calidad Ambiental de California (California Environmental Quality Act, CEQA) de 1970, que fueran adoptadas por la Junta de la ciudad de Los Ángeles; los Artículos 15086 y 15087 del Capítulo 7 de las Directivas Estatales de la CEQA; y el Artículo 21153 del Código de Recursos Públicos (Public Resources Code) de California.

El día 13 de enero de 2011, a la hora 6:00 PM, se celebrará una Audiencia Pública en la Sala de Juntas del Puerto de Los Ángeles para definir en mayor detalle y aceptar comentarios sobre el alcance de este Informe de Impacto Ambiental.

Les rogamos presentar sus comentarios, inquietudes, medidas de mitigación y cualquier otra información pertinente que nos pueda ayudar a preparar un Informe de Impacto Ambiental completo y significativo para el proyecto de referencia. Les agradeceremos que envíen sus comentarios a Christopher Cannon, Director de Gestión Ambiental del Departamento de Puertos de Los Ángeles, 425 South Palos Verdes Street, San Pedro, CA 90731, o por correo electrónico a ceqacomments@portla.org. Los comentarios que se envíen por correo electrónico deben incluir el título del proyecto en la línea de asunto y una dirección válida para correspondencia en el cuerpo del mensaje. Los comentarios deben llegar a nuestras oficinas antes del 31 de enero de 2011. Por consultas, rogamos comunicarse con Jan Green Rebstock, Gerente de Proyectos Ambientales, por el teléfono (310) 732-3949.

Muy atentamente,

CHRISTOPHER CANNON
Director de Gestión Ambiental

ADP No.: 100114-003
Adjuntos

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# Notice of Preparation

# City Dock No.1
# Marine Research Center Project

*Prepared by:*

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425 S. Palos Verdes Street
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December 2010

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# CITY DOCK NO.1
# MARINE RESEARCH CENTER
Notice of Preparation

## 1.0 Project Overview and Background

### 1.1 Project Overview

This Notice of Preparation (NOP) is to inform responsible and trustee agencies, public agencies, and the public that the Los Angeles Harbor Department (LAHD) is preparing an Environmental Impact Report (EIR) for the City Dock No. 1 Marine Research Center Project (proposed Project or City Dock No. 1 Project). The proposed Project site is located within the Port of Los Angeles (Port) boundaries at Berths 56-60 and 70-71. The City Dock No. 1 Marine Research Center Project EIR will be prepared pursuant to the California Environmental Quality Act (CEQA) and California Public Resources Code (PRC) Section 21000 et seq. LAHD seeks comments from agencies and the public regarding the scope and content of this EIR. For agencies, LAHD seeks comments regarding the scope and content of environmental information that is relevant to each agency's statutory responsibilities in connection with the EIR and the various actions and activities to be evaluated in the EIR. The LAHD has prepared, as part of this NOP, an Environmental Checklist for the EIR determination in accordance with current City of Los Angeles Guidelines for the Implementation of the California Environmental Quality Act of 1970 (Article I): the State CEQA Guidelines (Title 14, California Code of Regulations); and the California Public Resources Code (Section 21000, et seq.). The Environmental Checklist is attached to this NOP for public review and comment.

LAHD is chartered to develop and operate the Port of Los Angeles (Port) under the California Tidelands Trust Act of 1911, the Los Angeles City Charter (Article VI, Section 601) and the California Coastal Act (Public Resources Code PRC Division 20, Section 30700, *et seq*.). LAHD leases Port property to over 300 tenants who operate their own facilities.

The Port encompasses 7,500 acres and 43 miles of waterfront and provides a major gateway for international goods and services. With 27 major cargo terminals, including dry and liquid bulk, container, breakbulk, automobile and omni facilities, the Port handles almost 190 million metric revenue tons of cargo per year. In addition to cargo business operations, the Port is home to commercial fishing operations, shipyards, and boat repair yards, as well as recreational, community, and educational facilities.

The City Dock No. 1 Project site lies within the San Pedro Waterfront Plan area which generally encompasses approximately 400 acres along the west side of the Los Angeles Harbor's Main

Channel, from the Vincent Thomas Bridge to Cabrillo Beach, adjacent to the City of Los Angeles community of San Pedro.

Specifically, the proposed Project is located at Berths 56 through 60 and Berths 70 and 71. Berth 56 currently hosts a field office and vessel berth for the California Department of Fish and Game. Berths 57 through 60 are currently or were formerly in use for warehouse operations, and Berths 70 and 71 are part of the Westway Terminal site, formerly used for liquid bulk storage.

The *San Pedro Waterfront Project EIS/EIR* (2009) certified by the Los Angeles Board of Harbor Commissioners on September 29, 2009 included a programmatic analysis of the potential impacts of the proposed Project. This EIR examines the project-specific impacts of the proposed Project. Selected information and analysis is utilized from the *San Pedro Waterfront Project EIS/EIR.*

## 1.2 Project Background

With the creation of the San Pedro Waterfront Project, the Port demonstrated its commitment to improving the compatibility of its operations and activities with the neighboring communities of San Pedro and Wilmington and to place community concerns about the environment and quality of life at the forefront of its land use policy and development decisions. As part of this commitment, the Port is removing heavy industrial uses from the project area while increasing public access along the waterfront and enhancing connectivity between nearby communities and the Port. The proposed Project, which would convert the Project site to marine research, public education, and institutional and commercial uses, would further the Port's mission in this regard.

Reuse of the City Dock No. 1 Project site for marine science research and development and related institutional uses was considered at a programmatic level in the certified *San Pedro Waterfront Project EIS/EIR* (2009). In 2007 the Port, with funding from the Annenberg Foundation, initiated a visioning process with the Southern California Marine Institute (SCMI) to explore the creation of a marine research center at City Dock No. 1. This work resulted in the preparation of a visioning study that was completed in March 2009. Since development of the visioning study, the Port and SCMI have been working together to develop a plan to create a marine research center that can provide facilities for a cluster of university researchers, educational programs, and spin-off marine science technology ventures. The proposed Project is a result of this joint effort.

# 2.0 Project Description

## 2.1 Project Objectives

The proposed Project would provide a world-class marine research center to support the research needs of the region's universities, research and educational institutions, and government agencies, as well as to provide an incubator for marine-related business venues. Specifically, the proposed Project would:

- Provide a location at Berths 56-60 and 70-71 for marine researchers in Southern California with world-class facilities including laboratories, offices, classrooms, a lecture

hall/auditorium and storage space to conduct marine research, including, the study of global climate change and its related phenomena, fisheries, marine resource conservation and management, and other related marine science applications.

- Provide an opportunity for SCMI and its members, government and other institutional researchers and research organizations to berth research vessels that range in size from small vessels to large 250- to 300-foot vessels at the proposed Project site.

- Provide public amenities, including public education classroom space and interpretive exhibits related to marine studies, along with a continuous waterfront promenade as approved in the San Pedro Waterfront Project.

- Replace existing SCMI facilities now located at Berth 260 in Fish Harbor with a location that allows for an expanded and upgraded SCMI facility in the Los Angeles Harbor to address SCMI's desire for increased research laboratory space with a sea water circulation system, access to deep draft docks to accommodate research vessels, and teaching space.

- Construct the world's largest wave tank using seawater to allow scientists from around the world to study tsunamis, rouge waves, and the generation of wave energy.

- Provide a location for a marine-related business incubator park for synergy among research and commercial interests, such uses as aquaculture, sustainable energy production, and marine exploration.

## 2.2 Project Location

The proposed Project site is located within the San Pedro Waterfront Plan area, which encompasses approximately 400 acres along the western boundary of the Port, adjacent to the community of San Pedro. Project activity will be focused on City Dock No. 1, which encompasses approximately 28 acres and is bounded by the Main Channel on the east, the East Channel on the west, East 22$^{nd}$ Street to the north and Los Angeles Harbor to the south. The project site contains Berths 70 through 71 (the Westway Terminal site); Berth 56; Berth 57; Berths 58 through 60; and a water taxi service located beyond Berth 60 at the end of City Dock No. 1. Warehouse No. 1 is adjacent to the project site. See **Figure 1** for the regional location, **Figure 2** for a project vicinity map, and **Figure 3** for the project site and surrounding features.

## 2.3 Project Site

### Existing Conditions

Berth 56 contains a parking lot and a small building occupied by the California Department of Fish and Game (CDFG). Berth 57 and Berths 58 through 60 each contain a transit shed, which have been occupied by Crescent Warehouse Company (Crescent). Crescent, which has consolidated its operations into B.57, uses the warehouse space primarily to store hay and cotton that come from various locations throughout the western United States. Crescent then ships the materials to China and other primarily Asian countries. Berths 70 through 71 are occupied by defunct liquid bulk storage tanks that were formerly used by Westway Terminals, a historic pumping station, and an office building. The office building is currently in use by Crescent.

## *Berths 56-60*

### Berth 56

Berth 56 has a 1,600 square foot building, currently occupied by the California Department of Fish and Game, with a parking lot of approximately 16 spaces. The remaining area on Berth 56, measuring approximately .65 acres is currently vacant.

**Berth 56 Building Historic Resources Determination.** The Pan-Am Terminal Facility Building at Berth 56, currently occupied by California Fish and Game, was built in 1930 and was moved to its current location in 1940. The building has been determined eligible for listing on the National Register of Historic Places (NRHP) under Criterion A, which states that sites that are associated with events that have made a significant contribution to the broad pattern of our history are eligible for NRHP listing (ICF Jones & Stokes, 2008). The building was also determined to be eligible for listing in the California Register of Historical Resources (CRHR).

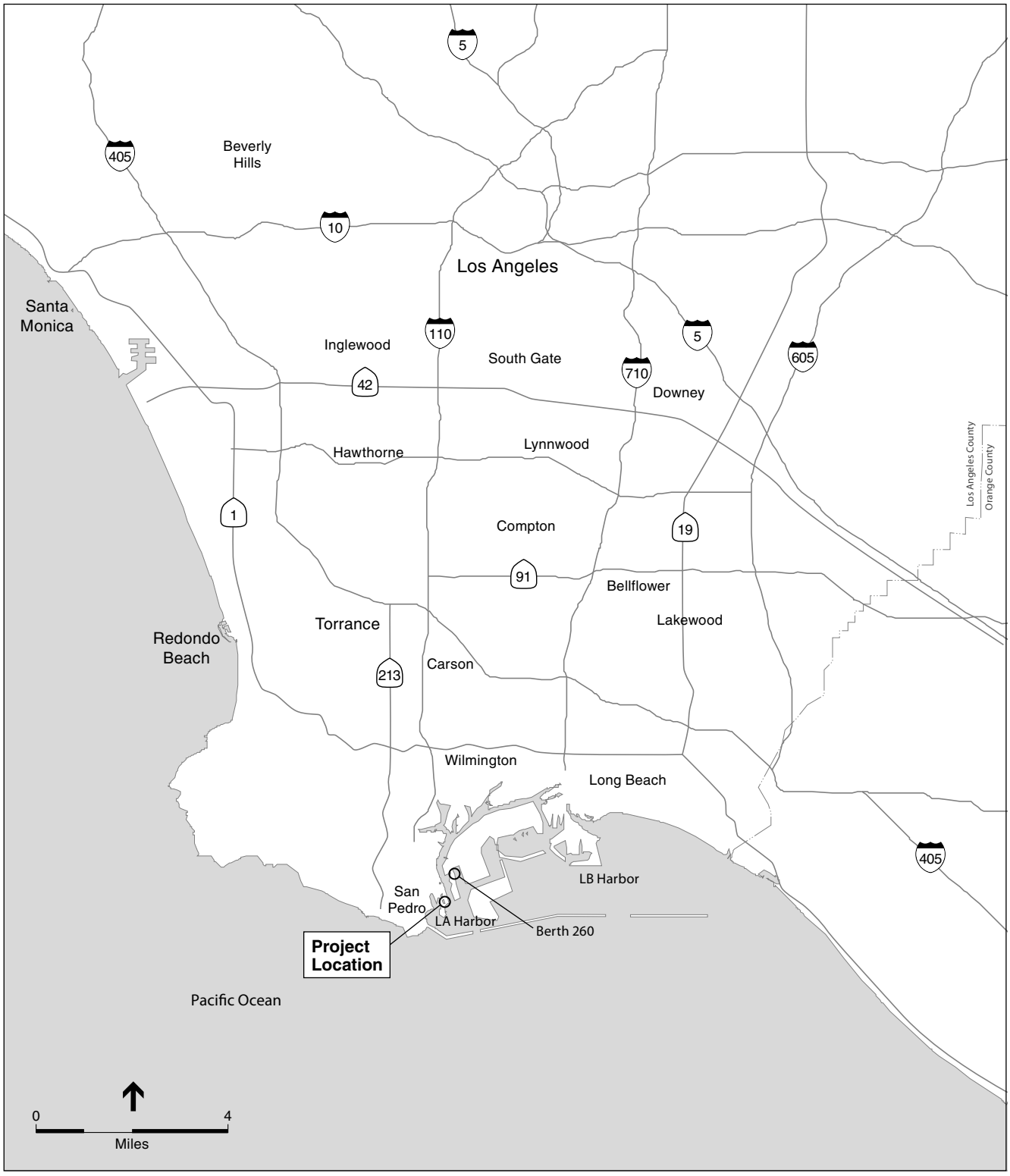
### Berth 57 Transit Shed

The transit shed at Berth 57 is a single-story steel-frame structure built in the mid-1920s. This 500 foot-long wood-framed rectangular building is approximately 93 feet wide and 25 feet in height. Clad in corrugated metal, this transit shed includes a loading dock that spans the full horizontal length of the north side of the building. The building also contains a 3,640-square foot wood frame facade on the north side of the building (facing East 22nd Street) that is not part of the original construction, but was added in 1933. A structural assessment conducted by the Port for the building concluded that the roof and siding appear to be in good condition with some corrosion (Port of Los Angeles, 2002). However, the steel rolling doors that provide access to the loading dock are unstable to lateral forces due to the absence of bracing elements. In addition, the building lacks solid connections between some of its columns and the roof trusses, and there is some evidence of corrosion in some of the steel columns. This transit shed is now used to store hay for Crescent.

**Berth 57 Transit Shed Historic Resources Determination.** Based on the results of an Architectural Survey and Evaluation commissioned by the Port, the transit shed at Berth 57 (Transit Shed 57) has been determined to meet the National Register of Historic Places (NRHP) Criterion A, which states that sites that are associated with events that have made a significant contribution to the broad pattern of our history are eligible for NRHP listing (ICF Jones & Stokes, 2008). Transit Shed 57 was also determined to be eligible for listing in the California Register of Historical Resources (CRHR) and the City of Los Angeles Historic-Cultural Monument database (ICF Jones & Stokes, 2008).

### Berths 57 – 60 Wharf

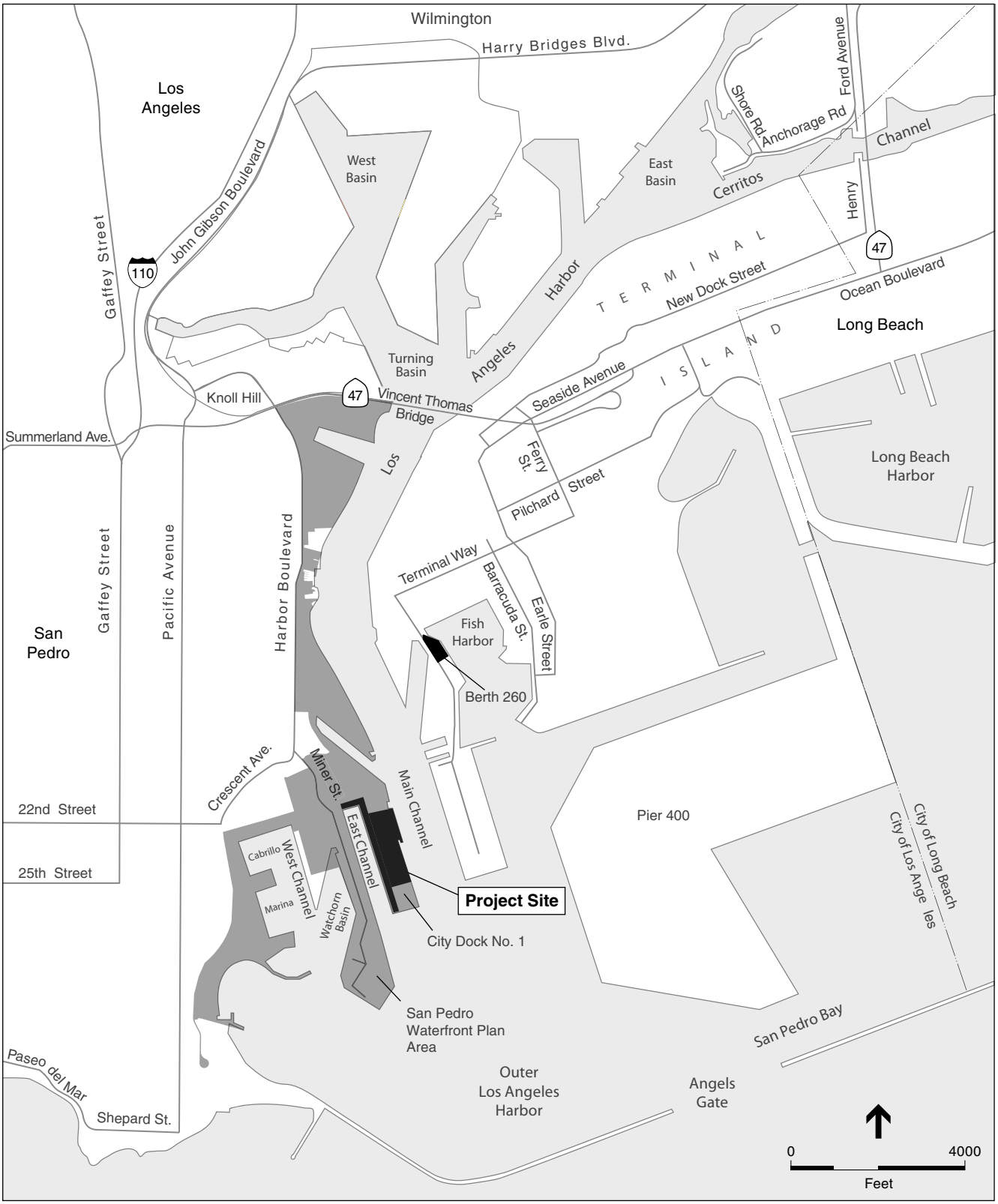
Recent Port engineering studies have shown that the slope and wharf structure over which the transit sheds at Berth 57 and Berths 58-60 are built are badly deteriorated and require extensive stabilization, retrofitting, and replacement. The original wharf structure was built in 1913 and an apron wharf was added in 1938. Both structures are potentially historic and a historic resources assessment of the wharves will be conducted as part of the special studies performed to support the Draft EIR.




SOURCE: ESA, 2010.

City Dock No. 1 Marine Research Center Project . 206278.14

**Figure 1**
Regional Location Map




SOURCE: POLA; ESA, 2010.

City Dock No. 1 Marine Research Center Project . 206278.14

**Figure 2**
Project Vicinity

SOURCE: POLA; ESA, 2010.

City Dock No. 1 Marine Research Center Project . 206278.14

**Figure 3**
Project Site

**Berths 58-60 Transit Shed.** The transit shed at Berths 58 through 60 (Transit Shed 58-60) is a single-story steel-frame structure built in the 1910s. This large rectangular building measures 1,800 feet long by 100 feet wide and is approximately 35 feet in height, and includes a loading dock that spans the full horizontal length of the building. The warehouse is sided with corrugated metal siding. A structural assessment for the building has concluded that it is in good to fair condition with signs of deterioration similar to those noted for the Transit Shed 57.

**Berths 58 through 60 Historic Resources Determination.** Based on the results of an Architectural Survey and Evaluation commissioned by the Port, the Transit Shed 58-60 has been determined to meet NRHP Criterion A, which states that sites that are associated with events that have made a significant contribution to the broad pattern of our history are eligible for NRHP listing (ICF Jones & Stokes, 2008). Transit Shed 58-60 also meets NRHP Criterion C for sites that embody distinctive characteristics of a type, period, or method of construction. Transit Shed 58- 60 was also determined to be eligible for listing in the CRHR and the City of Los Angeles Historic-Cultural Monument database (ICF Jones and Stokes, 2008).

**Water Taxi.** A water taxi service is located at the southwestern corner of Berth 60. The water taxi service maintains an office, a small maintenance shed, some storage areas for supplies, and a fleet of approximately five vessels. This service transports supplies and materials to ships anchored outside the Breakwater.

#### Berth 70-71 Liquid Bulk Storage Tanks (WestwayTerminal)

The Westway Terminal occupies a large portion of the south side of the dock at Berths 70–71 along the Main Channel (east) and along Signal Street (west), and occupies a total area of approximately 14.3 acres. The site includes liquid bulk storage tanks, associated pipelines and infrastructure, and the Westway Terminal Building, also known as the Pan American Petroleum Company Marine Loading Station Facility and the Pan American Oil Company Pump House. The Westway Terminal Building has been recommended eligible for the listing on the NRHP, and would be maintained as part of the proposed Project. In 1996, GATX sold the facility to Westway Terminal Company. The Westway Terminal has approximately 134 above ground storage tanks. When in operation, the terminal was served by rail, truck, and ship and handled oils, lubricant base, fuel additives, glycols, ketones, acetates, and phthalates. Considered a hazardous cargo facility under the Port's Risk Management Plan (RMP), this facility closed in 2009. As a part of the approved San Pedro Waterfront Project (September 2009), LAHD will demolish the site infrastructure. Remediation activities will be conducted under the oversight of the Los Angeles Regional Water Quality Control Board. Demolition of this site is considered a related project for analysis purposes in this EIR.

### *Project Site Contamination at Berths 70 and 71*

In 2003, an investigation was conducted by the Port to characterize the subsurface contamination and in 2008, an investigation was conducted to perform additional subsurface sampling, including sediment. There have been six (6) reported releases onsite between 1989 and 2007 involving the release of methanol, Neutral 100 Lube Oil, 1,1,1-trichloroethane (1,1,1-TCA), tetrahydrofuran, PCE, and caustic sodium hydroxide.

The subsurface soil, soil vapor, groundwater, and sediment have been impacted by the historical operations of GATX and Westway. There are several plumes of petroleum hydrocarbons and volatile organic compounds in the subsurface, which have comingled over time. Primarily chemicals of concern onsite include: tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, vinyl chloride, 1,4-dioxane, 1,1-dichloroethane, and gasoline-range petroleum hydrocarbons, and diesel range petroleum hydrocarbons. In addition, there are several areas with free phase product petroleum, light non-aqueous phase product, as well as free-phase chlorinated solvents, and dense-non-aqueous phase product. The sediment has been impacted by chlorinated solvents.

A remediation strategy will be developed under the oversight of the Regional Water Quality Control Board. Completion of a full site characterization study, remedial action design, and an evaluation of future land use restrictions will occur after demolition of the above ground storage tanks.

## Existing SCMI Facility

SCMI is an organization with four major partners: the Ocean Studies Institute of the California State Universities (CSU), representing eight CSUs in Southern California; the University of Southern California (USC); the University of California Los Angeles (UCLA); and Occidental College. SCMI currently subleases and occupies a 1.32-acre site at 820 South Seaside Avenue on Terminal Island at Berth 260. The site consists of two noncontiguous parcels separated by a building operated by the Los Angeles Port Police. The northern side of the site includes a 19,000-square-foot building that was built in 1983 by USC (the building is still owned by USC), which contains offices, laboratories, classrooms, a circulating seawater system, storage, an inside water tank, meeting space and warehouse space. The site also includes a small parking lot and dock space at which approximately seven vessels dock. The southern side of the site is occupied by a machine shop, warehouse space, and an open storage yard.

SCMI has determined that this facility is inadequate to meet its needs. SCMI has indicated that the facility is too small, lacks sufficient parking, and the site abuts Fish Harbor, which at times exhibits water quality that is below research standards. In addition, the SCMI site is surrounded by industrial uses such as fish processing facilities.

The current SCMI facility accommodates approximately 25 researchers and staff, although this number was nearly 30 percent higher prior to the economic recession. SCMI operates as the shoreside support facility for USC's Wrigley Marine Science Center on Catalina Island and experiences the constant flow of personnel and students traveling to and from that offshore facility. Once used by Los Angeles Unified School District students, visitation to the existing SCMI facility is currently generally limited to groups of 40 to 50 students passing through several times a semester on their way to attend 4- to 15-week teaching classes on Santa Catalina Island at the USC Wrigley Center.

### Surrounding Uses

As noted above, the proposed Project site is surrounded on the west by the East Channel and on the east by the Los Angeles Harbor. Just south of the Westway Terminal are the Port of Los Angeles Pilot Station and Warehouse No. 1, which provides warehouse space for the Port and Crescent and is occasionally used for filming. Warehouse No. 1 is considered a prominent visual resource for ships entering the deep water channel as well as for the residents of San Pedro. The massive six-story Warehouse No.1 was listed on the NRHP in April 2000, and is currently unoccupied.

Other adjacent businesses include Mike's Marine Fueling Station, a municipal fish market, and Canetti's Seafood Grotto. More warehouse space is located across the East Channel from City Dock No. 1 in transit sheds at Berths 54 and 55, including fruit storage space for Stevedoring Services of America (SSA), the Cabrillo Way Marina Phase II, future cruise facilities at Berths 45 through 47 and 49 through 50, and public park space.

## 2.4 Project Elements

The proposed Project involves the following major project elements:

- Relocation of SCMI from its existing location at B. 260 on Terminal Island to Berth 56 and 57.
- Adaptive reuse of the transit sheds at Berths 57 - 60 to accommodate research, teaching, and meeting spaces within a collaborative environment to create research synergies among universities and colleges offering marine science programs. Wharf retrofits of Berths 57-60 and related infrastructure improvements would occur.
- Establishment of a marine science business park/incubator space with offices and research lab space within Berths 59-60 Transit Sheds.
- Remediation and development of Berths 70 and 71, following the demolition the existing Westway Terminal site. This development would include the construction of a new building for NOAA operations, the use of existing berthing space for research vessels, and the construction of a new building to host "the largest wave tank facility in the world."

**Table 1** provides a summary of the project components.

**TABLE 1**
**PROJECT ELEMENTS**

| Project Element | Area (sf) |
|---|---|
| ***Phase I (2012 – 2016)*** | |
| *Existing SCMI Facility at Fish Harbor (Terminal Island, Berth 260)* | |
| Site Restoration (Demolition of existing building, warehouse, shop storage, and floating docks) | 57,500 sf |
| *Berths 56 and 57 (SCMI Facility)* | |
| Conversion of existing 46,500-sf transit shed into SCMI research facility | 46,500 sf |
| with approx. 3,600-sf addition (including demolition of existing addition): | 3,600 sf |
| • Faculty office space | 758 sf |
| • Teaching Laboratories | 3,600 sf |
| • Research Laboratories | 13,849 sf |
| • Lab Support Space | 2,300sf |
| • Administrative Suite | 3,381sf |
| • Staff Support Facilities (toilets, showers and lockers for staff) | 1,964 sf |
| • Building Support Facilities (machine shop, storeroom, chemical storage, hazardous waste, etc) | 6,870 sf |
| • Outdoor Teaching/Outreach classroom | 1,997 sf |
| • Outside Storage Space | 6,150 sf |
| • Hallways, Walkways | 5,634 sf |
| Construct Learning Center at Berth 56 (150-seat lecture hall/auditorium, classrooms, public interpretive center, museum with small aquaria) | 11,500 sf |
| **Berths 56 – 57 Subtotal:** | **61,600 sf** |
| *Parking Facilities* | |
| Surface parking adjacent to Berth 56 | 15 spaces |
| *Other Phase I Improvements* | |
| Construction of floating docks for 12 vessel slips adjacent to Berth 57 | 18,500 sf (12 vessel slips) |
| Circulating Seawater System for Berths 57– 60 | new utility |
| Wharf retrofit/repairs for Berths 57–60 | |
| Construction of a public plaza at Berth 57 | 7500 sf |
| **Total New Square Footage Under Phase I** | **80,100 sf** |
| (Does not include removal of existing SCMI facility at Berth 260) | |
| ***Phase II (2013 – 2024)*** | |
| *Berth 58—60* | |
| Conversion Berth 58 Transit Shed space into SCMI and SCMI Partners research facility | 60,000 sf |
| Conversion Berths 59 – 60 Transit Shed space into a marine science business park/incubator space | 70,000 sf |
| Creation of temporary NOAA space within Berth 59-60 Transit Shed[a] | 50,000 sf |
| Provision of temporary berthing space for 2 to 3 NOAA research vessels at Berths 59-60[a] | |
| Development of waterfront café | 280 sf |
| Designation of public plaza/viewing platform at Berth 60 | 4000 sf |
| Relocation of water taxi service facilities to within B.60 vicinity | |
| *Berths 70-71 (Westways)* | |
| Construction of NOAA administration and research facility[b] | 50,000 sf |
| Wharf maintenance (remove catwalks) | |
| Installation of Wave Tank, enclosed within its own building | 80,000 sf (36,000 cy) |
| **Berths 70-71 Subtotal** | **130, 000 sf** |

**TABLE 1**
**PROJECT ELEMENTS**

| Project Element | Area (sf) |
|---|---|
| *Signal Street Improvements*[c] | |
| • Repaving and restriping | |
| • Diagonal parking | 195 spaces |
| • Removal of existing heavy rail line from street | 8,000 square feet of disturbance |
| **Total New Square Footage Under Phase II** | **314,280 sf** |
| **Total New Square Footage for Proposed Project** | **394,380 sf** |
| *Parking Facilities* | |
| • Berth 56 Surface Parking | 15 spaces |
| • Minor Street Diagonal Parking | 195 spaces |
| • Sampson Way and 22nd Street Existing Parking Lot | 409 spaces |
| **Total Parking Spaces** | 619 spaces |

[a] NOAA facilities, including office and research space within Berths 58-60 Transit Shed and berthing space at Berths 58-60 to be relocated to Berths 70-71 when remediation of those berths has been completed.
[b] Demolition of the Westways tanks, piping and related structures at Berths 70-71 has been analyzed under the San Pedro Waterfront EIS/EIR and is not considered a component of the proposed Project.
[c] Impacts associated with extension of Red Car Line construction and expansion of waterfront promenade were considered under the San Pedro Waterfront EIR and are not considered components of the proposed Project.

SOURCE: Port of Los Angeles, City Dock Marine Research Center Project Elements and Phasing, Draft September 15, 2010.

# Phase I

## *Berths 56 and 57 Improvements*

Phase I would include the conversion of Berths 56 and 57 into a new SCMI facility. In order to achieve this, construction would involve first upgrading the adjacent wharf to current seismic code. Upon completion of the wharf retrofit, work would begin on upgrading and expanding the existing 46,500-square-foot Berth 57 Transit Shed to current seismic and occupancy codes. Phase I would also include the demolition of an existing 1933 wood-frame structure to allow construction of a new 3,600-square-foot glazed entryway that would provide space for a public education facility to be operated by SCMI; thus, total square footage for programs at Berth 57 would equal approximately 51,600 square feet upon completion of the proposed Project. The new 3,600-square-foot structure would comprise a contemporary, neutral and visually prominent entrance into SCMI facility, distinct from the existing historic transit shed façade. This new façade may include large glass aquaria at the entrance way. The new 3,600-square-foot façade would reflect the same general shape and profile as the transit shed in height and massing and would include an area for public education and outreach. The remainder of Berth 57 would be utilized for research laboratories, lecture and classroom spaces, and storage for use by SCMI.

The existing Berth 57 Transit Shed would require extensive renovations for occupancy by SCMI to convert it from warehouse use to its proposed new uses for research, education, office and laboratory. In addition, all renovations would be required to conform to the Secretary of the Interior's Standards for Rehabilitation (the Secretary's Standards). Due to the minimal nature of the existing structure (without insulation), the existing transit sheds would primarily serve as an

"outer shell building" to provide basic shelter from water, and wind and sun. The proposed SCMI facility would be in essence, a self-contained structure within the existing envelope of the transit shed. Therefore, maintenance of the historic integrity of Berth 57 would be maintained and at the same time adaptively re-used to integrate state of the art fire/ life safety protection, seismic resistance, security features and utility infrastructure that are required due to its change in use. Certain portions of the transit shed space would be left open and not included in the "building within a building" to allow for large-scale equipment and staging to be conducted within the warehouse but not within the interior building envelope. The exterior of the transit sheds would largely be maintained with the exception of necessary improvements to the siding, roof, cornices, etc.

Repair, retrofit, and rehabilitation of the transit shed to address structural deficiencies is expected to be additive and easily accessed since all structural elements are exposed. These include repair of rusted exterior corrugated metal siding with new panels, upgraded structural connections to meet established seismic and wind load resistance, retrofit large openings (east and west facades) to ensure stability, and water tight openings, sandblast and repaint corroded steel members and gusset plates, and replacing deteriorated and damaged steel members, as required. In addition, it is anticipated that new traverse and longitudinal frames would be added, interior steel columns repaired, and new concrete encasements around the base of each column constructed. Installation of a continuous perimeter foundation wall, limited to shallow (two to three feet maximum) excavations to inhibit water intrusion at the building perimeter and utility placement may be required.

Berth 56 improvements under Phase I would include construction of an 11,500 square-foot Learning Center. This center would include a 1,059 square-foot museum, two 30-seat classrooms and one 60-seat classroom, a 515 square-foot bathroom, and a 150-seat auditorium that would feature theater-style seating. A small 15-space surface parking area would be located adjacent to the auditorium. The existing building and associated parking operated by California Fish and Game would remain in place.

Upon completion of the conversion of Berth 57 into new SCMI space, the existing SCMI building and parking lot at Fish Harbor on Terminal Island would be vacated. The building would be demolished and the site graded as required by the LAHD's agreement with USC. Any future development associated with this site would not be covered in the Draft EIR and would be subject to separate environmental review in accordance with CEQA.

It is anticipated that SCMI researchers and staff could increase to as much as 100 over the next few years. In addition, visitation to the facility by students and other interested parties would be expected to increase.

Also under Phase I, an 18,480-square-foot, 12-slip floating dock would be installed in the East Channel adjacent to Berth 57 to accommodate existing small SCMI research vessels and to allow sufficient capacity for additional small research vessels.

### *Aquaculture*

The research organizations that would occupy the proposed marine institution would require space for aquaculture and hatchery operations for their ongoing research, particularly research related to propagation of safe and sustainable seafood. This space would be accommodated through the use of water tanks housed within the laboratories. Aquaculture-related activities could include raising spotted sea bass, abalone, oysters, mussels, and kelp. Hatchery activities would begin in existing laboratories within the Berth 57 transit sheds. Grow out operations could occur in landside tanks as well or in the open ocean. The infrastructure for the aquaculture program would be constructed during Phase I and operations could commence after its completion. In all likelihood, more expansive aquaculture facilities would be planned for Phase II in Berths 58 and 60. Basic research as well as aquaculture operations would require constructing a large capacity, state of the art, circulating seawater system with both flow through and re-circulating capabilities to serve the entire dockside research complex (Berths 57, 58, 59, and 60 and Berths 70-71).

### *Support Structures*

Ancillary support structures for SCMI operations would also be constructed during Phase I, including the circulating seawater system and berthing space. At first, the system would only serve Berth 57, but it would be designed with enough capacity to ultimately serve Berths 58 through 60 and Berths 70-71 once they are completed in Phase II (see below).

### *Waterfront Promenade*

The *San Pedro Waterfront Project EIS/EIR* (POLA, 2009) assessed the construction of a continuous waterfront pedestrian promenade throughout the project site. Extending the promenade through a marine laboratory facility could pose special challenges because the waterfront would be utilized for vessel loading on a routine basis by forklifts, cranes, and other heavy equipment at unpredictable intervals. The promenade would be constructed along the edge of the wharf in such a manner as to maintain public access without creating a safety hazard or otherwise unduly impeding the work that is necessary at a marine laboratory. As such, as part of the proposed Project, the proposed location of the promenade would be located along E. 22$^{nd}$ Street, Signal Street, and along the existing wharf that runs the perimeter of City Dock No. 1.

## Phase II

### *Berths 58 - 60*

Under Phase II, Berth 58 would be converted into approximately 60,430 square feet of marine research/laboratory/office space for use by SCMI. Berths 59–60 would be retrofitted to accommodate up to 70,000 square feet of future research and/or marine-related business incubator space, or other similar institution, as well as a waterfront café and a public plaza. An additional 50,000 square feet of space would be constructed for temporary use by NOAA as well as temporary berthing space for two to three research vessels, which would be relocated to Berth 70 when docking space is available.

In order to achieve the conversion of Berths 58 through 60, construction would first involve upgrading the wharf to current seismic code (see Section 2.4, above). Upon completion of the wharf, next steps would involve upgrading and expanding the existing 180,000 square-foot Transit Shed 58-60 to current seismic code, as well as renovating the building in conformance with the Secretary of the Interior's standards for buildings eligible for or listed on the National Register of Historic Places. Conversion of Berths 58 through 60 would occur much as it would for Berth 57 in that tenant improvements would be constructed within the envelope of the existing warehouses. In addition, the south end of Berth 60 would be developed to accommodate a public viewing area due to the views it affords of the Main Channel and the harbor entrance, including development of a waterfront café and a viewing platform. Under the proposed Project, the water taxi service would remain but the maintenance operations would be relocated within the general vicinity of Berth 60 to better accommodate the public space.

Prior to commencement of the proposed project, the existing occupants, the Crescent Warehouse Company, would relocate their operations from this location to another site which is currently unknown at this time but will be further addressed in the Draft EIR.

### *Berths 70 and 71 (Westway Terminal)*

Under the proposed Project, the Westway Terminal would be remediated under the oversight of the Los Angeles Regional Water Quality Control Board and would then be developed with a 50,000-square-foot facility for NOAA that would include office and laboratory space. The Westway Terminal Administration Building (also known as the Pan-American Oil Company Pump House) would be adaptively reused by a future occupant. In addition, Berths 70 and 71 along the Main Channel would be made available for up to three potential NOAA vessels ranging in size from approximately 170 feet to 250 feet. There are no plans to relocate current vessels in the NOAA fleet to the project site, but there is a possibility that future built vessels could be located at the Project Site, which therefore must be prepared to accommodate these or other non-NOAA vessels. Furthermore, full functioning of the site will include the regular docking of NOAA vessels home-ported in other locations but passing through Los Angeles as part of research expeditions.

Redevelopment of Berths 70 and 71 would also involve development of an 80,000-square-foot wave tank on the land side, which would be enclosed within its own building. The wave tank would use seawater pumped from the adjacent Main Channel and will measure 200 feet by 400 feet by 12 ft deep, totaling 36,000 cubic yards.

### *Signal Street Improvements*

Signal Street would be repaved and realigned as part of the proposed Project. As part of the realignment of Signal Street, a total of approximately 195 diagonal parking spaces would be provided along one side of Signal Street. In addition, the existing heavy rail tracks that are embedded within Signal Street would be removed (approximately 8,000 lineal feet) and the area that is disturbed during the rail removal would be repaved. After removal of the heavy rail tracks, the Waterfront Red Car line would be extended along Signal Street to Warehouse No. 1.

### *Waterfront Promenade*

The public promenade extending around the Berths 58-60 transit sheds would be constructed during Phase II.

## 2.5 Project Schedule

The proposed Project would be completed in two phases. The proposed Project is anticipated to commence construction in the third quarter of 2012. Phase I would be completed by 2016. Phase II would consist of the conversion of Berths 58 through 60 and Berths 70 through 71 and would be completed by 2024. **Table 2.5-1** provides the anticipated timeline for each phase of the proposed Project and the Project components that would be completed in each phase.

# 3.0 Project Alternatives

The Draft EIR will include analysis of alternatives to the proposed Project. Among the alternatives being considered are:

## 3.1 Alternative 1 – No Project Alternative

Under this alternative, the proposed Project would not be constructed. Berths 57 through 60 would continue to be used for warehousing space by Crescent; these berths would not be converted to a marine research center, and wharf repair and transit shed repairs would not occur. SCMI would continue to operate the 19,000-square-foot facility in Fish Harbor and continue to face the inadequate space and conditions required for their research. Berth 56 would continue to existing uses, which include the use of a small building by CDFG and surface parking.

As part of a related action (and not part of the proposed Project), the Westway Terminal liquid bulk storage tanks would be removed and Berths 70 and 71 would subsequently be remediated. With the exception of the existing historic Westway/Pan-American Oil Company Pump House, which would remain and the existing office building, Berths 70 and 71 would otherwise remain vacant indefinitely after remediation under this alternative until new development plans could be established. In addition, as part of implementation of the San Pedro Waterfront Project, the proposed waterfront promenade would also be constructed under this alternative.

## 3.2 Alternative 2 – Reduced Project Alternative

Under this alternative, only Berths 57-60 would be developed into marine research space to be occupied by SCMI, USC and their partner organizations, and repairs, rehabilitation and upgrades would be made to Berth 57 and Berths 58-60 as specified under Section 2.4, above. This alternative would not include the auditorium at Berth 56 . The Westway site (Berths 70 and 71) would still be demolished and remediated as a separate project, but development of Berths 70 and 71, including the NOAA facilities, the business park/incubator space, and installation of the wave tank, would not occur. The waterfront promenade would be constructed within City Dock No. 1 as part of implementation of the San Pedro Waterfront Plan. **Table 2** summarizes development under this alternative.

**TABLE 2**
**ALTERNATIVE 2: REDUCED PROJECT ALTERNATIVE**

| Project Element | Area |
|---|---|
| ***Phase I*** | |
| *Existing SCMI Facility at Fish Harbor (Terminal Island)* | |
| Demolition of Existing Building | 19,000 sf |
| Site Restoration | 57,500 sf |
| *Berth 57 Transit Shed* | |
| Conversion of existing 48,000-sf transit shed into SCMI research facility with 3,600-sf addition for public education/outreach | 52,197 sf |
| Construction of floating dock adjacent to Berth 57 | 18,480 sf (12 vessel slips) |
| Installation of seawater water system throughout Berth | New Utility |
| ***Phase II*** | |
| *Berths 58 - 60* | |
| Conversion of Berth 58 transit shed into SCMI and SCMI Partners research facility | 60,430 sf |
| Conversion of Berths 59 and 60 into Business park/incubator space | 120,150 sf |
| Installation/continuation of seawater water system from Berth 57 | New Utility |
| *Signal Street Improvements* | |
| Waterfront Promenade | |
| Diagonal Parking Space | 195 spaces |
| Extension of the Waterfront Red Line | |
| *22nd Street Improvements* | |
| Construction of Public Parking Area | 49 spaces |

## 3.3 Alternative 3 – New Construction at Berths 57-60

Under this alternative, the transit sheds at Berths 57 through 60 would be demolished and new buildings constructed following upgrades to the wharf structure. While the Port will strive to retain the transit sheds, as reflected in the proposed Project, recent studies have shown that the slope and wharf structure over which the buildings are constructed are badly deteriorated and require extensive stabilization, retrofitting, and replacement. The Port will analyze retaining the transit sheds based on all salient factors as part of the proposed Project. Further studies are required to assess the costs and technical requirements for reconstructing the wharf while the buildings remain in place or relocating the buildings to an area adjacent to the wharf and keeping them intact.

If demolition of the transit sheds is required to rehabilitate the wharf structure, following this work new buildings would be constructed that would accommodate the uses identified for the proposed Project. A total of up to five new buildings would be constructed to accommodate the following uses:

- New facilities for SCMI;
- New facilities for USC and other interested universities and colleges;

- Dock-side facilities for storage and other related uses, such as structures related to infrastructure; and
- Marine research business incubator park

The close proximity of these buildings would encourage the exchange of resources while ensuring privacy. This arrangement would allow a park-like environment that would include landscaping, cafes with outdoor access, and public access to the waterfront along the promenade and from viewing areas. The square footages and design of these buildings would be described in more detail in the Draft EIR. Under this alternative, the realignment of Signal Street and associated street parking, plans for the extension of the Red Car Line, removal of the existing heavy rail line from the street, and other elements of the proposed Project would be incorporated into this alternative without substantial change.

Uses identified for Berths 70 and 71 would remain unchanged from those described for the proposed Project.

# 4.0 CEQA Baseline

The CEQA baseline is the set of conditions that prevailed at the time this Notice of Preparation is circulated. CEQA Guidelines Section 15125 states "[a]n EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published…from both a local and regional perspective. The environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to an understanding of the significant effects of the proposed Project and its alternatives."

To determine significance, impacts resulting from implementation of the proposed Project and Alternatives are compared to a baseline condition. The difference between the Project and the baseline impact levels is then compared to a threshold to determine if the difference between the two is significant.

For purposes of the EIR, the CEQA baseline will include the operational activity for the 12-month period preceding the NOP date (Dec 2009 – Nov 2010). This information is considered representative of the physical conditions at the time this NOP is published.

# References

ICF, Jones & Stokes, *Final Architectural Survey and Evaluation of Signal Street Properties, Port of Los Angeles, Los Angeles, California*, July 2008.

Port of Los Angeles, *San Pedro Waterfront Project EIS/EIR*, September 2009.

Port of Los Angeles, *Berths 57-60 Warehouse Structural Assessment Report*, undated.

Southern California Marine Institute, *City Dock #1 Marine Research Institute Opportunity Site*, March 19, 2009.

# ENVIRONMENTAL CHECKLIST
## Initial Study

| | |
|---|---|
| **1. Project Title:** | City Dock No. 1 Marine Research Center Project |
| **2. Lead Agency Name and Address:** | Los Angeles Harbor Department<br>Environmental Management Division<br>425 South Palos Verdes Street<br>San Pedro, CA 90731 |
| **3. Contact Person and Phone Number:** | Jan Green Rebstock<br>CEQA Environmental Project Manager<br>Environmental Management Division<br>Telephone: (310) 732-3949 |
| **4. Project Location:** | City Dock No. 1, Signal Way and 22nd Street, San Pedro, CA, Planning Area 2 |
| **5. Project Sponsor's Name and Address:** | Los Angeles Harbor Department<br>Engineering Division<br>425 South Palos Verdes Street<br>San Pedro, CA 90731 |
| **6. General Plan Designation(s):** | Port of Los Angeles (Commercial, Industrial/Non-Hazardous, General/Bulk Cargo) |
| **7. Zoning Designation(s):** | (Q)M2, (Q)M3 |

**8. Description of Project:** The Port of Los Angeles (Port) working with the Southern California Marine Institute (SCMI) and other universities and institutions, proposes to create City Dock No. 1 Marine Research Center at a 28-acre site within the San Pedro Waterfront Plan area, that encompasses Berths 56 through 60, and Berths 70 and 71. To be constructed in two phases, the first phase of the proposed Project would include improvements to the historic Berth 57 Transit Shed and the wharf for use by the SCMI, as well as construction of a Learning Center at Berth 56 and construction of a 12-slip finger dock for SCMI and visiting small vessels. SCMI, which is a consortium of universities in Southern California, currently occupies a building in the fish harbor district that would be demolished upon SCMI's relocation to the project site. The second phase of the proposed Project would consist of improvements to the Berth 58–60 transit shed for use by SCMI and SCMI partners, and of improvements to Berths 70 and 71 for use by the National Oceanic and Atmospheric Administration (NOAA), including docking for up to three NOAA vessels, and construction

of an 80,000-square-foot wave tank within the current Westways footprint. A promenade would provide public access to the berths. The transit sheds at Berths 57 through 60 are eligible for the National Register of Historic Places and would be re-used and rehabilitated according to the Secretary of the Interior's Standards for Rehabilitation. In addition, the Westway Terminal Administration Building/Pan-American Oil Company Pump House at Berth 70 is also eligible for the National Register. The Port intends to retain this building. The Fish and Game building at Berth 56 is also considered a historic resource by the Port. Additional detail is provided in the Project Description, which is attached as part of the Notice of Preparation.

9. **Surrounding Land Uses and Setting:** The project site is bounded by East 22nd Street to the north, the Main Channel to the south, the Los Angeles Harbor to the east and the East Channel on the west. Adjacent land uses include the Port Pilot Station, Warehouse No. 1, and a water taxi service. Beyond these immediately adjacent land uses are the Ports O'Call shops and restaurants to the north and the San Pedro Breakwater to the south, Terminal Island to the east and Berths 49 through 55 across the East Channel to the west. The transit sheds at Berths 57–60 are currently in use as warehouses for cotton and hay to be shipped to Asian countries. Approximately five vessels operated by the Water Taxi Service are located near Berth 60.

10. **Potential Responsible Agencies, Trustees, and City of Los Angeles Departments:**

U.S. Army Corps of Engineers

U.S. Fish and Wildlife Service

National Marine Fisheries Service

U.S. Coast Guard

California Environmental Protection Agency

State Lands Commission

State Water Resources Control Board

California Coastal Commission

California Department of Toxic Substances Control

California State Historic Preservation Officer

California Department of Boating and Waterways

South Coast Air Quality Management District

Los Angeles Regional Water Quality Control Board

City of Los Angeles Department of Transportation

City of Los Angeles Planning Department

City of Los Angeles Department of Public Works

City of Los Angeles Fire Department

## Environmental Factors Potentially Affected:

The environmental factors checked below would potentially be affected by the proposed Project (i.e., the proposed Project would involve at least one impact that is a "potentially significant impact"), as indicated by the checklist on the following pages.

| | | | | | |
|---|---|---|---|---|---|
| x | Aesthetics | | Agriculture and Forest Resources | x | Air Quality |
| x | Biological Resources | x | Cultural Resources | x | Geology/Soils |
| x | Greenhouse Gas Emissions | x | Hazards and Hazardous Materials | x | Hydrology/Water Quality |
| x | Land Use/Planning | | Mineral Resources | x | Noise |
| x | Population/Housing | x | Public Services | x | Recreation |
| x | Transportation/Traffic | x | Utilities/Service Systems | x | Mandatory Findings of Significance |

## Determination:

On the basis of this initial evaluation:

I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

**X** I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed Project MAY have an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards and (2) has been addressed by mitigation measures based on the earlier analysis, as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Project, nothing further is required.

December 6, 2010

Chris Cannon, Director of Environmental Management Division — Date

## Evaluation of Environmental Impacts:

1. A brief explanation is required for all answers except "no impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "no impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "no impact" answer should be explained if it is based on project-specific factors as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off site as well as on site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially significant impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "potentially significant impact" entries when the determination is made, an EIR is required.
4. "Negative declaration: less than significant with mitigation incorporated" applies when the incorporation of mitigation measures has reduced an effect from a "potentially significant impact" to a "less than significant impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.
5. Earlier analyses may be used if, pursuant to tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063[c][3][D]). In this case, a brief discussion should identify the following:
   (a) Earlier analysis used. Identify and state where earlier analyses are available for review.
   (b) Impacts adequately addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   (c) Mitigation measures. For effects that are "less than significant with mitigation incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, when appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting information sources. A source list should be attached and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
   (a) the significance criteria or threshold, if any, used to evaluate each question, and
   (b) the mitigation measure identified, if any, to reduce the impact to a less than significant level.

# Environmental Checklist

## Aesthetics

| *Issues (and Supporting Information Sources):* | | *Potentially Significant Impact* | *Less Than Significant with Mitigation Incorporation* | *Less Than Significant Impact* | *No Impact* |
|---|---|---|---|---|---|
| **1.** | **AESTHETICS — Would the project:** | | | | |
| a) | Have a substantial adverse effect on a scenic vista? | ☒ | ☐ | ☐ | ☐ |
| b) | Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | ☒ | ☐ | ☐ | ☐ |
| c) | Substantially degrade the existing visual character or quality of the site and its surroundings? | ☒ | ☐ | ☐ | ☐ |
| d) | Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area? | ☐ | ☐ | ☒ | ☐ |

### Discussion

**a) Would the project have a substantial adverse effect on a scenic vista?**

**Potentially Significant Impact.** The *San Pedro Waterfront Project EIS/EIR* identifies objectives, goals and policies from City of Los Angeles and Port plans that promote the conservation of views of the ocean, harbor and scenic coastal areas. These goals and policies are found in the Los Angeles General Plan Framework, Transportation, Conservation, Infrastructure and Public Service Elements, the Port of Los Angeles Plan, the San Pedro Community Plan, and the San Pedro Specific Plan/San Pedro Coastal Land Use Plan. The City of Los Angeles Community Plan for San Pedro identifies 10 scenic view sites in the San Pedro area (City of Los Angeles 1999). Of these, the proposed Project site is visible from Lookout Point, which is located on Gaffey Street approximately 2.4 miles from the project area, and Harbor Boulevard Bluff, north west of the site. Following development of the proposed Project, elements of the Project site will be visible from the foot of 22$^{nd}$ Street, Inner Cabrillo Beach, and public facilities such as the 22nd Street Park, Bloch Field Park along Harbor Boulevard, and other nearby development. In addition, the waterfront promenade would provide new views of harbor operations. Views would include the new buildings, such as the auditorium and wave tank structure, and the adaptively reused warehouse research facilities, landscaping, surface parking and docked vessels. As a result, the impact of the proposed Project on scenic vistas could be considered potentially significant and will be discussed further in the EIR.

**b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?**

**Potentially Significant Impact.** The California Department of Transportation (Caltrans) administers the state's Scenic Highway Program. Caltrans maintains lists of both designated scenic highways and eligible scenic highways. The closest officially designated state scenic highway is approximately 33 miles north of the project site and consists of a segment of State Route 2,

extending from La Canada to the San Bernardino County line, approximately three miles north of Interstate 210. The closest eligible state scenic highway is a segment of U.S. 1 approximately nine miles northwest of the project site. The project site is not located within the view corridors of either highway segment. However, Harbor Boulevard, locally identified in the San Pedro Community Plan as a major scenic highway, runs North/South along the West side of the Los Angeles Main Channel from the Vincent Thomas Bridge to Crescent Avenue and offers direct southeastern views of the proposed Project site. As a result, the impact of the proposed Project on scenic highways would be considered potentially significant and will be addressed further in the EIR.

**c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?**

**Potentially Significant Impact.** The proposed Project would result in the reuse of existing buildings, including the transit sheds at Berths 57 and 58–60, new buildings at Berths 70 and 71, the construction of a new auditorium at Berth 56 along 22nd Street, surface parking, a wave tank building, new boat slips, and associated structures. Overall, development of the site would improve the visual quality of the site and the site would visually be part of existing harbor operations. The project site is located within the Look Out Point key observation points (KOPs) identified in the San Pedro Waterfront Project EIS/EIR. The site is also visible from Inner Cabrillo Beach; from points along 22nd Street, including the 22nd Street Park and Crescent bike path; Bloch Field Park along Harbor Boulevard; and points along Sampson Way. People would also become part of the visual attributes of the site. Because the visual quality of the site would undergo substantial change—a change that was not fully analyzed in the San Pedro Waterfront Project EIS/EIR, the impact of the proposed Project on the visual quality of the site and surrounding public views will be considered potentially significant and will be addressed further in the EIR.

**d) Would the project create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?**

**Less than Significant Impact.** According to the *San Pedro Waterfront Project EIS/EIS* (p. 3.1 41), all "lighting associated with project components would comply with the San Pedro Waterfront and Promenade Design Guidelines, which include lighting recommendations to minimize light pollution, spill light and glare, while promoting goals to create an attractive and safe daytime and nighttime waterfront that supports local economic growth." Lighting would also conform to the Port Master Plan, which requires an analysis of design and operational effects on existing community areas. As a result, consistency with these guidelines and regulations would ensure that views in the project vicinity would not be adversely affected. Although impacts are considered to be less than significant, this issue will be addressed further in the EIR.

## References

Port of Los Angeles, *San Pedro Waterfront Project EIS/EIR*, September 2009.

# Agricultural and Forest Resources

| *Issues (and Supporting Information Sources):* | *Potentially Significant Impact* | *Less Than Significant with Mitigation Incorporation* | *Less Than Significant Impact* | *No Impact* |
|---|---|---|---|---|
| **2. AGRICULTURAL AND FOREST RESOURCES —** In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. **Would the project:** | | | | |
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | ☐ | ☐ | ☐ | ☒ |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | ☐ | ☐ | ☐ | ☒ |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | ☐ | ☐ | ☐ | ☒ |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ☒ |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ☒ |

## Discussion

**a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

**No Impact.** The California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) identifies Prime Farmland, Unique Farmland, and/or Farmland of Statewide Importance in the state, based on indicators such as historical use as farmland and other local data; uniqueness of crops; and soil conditions such as the water table, flooding, permeability rate, soil sodium content, rock fragment depth, etc. The proposed Project site has no history of being used for farmland and is unmapped by the Department of Conservation's FMMP. The site is located in a highly urbanized area, within the confines of a working Port. As a result, no farmland would be converted to accommodate the proposed project. The proposed Project would have no impact related to the conversion of Farmland. This issue will not be discussed further in the EIR.

**b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?**

**No Impact.** The proposed Project site does not contain land zoned for agricultural use, or land that is under a Williamson Act contract.[1] The proposed Project site is part of a wharf, located in an urbanized area within the confines of the Port of Los Angeles, and therefore is not near land zoned for agricultural use or land subject to a Williamson Act contract. The proposed Project would therefore have no impact on land zoned for agricultural use or on land subject to a Williamson Act contract. This issue will not be discussed further in the EIR.

**c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?**

**No Impact.** The proposed Project site is part of an urbanized waterfront area that includes wharfs located within the confines of the Port of Los Angeles, and includes no trees. The project site would not be considered forest land,[2] timberland,[3] or timberland zoned Timberland Production.[4] The proposed Project site would, therefore, have no impact on forest land, timberland or timberland zoned Timberland Production. This issue will not be discussed further in the EIR.

**d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?**

**No Impact.** The proposed Project site is part of an urbanized waterfront area that consists of wharfs and waters, located within the confines of the Port of Los Angeles; and the site includes no trees. The proposed Project would have no impact on the loss of forest land or the conversion of non-farmland to non-forest use. This issue will not be discussed further in the EIR.

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1 Under the California Land Conservation (Williamson) Act, private landowners can contract with cities and counties to voluntarily restrict their land to agricultural and compatible open-space uses with a rolling term 10-year contract. In return, the restricted land is assessed at a property tax rate consistent with its actual use instead of potential market value (California Department of Conservation, 2010).

2 According to Public Resources Code Section 12220(g): "'Forest land' is land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits."

3 According to Public Resources Code 4526: "'Timberland' means land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis after consultation with the district committees and others."

4 According to Government Code Section 51104(g): "'Timberland production zone" or "TPZ" means an area which has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined in subdivision (h). With respect to the general plans of cities and counties,"timberland preserve zone" means "timberland production zone."

**e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?**

**No Impact.** The proposed Project site does not contain any trees and consists of working wharfs in an urbanized area within the confines of the Port of Los Angeles. The proposed Project would therefore not result in the conversion of farmland to non-agricultural or forest land to non-forest use.

## References

California Department of Conservation, *Farmland Mapping and Monitoring Program*, http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx, accessed July 29, 2010.

California Department of Conservation, *Williamson Act Program*, http://www.conservation.ca.gov/dlrp/lca/Pages/Index.aspx, accessed July 29, 2010.

Port of Los Angeles, *San Pedro Waterfront Project EIS/EIR*, September 2009.

# Air Quality

| *Issues (and Supporting Information Sources):* | *Potentially Significant Impact* | *Less Than Significant with Mitigation Incorporation* | *Less Than Significant Impact* | *No Impact* |
|---|---|---|---|---|
| **3. AIR QUALITY —** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. **Would the project:** | | | | |
| a) Conflict with or obstruct implementation of the applicable air quality plan? | ☒ | ☐ | ☐ | ☐ |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | ☒ | ☐ | ☐ | ☐ |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | ☒ | ☐ | ☐ | ☐ |
| d) Expose sensitive receptors to substantial pollutant concentrations? | ☒ | ☐ | ☐ | ☐ |
| e) Create objectionable odors affecting a substantial number of people? | ☒ | ☐ | ☐ | ☐ |

## Discussion

### a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

**Potentially Significant Impact.** A project would be inconsistent with air quality plans if it would result in population and/or employment growth that exceeds growth estimates included in the applicable air quality management plan (AQMP), and thereby obstructs implementation of the AQMP. Because the proposed Project includes the development of new uses beyond those currently existing at the Project site and beyond those considered in the *San Pedro Waterfront Project EIS/EIR*, the proposed Project has the potential to conflict with the AQMP. As a result, this impact is considered potentially significant and will be further evaluated in the EIR.

### b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

**Potentially Significant Impact.** Project-related air emissions would have a significant effect if they resulted in concentrations of air contaminants that could result in either a violation of an ambient air quality standard or contribute to an existing air quality violation. The *San Pedro Waterfront Project EIS/EIR* identified a significant and unavoidable impact with mitigation incorporated for construction-related and operational impacts under CEQA. Portions of the proposed Project contributed to these impacts. Therefore, this impact is considered potentially significant and will be further evaluated in the EIR.

**c) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?**

**Potentially Significant Impact.** As part of the cumulative analysis presented in the *San Pedro Waterfront Project EIS/EIR*, the proposed Project (without Berth 56) was part of a significant and unavoidable cumulative impact for a cumulatively considerable increase in criteria pollutant emissions for which the region was in nonattainment under a national or state ambient air quality standard or for which SCAQMD has set a daily emission threshold. Although the proposed Project's individual contribution may be less than significant, this impact is considered potentially significant and will be further evaluated in the EIR.

**d) Would the project expose sensitive receptors to substantial pollutant concentrations?**

**Potentially Significant Impact.** Certain persons are particularly sensitive to air pollution emissions; these "sensitive receptors" include the very young, elderly, and those suffering from some illnesses or disabilities. Examples of land uses that can be sensitive to air pollution emissions include schools, daycare centers, parks, recreational areas, medical facilities, rest homes and convalescent care facilities. Nearby schools are listed in **Table 3**.

The east side of the proposed Project site is located within approximately 1,000 feet (across the Main Channel) of the Federal Correctional Institution (FCI) at Terminal Island near Reservation Point and the office and housing associated with the FCI facility located south of Reservation Point. The west side of the project site is located within 500 feet of the Cabrillo Marina (Phase II); within 1,000 feet of the 22nd Street Landing Park, the Yacht Club and the west end of the Cabrillo Marina (Phase I); and within 1,000 feet of the Municipal Fish Market, Bloch Field, Ports O'Call and residential areas of San Pedro. Sensitive users are located within these areas and may be affected by air emissions during construction and operation. This impact is therefore considered potentially significant and will be addressed in the EIR.[5]

**e) Would the project create objectionable odors affecting a substantial number of people?**

**Potentially Significant Impact.** Odors can be associated with industrial and institutional land uses. Odors related to the proposed Project could be released by the disturbance of former industrial areas and during the construction process from diesel-powered construction equipment, paving and asphalting. Odors could also be associated with aquaculture related research. During the project construction stage, any remediation could release odors as well. This impact is therefore considered potentially significant and will be addressed in the EIR.

[5] The uses detailed in the *San Pedro Waterfront Project EIS/EIR* (see p. 3.2-19) are more than three miles from the project site.

**TABLE 3**
**SCHOOLS IN THE VICINITY OF CITY DOCK NO. 1 SITE**

| School Name | Address | Public/Private | Approx. Distance from Project Site |
|---|---|---|---|
| Port of Los Angeles High School | 250 W. 5th Street San Pedro, CA | Public | 1 mile |
| Bandini Street Elementary School | 425 N. Bandini St. San Pedro, CA | Public | 2.2 miles |
| Holy Trinity Elementary School | 1226 W. Santa Cruz St. San Pedro, CA | Private | 2.2 miles |
| Barton Hill Elementary School | 423 N. Pacific Avenue San Pedro, CA | Public | 1.6 miles |
| The Wiser Generation | 914 W. Seventh Street San Pedro, CA | Private | 1.5 miles |
| Mary Star of the Sea School | 717 S. Cabrillo Avenue San Pedro, CA | Private | 1.4 miles |
| Cabrillo Avenue Elementary School | 732 S. Cabrillo Avenue San Pedro, CA | Public | 1.2 miles |
| Fifteenth Street Elementary School | 1527 South Mesa Street San Pedro, CA | Public | 0.75 miles |
| Leland Street Elementary School | 2120 South Leland Street San Pedro, CA | Public | 1.4 miles |
| Academy of the Two Hearts | 1540 S. Walker Avenue San Pedro, CA | Private | 1.6 miles |
| Richard Henry Dana Middle School | 1501 S. Cabrillo Avenue San Pedro, CA | Public | 1.1 miles |
| Trinity Lutheran School | 1450 w. Seventh Street San Pedro, CA | Private | 2.1 miles |
| San Pedro Senior High School | 1001 W. 15th Street San Pedro, CA | Public | 1.4 miles |
| Ernst P. Willenberg Special Education Center | 308 Weymouth Avenue San Pedro, CA | Public | 2.1 miles |

## References

Port of Los Angeles, *San Pedro Waterfront Project EIS/EIR*, September 2009.

# Biological Resources

| *Issues (and Supporting Information Sources):* | | *Potentially Significant Impact* | *Less Than Significant with Mitigation Incorporation* | *Less Than Significant Impact* | *No Impact* |
|---|---|---|---|---|---|
| **4.** | **BIOLOGICAL RESOURCES — Would the project:** | | | | |
| a) | Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | ☒ | ☐ | ☐ | ☐ |
| b) | Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | ☒ | ☐ | ☐ | ☐ |
| c) | Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | ☐ | ☐ | ☐ | ☒ |
| d) | Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | ☐ | ☐ | ☒ | ☐ |
| e) | Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | ☐ | ☐ | ☐ | ☒ |
| f) | Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | ☐ | ☐ | ☐ | ☒ |

## Discussion

**Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

**Potentially Significant Impact.** The proposed Project would require replacement of existing wharf structure and pilings with new concrete pilings at Berths 57-60 along the East Channel. No pile driving will occur at Berths 71-72 along the Main Channel. Among the listed and other sensitive species identified in the *San Pedro Waterfront Project EIS/EIR* that could be potentially displaced or affected during construction, include the California least tern, California brown pelican, American peregrine falcon, double-crested cormorant, black skimmer, elegant tern, Caspian tern, western snowy plover, black-crowned night heron, great blue heron and other native avian species included under the Migratory Bird Treaty Act. A number of marine mammals are known to inhabit the San Pedro Waterfront area, including both the California sea lion and harbor seal, Pacific bottle-nose dolphin, common dolphin, and Pacific white-sided dolphins. Sea lions are known to frequent the adjacent Municipal Fish Market at Berth 72. Although most listed and

other sensitive species have not specifically been identified as inhabiting the areas around or near Berths 56 through 60 and/or Berths 70 and 71, others are identified as using the entire harbor area. As a result, this potential impact will be studied in the EIR.

Natural habitats identified by the *San Pedro Waterfront Project EIS/EIR* in the general Project area include kelp beds, salt marsh, mudflats, and eelgrass, none of which except kelp have been identified in the East Channel. The proposed Project site is located in an area designated as Essential Fish Habitat for both coastal pelagic and groundfish species. With the implementation of mitigation measures required by the *San Pedro Waterfront Project EIS/EIR*, potential impacts from any contaminated sediment would be less than significant. Although only small amounts of benthic infauna and epibenthic macroinvertebrates would be lost within the footprint of the piles being driven and rock placed around the pilings, mitigation measures from the *San Pedro Waterfront Project EIS/EIR* would not be sufficient to reduce potential short-term construction impacts to less than significant levels under CEQA.

From an operations perspective, the greatest potential for operational impacts on sensitive species would be from accidental fuel spills and/or unauthorized discharges associated with increased vessel activity in the East Channel. The proposed Project includes the relocation of 12 vessels from Fish Harbor to the East Channel with the addition of possibly three more research vessels. The increase in the number of vessels to Port operations resulting from the proposed Project would be small. With the appropriate Port controls, compliance with permit requirements, regulations related to spill control, and mitigation measures included in the *San Pedro Waterfront Project EIS/EIR*, potential impacts to sensitive species would be considered less than significant. The increase in the number of vessels, as a result of the proposed Project, would be proportionally small compared to the existing number of vessels using the Port and the probability of research vessels new to the Port harming endangered, threatened or species of concern via collisions is low. As a result, risks to sensitive species related to sensitive species, would be less than significant. However, this impact will be studied further in the EIR to ensure that project-specific impacts would remain less than significant.

**Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

**Potentially Significant Impact.** The *San Pedro Waterfront Project EIS/EIR* indicates that scattered kelp outcrops along the Main Channel adjacent to Warehouse No. 1 (located near Berth 68) could be affected by the San Pedro Waterfront Project. Warehouse 1 is located in close proximity to the proposed Project at Berths 70 and 71. Kelp beds near Berths 70 and 71 could be temporarily affected by construction, such as construction of the promenade and/or potential wharf improvements. The project site is not in close proximity to the Youth Camp or the Salinas De San Pedro Salt Marsh area. Essential Fish Habitat would be affected by sound pressure waves in the water from pile driving, which would be required to replace wharf pilings at Berths 57-60. In addition, there have been no documented instances of fish mortality resulting from pile driving within the Port. Fish in the Coastal Pelagics Fish Management Plan are not generally abundant in

the harbor. Construction effects would be short in duration and would occur in a small area, and with the implementation of applicable mitigation measures from the *San Pedro Waterfront Project EIS/EIR*, would be less than significant.

Although only small amounts of benthic infauna and epibenthic macroinvertebrates would be lost within the footprint of the piles being driven and rock placed around the pilings, mitigation measures from the *San Pedro Waterfront Project EIS/EIR* would not be sufficient to reduce potential short-term construction impacts to less than significant levels under CEQA. Short-term construction impacts could therefore be significant and unavoidable under CEQA and will be discussed in more detail in the EIR.

The *San Pedro Waterfront Project EIS/EIR* notes that operational effects, with the implementation of required mitigation measures would be less than significant.

**c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

**No Impact.** There are no wetlands located within the project area. The *San Pedro Waterfront Project EIS/EIR* identified a 0.30-acre coastal freshwater marsh adjacent to 22nd Street Park, which is approximately X feet from the project area. The *San Pedro Waterfront Project EIS/EIR* (p. 3.3-36) states: "The USACE [Corps] Regulatory Division staff preliminarily determined that this coastal freshwater marsh area would be considered an isolated wetland, and therefore would not be regulated pursuant to Section 404 of the CWA. Furthermore, this area would be avoided by the proposed Project [in this case, the Project is the Waterfront Project], and thus, it would not be included in the Section 404 permit for fill issued for the proposed Project even if it were included in the USACE's geographic jurisdiction." There is no impact and this issue will not be discussed further in the EIR.

**d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

**Less than Significant Impact.** The *San Pedro Waterfront Project EIS/EIR* indicates that no known terrestrial wildlife migration corridors are present in the San Pedro Waterfront area and that the only defined migratory species in the harbor area are birds. As stated in the *San Pedro Waterfront Project EIS/EIR*, construction within the San Pedro Waterfront area would not "block or interfere with migration or movement of any of the species covered under the [Migratory Bird Treaty Act (MBTA)] because the work would be in a small portion of the harbor area where the birds occur and the birds could easily fly around or over the work." Project operations would, as stated in the *San Pedro Waterfront Project EIS/EIR*, result in no barrier to wildlife passage and would have no effect on wildlife movement or migration within the harbor. Common fish habitat could be affected by dredging and/or the replacement of wharf pilings.

This potential impact, although less than significant, will be discussed further in the EIR.

**e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

**No Impact.** The proposed Project site consists of developed wharfs and portions of the Main Channel and the East Channel. There are no trees, shrubs or grass on the project site. The proposed Project would include limited landscaping along the Signal Street frontage. Landscaping included as part of the proposed project would be required to conform to local ordinances and policies, and would not conflict with any local policies or ordinances implemented to protect biological resources. Therefore, there would be no impact and this issue will not be discussed further in the EIR.

**f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

**No Impact.** Based on the findings in the *San Pedro Waterfront Project EIS/EIR*, the proposed Project would not be located within an adopted Natural Communities Conservation Plan (NCCP) or Habitat Conservation Plan (HCP). The NCCP program, which began in 1991 under California's Natural Community Conservation Planning Act, is administered by the California Department of Fish and Game (CDFG), and is a cooperative effort between resource agencies and developers that takes a broad-based ecosystem approach to planning for the protection and perpetuation of biological diversity. As noted in the *San Pedro Waterfront Project EIS/EIR*, there is only one NCCP approved or under consideration near the Port and it was designed to protect coastal scrub (Palos Verdes Peninsula Sub-Regional Plan).

HCPs are administered by the U.S. Fish and Wildlife Service (USFWS) and are designed to identify how impacts would be mitigated when a project would impact endangered species. There are no HCPs in place for the Port. A Memorandum of Understanding (MOU) is in place for the Port, CDFG, USFWS, and the Corps to protect the California least tern and requires a 15-acres nesting site – outside of the project site boundaries – to be protected during the annual nesting season (May to October). The site is located across the Main Channel from the project site and is being considered for designation as a Significant Ecological Area (SEA) by the County of Los Angeles.

The proposed Project would have no impact on HCPs, NCCPs, the MOU regarding California least tern, or the SEA for least tern, and no further discussion will be provided in the EIR.

## References

Port of Los Angeles, *San Pedro Waterfront Project EIS/EIR*, September 2009.

# Cultural Resources

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **5. CULTURAL RESOURCES — Would the project:** | | | | |
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | ☒ | ☐ | ☐ | ☐ |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | ☒ | ☐ | ☐ | ☐ |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | ☐ | ☐ | ☒ | ☐ |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | ☐ | ☐ | ☐ | ☒ |

## Discussion

**Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?**

**Potentially Significant Impact.** According to the *San Pedro Waterfront Project EIS/EIR*, in December 2007, the Corps determined and documented an Area of Potential Effects, an area that consists of "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if such properties exist." Within the APE, the Corps determined that eight properties are listed on or eligible to be listed on the National Register of Historic Places (NRHP). Administered by the US Department of the Interior, the NRHP lists properties that under four criteria are used to determine eligibility for the NRHP:

Criterion A: The property must be associated with events that have made a significant contribution to the broad patterns of our history;

Criterion B: The property must be associated with the lives of persons significant in our past;

Criterion C: The property must embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; and/or

Criterion D: The property must have yielded, or may be likely to yield, information important in prehistory or history.

The project site contains no properties that are currently listed on the NRHP. However, one of the eight properties identified by the Corps as eligible for listing on the NRHP under Criteria A and B – the Westway/Pan-American Oil Company Pump House – is located at Berth 70, within the project site. In addition, the Transit Sheds at Berth 57 and Berths 58–60 are considered by the City of Los Angeles to be local historical resources and eligible for the NRHP under Criterion A. The transit shed at Berths 58–60 is also considered eligible by the City of Los Angeles for the

NRHP under Criterion C "for its interesting and ambitious use of neoclassical treatments" (*San Pedro Waterfront Project EIS/EIR*, p. 3.4-31). Local historical resources surveys have identified the Westway/ Pan-American Oil Company Pump House at Berth 70 as historic. The Port has identified the Pan American Clipper Terminal (Berth 56) as eligible for listing on the NRHP under Criterion A and the California Register "as the last remaining portion of a complex that made a significant contribution to the transportation heritage of the region from 1935-1941 through its association with Pan American Airlines' pioneering long distance and transoceanic flight to China via Manila and later to New Zealand" (*San Pedro Waterfront Project EIS/EIR*, p. 3.4-34). Berth 56 is also listed as eligible for the California Register.

Resources adjacent to the project site include the Municipal Warehouse No. 1, located across Signal Street from Berth 58; Municipal Warehouse No. 1 is listed on the NRHP and the California Register. The former U.S. Immigration Station (currently Cannetti's Sea Food Restaurant), near Berth 56 was identified in a historic resources survey as potentially eligible for listing on the NRHP under Criterion A "as the only extant building at the Port designed and used for civilian federal purposes" (*San Pedro Waterfront Project EIS/EIR*, p. 3.4-30).

The *San Pedro Waterfront Project EIS/EIR* specifically identified Municipal Warehouse No. 1, the former U.S. Immigration Station, the Berth 57 Transit Shed, and the Pan American Terminal as buildings and structures that would not be altered in an adverse manner. The Pump House at Berth 70 is specifically identified as a structure that would be maintained. The project could result in changes to the entrance to the transit shed at Berth 57, including removal of a wood-frame entrance added to the building a few years after it was built. Alterations could also be made to other structures and/or the vicinity of these historic structures.

Because many of the existing structures within the project site are considered eligible for listing on the National Register, the proximity of the project to other historical resources, proposed changes to the entrance to Berth 57, and proposed reuse of historic Berths 57 and 58–60 Transit Sheds, and the potential historic nature of the wharf itself from B.57-60, the impact of the project on historic resources will be discussed further in the EIR.

**b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?**

**Potentially Significant Impact.** The *San Pedro Waterfront Project EIS/EIR* (p. 3.4-47) states that no known archaeological sites are located within the boundaries of the San Pedro Waterfront. However, 16 sites have previously been identified within one mile of the waterfront and these include three that are adjacent to the boundaries of the San Pedro Waterfront. None are, however, adjacent to the City Dock project site. The nearest, CA-LAN-1129H, which is in the Fort MacArthur area, is more than more than 2,000 feet north of the project site. In addition, no ship wrecks are known to have occurred in the proposed Project site or its immediate vicinity. The proposed Project site has been in use for over 80 years and as a result, potential resources could be found in the waters adjacent to the proposed Project site during piling driving or water quality testing. The proposed Project site was not specifically analyzed in the *San Pedro Waterfront*

*Project EIS/EIR* with regard to potential archaeological resources. As a result, the potential impact of the proposed Project on archaeological resources will be discussed further in the EIR.

**c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

**Less than Significant Impact.** The *San Pedro Waterfront Project EIS/EIR* (pp. 3.4-61 and 3.4-62) states that construction-related excavations in the East Channel would be limited to areas underlain by artificial fill materials and would therefore not affect potential paleontological resources. No other potential paleontological resources are identified within the proposed Project site or adjacent waters. The proposed Project includes the installation of structures that may require pilings beyond existing artificial fill materials. However, these areas have already been highly disturbed. Although impacts to paleontological resources are anticipated to be less than significant, this issue will be discussed further in the EIR.

**d) Would the project disturb any human remains, including those interred outside of formal cemeteries?**

**No Impact.** The proposed Project site consists of wharfs and associated structures, and adjacent waters of the Port, including portions of the East Channel and Main Channel. The proposed Project site is not part of the historic shoreline. Neither the East Channel nor the Main Channel is known to be a burial site. The proposed Project site waters are known to have been disturbed by previous dredging and are covered with artificial fill. As a result, the proposed Project would have no impact on human remains and no further discussion will be provided in the EIR.

## References

Port of Los Angeles, *San Pedro Waterfront Project EIS/EIR*, September 2009.

# Geology, Soils, and Seismicity

| *Issues (and Supporting Information Sources):* | *Potentially Significant Impact* | *Less Than Significant with Mitigation Incorporation* | *Less Than Significant Impact* | *No Impact* |
|---|---|---|---|---|
| **6. GEOLOGY, SOILS, AND SEISMICITY — Would the project:** | | | | |
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.) | ☒ | ☐ | ☐ | ☐ |
| ii) Strong seismic ground shaking? | ☒ | ☐ | ☐ | ☐ |
| iii) Seismic-related ground failure, including liquefaction? | ☒ | ☐ | ☐ | ☐ |
| iv) Landslides? | ☐ | ☐ | ☐ | ☒ |
| b) Result in substantial soil erosion or the loss of topsoil? | ☒ | ☐ | ☐ | ☐ |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? | ☒ | ☐ | ☐ | ☐ |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? | ☒ | ☐ | ☐ | ☐ |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? | ☐ | ☐ | ☐ | ☒ |

## Discussion

**a) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**

***i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)***

**Potentially Significant Impact.** Several earthquake faults are located near the Project vicinity and extend through the Port, both on land and in the water channels. None of these faults are designated as a special study zone under the Alquist-Priolo Earthquake Zoning Act (City of Los Angeles, 1996). However, the proposed Project site is within the Palos Verdes Fault Zone and, therefore, substantial damage to structures or infrastructure could occur at the Project site during a seismic event. Therefore, this issue will be discussed in the EIR.

*ii) Strong seismic ground shaking?*

**Potentially Significant Impact.** Several principal active faults lie within 25 miles of the proposed Project. These include the Palos Verdes, Newport-Inglewood, Elysian Park, Whittier-Elsinore, and Santa Monica-Raymond faults. These faults are capable of producing ground movements of a maximum moment magnitude 6.6 to 7.1. Faults such as these are typical of southern California and it is reasonable to expect a strong ground motion seismic event during the lifetime of any project in the region. This issue area will be discussed in the EIR.

*iii) Seismic-related ground failure, including liquefaction?*

**Potentially Significant Impact.** The proposed Project site lies within an area susceptible to liquefaction based on the historic occurrence of liquefaction, or local geological, geotechnical, and groundwater conditions, which indicate a potential for permanent ground displacements (City of Los Angeles, 1996). Therefore, this issue will be discussed in the EIR.

*iv) Landslides?*

**No Impact.** The topography of the site is flat. As identified in the Safety Element of the Los Angeles General Plan, the proposed Project site is not within the landslide inventory (City of Los Angeles, 1996). Therefore, no significant impacts are anticipated as a result of the proposed Project, and no further study is required. This issue does need require further analysis in the EIR.

**b) Would the project result in substantial soil erosion or the loss of topsoil?**

**Potentially Significant Impact.** During Project construction, there is potential for soil erosion. This would be of short duration and would be subject to fugitive dust and stormwater runoff management as required by regulatory agencies. During demolition and excavation, the site would be managed in accordance with the Los Angeles Regional Water Quality Control Board (LARWQCB) Permit No. CAS004001 for Municipal Storm Water and Urban Runoff Discharges within the County of Los Angeles and in accordance with South Coast Air Quality Management District (SCAQMD) rules and regulations (i.e., Rule 403 – Fugitive Dust).

The proposed Project would disturb more than one acre of soil, and therefore a Statewide General Construction (and National Pollutant Discharge Elimination System (NPDES)) permit would be required along with submittal of a notice of intent to the State Regional Water Quality Control Board (SRWCB) prior to commencement of demolition activities. As part of the NPDES permit requirements, development of a Storm Water Pollution Prevention Plan (SWPPP) for the proposed Project site will be required prior to construction, which includes stormwater control measures. The proposed Project is also subject to compliance with the applicable Standard Urban Storm Water Mitigation Plan (SUSMP). With development of a SWPPP, which is required for the proposed Project, and compliance with all applicable regulations during grading, soil erosion on the proposed Project site would be minimized. Still, the proposed Project has the potential for impacts resulting from substantial topsoil erosion, and, therefore, this issue area will be addressed in the EIR.

**c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?**

**Potentially Significant Impact.** As described under response to Section 6(a)(iii), above, the proposed Project site is located in an area designated as a liquefiable area in the Safety Element of the Los Angeles General Plan (City of Los Angeles, 1996). This issue area will be discussed in the EIR.

**d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?**

**Potentially Significant Impact.** Expansive soil may be present in the proposed Project area. These soils can significantly impact building foundations and associated structures. The proposed Project could create substantial risks to life or property by building on this site. Therefore, further study is required and this issue will be addressed in the EIR.

**e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?**

**No Impact.** The Los Angeles Department of Public Works Bureau of Sanitation provides sewer service to all areas within its jurisdiction, including the proposed Project site. The proposed Project would be connected to this system, and sewage would be sent to the Terminal Island Facility. There would be no use of septic tanks or alternative wastewater disposal systems; therefore, no impacts would occur. This issue does not require further analysis in the EIR.

## References

City of Los Angeles, *City of Los Angeles General Plan, Safety Element*, approved August 8, 1996; adopted November 26, 1996.

Port of Los Angeles, *San Pedro Waterfront Project EIS/EIR*, September 2009.

# Greenhouse Gas Emissions

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **7. GREENHOUSE GAS EMISSIONS — Would the project:** | | | | |
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | ☒ | ☐ | ☐ | ☐ |
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | ☒ | ☐ | ☐ | ☐ |

## Discussion

**a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

**Potentially Significant Impact.** Greenhouse gases (GHGs) are gases that trap heat radiated from the sun as it is reflected back into the atmosphere. The accumulation of GHGs has been implicated as one of the leading causes of global climate change. GHGs include naturally occurring and man-made gases, including carbon dioxide ($CO_2$), methane,[6] nitrous oxide ($N_2O$), sulfur hexafluoride ($SF_6$), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), and nitrogen trifluoride ($NF_3$). The *San Pedro Waterfront Project EIS/EIR* identified significant and unavoidable impacts related to $CO_2$ emissions under CEQA, despite significant reductions that would result from the implementation of mitigation measures. These mitigation measures would result in, for example, a 30-percent reduction in ship emissions of $CO_2e$ (equivalent carbon dioxide) as a result of implementing the Port's Vessel Speed Reduction Program (VSRP). The proposed Project would include more development than anticipated by the *San Pedro Waterfront Project EIS/EIR*, and therefore the impact would be potentially significant. As a result, the contribution of the proposed Project to the generation of GHGs will be discussed further in the EIR.

**b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

**Potentially Significant Impact.** The proposed Project would be required to conform to all applicable plans, policies and regulations adopted for the purpose of reducing the emissions of GHGs. However, for informational purposes, applicable plans, policies and regulations will be considered potentially significant and will be discussed further in the EIR.

## References

Port of Los Angeles, *San Pedro Waterfront Project EIS/EIR*, September 2009.

6 Methane is a colorless and odorless gas that is a principal component of natural gas and is formed largely by the decomposition of organic materials.

# Hazards and Hazardous Materials

| *Issues (and Supporting Information Sources):* | | *Potentially Significant Impact* | *Less Than Significant with Mitigation Incorporation* | *Less Than Significant Impact* | *No Impact* |
|---|---|---|---|---|---|
| **8.** | **HAZARDS AND HAZARDOUS MATERIALS — Would the project:** | | | | |
| a) | Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | ☒ | ☐ | ☐ | ☐ |
| b) | Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | ☒ | ☐ | ☐ | ☐ |
| c) | Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | ☐ | ☐ | ☐ | ☒ |
| d) | Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | ☒ | ☐ | ☐ | ☐ |
| e) | For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | ☐ | ☐ | ☐ | ☒ |
| f) | For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | ☐ | ☐ | ☐ | ☒ |
| g) | Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | ☒ | ☐ | ☐ | ☐ |
| h) | Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | ☐ | ☐ | ☐ | ☒ |

## Discussion

**a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

**Potentially Significant Impact.** All hazardous materials are required to be stored, handled, and disposed of in accordance with local, county, and State laws that protect public safety. Removal and disposal of asbestos, lead and any other hazardous material, soil, and/or groundwater will adhere to all applicable local, State and federal regulations. Although adherence to these regulations would minimize the potential for hazardous materials impacts to the public and the environment, the proposed Project, specifically dredging activities related to retrofits and reparations to the existing berths and wharfs, would involve the handling and disposal of hazardous materials. In addition, the remediation of the Westways site, which is under the jurisdiction of the Los Angeles Regional Water Quality Control Board, will be occurring during

implementation of the proposed Project and therefore will be considered in this analysis. Thus, this issue is considered potentially significant and will be further evaluated in the EIR.

**b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

**Potentially Significant Impact.** As described in response to Section 7(a) above, although all hazardous materials are required to be stored, handled, and disposed of in accordance with local, county, and State laws that protect public safety, because the proposed Project would involve handling and disposal of hazardous materials, an unforeseeable upset or accident could occur. Therefore, this impact is considered potentially significant and will be further evaluated in the EIR.

**c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

**No Impact.** The closest school to the proposed Project site is the Fifteenth Street Elementary School, which is approximately 0.8 mile northwest from the proposed Project site. This school is not located within one-quarter mile of the proposed Project site. In addition, there are no planned schools located within one-quarter mile of the proposed Project site. Therefore, the proposed Project would not result in hazardous emissions or the handling of hazardous materials within one-quarter mile of an existing or planned school. This issue does not require further analysis in the EIR.

**d) Is the project located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

**Potentially Significant Impact.** While none of the uses on the proposed Project site currently involve the storage, use or generation of hazardous materials, several of the site's historic uses, which included liquid bulk storage and boat repair, involved the storage and/or use of hazardous materials and may be included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The Westways site, particularly, has identified areas of contamination and will be undergoing remediation as a related project. Currently, there is monitoring and limited remediation under LARWQCB oversight. The activities generate small quantities of hazardous waste (55-gallon drums), which are temporarily stored onsite prior to offsite disposal. Impacts associated with worker and public exposure to this site is considered potentially significant; therefore, this issue will be evaluated in the EIR.

**e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?**

**No Impact.** The proposed Project is not located within the vicinity of a public airstrip and is not within two miles of a public airport. The closest public airport, Long Beach Airport, is located approximately nine miles to the northeast of the proposed Project site. Therefore, no impact will occur, and no further study is required.

**f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?**

**No Impact.** The proposed Project is not located within the vicinity of a private airstrip. The closest private use airport is the Torrance Municipal Airfield located approximately 6.5 miles to the northeast. Therefore, the proposed Project would not result in a safety hazard to people working or residing in the proposed Project area and this issue requires no further analysis in the EIR.

**g) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

**Potentially Significant Impact.** The Los Angeles City Fire Department (LAFD) currently provides emergency medical and fire protection support, and the Port Police and the Los Angeles Police Department (LAPD) are responsible for coordinating law enforcement and traffic control operations in emergency situations. During construction activities, adequate vehicular access would be provided and maintained in accordance with LAFD requirements. LAFD would review all construction and design plans before development of the proposed Project to ensure that access is provided for emergency equipment. The proposed Project would not affect potential emergency response routes. The proposed Project's proximity to the harbor may make it susceptible to impacts related to a tsunami and a seiche. Impacts to emergency evacuation should a tsunami or seiche occur could be significant and coordination with LAFD, LAPD, and Port Police would be required. In addition, the U.S. Coast Guard coordinates efforts related to homeland security at the Port. Because the proposed Project now includes docking NOAA vessels on the Main Channel, security for the proposed Project site will be addressed further in the EIR.

**h) Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?**

**No Impact.** The proposed Project site is in an urban area surrounded on all sides by industrial uses and by Port waters. No wildlands are adjacent to the proposed Project site and the proposed Project would not affect nor be affected by wildland fires. No impacts would occur and this issue does not require further analysis in the EIR.

## References

Port of Los Angeles, *San Pedro Waterfront Project EIS/EIR,* September 2009.

# Hydrology and Water Quality

| *Issues (and Supporting Information Sources):* | | *Potentially Significant Impact* | *Less Than Significant with Mitigation Incorporation* | *Less Than Significant Impact* | *No Impact* |
|---|---|---|---|---|---|
| **9.** | **HYDROLOGY AND WATER QUALITY — Would the project:** | | | | |
| a) | Violate any water quality standards or waste discharge requirements? | ☒ | ☐ | ☐ | ☐ |
| b) | Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | ☐ | ☐ | ☐ | ☒ |
| c) | Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, in a manner that would result in substantial erosion or siltation on- or off-site? | ☐ | ☐ | ☒ | ☐ |
| d) | Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site? | ☐ | ☐ | ☐ | ☒ |
| e) | Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | ☐ | ☐ | ☒ | ☐ |
| f) | Otherwise substantially degrade water quality? | ☒ | ☐ | ☐ | ☐ |
| g) | Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | ☐ | ☐ | ☐ | ☒ |
| h) | Place within a 100-year flood hazard area structures that would impede or redirect flood flows? | ☐ | ☐ | ☐ | ☒ |
| i) | Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | ☐ | ☐ | ☒ | ☐ |
| j) | Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow? | ☐ | ☐ | ☒ | ☐ |

## Discussion

### a) Would the project violate any water quality standards or waste discharge requirements?

**Potentially Significant Impact.** The *San Pedro Waterfront Project EIS/EIR* concluded that potential development along the San Pedro waterfront would result in a less than significant impact related to the potential to violate water quality standards and/or waste discharge requirements under CEQA. All development would be required to conform to the NPDES stormwater permit and would be required to conform to Section 13050 of the California Water

Code (CWC). Dredging, new wharf construction and wharf reconstruction and upgrades during the construction phases of development along the San Pedro waterfront "would not entail any direct or intentional discharges of wastes to waters of the harbor" (p. 3.14-39), and "[i]n-water dredged material disposal at the LA-2 and/or LA-3 sites would result in minor, transitory changes in turbidity that have previously been determined to be less than significant (EPA and USACE 2004)" (p. 3.14-39). However, in relationship to the proposed Project, only in-water work (installation of pilings) related to the proposed promenade was considered. Also, aquaculture operations, the wave tank, and the circulating seawater system could produce discharges that have an adverse effect on the surrounding area. Because the proposed Project site would include additional in-water work, this potential impact is, for the purposes of this analysis, considered potentially significant and will be discussed further in the EIR.

**b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?**

**No Impact.** According to the *San Pedro Waterfront Project EIS/EIR*, the City of Los Angeles area obtains water from the following three basic sources: the Owens Valley in the Sierras; groundwater wells in the Los Angeles Basin; and the Metropolitan Water District, which imports water from the Colorado and Feather Rivers. Depth to groundwater beneath the San Pedro Waterfront area is approximately six to ten feet below ground surface. No drinking wells are located within a two-mile radius of the San Pedro Waterfront area, which encompasses the project site. Although the proposed Project would include a seawater system throughout the project complex, the proposed Project would not result in the direct withdrawal of groundwater to provide water needed by the proposed Project. (Groundwater in the harbor area is non-potable because of salt water intrusion.)

The proposed Project would include development of new impervious surfaces. This development would not, however, prevent groundwater recharge. Development of the proposed project would have little or no effect on groundwater recharge capacity and no impact would occur. This issue will not be addressed further in the EIR.

**c) Would the project substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, in a manner that would result in substantial erosion or siltation on- or off-site?**

**Less than Significant Impact.** The proposed Project would involve the retrofit of existing wharfs and the adaptive re-use of most buildings on those wharfs. These wharfs are already largely impermeable and the proposed Project would not substantially alter drainage patterns. As stated in the *San Pedro Waterfront Project EIS/EIR*, development along the San Pedro waterfront area would not result in changes to the existing flows of surface water, or result in stagnation. The proposed Project would likely not result in substantial changes to the drainage patterns at the wharfs; however, this issue will be addressed further in the EIR.

**d) Would the project substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?**

**No Impact.** The proposed Project would include development of new impervious surfaces; however, any increases in flows would be similar to existing runoff, which is either the East or Main Channel of the Los Angeles Harbor. Considering the close proximity to the ocean, any potential increases in runoff would not result in flooding on- or off-site. This issue will not be addressed further in the EIR.

**e) Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?**

**Less than Significant Impact.** The proposed Project site is currently developed with considerable existing impervious surfaces. As stated above, the proposed Project would increase the total area of impervious surfaces. However, according to the *San Pedro Waterfront Project EIS/EIR*, development at the waterfront "would not increase the potential for flooding on site, due to the presence of existing and planned storm drains. Site elevations would remain generally the same subsequent to construction. In addition, proposed Project operations would not increase the runoff velocity."

Regarding additional sources of polluted runoff, as discussed above, the proposed Project would be required to adhere to the NPDES stormwater permit and would be required to conform to Section 13050 of the California Water Code (CWC). Implementation of the water quality control measures of stormwater runoff under these regulatory requirements would minimize the potential for any polluted runoff being transported off site. Therefore, the proposed Project would likely have a less than significant impact related to capacity of existing or planned stormwater infrastructure or additional sources of polluted runoff. Still, this issue will be discussed in the EIR.

**f) Would the project otherwise substantially degrade water quality?**

**Potentially Significant Impact.** The proposed Project would result in increased ship docking at the proposed Project site. According to the *San Pedro Waterfront Project EIS/EIR*, "increases in vessel traffic related to the proposed Project could also result in higher mass loadings of contaminants such as copper that are leached from vessel hull anti-fouling paints. Portions of the Los Angeles Harbor are impaired with respect to copper; therefore, increased loadings associated with increases in vessel traffic relative to baseline conditions would likely exacerbate water and sediment quality conditions for copper." Also, in-water research and/or aquaculture could have adverse effects on the area's water quality. For the purposes of this analysis, this impact will be considered potentially significant and will be discussed further in the EIR.

**g) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?**

**No Impact.** The proposed Project would not include the construction of housing and therefore no housing would be placed within a 100-year flood hazard area. No impact would occur and this issue will not be addressed further in the EIR.

**h) Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?**

**No Impact.** The proposed Project site is currently developed and although implementation of the proposed Project would include redevelopment of the proposed Project site, there would not be any structures that could impede or redirect flood flows. No impact would occur and this issue will not be addressed further in the EIR.

**i) Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?**

**Less than Significant Impact.** The proposed Project site is located along the shoreline and therefore could be subject to flooding effects as a result of sea level rise. While there is no current consensus on the actual magnitude of sea level rise that can be expected in the future, there is agreement that coastal areas are at risk and various models have produced a range of possibilities. However, flooding in the context of this issue area refers to situations such as the overabundance of water to a river during a rain storm that causes flooding to land along its banks. Sea level rise, on the other hand, is incremental and any "flooding" that would occur as a result would be over the course of decades and assumes that no actions would be taken to prevent the flooding from occurring. Thus, it is not likely that flooding poses a significant threat to the Project area; however; and this issue will be discussed further in the EIR

**j) Would the project expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?**

**Less than Significant Impact.** The *San Pedro Waterfront Project EIS/EIR* indicates that the proposed the San Pedro Waterfront is not subject to mudflows because the waterfront is relatively flat (see Appendix A, p. 49). Tsunamis are defined by the *San Pedro Waterfront Project EIS/EIR* as "gravity waves of long wavelengths generated by seismic activities that cause vertical motions of the earth's crust" (p. 49). This vertical motion can cause displacement of overlying waters that trigger transoceanic waves of water containing large amounts of energy. The proposed Project site is located within an area that can potentially be impacted by a tsunami. A seiche could also affect the proposed Project site (seismically-induced waves in enclosed bodies of water). However, according to the *San Pedro Waterfront Project EIS/EIR*, a model has been developed to predict tsunami wave heights in the Long Beach and Los Angeles harbors. This model indicates that, under certain conditions, a tsunami could result in overtopping at between 1.5 meters above mean sea level to 3.41 meters above mean sea level, which could affect the proposed Project site.

The conclusion is, however, that the potential is very low during the life of construction and operation of the proposed Project of being affected by a major tsunami. Still, this issue will be analyzed further in the EIR.

## References

Port of Los Angeles, *San Pedro Waterfront Project EIS/EIR*, September 2009.

# Land Use and Land Use Planning

| *Issues (and Supporting Information Sources):* | *Potentially Significant Impact* | *Less Than Significant with Mitigation Incorporation* | *Less Than Significant Impact* | *No Impact* |
|---|---|---|---|---|
| **10. LAND USE AND LAND USE PLANNING — Would the project:** | | | | |
| a) Physically divide an established community? | ☐ | ☐ | ☐ | ☒ |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | ☒ | ☐ | ☐ | ☐ |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? | ☐ | ☐ | ☐ | ☒ |

## Discussion

**a) Would the project physically divide an established community?**

**No Impact.** The proposed Project site is located entirely within the Port of Los Angeles on the City Dock No. 1 Project site, which is occupied by existing warehouses and liquid bulk storage facilities that would be redeveloped from warehouse and storage uses into marine research uses and accessory uses. The proposed Project site is surrounded by Port-related uses, such as shipping and warehousing operations. The closest established community is San Pedro, which is located less than 0.5 mile west of the proposed Project site. The proposed Project would be contained entirely within existing Port lands with no element of the proposed Project being constructed or requiring any improvements within the neighborhoods of San Pedro. The proposed Project would therefore not divide an established community, no impacts would occur related to this criterion, and this issue does not require further analysis in the EIR.

**b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?**

**Potentially Significant Impact.** The applicable land use plans of agencies with jurisdiction over the proposed Project include the state Tidelands Trust, Port Master Plan, City of Los Angeles Zoning Code, City of Los Angeles General Plan, Port of Los Angeles Community Plan, and San Pedro Bay Clean Air Action Plan (CAAP). The Port of Los Angeles Master Plan is incorporated into the Local Coastal Program of the City of Los Angeles. Therefore, projects that are consistent with the Port of Los Angeles Master Plan are also consistent with the City of Los Angeles Local Coastal Program. The Port changed the land use designation of the proposed Project site from industrial uses to programmatic institutional uses, the impacts of which were analyzed in the *San Pedro Waterfront Project EIS/EIR* and were found to be less than significant with incorporation of mitigation. This issue will be analyzed in the EIR in order to ensure that the specific uses of the proposed Project remain consistent with the applicable land use plans and policies.

**c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?**

**No Impact.** The proposed Project site is within an industrialized area of the Port. As discussed in Section 4(f), the proposed Project is not located within any habitat conservation plan or natural communities conservation plan. Therefore, no impact will occur. This issue will not be addressed further in the EIR.

## References

Port of Los Angeles, *San Pedro Waterfront Project EIS/EIR*, September 2009.

# Mineral Resources

| *Issues (and Supporting Information Sources):* | *Potentially Significant Impact* | *Less Than Significant with Mitigation Incorporation* | *Less Than Significant Impact* | *No Impact* |
|---|---|---|---|---|
| **11. MINERAL RESOURCES — Would the project:** | | | | |
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | ☐ | ☐ | ☐ | ☒ |
| b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | ☐ | ☐ | ☐ | ☒ |

## Discussion

**a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

**No Impact.** As described in the *San Pedro Waterfront Notice of Preparation/Notice of Intent*, most of the San Pedro Waterfront area is not in an aggregate resource zone or oil field drilling area. The San Pedro Waterfront area is classified as MRZ-1, which is defined as an area in which adequate information indicates that no significant mineral deposits are present or where it has been determined that there is little likelihood of their presence; or MRZ-3, which is an area containing mineral deposits, the significance of which cannot be evaluated from available data. The proposed Project site does not contain nor is it in close proximity to an oil, gas or geothermal well. In addition, the proposed Project site is not known to contain mineral resources that would be of value to the region or state. No quarrying operations are established in the vicinity of the proposed Project site and the nearest oil field and drilling areas include the Torrance Oil Field, located north of US 1, and the Wilmington Oil Field, located in the northern portion of the Port. The proposed Project site is located in an area that contains several recreational facilities and in which industrial operations would be limited or relocated, therefore reducing the potential for mining or drilling in the area. Therefore, no impacts to mineral resources would occur. This issue will not be addressed further in the EIR.

**b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?**

**No Impact.** The proposed Project site is not located in a mineral resource area. For the reasons stated above, no impacts to mineral resources would occur. This issue will not be addressed further in the EIR.

## References

Port of Los Angeles, *San Pedro Waterfront Project EIS/EIR*, September 2009.

# Noise

| *Issues (and Supporting Information Sources):* | *Potentially Significant Impact* | *Less Than Significant with Mitigation Incorporation* | *Less Than Significant Impact* | *No Impact* |
|---|---|---|---|---|
| **12. NOISE — Would the project:** | | | | |
| a) Result in Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | ☒ | ☐ | ☐ | ☐ |
| b) Result in Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels? | ☒ | ☐ | ☐ | ☐ |
| c) Result in A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | ☒ | ☐ | ☐ | ☐ |
| d) Result in A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | ☒ | ☐ | ☐ | ☐ |
| e) For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels? | ☐ | ☐ | ☐ | ☒ |
| f) For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | ☐ | ☐ | ☐ | ☒ |

## Discussion

**a) Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

**Potentially Significant Impact.** During construction, noise would be produced by construction equipment, and during the operational phase of the proposed Project, the predominant source of noise would be generated from traffic and on-street activity along 22nd Street, Signal Street and adjacent Port uses. Other existing noise sources include industrial and shipping operations within the Port. The proposed Project would require substantial construction that would include new pilings, wharf upgrades, renovation of existing structures, and new construction. The new uses would increase traffic in the area above what exists and could, for example, result in the presence of new sensitive receptors at the site. In general, project construction activities would not exceed ambient noise levels by 5 db(A), as defined by City thresholds. Under the City's Noise Ordinance, no construction activities would occur between the hours of 9:00 PM and 7:00 AM, Monday through Friday, before 8:00 AM and after 6:00 PM on Saturday or any time on Sunday. In addition, the *San Pedro Waterfront Project EIS/EIR* analyzed a conceptual project. As a result, the Project-specific impacts related to local and agency standards should be fully analyzed. The relationship of Project-related noise and applicable standards is therefore considered potentially significant and will be evaluated further in the EIR.

**b) Would the project expose persons to or generate excessive groundborne vibration or groundborne noise?**

**Potentially Significant Impact.** Although the *San Pedro Waterfront Project EIS/EIR* concluded that vibration-related impacts related to the San Pedro Waterfront Project would be less than significant (p. 3.10-24), the proposed Project is now more fully defined and could potentially result in some vibration-related impacts. As a result, potential impacts from vibration are considered potentially significant and will be evaluated further in the EIR.

**c) Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?**

**Potentially Significant Impact.** The *San Pedro Waterfront Project EIR/EIS* included ambient noise level measurements from the proposed Project site vicinity, including 15-minute measurements at 18th Street and Crescent Avenue, as well as at Cabrillo Marina (see Figure 3.10-1). None were taken at the proposed Project site. In addition, because the proposed Project is now more fully defined, the impacts related to increases in the ambient noise levels related to the proposed Project and in the vicinity could be understated. Therefore, potential impacts are considered potentially significant and will be evaluated further in the EIR.

**d) Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?**

**Potentially Significant Impact.** Construction of the proposed Project would increase ambient noise levels temporarily and periodically over several years. In addition, certain elements of the proposed Project, such as the proposed auditorium at Berth 56, outdoor events along the wharf, and docking vessels (large) could result in periodic increases in ambient noise levels. Although the *San Pedro Waterfront Project EIR/EIS* included ambient noise level measurements in the proposed Project site vicinity (see Figure 3.10-1), none were taken at the proposed Project site. In addition, because the proposed Project is now more fully defined, impacts related to temporary and periodic increase in ambient noise levels may differ from those in the *San Pedro Waterfront Project EIR/EIS*. As a result, potential impacts are considered potentially significant and will be further evaluated in the EIR.

**e) For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?**

**No Impact.** The proposed Project would not be located within an airport land use plan area or within two miles of a public airport or public use airport. The closest public airport, Long Beach Airport, is located approximately nine miles northeast of the proposed Project site. Therefore, no impact would occur, and no further discussion will be provided in the EIR.

**f) For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?**

**No Impact.** The proposed Project would not be located within the vicinity of a private airstrip. The closest private use airport is the Torrance Municipal Airfield located approximately 6.5 miles to the northeast. Therefore, the proposed Project would not result in a safety hazard to people working or residing in the proposed Project area and no further discussion will be provided in the EIR.

## References

Port of Los Angeles, *San Pedro Waterfront Project EIS/EIR*, September 2009.

# Population and Housing

| *Issues (and Supporting Information Sources):* | *Potentially Significant Impact* | *Less Than Significant with Mitigation Incorporation* | *Less Than Significant Impact* | *No Impact* |
|---|---|---|---|---|
| **13. POPULATION AND HOUSING — Would the project:** | | | | |
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | ☐ | ☐ | ☐ | ☒ |
| b) Displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☒ |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☒ |

## Discussion

**a) Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

**No Impact.** The proposed Project would not establish residential uses at the site and would not require substantial expansion of roads or other infrastructure. The proposed Project involves the construction of a marine research center that would consolidate existing research organizations and personnel from throughout the region. It would not result in a major employment center that would require the relocation of a substantial number of people from outside of the region. Therefore, the proposed Project would not induce substantial population growth either directly or indirectly. No impact will occur and no further discussion will be provided in the EIR.

**b) Would the project displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere?**

**No Impact.** There are no housing units on or adjacent to the site. No housing would be displaced and therefore, no replacement housing would be constructed. No impact would occur and no further discussion will be provided in the EIR.

**c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

**No Impact.** As discussed in response to Section 13 (b) above, there are no housing units on or adjacent to the proposed Project site. No individuals will be displaced from implementation of the proposed Project and no construction of replacement housing will be required. No impact will occur and no further discussion will be provided in the EIR.

## References

Port of Los Angeles, *San Pedro Waterfront Project EIS/EIR*, September 2009.

# Public Services

| *Issues (and Supporting Information Sources):* | *Potentially Significant Impact* | *Less Than Significant with Mitigation Incorporation* | *Less Than Significant Impact* | *No Impact* |
|---|---|---|---|---|
| **14. PUBLIC SERVICES — Would the project:** | | | | |
| a) Result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services: | | | | |
| i) Fire protection? | ☒ | ☐ | ☐ | ☐ |
| ii) Police protection? | ☒ | ☐ | ☐ | ☐ |
| iii) Schools? | ☐ | ☐ | ☐ | ☒ |
| iv) Parks? | ☒ | ☐ | ☐ | ☐ |
| v) Other public facilities? | ☒ | ☐ | ☐ | ☐ |

## Discussion

**a) Would the project result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:**

### *i, ii) Fire and police protection?*

**Potentially Significant Impact.** The Los Angeles Fire Department (LAFD) currently provides fire protection and emergency services for the proposed Project area. LAFD facilities in the vicinity of the proposed Project site include land-based fire stations and fireboat companies. The Los Angeles Harbor Department Port Police (Port Police) and the Los Angeles Police Department (LAPD) both provide police services to the Port. The Port Police is the primary responding agency in the Port and is responsible for operations within the Port's property boundaries. Port Police headquarters is located in the LAHD administration building at 425 South Palos Verdes Street in San Pedro.

The impacts of developing institutional uses at the proposed Project site were considered in the *San Pedro Waterfront Project EIS/EIR*, which determined that existing fire and police resources were adequate to serve the development that would be implemented under the San Pedro Waterfront project with the incorporation of mitigation. This issue will be analyzed in the EIR to ensure that Project-specific impacts would remain less than significant.

***iii) Schools?***

**No Impact.** The proposed Project would not involve residential development that would increase the demand for additional or modified school facilities. Therefore, no impact will occur, and no further study is required.

***iv) Parks?***

**Potentially Significant Impact.** The proposed Project includes the creation of a waterfront promenade, a public plaza, and other public open space areas, which could potentially result in increased demand on Port services for maintenance and ongoing operation. Although some of the elements of the proposed Project were considered in the *San Pedro Waterfront Project EIS/EIR*, not all were considered. This impact is therefore considered potentially significant and will be evaluated in the EIR.

***v) Other public facilities?***

**Potentially Significant Impact.** The U.S. Coast Guard (USCG) is a federal agency responsible for a broad scope of regulatory, law-enforcement, humanitarian, and emergency-response duties. The USCG mission includes maritime safety, maritime law enforcement, protection of natural resources, maritime mobility, national defense, and homeland security. Within the Port area, the USCG's primary responsibility is to ensure the safety of vessel traffic in the channels of the Port and in coastal waters. The 11$^{th}$ USCG District, which maintains a post within the Port on Terminal Island, would provide USCG support to the Port area and the proposed Project. USCG, in cooperation with the Marine Exchange, also operates Vessel Traffic Information Systems. This voluntary service is intended to enhance vessel safety in the main approaches to the Port. The proposed Project would involve vessel traffic, and, therefore, could result in impacts to USCG facilities or operations. Impacts could be potentially significant and will be evaluated in the EIR.

## References

Port of Los Angeles, *San Pedro Waterfront Project EIS/EIR*, September 2009.

# Recreation

| *Issues (and Supporting Information Sources):* | *Potentially Significant Impact* | *Less Than Significant with Mitigation Incorporation* | *Less Than Significant Impact* | *No Impact* |
|---|---|---|---|---|
| **15. RECREATION — Would the project:** | | | | |
| a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated? | ☐ | ☐ | ☒ | ☐ |
| b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment? | ☒ | ☐ | ☐ | ☐ |

## Discussion

**a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?**

**Less Than Significant Impact.** The proposed Project would include new recreational amenities, including a waterfront promenade and public plaza, which would relieve the burden on existing community recreational facilities. The demand for parks is generally associated with the increase of housing or population into an area. The proposed Project consists of primarily institutional uses and would not include residential uses. However, visitors and workers at the proposed Project site could potentially add to visitors of the nearby 22nd Street Park and related recreational facilities. These potential impacts to recreation relative to increasing physical deterioration of existing parks and recreational facilities are considered less than significant but will be discussed further in the EIR

**b) Would the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?**

**Potentially Significant Impact.** The proposed Project would involve construction of a waterfront promenade and public plaza on or near sites that are known to have once experienced a hazardous material spill or to have handled substantial quantities of hazardous materials. Disturbance of these sites during construction activities could result in the release of potentially harmful chemicals or compounds. This impact is considered potentially significant and will be evaluated in the EIR.

## References

Port of Los Angeles, *San Pedro Waterfront Project EIS/EIR*, September 2009.

# Transportation and Traffic

| *Issues (and Supporting Information Sources):* | *Potentially Significant Impact* | *Less Than Significant with Mitigation Incorporation* | *Less Than Significant Impact* | *No Impact* |
|---|---|---|---|---|
| **16. TRANSPORTATION AND TRAFFIC — Would the project:** | | | | |
| a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | ☒ | ☐ | ☐ | ☐ |
| b) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? | ☒ | ☐ | ☐ | ☐ |
| c) Result in a change in air or water traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks? | ☒ | ☐ | ☐ | ☐ |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | ☒ | ☐ | ☐ | ☐ |
| e) Result in inadequate emergency access? | ☐ | ☐ | ☒ | ☐ |
| f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? | ☒ | ☐ | ☐ | ☐ |
| g) Result in inadequate parking capacity? | ☒ | ☐ | ☐ | ☐ |

## Discussion

**a) Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

**Potentially Significant Impact.** The proposed Project would increase vehicular, pedestrian, and vessel traffic to the proposed Project site. The proposed Project would also involve improvements to the surrounding streets as well as the extension of the Red Car Line down Signal Street. The impacts associated with the increased traffic resulting from the various modes described above will be analyzed in the EIR to determine their consistency with applicable plans and policies contained in the Southern California Association of Governments (SCAG) 2008 Regional Comprehensive Plan, the Port of Los Angeles Master Plan, the Port of Los Angeles Strategic Plan 2006-2011, the City of Los Angeles General Plan, and any other applicable plan.

**b) Would the project conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?**

**Potentially Significant Impact.** As discussed above, the proposed Project would result in an increase in vehicular traffic on the roadways at and surrounding the proposed Project site. This increased traffic may conflict with the levels of service and/or traffic demand measures that have been established by the 2004 Congestion Management Program for Los Angeles County. This issue will be analyzed in the EIR.

**c) Would the project result in a change in air or water traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks?**

**Potentially Significant Impact**. The proposed Project would not result in a change in air traffic patterns or result in a substantial safety risk surrounding air traffic. The closest public airport is the Long Beach Airport, which is approximately 9 miles to the north, and the closest private airstrip is located at the Torrance Municipal Airfield, which is approximately 6.5 miles to the northeast. However, the proposed Project will result in increased vessel traffic at the proposed Project site, which could result in significant impacts related to water traffic. Therefore, this issue will be analyzed in the EIR.

**d) Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

**Potentially Significant Impact.** The proposed Project would result in an increase in vehicular and pedestrian traffic on the roadways surrounding the proposed Project site and vehicle/vehicle and pedestrian/vehicle conflicts would increase. These types of traffic hazards will be evaluated in the traffic study that will be prepared for the proposed Project and this issue will be evaluated in the EIR.

**e) Would the project result in inadequate emergency access?**

**Less than Significant Impact.** Emergency access to the proposed Project site would be provided via roads within the proposed Project area. As part of the proposed Project, fire and law enforcement services would have access to the proposed Project site. Also, as part of the Project approval process, the LAFD would review and approve all plans to ensure that they comply with applicable access requirements. This compliance would ensure that emergency access to, from, and within the proposed Project site is adequate. During construction, there would be potential for temporary traffic impacts requiring traffic control measures to insure adequate emergency access. These components of the proposed Project and the Project approval process would likely result in less than significant impacts; however, this will be further analyzed in the EIR.

**f) Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?**

**Potentially Significant Impact.** The proposed Project would involve the construction of new pedestrian facilities, including a waterfront promenade and public plazas that would be adjacent to a working waterfront. The proposed Project would also include the extension of the Red Car Line into the proposed Project site. The EIR will analyze the consistency of these proposed Project components with applicable plans and policies surrounding pedestrian facilities and public transit, and will analyze any safety concerns surrounding the implementation of these facilities near a working waterfront.

**g) Would the project result in inadequate parking capacity?**

**Potentially Significant Impact.** The proposed Project involves the development of a marine research center that would result in an intensification of uses at the proposed Project site and would result in a substantial increase in the number of users of the site, including SCMI staff, faculty and students from the region's educational institutions, and tourists. The proposed Project would also include the development of parking areas to accommodate the increased number of visitors to the site. The adequacy of the planned parking areas to serve the proposed Project will be analyzed in the EIR.

## References

Port of Los Angeles, *San Pedro Waterfront Notice of Preparation/Notice of Intent*, December 2006.

# Utilities and Service Systems

| *Issues (and Supporting Information Sources):* | | *Potentially Significant Impact* | *Less Than Significant with Mitigation Incorporation* | *Less Than Significant Impact* | *No Impact* |
|---|---|---|---|---|---|
| **17.** | **UTILITIES AND SERVICE SYSTEMS — Would the project:** | | | | |
| a) | Conflict with wastewater treatment requirements of the applicable Regional Water Quality Control Board? | ☒ | ☐ | ☐ | ☐ |
| b) | Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | ☒ | ☐ | ☐ | ☐ |
| c) | Require or result in the construction of new storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects? | ☒ | ☐ | ☐ | ☐ |
| d) | Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | ☒ | ☐ | ☐ | ☐ |
| e) | Result in a determination by the wastewater treatment provider that would serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | ☒ | ☐ | ☐ | ☐ |
| f) | Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | ☒ | ☐ | ☐ | ☐ |
| g) | Comply with federal, state, and local statutes and regulations related to solid waste? | ☐ | ☐ | ☐ | ☒ |

## Discussion

**a) Would the project conflict with wastewater treatment requirements of the applicable Regional Water Quality Control Board?**

**Potentially Significant Impact.** The proposed Project would be required to conform to all applicable wastewater standards set forth by the Los Angeles Regional Water Quality Control Board (LARWQCB). The proposed Project would result in the generation of additional wastewater from the proposed marine center and accessory uses. The proposed Project would tie into existing sewer lines that may or may not require capacity expansion. Wastewater would likely flow to the Terminal Island Treatment Plant, which is operated by the City's Department of Public Works Bureau of Sanitation. Project consistency with wastewater treatment requirements will be discussed in the EIR.

**b) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

**Potentially Significant Impact.** The proposed Project would increase the demand for potable water and would increase the generation of wastewater. While the *San Pedro Waterfront Project*

*EIS/EIR* determined that sufficient water supplies exist to meet increased water demand and the existing wastewater treatment facilities are also adequate to accommodate the increased generation of wastewater (see pp. 3.13-25 through 3.13-29), the EIR will analyze the Project-specific impacts to ensure that they remain less than significant.

**c) Would the project require or result in the construction of new storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects?**

**Potentially Significant Impact.** The proposed Project is expected to increase the amount of stormwater runoff because it would result in an increased area of impervious surfaces. The EIR will analyze the Project's generation of stormwater to determine if the existing drainage facilities are adequate to accommodate the proposed Project.

**d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?**

**Potentially Significant Impact**. As discussed above, it was determined in the *San Pedro Waterfront Project EIS/EIR* that sufficient water supplies exist to accommodate build out of the San Pedro Waterfront Project. The proposed Project includes a wave tank, but this feature will utilize seawater, not potable water. This issue will be discussed in the EIR to ensure that Project-specific impacts remain less than significant.

**e) Has the wastewater treatment provider that serves or may serve the project determined that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

**Potentially Significant Impact.** The analysis conducted for the *San Pedro Waterfront Project EIS/EIR* concluded that the existing wastewater treatment facilities could accommodate the increased generation of wastewater that would result from the San Pedro Waterfront Project. Project-specific impacts associated with the marine research center will be assessed in the EIR/EIS to ensure that impacts remain less than significant.

**f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?**

**Potentially Significant Impact.** As discussed above, it was concluded in the *San Pedro Waterfront Project EIS/EIR* that sufficient landfill capacity exists to accommodate build out of the San Pedro Waterfront Project. The proposed marine research center is not anticipated to exceed the demand estimated as part of that analysis. However, Project-specific impacts related to landfill capacity will be addressed in the EIR to ensure that they remain less than significant.

**g) Would the project comply with federal, state, and local statutes and regulations related to solid waste?**

**No Impact**. As discussed in the Notice of Preparation/Notice of Intent prepared for the *San Pedro Waterfront Project EIS/EIR*, the proposed Project would comply with all applicable codes pertaining to solid waste disposal. No impacts would occur and this issue does not require further analysis in the EIR.

## References

Port of Los Angeles, *San Pedro Waterfront Project EIS/EIR*, September 2009.

# Mandatory Findings of Significance

| *Issues (and Supporting Information Sources):* | *Potentially Significant Impact* | *Less Than Significant with Mitigation Incorporation* | *Less Than Significant Impact* | *No Impact* |
|---|---|---|---|---|
| **18. MANDATORY FINDINGS OF SIGNIFICANCE — Would the project:** | | | | |
| a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory? | ☒ | ☐ | ☐ | ☐ |
| b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | ☒ | ☐ | ☐ | ☐ |
| c) Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly? | ☒ | ☐ | ☐ | ☐ |

## Discussion

**a) Would the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?**

**Potentially Significant Impact.** The proposed Project could result in substantially adverse impacts to benthic infauna and epibenthic macroinvertebrates during the installation of new pilings to support Berths 57 through 60 for mitigation identified in the *San Pedro Waterfront Project EIS/EIR* would be insufficient. In addition, other Project-specific impacts to biological resources at the proposed Project site and in the Project site vicinity should be studied further to ensure that impacts would be less than significant. In addition, the proposed Project site includes structures and buildings that are eligible for listing on the National Register of Historic Places based on Criterion A and/or C. Because potential Project-specific impacts to these structures are unknown, the impacts of the proposed Project on these historic resources and potential archaeological resources will be discussed further in the EIR.

**b) Would the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?**

**Potentially Significant Impact.** Because the proposed Project would comprise more development than anticipated by the *San Pedro Waterfront Project EIS/EIR*, the proposed Project could result in a cumulatively considerable contribution to greenhouse gas emissions, as well as a cumulatively considerable contribution to poor air quality during construction. Because the Project-specific impacts to greenhouse gas emissions and air quality are unknown, cumulative impacts will be discussed further in the EIR.

**c) Would the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?**

**Potentially Significant Impact.** The proposed Project could result in environmental effects that could cause substantial affects on human beings, either directly or indirectly. These potentially significant impacts will be discussed further in the EIR.

## References

Port of Los Angeles, *San Pedro Waterfront Project EIS/EIR*, September 2009.

# COMMENTS RECEIVED

# Coalition For A Safe Environment

**1601 N. Wilmington Blvd., Wilmington, California 90744**
**P.O. Box 1918 Wlmingon, California 90748**
**wilmingtoncoalition @ prodigy.net 310-704-1265**

January 31, 2011

Christopher Cannon
Director of Environmental Management
Port of Los Angeles
Environmental Management Division
Los Angeles Harbor Department
425 S. Palos Verdes Street
San Pedro, CA 90731

ceqacomments@portla.org
Jan Green Rebstock
Environmental Project Manager
310-732-3949

Re: City Dock No.1 Marine Research Center Project NOP
ADP No. 100114-003
Su: Public Comments

The Coalition For A Safe (CFASE) Environment is happy to support the City Dock No. 1 Marine Research Center Project proposal. Since 2001 our Environmental Justice Organization identified a marine research center project as a high priority land use at the Port of Los Angeles.

CFASE does have some major concerns over the potential use of the Marine Research Center by its tenants at the Port of Los Angeles in which we do not approve or support and wish to now identify. These would apply to any domestic or foreign public or private university, college institute, business, corporation, joint power authority or governmental agency tenant.

1. CFASE does not approve of any military weapons research including biological weapons research on public California Coastal Tidelands, at the Port of Los Angeles (POLA) and POLA owned property. Our accepted definition of Biological Weapon is: The use of disease-producing microorganisms, toxic biological products, or organic biocides to cause death or injury to humans, animals, or plants.

2. CFASE does not approve of any military weapons including biological weapons related technology, parts, systems, equipment, tools and including software support research on public California Coastal Tidelands, at the Port of Los Angeles and POLA owned property.

3. CFASE does not approve of any animal-sea mammal to be used in any weapons or biological weapons research on public California Coastal Tidelands, at the Port of Los Angeles and POLA owned property. As an example: using dolphins or whales (Flipper &

Free Willy) to carry weapons, weapons detection devices, weapons parts, delivering weapons or facsimile substitutes thereof etc. in the proposed wave tank, simulated ocean environment, ship, boat or water submersible craft.

4. CFASE does not approve of any nuclear technology advancement or support research and development on public California Coastal Tidelands, at the Port of Los Angeles and POLA owned property.

5. CFASE does not approve of any public sea food source such as fish, sea mammal, shell fish, aquatic life or aquatic plant genetic research which involves non-natural genetic modification, non-reproduction or genetic use restrictive technology (GURT) terminator technology which causes second generations to be sterile. Growing genetically altered larger fish with less nutrition benefits and unknown future human genetic and endocrine disruptor impacts is research we do not trust especially when public universities license their technologies to corporations like Monsanto.

6. CFASE wants all research patents developed on public California Coastal Tidelands, at the Port of Los Angeles and POLA owned property to be held in the public domain interest.

7. CFASE wants any research patent developed on public California Coastal Tidelands, at the Port of Los Angeles and POLA owned property to never be awarded to any public or private business entity in exclusivity, long term agreement exceeding 5 years, in perpetuity or allowing them exclusively the rights to modify, enhance or replace. As an example the Port of Los Angeles signed an exclusive contract giving up public rights with Union Pacific and BNSF Railroad companies for use of the Alameda Corridor which requires their permission to replace them or their rail transportation system with new cleaner transportation technologies. The public wants to electrify the Alameda Corridor and replace diesel fuel locomotives with a Zero Emissions Electric or Maglev Trains the railroads have the legal right to refuse forever.

8. CFASE requests that all tenants public, private and governmental CEO's sign an annual statement under perjury of law that no such weapons research was performed on public California Coastal Tidelands, at the Port of Los Angeles and POLA owned property.

9. CFASE requests that all tenants public, private and governmental annually within 30 days of submission, release or publication provide a copy of all research papers, reports, studies and annual reports to the Port of Los Angeles for placement on the POLA website for public access and provide free copies upon public request.

10. CFASE requests that every research tenant provide for free public access to visit their facility and research. Create a public information program and establish a local public school, college and university outreach, internship and scholarship program for youth with a priority to local Port of Los Angeles harbor community youth.
11. CFASE requests that a minimum of one tenant must include research on California Coastal tidelands, wetlands, reefs, plant life, wildlife and aquatic life preservation, eco-systems habitat protection, mitigation, restoration and disaster recovery.

12. CFASE requests that a minimum of one tenant must include research on waters, to include tidelands, river passages, estuaries, ocean waters preservation, disaster prevention, clean-up, recovery and remediation.

13. CFASE requests that a minimum of one tenant must include research on global warming and climate change impacts on California Coastal tidelands, wetlands, reefs, plant life, wildlife, aquatic life, tidelands, river passages, estuaries and ocean waters.

14. CFASE requests that a minimum of one tenant be an aquaculture fish and shell fish hatchery that raises native California coastal fish and shell fish species in order to replenish that currently devastated fish and shell fish populations in San Pedro Bay.

15. CFASE requests that the Port of Los Angeles establish a grading and priority system for approving Tenants that incorporate the most public benefit research as described herein.

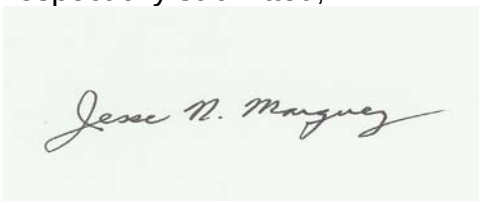
16. CFASE requests that the tenants also allow potential small public sponsored research projects that may not involve universities, colleges and institutes or the government, yet may provide significant public benefits.

CFASE has made these public comments and requests on behalf of the public best interests and hopes that the Port of Los Angeles acts in good faith to advertise and recruit the most public beneficial tenants and research projects. CFASE would also like to state that research and projects do not have to have a profit benefit to be a good quality public benefit. A prestigious tenant is not a priority over a public benefit or global eco-system need.

As an example a fish hatchery is needed to replenish the ocean and releasing fish into the sea will not necessarily generate a profit for the port or one of its is potential tenants yet the public supports this as a high priority and recognized aquaculture eco-system balance need. While the NOP includes aquaculture we do not want to find out later the space is not available or so small it could not be a major public benefit because the land was awarded for some other big project idea. The NOP is too vague on information on the size of the proposed aquaculture component, its hatchling growing capacities and future production.

Current university, college and research institute tenants at the Port of Los Angeles have provided no direct benefits or opportunities to the Wilmington community or youth to our knowledge in the past. What will be the assurances in the future that the Wilmington and San Pedro communities will benefit?

Respectfully submitted,



Jesse N. Marquez
Executive Director

**Los Angeles Maritime Institute TopSail Youth Program**
**Response to POLA NOP - City Dock No. 1 Marine Research Center Project (1/31/2011)**

For the Los Angeles Maritime Institute (LAMI), the City Dock No.1 Marine Research Center (MRC) Project brings opportunities for partnerships at every phase, first in support of the research focus and then in building collaborative educational programs for the future.

Our comments support both facility and program development, adding shipboard experiences and expanding education *under sail*.

We offer the unique educational synergy of a sailing ship -- a 'tradition with a future' and a value-added key to the success of this dynamic endeavor for the Port of LA. Our ships are USCG Sailing School Vessels, *Irving Johnson* and *Exy Johnson*, honored to be the Official Tall Ships and Maritime Ambassadors of the City of Los Angeles; and *Swift of Ipswich*, now being restored and soon to be back in service.

Collaborations that utilize our ships will multiply positive outcomes for all concerned. LAMI's emphasis has been on meeting the needs of 'at-risk' youth, especially middle-school students – most saying they've never seen the ocean. Our programs change the lives of 'youth-of-all-ages'…student participants, volunteers and paid staff including college students, teachers, USCG licensed professionals, adventurers…all focused on *sailing the sea to educate for life*.

Here are some comments with questions relating to the NOP:

## 1.0 Overview and Background

The MRC plan offers mutual benefits and exponential potential with LAMI! We are grateful to be home-ported in the Port of LA, with strong relationships with the local community and area-wide, indeed international, recognition. Our program and our ships impact uncounted numbers of people through the schools and diverse groups who participate in TopSail; plus our volunteer 'family' of supporters; and the vast public who are fascinated by tall ships' adventure education and exploration. In fact, Tall Ships Challenge – Festival of Sail events have attracted more people to the waterfront than any other events!

LAMI is already part of the San Pedro Waterfront Plan, with the Downtown Harbor being designed around tall ships' needs and community visibility.

LAMI will add to and benefit from increasing community involvement and future educational opportunities with the Marine Research Center, especially through coordinating partnerships with COSEE-West, POLA HS, Cabrillo Marine Aquarium, ITEP – Banning HS, Wrigley Institute, SCMI, etc. POLA's leadership will be valuable in encouraging innovation and collaboration.

## 2.0 Project Description – Objectives, Location, Site, Elements

LAMI can both use and enhance the facilities planned in Phase 1 immediately - our ships offer researchers 'floating laboratories under sail,' and shipboard data-gathering, student internships, leadership and service opportunities directly related to marine research.

Later, when the project gets to Phase 2, our priority of education under sail will be a primary asset to the MRC goals.

Our questions for Phase 1 include:
Would we be able to share shore-side space already being planned for offices, meeting rooms, storage, boat maintenance and repair? Will there be space for indoor storage?
(With the Downtown Harbor plan, our current offices and storage will be demolished.)

What are the plans for the Outdoor Teaching/ Outreach classroom?
(Consider the opportunity for ships as dockside "classrooms." Cabrillo Marine Aquarium is within walking distance of major water habitats: rocky shore, sandy beach, tide-pool and salt marsh…our ships can add experience on the ocean habitat.)

How about plans for a (research) library?
(LAMI has a collection of books with inadequate space to make them accessible for use.)

Will 'Support Facilities' include dockside Pump-Out facilities for vessel waste water?
(Existing pump-out facility is awkward – and costly - for our ships.)

What are the plans for docks and docking? Considering surge conditions in the outer harbor…
(Our ships are secure at floating docks further up the main channel, but could operate in and out of City Dock No.1, when in service of the MRC – depending on design plans for safe boarding of students.)

Could there be space for sail and rigging repair – and training in these skills?
(Since such space is mostly non-existent and inaccessible in So. Calif., this would be invaluable for our ships and attract other sailing school vessels in the Pacific.)

In Phase 2:
For the Waterfront Café, how about using students in Restaurant and Hospitality classes from Banning HS MATCH Academy and/or from El Camino and Harbor College?

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**At the same time as Phase 1 priorities for the MRC are moving forward, LAMI is continuing to strengthen our partnerships with educational programs like COSEE-West, SCMI, CMA, and POLA HS. We are committed to supporting marine education and research in innovative ways and broaden the vision for the future of City Dock No. 1 Marine Research Center.**

**I am speaking from my local dedication to the LA Maritime Institute TopSail Youth Program and also from decades-long experience with marine education on Tall Ships nationally and internationally.**

**I suggest that we would all benefit from a coordinated collaboration of marine education organizations, including those with Tall Ships, to explore ways to partner with the MRC. In addition to LAMI with *Irving Johnson, Exy Johnson* and *Swift of Ipswich,* other Southern Californian Tall Ship education groups not mentioned in the proposal or the original Visioning Study might be interested. They include: Ocean Institute – *Spirit of Dana Point* and *Pilgrim*; CIMI - *Tole Mour*; and Sea Education Association - *Robert C. Seamans*.**

**Consider:**

- **Sailing school vessels* for MRC expeditions would be fuel-efficient, for local excursions and distant voyages. (We have overnight accommodations for up to 30 + 8 crew on our LAMI ships.)**

- **Making LAMI ships and crew available as 'Floating Laboratories Under Sail' to complement MRC shore side programs –**
  - **-College, Graduate-level, Continuing Education, High School and Advanced Placement**
  - **-Underway seamanship training and sea-time for ship and boat operators**
  - **-Educational transits, day sails and overnights to research locations or island facilities**
  - **-Marine-life observations, data-gathering, census-taking in harbor and offshore sites**
  - **-'Green' boat operation and maintenance**
  - **-Organizational/corporate leadership, team-building and management development**

- **Exchanging marine education curricula, linking national and state standards and USCG regulations, infusing Ocean Literacy Principles into diverse content areas and developing 21st Century skills**

- **Modeling, testing and interpreting 'green' technology and practices**
  - **-Exploring funding for equipping our ships with 'green' engines and equipment**
  - **-Educating youth and the public on the imperative of 'green' practices and relevant research and technology**
  - **-Supporting Port TechLA innovations**

- **Offering opportunities for MRC students sailing with TopSail to gain experience and credit as educators in an experiential learning environment**
  - **-Becoming mentors for TopSail Ocean Ambassadors (our pilot project)**
  - **-Gathering, analyzing and interpreting data, i.e. on HAB (Harmful Algae Blooms)**
  - **-Giving community service**
  - **-Exploring marine and maritime careers at sea and ashore.**

**Sailing ships are a unique reality-based setting for adventure education, a natural fit for marine science, research and POLA GREEN priorities…and, a proven way to build social competence, character, courage, confidence—gained at sea and carried into life ashore:**

- **-better sailors, skilled and safe for sailing through life,**
- **-better shipmates, responsive and responsible, valuing diversity on our ocean planet**
- **-better stewards, competent and committed to making the world a better place**

**Looking forward to being 'shipmates' as we sail through this project,**
**Sincerely,**

**Nancy H. Richardson**
**LA Maritime Institute TopSail Youth Program**
**Berth 84, Foot of 6th St., San Pedro, CA 90731**
**Office: 310-833-6055 Mobile: 310-429-3277**
**nrichardson@lamitopsail.org**

***See the Note below that addresses concerns about USCG restrictions on the current research vessels of the Marine Research Center**
**(as mentioned in the Visioning Study – p. 11):**

**LAMI brigantines are U.S. Coast Guard Inspected and Certified, operating under CFR Title 46 Shipping. Subchapter R - Sailing School Vessels. Part 169.107 definitions:**
**"*Sailing Instruction* means teaching, *research*, and practical experience in operating vessels propelled primarily by sail, and may include *any subject related to that operation and the sea*, including seamanship, navigation, oceanography, other nautical and marine sciences, and maritime history and literature. In conjunction with any of these subjects, 'sailing instruction' also includes instruction in mathematics and language arts skills to a sailing school student with a learning disability."**
**"*Instructor* means any person who is aboard a sailing school vessel for the purpose of providing sailing instruction and is not an officer, operator, or member of the crew required to be aboard the vessel, and who has not paid any consideration, either directly or indirectly for his or her carriage on the vessel."**
**"*Sailing School Student* means any person who is aboard a sailing school vessel for the purpose of receiving sailing instruction."**

Northwest San Pedro Neighborhood Council

"Your Community Voice"

**Diana Nave**
President

**Robert J. Bryant**
Vice President

**Craig Goldfarb**
Treasurer

**George Thompson**
Secretary

January 14, 2011

Chris Cannon
Los Angeles Harbor Department
425 S. Palos Verdes St.
San Pedro CA 9071

RE: CITY DOCK 1 NOP COMMENTS

Thank you for this opportunity to comment on the City Doc 1 NOP. The Northwest San Pedro Neighborhood Council is very excited about this proposal and we think it has the potential to be a real game changer for San Pedro. At our Board and Community meeting on January 10, 2011, the Board unanimously approved the following comments on the NOP.

Whereas, the Los Angeles Harbor Department (LAHD) has released a Notice of Preparation (NOP) for the City Dock 1 Marine Research Center Project in advance of preparation of an Environmental Impact Report (EIR). As part of the NOP process the LAHD is accepting input on the scope of the project to be evaluated as part of the EIR.

Whereas the Northwest San Pedro Neighborhood Council supports the preparation of a complete EIR that describes the City Dock 1 project and associated project alternatives and mitigation measures we offer the LAHD the follow comments.

Within the public services section or where appropriate, the EIR should discuss incorporation of linkages to local education programs. The City Dock 1 project should be viewed as an opportunity to engage youth and our community in marine science and the scientific method. The NWSPNC Board would like to see the City Dock 1 project and SCMI relocation evaluate linkages to the existing education programs in the area such as the San Pedro High School Marine Magnet or small Environmental Learning Community at Banning High School. In addition, we believe the youth programs at Cabrillo Marine Aquarium should be evaluated for linkages to City Dock 1 and SCMI.

As part of the overall design of the City Dock 1 project we would like the LAHD to evaluate linkages to the community so that the project does not become an enclave. An option to provide connectivity between downtown and the proposed project site could be accomplished via the Red Car, or other public transportation. We also recommend that the LAHD include waterfront walkway

enhancements in the City Dock 1 project that are similar or the same as have those approved as part of the LA Waterfront Plan.

Our final comment relates to the former Westways facility and current status of the site. As part of the DEIR we ask the LAHD to evaluate removal of the existing above ground storage tanks and infrastructure as part of any project alternative. As part of this evaluation the future use of the Westways site should be evaluated as part of the City Dock 1 project and as part of the Los Angeles Waterfront plan should the City Dock 1 project not occur. The final EIR should study sufficient alternatives so that should the City Dock 1 project not occur future development at the Westways site can proceed as part of the approved LA Waterfront Plan.

Thank you for your consideration on these comments.

Diana Nave, President
Northwest San Pedro Neighborhood Council

Comments on City Dock #1 EIR
Anthony Michaels [tony@proteusenv.com]
Sent: Thu 1/13/2011 11:27 PM
To: Ceqacomments
CC: Anthony Michaels; Garrett, Barb
Dear Port of Los Angeles,

I would like to submit the following comments as part of the public hearing process for the Environmental Impact Study processfor the City Dock #1 Marine Research Center.

Overall, I applaud the creation of this center. It is the right thing to do at the right time and leverages many of the natural benefits of the Port, Los Angeles and California to create some important public goods.

I would like to suggest that the focus of the review and the plan encompass the full mix of research, education, training, innovation, entrepreneurs, job creation and outreach to the public in a very balanced way. These are all important elements of the plan and engage a wide range of constituents. The current plan seems to focus on the needs of SCMI (which are important), but does so in a way that is out of balance with the plan that will lead to success for the overall facility. Bring in all elements of the plan, ensure their linkage with each other and with a diversity of outside communities and approve a plan that provides for this full mix and an adaptive balance of activities as opportunities arise.

Let there be fun! You rightfully want the public and the promenade to come through this space and provide access. Let there be things to do and make sure that they are fun! Mix in the arts. Add in a variety of food opportunities. Encourage or even mandate regular public events. Make the promenade through this area an interactive science museum experience. Let the public peer into the buildings to see what is going on and have every building have a public space and a gift shop. Create community among the tenants and open that community to the public.

I strongly support the retention of the existing warehouse buildings as a shell with the new structures created inside. However, the repair of the over-water piers may be incredibly expensive. Only a small proportion of the uses identified for the space require a lot of waterfront and, in practice, the whole thing might be successful with only part of that over-water landscape. Thus, the most cost-effective thing may be to tear down some of the warehouses and retain only those that need the waterfront space. I wonder if that balance could be incorporated into the EIR options or balance of options. It is unfortunate that the warehouses are partially over the water and this reality means that a gradation of options for new or reuse of the warehouses is warranted.

I support the business incubator as a critical tool for the whole project and another element that will make this unique on a global basis (I have a conflict of interest here as I run a company that could benefit from that very facility). I suggest that you keep the use of that space flexible and generic in the EIR since it is hard to accurately predict exactly what kinds of companies might need that space.

I suggest that the jobs elements of the EIR be thought through carefully. I think that there are more jobs in this overall plan than people might realize and that important benefit should be an accurate part of the overall balance.

I would suggest that you be fairly careful about how proscriptive you are on specific elements of the types of research or education are done. There are adequate safety mechanisms built into environmental laws, OSHA and other agencies to ensure that the standard practices in marine science are safe when these rules are followed. Placing additional restrictions on molecular biology, marine mammals, the types of fish that could be held, the types of class topics that can or cannot be done, whether the department of defense funds research or if any of it helps safeguard our military are all examples of things that I suggest not be too proscriptive in the EIR. Reference the existing laws and the safe records of the local universities. Maybe set up some kind of tenant review process for subleases. However, please don't micro-manage in advance who and what can use the facility. It would hinder its success in many different ways.

I hope that these are useful comments. I am available to help in any way makes sense for you.

Cheers, Tony

Anthony F. Michaels
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tony@proteusenv.com
http://proteusenv.com

# TRANSCRIPT OF THE JANUARY 13, 2011 PUBLIC SCOPING MEETING

ORIGINAL

IN RE THE MATTER OF CITY )
DOCK NUMBER 1, MARINE )
RESEARCH CENTER PROJECT, )
LOS ANGELES HARBOR DEPARTMENT, )
SAN PEDRO, CALIFORNIA. )
)

Transcript of the Public Scoping Meeting
Thursday, January 13, 2011
San Pedro, California

**SNYDER HEATHCOTE INC.**

**REPORTED BY** Jamie L. Apodaca, CSR #10990.

**OUR FILE NO.**

**OFFICIAL COURT REPORTERS**
**3055 WILSHIRE BOULEVARD**
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**LOS ANGELES, CA 90010**
**TELEPHONE (213) 388-2151**

IN RE THE MATTER OF CITY )
DOCK NUMBER 1, MARINE )
RESEARCH CENTER PROJECT, )
LOS ANGELES HARBOR DEPARTMENT, )
SAN PEDRO, CALIFORNIA. )
)

Transcript of the public scoping meeting for the City Dock Number 1 Marine Science Center, Los Angeles Harbor Department, held on Thursday, January 13, 2011, at 425 South Palos Verdes Street, San Pedro, California, transcribed by Jamie L. Apodaca, CSR #10990.

MS. GREEN REBSTOCK: Hello. Welcome to the public scoping meeting for the City Dock Marine Science Research Center. I'd like to thank all of you for your patience as we're working with our new security system, but you guys had a chance to enjoy our new lobby coming in.

And I'm going to turn the mic over now to our executive director, Geraldine Knatz, and she's going to give a broad overview about the wonderful vision that we have for this project.

MS. KNATZ: Thank you, Jan.

Happy New Year, everyone. I too also want to apologize for the hassle getting into the building, and I see some of you have the new badges on where you actually have your photo on it, and I guess that that machine must take an awfully long time. So we probably won't use that for future public meetings.

I just wanted to open the meeting and kind of give you a little bit of background about how this project originated and some of the bigger strategies that were kind of at work in the thinking around here that sort of resulted in the idea for this project.

One of the things that we started doing several years ago is trying to look at different areas of the port and see maybe where we had land-use conflicts where we wanted to make changes. You know, it was sort of like playing

dominoes. If we could move all -- some of these around into the perfect spot, where would we like them to be?

And so as we looked on Terminal Island, surprise. We come across the Southern California Marine Institute, which of course has been here for at least 30 years, maybe a little bit longer. Well, actually much longer than that but under different names.

And over here in Fish Harbor and looking at plans and development around there, we thought, "Gee. You know, over here, they might be in the face of future development. Maybe someplace else in the port might be a better spot for them." Right now we've got 11 universities that have facilities that use the facility here in the port, and they are on 1.3 acres, and they have their laboratory and research vessels.

Most people didn't even know Southern California Marine Institute was even a tenant of the Port of Los Angeles because it was very difficult to find them. If you had a child in the Port of Los Angeles Maritime Charter School from the very beginning, the students actually went out there and did some of their science lab work out there before the lab facilities were put into the charter school. But a lot of people didn't know about it.

And so at that point, I happened to talk to the director there and said, "What do you think about maybe

moving out of here and moving to San Pedro?" And I can remember his comment. It was, like, "Well, we've been waiting 30 years for someone to ask us this."

And, meanwhile, over on the San Pedro side, a lot of planning going on on the San Pedro waterfront. And what came out of that master planning process was people's affinity for the warehouses there. One of the concepts in the plan was that this area is no longer destined to be used long-term for cargo handling but that it would be good to adaptively reuse the warehouses and put some other things in there.

So it looked like a prime spot for the Southern California Marine Institue. And they came over and looked at it and thought, "Wow. This is pretty fabulous."

So in addition to sort of the strategy of trying to do land-use planning and get the things -- right things in the right spot, there's another strategy going on in the San Pedro waterfront. And as you know, we had brought on consultants to help us with planning the waterfront, particularly going out and finding developers to undertake the Ports of Call development.

And one of the things that consultants said, too, "You've really got to get a lot of activity going along the waterfront to make it really attractive to a developer." So they want to know that people -- a lot of people are going to be down there for various things. So the more activities you

can kind of get underway, the more attractive that would be for the developer. So, of course, you know, that we've got, you know, some activities out there already.

One of the other big things for the San Pedro waterfront is next fiscal year, which begins July, we're going to go to bid on the downtown harbor, start doing that. That's a -- that's a -- you know, kind of a sure indication that we're moving forward with this project, and the developers will see that.

Meanwhile, some of you know we had issued an R.F.P. for warehouses 9 and 10, which are right next to the park on 22nd Street, and there was a lot of publicity about those warehouses, how they might be used. And we recently had developers and interested people come down, and we had 17 different groups go on a tour to look at using those warehouses. So that's another thing in close proximity that would bring people down to the waterfront.

And one of the things the Ports of Call developer said -- "Now, that City Dock thing -- if that got going, that would be another thing that would kind of pique their interest because they'd know, gee, there would be a lot more people that are coming down to the waterfront."

So -- and so we're trying to get a number of activities underway, trying to build that critical mass because we want to go forward and do a subsequent R.F.P. to

select a developer to redo Ports of Call, which is sort of one of the crown jewels in the San Pedro waterfront.

So this particular project -- you know, after we talked to S.C.M.I. -- "Gee. Are you interested?" -- scientists came over. They looked at the warehouses and thought, "Oh, my gosh. There's really a lot of space there."

And so we gave the Southern California Marine Institute a planning grant, and it was matched by the Annenberg Foundation. And a couple of people that were very involved in undertaking that visioning study are here. Tony Michaels, the former head of the Wrigley Institute -- he was, you know, one of the people we first met with. And it was Tony that said, "Oh, there could be business components and educational components -- all of these great things that could be there." Dr. Jim Fawcett, who was part of the team that worked on the visioning study. Larry Allen, who is the current executive director of Southern California Marine Institute. And so they all came together, did a lot of outreach in the community, and they produced a visioning study.

And so from that visioning study, this project description has been crafted, and we're now to the stage of kicking off the public process to undertake the environmental impact report. And as you'll see in this project, a lot of

different components. It's not just -- it's moving S.C.M.I., allowing them to expand; promoting research as a use in the harbor that takes advantage of the fact that this is a peninsula surrounded by water, deep water.

We sort of boldly in our planning decided, gee, wouldn't it be great if NOAA, the agency that has everything to do with sea-level rise and climate and the oceans, had some presence in Los Angeles? They don't. So we just said, "Oh, there's space. We'll just stick their logo on this." And then we went back to Washington and said, "Oh, you know. Did you ever think of coming to L.A.?"

And they, you know, came out, and they looked at the site and looked up and down our main channel and said, "Los Angeles -- we never thought about being here. But now they asked, we're kind of interested."

And so, actually next week, I'm going back to Washington to meet with the NOAA administrator because, hey, this is something really cool. There's space for a business component and educational facilities -- you know, programs for K to 12; research programs for graduate students; classes being taught there; community college involvement. To us, it's a place where all -- everyone comes together to really take advantage of what could be there.

But a key component in our waterfront is the promenade all the way around it, because it will be another

thing for people that are walking along that eight miles in San Pedro, is "Oh, let me look into this wave tank. Let me look and see what's going on down here. Let me walk past these research vessels because they're kind of neat to look at." So that was the vision.

We actually got into the wave-tank idea, and after looking at wave tanks around the world and interacting with the researchers, we learned that the three pre-eminent scientists who study ocean waves happen to all be located in the United States, and one of them lives in the L.A. area.

And one of the things we learned is that, gee, all the wave tanks where researchers study use artificial sea water. But in this location, you have the opportunity to use real sea water, and waves behave, from my understanding from the scientists, differetly with real sea water.

So if that component was part of it, that could make this research facility something that would draw researchers from around the world who would want to come here and use that tank for research for things like sea-level rise and tsunami and rogue waves and all of that other cool stuff.

So that's kind of a little bit of the background -- you know, how we sort of got to where we are now. So this is the start of kind of our second public process after the outreach for the visioning to kick off the environmental process.

And so I'm going to turn it over to Jan, who is our project manager, and she's going to tell you a little bit more about the project.

MS. GREEN REBSTOCK: Great. Thank you, Geraldine.

And I also wanted to take this opportunity to highlight some of the other staff faces that you're going to see associated with this project over the next year.

So we have Barb Garrett here.

If you want to stand up, Barb.

She's the project lead for the port.

And we also have Adrienne Fedrick, who is the project engineer who is going to be working with me through the environmental review process, and we'll all meet again this summer once we've drafted the draft E.I.R.

So tonight we're going to -- I'm going to give you a broad overview of the CEQA process that we're about to embark on. Adrienne will give you a description of the project a bit further, and then we're -- participation will be if you choose. You can come up here and provide public comment. You'll have three minutes to say whatever you like -- you know, your concerns about the scope of the environmental review, support of the project, you know, and so forth.

If you'd like to speak, please fill out a comment card. They are at the front of the room. And please make sure you sign in so we can track attendance for the meeting

and make sure that you're on the mailing list.

And then I'll give a final summary of kind of what we've heard, and then we'll move forward.

Okay. So the purpose of our meeting this evening is just to identify for you that the Port of Los Angeles is serving as the lead agency in the envionmental review process for this project, and we're going to provide you some more information about the project in a bit more detail. And this process will help us assist the environmental issues that need to be looked at in the review, any mitigation measures that can be identified to reduce environmental impacts and alternatives that need to be considered. And we invite you to participate in this process with us.

So the objectives of the CEQA process -- the California Environmental Quality Act -- is to disclose any environmental effects that could be created as developing the project, identify how to avoid or reduce those impacts, and how to use mitigation measures, maybe to prevent environmental damage, or alternatives that could reduce those impacts.

And at the end when we are faced with making a decision about the project, you'll have an understanding of what alternatives were chosen or why the proposed project is moving forward. And this also gives us an opportunity to interact with other agencies and enhance your participation

in the decision-making process.

Okay. So tonight we are here -- we've released the notice of preparation, which I hope all of you have received, and if you haven't, there's additional copies at the front of the room. We're having a scoping meeting. All of your comments are being recorded by the court reporter. So if you do decide to come up and make a comment, please speak slowly for her benefit and state your name.

We'll take all of the comments that we have received through the mail, through e-mail, and tonight and take those back and inform what the scope of the environmental review is going to be and then present to you a draft E.I.R., hopefully this summer. And then we'll meet back here in this room most likely and talk about some of the findings of the environmental review. And hopefully the end game is to present the Board of Harbor Commissioners with a final document at the end of the year.

Okay. So the environmental review process addresses a range of environmental issues. In this particular case, the cultural resources, historic resources are going to be of interest because we are dealing with some historic structures. Obviously air quality is always something that we need to be concerned about here at the port and mitigation measures for reducing emissions associated with the construction activities, the traffic that might be created

through operations of the project. But you can see that there's a range of environmental issues that are going to be looked at.

And with that, I'm going to turn it over to Adrienne, who is going to give you some more detail about the project.

MS. FEDRICK: I'm going to speak from up here if that's okay.

So, again, I'm Adrienne. I'm the project engineer, and I'll be speaking to you about the project objectives and the project elements.

So as you can see on this aerial, S.C.M.I. is currently located on Terminal Island at berth 260, and the proposed project would be in San Pedro at the corner of 22nd Street and Signal Street and will encompass berth 56 through 60 and berth 70 and 71.

The existing S.C.M.I. facilities, just as I mentioned before, are located on Terminal Island. This area is obviously constrained for space and depth. They only have 1.3 acres, and they're fitting 11 universities doing research here. They have their building here, which is an old building and it's been there 30 years; and they have their machine shop, warehouse, storage, parking lot, small-boat storage, lab, offices, and docks all crammed into 1.3 acres.

So the proposed project location -- again, as I

mentioned before, on 22nd Street and Signal Street -- it has a total area of 28 acres. So this is very exciting for S.C.M.I. And for the San Pedro waterfront E.I.R., this rendering shows that City Dock will be a part of the San Pedro waterfront, or within the vicinity.

The proposed project -- Geraldine did a great job of introducing the project; so this is -- the main City Dock vision is to become home to a thriving cluster of university researchers, educational facilities, and spin-off technology ventures seeking to solve problems, create jobs, and improve the quality of life in Los Angeles.

The main project objectives: City Dock -- we hope to construct a world-class marine institute at berth 56 through 60 and 70 and 71 with state-of-the-art facilities. The research here will involve climate change; robotic and remote sensing of oceans and habitat; fisheries; marine resource conservation and management as well as several other studies. I just wanted to mention a few.

The main objective here is to replace S.C.M.I. from berth 60 at Terminal Island to a location that allows for expanded capabilities. We hope to provide dock space for small and large vessels. We have enough space to have 300-foot vessels, or even larger.

Continuing with the project objectives, City Dock will provide public amenities, including public education

classroom space and interpretive exhibits related to marine-related research studies. Also, as Geraldine mentioned, this will provide a continuous waterfront promenade, as approved in the San Pedro waterfront project.

And the most exciting part of this project, I think, is to construct the world's largest salt-water wave tank where we can study tsunamis, rogue waves, and different types of wave energy; and then, lastly, to provide a location for marine-related businesses, to provide a synergy among research and commercial interests for such uses as aquaculture, sustainable energy production, and marine exploration.

This is the proposed site plan. I'll go into this a little bit further on the next few slides, but I just wanted to get you acquainted with the site. So -- I know it's kind of hard to see this pointer, but here at berth 56 will be a new building. Currently at berth 57 is an existing transit shed, or warehouse. Berth 58 through 60 is another huge warehouse, basically three into one. And then the project also encompasses the old former Westways terminal, which is at berth 70 and 71.

So the first project element -- this rendering here is zoomed in of berth 56 and 57. This will be the first phase of the project, which I'll show later on in the phasing slide. But this involves recollecting S.C.M.I. from Terminal

Island to this facility, the warehouse at berth 57 and the new building at berth 56. The project also will include demoing the current S.C.M.I. facility and restoring it back to its original condition. This will include a large wharf retrofit of berth 57 to bring the wharf up to seismic code and make it safe for all who enter.

The main idea of the project is to do adaptive reuse so we can save the old historic buildings and build out inside different classrooms and research facilities and make it look like a really great modern facility.

And lastly, within berth 56 -- which is the orange part here, if you can see here -- this will be new facilities for a 150-seat auditorium and a lecture hall, and then it will have two classrooms inside -- two indoor classrooms and one outdoor classroom.

Next we move on to berth 58 through 60. So this warehouse is 180,000 square feet. So it's actually about four acres. So it's a huge building; so there's lots of space in there. So part of the project elements on this part is to retrofit the wharf as well as same as berth 57 -- do all the seismic upgrades and next do adaptive reuse of the transit shed inside to have research labs and all different teaching labs and classrooms and graduate student cubicles.

And here is a zoomed-in picture, if you can see. This is just basic from the visioning study, but we've

done -- S.C.M.I. has done some programming space here.

And then lastly at berth 59 and 60 are spaces allotted for marine research businesses that could be associated.

Moving on to the main channel side, the former Westways terminal, which is in the process of being demoed -- demolished -- this will be the new site for the largest wave tank in the world as well as hopefully NOAA coming to the Port of L.A. This site actually provides 70 lineal feet of docking space, and the wharf is in very good condition. So -- the 80,000 square foot wave tank is, in volume, 36,000 cubic yards.

And my last slide will be phasing. So Phase I for the project is, as you read in the N.O.P., 2012 to 2016, and it will involve berth 57, S.C.M.I. relocation; the berth 56 new building with the lecture hall and classroom space; and a public plaza at berth 57.

Phase II is everything that you see in magenta here, which includes the berth 58 through 60, 180,000 square foot building; the business park within the building at berth 59 and 60; Signal Street improvements; the continuous waterfront promenade, as well as the largest wave tank in the world.

And with that, I'm going to turn it back over to Jan.

MS. GREEN REBSTOCK: Thanks. Okay. So another thing we're going to be looking at is alternatives. You've heard Adrienne going into detail about the proposed project, but under CEQA, we also have to look at alternatives to see if they will reduce any of the environmental impacts.

So no project will be looked at where S.C.M.I. stays in its current location. The Westways terminal will be demoed because that was analyzed under another project; so that will move forward, but everything else would stay in its existing condition.

Under the reduced project, you'll see S.C.M.I. relocate to berths 57 and 58, but the Westway -- the development proposed for the Westway terminal for future development would not occur and a new building at berth 56 would not occur.

And then under the third alternative under consideration right now would be demolishing the buildings at 57 through 60 with new construction happening.

So, you know, we welcome your comments on the alternatives, any new alternatives that you would like to propose for us to consider through the environmental review process.

And, again, we'd love to take your comments tonight. You can also send written comments in. They're due at the end of the month, January 31st, or you can also send an

e-mail to ceqacomments@portla.org.

I have received a few comment cards; so we're going to go ahead and get started on the public-comment process. So I'm going to call your name, and I'll call them in twos. So if one person can kind of queue up behind the other and please state your name for the court reporter before you make your comment. You will have three minutes, and there's a little light stick here. So when it hits red, that's when you need to end your turn.

So with that, the first person I'm going to call is Herb Zimmer.

MR. ZIMMER: Are we going to face that way, go up, or what do you want to do, Jan?

MS. GREEN REBSTOCK: You can make your comment there, and I'll stand up here so you don't feel like you're talking to yourself.

MR. ZIMMER: Hi, Jan.

Okay. My name is Herb Zimmer. The Port of Los Angeles is to San Pedro's communities one of our greatest assets, and we need to capitalize on that fact at every opportunity if we want to become an economically, environmentally, and socially sustainable community.

So I have to praise the port management for their vision and efforts over the last three or four years in crafting, first, the waterfront development project and,

second, for joining with the community in founding PortTech L.A., which is a non-profit corporation bringing companies to the harbor area that will create jobs and develop new technologies to clean the air, create new energy sources, secure the port, and reduce negative effects on surrounding communities.

Closer?

MS. GREEN REBSTOCK: Please.

MR. ZIMMER: Okay. Now we're going to add to that list the proposed marine research center. As we've recently, experienced with the economic recession, our mainstay industry, international trade, sharply declined and the number of jobs related to cargo movement declined with it. That had a real negative affect on San Pedro's work force and on the community. Thankfully, it's once again showing signs of improving, but being so dependent on just one industry is not a path to community sustainability.

And that's the reason that the diversification represented by the waterfront redevelopment, PortTech L.A., and now the marine research center is so important. It will add well paid, scientific, technical jobs to the mix of longshore, tourism, and manufacturing jobs represented by the other waterfront and maritime industries.

The proposed center's environmental benefits are obvious. Researching how a lush marine environment, a large

industrial port, and a large population center like Los Angeles interact in an era of global warming is an extremely important study, and it sets us on the path to becoming the world center for such research and attracting the world's best scientists to San Pedro.

The center will also add great value to our community's social environment through well paid jobs and provide a career ladder for local high school students studying marine science at the Port of L.A. High School and San Pedro High School.

Just as any good investment adviser would tell a client, diversification is the key to long-term profitability, and additionally, this project has an excellent triple bottom line -- that is, that it profits the community in all three areas -- economically, environmentally, and socially.

So representing the San Pedro Chamber of Commerce, PortTech L.A., and myself as a downtown business owner, I fully endorse the proposed marine research center and will advocate for its swift completion.

Thank you, Jan.

MS. GREEN REBSTOCK: Thank you, Herb.

MR. ZIMMER: You can have that (indicating).

MS. GREEN REBSTOCK: We're going to have Nancy Richardson, then, followed by Dominick Miretti.

MS. RICHARDSON: My name is Nancy Richardson, and I'm speaking from my local dedication to the L.A. Maritime Institute, Topsail Youth Program, and also from decades-long experience -- excuse me -- with marine education on tall ships nationally and internationally.

Expanded education programs under sail would support marine education and research in innovative ways. We offer the unique educational synergy of the sailing ship, a tradition with a future, and value-added key to the success of this dynamic endeavor. Any of our ships -- in fact, we are the only twin brigantines in the world, Irving Johnson and Exy Johnson -- could add up to shipboard offerings from City Dock number 1.

In the face of today's economic challenges, collaborations that will fully utilize our ships will multiply positive outcomes for all concerned. LAMI-TYP's emphasis has been on meeting the needs of at-risk youth, especially middle school students, half of whom say they've never seen the ocean. Sailing tall ships, we know, is good for youth of all ages.

I'd like to suggest that we would all benefit from forming a working group of other experiential marine education organizations, including those with tall ships, to explore ways to collaborate with the programs at the marine research center, both as contributors and as customers.

We could add such groups -- Southern California groups with ships as the L.A. Maritime Institute; Ocean Institute, with the Spirit of Dana Point and Pilgrim; Totally More (phonetic) out of Long Beach; Seaward, which comes through here from their home port in San Francisco; Robert C. Seamans, which is actually part of the Sea Education Association in California and in San Pedro -- I mean San Diego. We'd be able to add to COSEE West and L.A.U.S.D. and others in the plan, adding such groups as the Southwest Marine Educators and others not yet mentioned in the project plan.

What we can do is provide sailing ships for maritime research center research expeditions that would be fuel-efficient and provide local excursions as well as distant voyages, including on our ships, for example, overnight accommodations for up to thirty, plus eight crew. We could make LAMI ships and crew available as floating laboratories under sail to complement shoreside classes.

We could offer things like marine-life observations, data gathering, and census-taking in harbor and offshore sites, because we're out there all the time with kids and could gather data. We would offer green -- or I guess if we're talking about the ocean -- blue boat operation and maintenance. I think it would be great if we could exchange more "marine education under sail" curricula, and I think

modeling, testing, and interpreting green technology and practices would be a positive.

Sailing ships are a unique, reality-based setting for adventure education, a natural fit for the new marine research center. We build better sailors, sailing through life skilled and safe; better shipmates, responsive and responsible, getting along with and valuing diversity; and better stewards, competent and committed to making the world a better place. Obviously, we're for it.

MS. GREEN REBSTOCK: Thank you.

Dominick Miretti? You're next.

And he will be followed by Ed Kaufman.

MR. MIRETTI: Thank you for the opportunity to speak this evening. I'm Dominick Miretti, a member of the International Longshore and Warehouse Union, Local 63, and the union's liaison to the ports of San Pedro Bay.

The I.L.W.U. has expressed its interest and support for the City Dock 1 Marine Research Center project during its early inception, and our interest and support continues. The academic, research, and educational component of the project, we believe, will benefit our local schools, colleges, and universities and will generate student interest in pursuing careers in a variety of scientific disciplines.

Always interested in job creation, the I.L.W.U. sees the project offering technology venture opportunities and its

business component as a means of creating a variety of new jobs for our local area. Those of us who work the docks and live in the harbor community hope that the National Oceanic and Atmospheric Administration will become a key player in the City Dock 1 project. Their presence could provide us with a greater understanding of our oceans and atmosphere and the role they might play in climate change.

Aside from my duties as a marine clerk, I am also chairman of the Earth Science Department at East Los Angeles College, and as such, I can assure you that the Los Angeles Community College District, which includes nine colleges and upwards of 150,000 students, is very interested in and supportive of the City 1 Maritime Research Community project.

Presently, the Los Angeles Community College District is implementing plans to become a part of a consortium of colleges and universities that will house the City Dock research and educational facilities. I have discussed in the past with the port of Los Angeles the possibility of expanding City Dock's scope to include issues dealing with economic and environmental sustainabilities. This is an important research and educational component for both growing and greening our ports.

Most seem to agree that the City Dock project will be a great benefit to our community. The I.L.W.U. and the Los Angeles Community College District wish the project

success, and we hope to play an important role in its development, implementation, and use. Thank you.

MS. GREEN REBSTOCK: Thank you.

We have Ed Kaufman, followed by Robert Gelfan.

MR. KAUFMAN: Hello. Good evening, everyone. This will be real interesting. I'm not used to public speaking.

My name is Ed Kaufman. You would probably know me through my editorials which appear in the local paper quite often, and I don't know if Geraldine is still here, but they're usually in opposition to you. So --

The only thing I'd like to say tonight is the most important thing you heard tonight was when Geraldine said she met with developers and they suggested that perhaps if they saw a little activity here at the port, they'd be more interested in coming here.

Now, let me tell you, I know S.C.M.I. I love S.C.M.I. If you don't know it, they do some of the best environmental work that is being done right now. They're fantastic people. But they're a research institute. They're not what developers want to see. Developers want to see things like West Marine, an Outback restaurant -- things that are more retail-oriented.

Now, having said that, I will say this: I jumped to conclusions. I really didn't realize exactly where this institute is going to be put, and I notice -- I think it's

right across from a tank farm. So I'm not sure what kind of retail could go here. You know, I'd have to discuss that with the Harbor Commission.

But my main point of being here tonight -- and I'm surprised that the I.L.W.U. and some of the dock workers here support this project, saying it's going to bring more jobs. It's not going to bring more than 40 or 50 jobs, and I will point out that last week, this commission turned down a project which would have brought 2,500 union jobs to this city.

So I guess -- I'm not putting this project down. I'm going to have to really go look at the site. I'll have to admit that I wasn't familiar with where it's going, but I think when somebody is in Los Angeles and wants to come to San Pedro, they really don't want to look at wave pools and research. This to me is mainly a project for students, which is great, but I think S.C.M.I. is where it's at because that is an industrial area. I see this as a retail area, and I guess that's mainly what I have to say here tonight. So thank you.

MS. GREEN REBSTOCK: Okay. Thank you.

Next would be Robert Gelfan, followed by Jesse Marquez.

MR. GELFAN: Hi there. I'll introduce myself as Dr. Robert Gelfan because I'm a molecular biologist and have

an interest in this subject and at one time in my life, even spent some time working at Woods Hole marine biology laboratory working with the horseshoe crab.

A very preliminary part of this project was presented to our neighborhood council, Coastal San Pedro Neighborhood Council, I think a few years ago, and it received a rousing welcome. We said, "Geraldine, we love it." And the only comment made at the time was it should probably be about four times bigger, and what I see here tonight looks probably about ten times bigger than that original schema. So I think you have got the right idea.

I'll simply point out that -- a couple of things, first of all. I think Harbor-UCLA/L.A. Bio-Med might like to have a little piece of this action too, and I just heard from the community colleges, who have lots and lots of students and almost nowhere to put them.

When you design research laboratories, the design is considerably different from, let's say, a business building or an office building like this. I mean, for example, almost every room has to have access to flowing deionized water. You don't think about that. So what I'm thinking is that you probably did invite a designer who is involved in design of research facilities. You should be willing to carefully criticize and evaluate this and possibly revise it several times in order to make it just right.

And as for whether people come down to San Pedro as tourists to go to the latest Denny's or to see something really different like a container ship or a world-class research institute, I think would take quite a bit of thinking. Thank you.

MS. GREEN REBSTOCK: Thank you.

So Jesse Marquez is going to be followed by Diane Nave.

MR. MARQUEZ: Thank you for this opportunity. My name is Jesse Marquez. I am a lifetime Wilmington resident. I'm also a father of three children and a harbor resident. I will also be speaking as an executive director of the Coalition for Safe Environment. And the reason I'm stating it that way is when I filed a lawsuit against the port last year, the port made a motion to dismiss my court case because I did not state I was a resident of the harbor or of Wilmington.

As you well know, I serve several purposes in my organization, and that is evaluating environmental impact reports and project proposals; so I do that in depth. I always try to look at positive signs in terms of marine research. I'd like to state for the record, since 2001, our organization was one of the first to request and recommend that port property be allocated for marine research institutes and things of that nature, and I'm glad to see

that on our tenth anniversary this year, it's now coming to pass.

Over the years I've been able to have opportunity to meet with many companies with newly emerging technologies. So I'm one of the great advocates for innovation and in support of technologies. So that is the nice side of my hat.

On the other side, however, I must also look at the potential dangers and hazards of project proposals. So I'm going to state certain things which are my request and recommendations, and then the second part will be examples of why I'm stating what I'm stating in case people are not going to comprehend why I'm bringing up some of these issues.

Number one, I want no military weapons research or biological weapons research and development to be permitted on these sites.

Number two, I want no military weapons or biological support equipment, parts, systems, or software research and development to be permitted at the site.

Number three, I want no research and development that involves any biological DNA, nonreproduction, termination, genetic modification to be permitted at this facility. I want all research that results in a patent will be held in public domain.

Number five, no public patent can be awarded to any one private business enterprise in exclusivity or in

perpetuity.

Number six, I want an annual signed statement by the C.E.O. of each one of these universities and institutes that will occupy this facility that they have not violated any of these previous five requirements.

Number seven, I want an annual report of all the alleged benefits and contributions that will improve my quality of life as well as everyone else's quality of life, that will improve our environment, improve public health, improve our economic situation and our future sustainability.

Now I'd like to give you some examples of why these concerns. Number one, every port in the United States and every U.S. customs office in the United States denies that they're responsible for the West Nile Virus mosquito causing deaths and illnesses of hundreds of residents and children.

Monsanto has created termination seeds that cannot reproduce themselves. So if you want to plant corn and you want to save some of the seeds and plant them in the future, you cannot. They will not allow that to happen. A good example of that is fish have already been genetically modified.

Dolphins have been used extensively by the military, and they have been used in doing weapons and various type of weapons applications which I'm concerned about, which

includes bomb detection, carrying of weapons, carrying of other type of instrumentation. And we talk about the wave-generating machine. Well, they can also stick a dophin in that wave-generating machine to see can it achieve its objective.

So these are some of the concerns that I have, and I want to have those addressed and included in the environmental impact report. I'd also like to have them included in the lease agreements.

MS. GREEN REBSTOCK: Thank you, Jesse. That's three minutes. And we'll be happy to receive your letter with the rest of --

MR. MARQUEZ: And I'll just say one last line, and that is people have referred to the economic situation of the United States and our recession. It was the corruption and fraud of Fortune 1000 companies' financial sector that caused it. We the public did not.

MS. GREEN REBSTOCK: Thank you. And we'll have Diane Nave, followed by Liz Johnson.

MS. NAVE: Good evening. I'm Diane Nave. I'm the president of the Northwest San Pedro Neighborhood Council, and I'm speaking in that capacity.

Our neighborhood council is very excited about this project, and we think that it has the potential to be a real game-changer for our community. But with that said, we do

have three comments that we would like to submit for consideration with regards to the scope of the E.I.R.

The first one I think several other people have talked about, and that is that the E.I.R. should discuss incorporating linkages to local youth and education programs. Okay. The City Dock 1 project should be viewed as an opportunity to engage the youth and the community in marine science and scientific method.

The second comment is that we would like to see it evaluate linkages to the community itself so that it does not become an enclave in and of itself. And so linkages such as the connectivity to the Red Car -- how do we connect it and involve the people who are working there in the day-to-day life of the community? And we recommend that it include the waterfront walkway enhancement that are similar or the same as those that have been approved as a part of the L.A. waterfront plan.

Our final comment relates to the former Westways facility and the current status of the site. And I believe I understand now that everything is being removed already from there. So that was the first part of our comment, was we wanted to make sure that everything got removed no matter what else happens.

And then as a part of the E.I.R. to actually look at the future of the Westways site and how it fits into the

waterfront plan, should the City Dock 1 project for some reason not occur so that this E.I.R. takes care of that property even if this project doesn't go forward. And that's our last one. Thank you very much.

MS. GREEN REBSTOCK: Thank you.

And next up is Liz Johnson, followed by our last speaker for the evening, which will be John Schafer.

MS. JOHNSON: Hello, Jan.

My name is Liz Schiller-Johnson, and I run Grand Vision Foundation, a nonprofit organization in downtown San Pedro, and I've been very involved with the overall revitalization of downtown San Pedro. I care very much about that and very much about the role of the port in creating jobs and invigorating our community.

This seems like a really exciting project. I think there's very few people that would be, you know, against the concept of bringing education and educators and top-level scientists and expanding a -- growing a much needed -- giving a much-needed expansion to a very small facility that has probably been doing amazing work but in some sense is hobbling along because of its constraints. So of course I came tonight because I'm really for it, and I believe that any type of expansion of education makes a community richer and better and more desirable.

Couple small comments. One is that it does seem

like a bit of a distant outpost, and in your future meetings and in your explanation -- further development explanation of the project, can you do more to help us understand how it won't be a separate enclave and how the people involved will be more connected to our community?

Also -- so what Diana was talking about, about linkages -- let's build those in. Let's not make those afterthoughts. And I can't say tonight what those are, but I'm sure smarter people and people who have more experience with how to blend an educational institution with a community can do that.

And if this doesn't -- I don't fully understand it; I don't pretend to -- but I believe this sounds like a very big gift of a -- I don't want to misinterpret it, but it does seem like a gift of public land and public dollars to private or possibly public universities. But in some way, it is a gift. I don't -- and as it should be.

But at the same time, since it is a gift from the citizens of California, it should in some sense give back in more than possibly just the overall good that education provides, and maybe it can give back to our community specifically. And there could be ways that we can connect the people -- maybe the people who work there need to live in our community and need to buy houses in our community and patronize our shops. And maybe there's more to it than that.

And just finally, I think what's really important -- and it sounds really superficial -- but we just don't want to have it be so isolated that if you come to visit, there's nothing to do. So let's make sure there is at least a small cafe on the property. Let's make sure that your zoning and your regulations don't prevent that or require endless security. Let's make sure that people can come and see our giant wave-maker and understand what's good about it and what's important. Thank you.

MS. GREEN REBSTOCK: Thank you.

And, John, you get the last word.

MR. SHAFER: Yeah. My name is John Schafer. I'm a San Pedro resident and business manager of the Piledriver's Local 2375. I just wanted to comment, particularly hearing the other comments, regarding jobs and also the importance of research that goes through there.

Just to provide historical context, I guess at first, 106 years ago -- or 107 years ago now with the new year, the origins of our Piledriver's Local 2375 began in San Pedro in 1904. And we had -- we're accused of bombing the L.A. Times some time ago, and so we had to change it. Went to the Piledrivers Local 2375 in 1923.

In 1928 my grandfather joined the local. Came from Santa Barbara to work on developing Terminal Island. And he had two sons who both went to Todd Shipyard when they got out

of high school and then to the piledrivers.

My dad and his kids all became piledrivers, but my uncle -- I wanted to point out for the research -- my dad and my uncle were piledrivers, and they -- my uncle and them built Hyperion --

So we're talking about 50, 60 years ago. I forgot the date. A little while ago.

-- and he went on to research because he loved the marine environment, fishing, all this other stuff, and he captained the boat that studied the marine biology effects of what was going on with Hyperion.

His sons -- one became a marine biologist who did one of the first comprehensive studies of the effects of pollution and so forth on the outer harbor and the immediate coastline. His other son now captains the boat for Hyperion, and we have worked on projects up and down, as have my members, throughout the coast and throughout particularly the Port of L.A. and the Port of Long Beach.

As you know, through the environmental review process and lawsuits and politics and so forth, there hasn't been much activity down in the port area, particularly in the Ports of Call area -- lot of consultants, lot of lawyers and what have you, but not much activity as far as the construction, although now with China Shipping and Rowe Marine (phonetic), many of my members are working right now.

This is a tremendous opportunity for people who care about the marine environment, not only building the state of the art facilities, but also the studies and the jobs that are created from the technology.

We also represent hardhat divers, and we were talking to the PortTech group regarding wave-energy possibilities. So we look forward to working with the port and with whoever ends up being selected to inhabit this facility in creating jobs and opportunities to be stewards of the marine environment. Thank you.

MS. GREEN REBSTOCK: Thank you.

So just a couple of things I want to respond to. Hopefully this will help clarify how this project is related to the overall San Pedro waterfront project. In that document, we did assess the demolition of the Westways terminal. So that would move forward regardless of whether this project got approved or not. This is really looking at the future development of that site.

It also assumes that the Red Car extension down to warehouse 1 gets built and the Promenade. So you've heard a little about those physical linkages and connections that you were -- those will be maintained within the overall scope of the waterfront development.

You also heard some comments tonight about how this project fits in with the port sustainability goals and

diversification of port operations and connections with other educational facilities here. And so feel free to continue to give us our comments.

And we do have the court reporter here. We're going to be posting a transcript of the meeting on our Web site along with the presentation. If you continue to like to look at that and get your comments in to us by the 31st, and we'll see you again in the summer. Thank you.

MS. KNATZ: Jan, I thought there was a cafe in the plans.

MS. GREEN REBSTOCK: There is. Thank you. I did want to highlight that. We are including a cafe. Thank you.

(Whereupon the proceeding was adjourned at 7:19 P.M.)

STATE OF )
) SS.
CALIFORNIA )

I, Jamie L. Apodaca, Certified Shorthand Reporter qualified in and for the State of California, do hereby certify:

That the foregoing transcript is a true and correct transcription of my original stenographic notes.

I further certify that I am neither attorney or counsel for, nor related to or employed by any of the parties to the action in which this proceeding was taken; and furthermore, that I am not a relative or employee of any attorney or counsel employed by the parties hereto or financially interested in the action.

I further certify that I am not interested in the event of the action.

IN WITNESS WHEREOF, I have hereunto set my hand this 24th day of January, 2010.

Jamie L Apodaca
CSR No. 10990

# B

# AIR QUALITY AND GREENHOUSE GAS EMISSION CALCULATIONS

**Table C.1** **Construction Schedule**

| CITY DOCK NO. 1 | ID | Start Year | Duration (days) | Duration (months) | 2011 | | 2012 | | 2013 | | 2014 | | 2015 | | 2016 | | 2017 | | 2018 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Environmental Assessment (EIR/EA) | | 2011 | | 12 | | | | | | | | | | | | | | | |
| ***PHASE 1*** | | | | | | | | | | | | | | | | | | | |
| **BERTH 56 BUILDIN(** | | | | | | | | | | | | | | | | | | | |
| Construction (New Building) | 1a | 2015 | 464 | 18 | | | | | | | | | 1 | 1 | 1 | | | | |
| **BERTH 57 (POLA** | | | | | | | | | | | | | | | | | | | |
| Construction (Wharf, Ground Improvements, and Transit Shed) | 1b | 2014 | 464 | 18 | | | | | | | | 1 | 1 | 1 | | | | | |
| Construction (Floating Dock, Public Plaza, Signal Street) | 1c | 2014 | 464 | 18 | | | | | | | | 1 | 1 | 1 | | | | | |
| Construction (Promenade) | 1d | 2015 | 155 | 6 | | | | | | | | | | 1 | | | | | |
| **BERTH 57 (SCMI)** | | | | | | | | | | | | | | | | | | | |
| Building Interior Construction | 1e | 2016 | 310 | 12 | | | | | | | | | | | 1 | 1 | | | |
| ***PHASE II*** | | | | | | | | | | | | | | | | | | | |
| B260 Demo (SCMI Building Demo) | 2a | 2017 | 464 | 18 | | | | | | | | | | | | | 1 | 1 | 1 |
| **BERTHS 58-60 (POLA)** | | | | | | | | | | | | | | | | | | | |
| Construction (Wharf, Ground Improvements, Transit Shed) | 2b | 2019 | 464 | 18 | | | | | | | | | | | | | | | |
| Construction (Pump Station) | 2c | 2019 | 310 | 12 | | | | | | | | | | | | | | | |
| Construction (Promenade) | 2d | 2020 | 155 | 6 | | | | | | | | | | | | | | | |
| **BERTH 58-60 (Tenant)** | | | | | | | | | | | | | | | | | | | |
| Building Interior Construction; Temporary NOAA facility | 2e | 2020 | 310 | 12 | | | | | | | | | | | | | | | |
| **Westways** | | | | | | | | | | | | | | | | | | | |
| Construction (Berths 70-71 NOAA Building and Wave Tank) | 2g | 2023 | 464 | 18 | | | | | | | | | | | | | | | |
| ***BASELINE*** | | | | | | | | | | | | | | | | | | | |
| Berth 56 - CDFG Buiding | 5 | 2011 | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | |
| Berth 57 - Transit Shed Warehouse | 6 | 2011 | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | |
| Berth 57 - San Pedro Bait Company | 6b | 2011 | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | |
| Berth 60 - Water Taxi | 7 | 2011 | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | |
| Berth 260 - SMCI Facility | 8 | 2011 | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | |
| ***PROPOSED PROJECT*** | | | | | | | | | | | | | | | | | | | |
| Berth 60 - Water Taxi | 7b | 2016 | | | | | | | | | | | | | 1 | 1 | 1 | 1 | 1 |
| Berth 56-57 - Learning Center; SCMI Research Facility | 9 | 2016 | | | | | | | | | | | | | 1 | 1 | 1 | 1 | 1 |
| Berth 58-60 - NOAA Temporary Berths | 10a | 2021 | | | | | | | | | | | | | | | | | |
| Berth 58-60 - Research Facility, Marine Business Park, Water Taxi, Café, Public Plaza | 10b | 2021 | | | | | | | | | | | | | | | | | |
| B70-71 - NOAA Facility, Wave Tank | 11 | 2024 | | | | | | | | | | | | | | | | | |
| San Pedro Bait Company | 12 | 2014 | | | | | | | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

**Table C.1** **Construction Schedule**

| CITY DOCK NO. 1 | ID | Start Year | Duration (days) | Duration (months) | 2019 | | | 2020 | | 2021 | | 2022 | | 2023 | | 2024 | | 2025 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Environmental Assessment (EIR/EA) | | 2011 | | 12 | | | | | | | | | | | | | | | |
| ***PHASE 1*** | | | | | | | | | | | | | | | | | | | |
| **BERTH 56 BUILDIN(** | | | | | | | | | | | | | | | | | | | |
| Construction (New Building) | 1a | 2015 | 464 | 18 | | | | | | | | | | | | | | | |
| **BERTH 57 (POLA** | | | | | | | | | | | | | | | | | | | |
| Construction (Wharf, Ground Improvements, and Transit Shed) | 1b | 2014 | 464 | 18 | | | | | | | | | | | | | | | |
| Construction (Floating Dock, Public Plaza, Signal Street) | 1c | 2014 | 464 | 18 | | | | | | | | | | | | | | | |
| Construction (Promenade) | 1d | 2015 | 155 | 6 | | | | | | | | | | | | | | | |
| **BERTH 57 (SCMI)** | | | | | | | | | | | | | | | | | | | |
| Building Interior Construction | 1e | 2016 | 310 | 12 | | | | | | | | | | | | | | | |
| ***PHASE II*** | | | | | | | | | | | | | | | | | | | |
| B260 Demo (SCMI Building Demo) | 2a | 2017 | 464 | 18 | | | | | | | | | | | | | | | |
| **BERTHS 58-60 (POLA)** | | | | | | | | | | | | | | | | | | | |
| Construction (Wharf, Ground Improvements, Transit Shed) | 2b | 2019 | 464 | 18 | | 1 | 1 | 1 | | | | | | | | | | | |
| Construction (Pump Station) | 2c | 2019 | 310 | 12 | | | 1 | 1 | | | | | | | | | | | |
| Construction (Promenade) | 2d | 2020 | 155 | 6 | | | | | 1 | | | | | | | | | | |
| **BERTH 58-60 (Tenant)** | | | | | | | | | | | | | | | | | | | |
| Building Interior Construction; Temporary NOAA facility | 2e | 2020 | 310 | 12 | | | | | 1 | 1 | | | | | | | | | |
| **Westways** | | | | | | | | | | | | | | | | | | | |
| Construction (Berths 70-71 NOAA Building and Wave Tank) | 2g | 2023 | 464 | 18 | | | | | | | | | | 1 | 1 | 1 | | | |
| ***BASELINE*** | | | | | | | | | | | | | | | | | | | |
| Berth 56 - CDFG Buiding | 5 | 2011 | | | | | | | | | | | | | | | | | |
| Berth 57 - Transit Shed Warehouse | 6 | 2011 | | | | | | | | | | | | | | | | | |
| Berth 57 - San Pedro Bait Company | 6b | 2011 | | | | | | | | | | | | | | | | | |
| Berth 60 - Water Taxi | 7 | 2011 | | | | | | | | | | | | | | | | | |
| Berth 260 - SMCI Facility | 8 | 2011 | | | | | | | | | | | | | | | | | |
| ***PROPOSED PROJECT*** | | | | | | | | | | | | | | | | | | | |
| Berth 60 - Water Taxi | 7b | 2016 | | | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | |
| Berth 56-57 - Learning Center; SCMI Research Facility | 9 | 2016 | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Berth 58-60 - NOAA Temporary Berths | 10a | 2021 | | | | | | | | | 1 | 1 | 1 | 1 | 1 | | | | |
| Berth 58-60 - Research Facility, Marine Business Park, Water Taxi, Café, Public Plaza | 10b | 2021 | | | | | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| B70-71 - NOAA Facility, Wave Tank | 11 | 2024 | | | | | | | | | | | | | | 1 | 1 | 1 | 1 |
| San Pedro Bait Company | 12 | 2014 | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

**Table C.1** **Construction Schedule**

| CITY DOCK NO. 1 | ID | Start Year | Duration (days) | Duration (months) | 2026 | |
|---|---|---|---|---|---|---|
| Environmental Assessment (EIR/EA) | | 2011 | | 12 | | |
| ***PHASE 1*** | | | | | | |
| **BERTH 56 BUILDIN(** | | | | | | |
| Construction (New Building) | 1a | 2015 | 464 | 18 | | |
| **BERTH 57 (POLA** | | | | | | |
| Construction (Wharf, Ground Improvements, and Transit Shed) | 1b | 2014 | 464 | 18 | | |
| Construction (Floating Dock, Public Plaza, Signal Street) | 1c | 2014 | 464 | 18 | | |
| Construction (Promenade) | 1d | 2015 | 155 | 6 | | |
| **BERTH 57 (SCMI)** | | | | | | |
| Building Interior Construction | 1e | 2016 | 310 | 12 | | |
| ***PHASE II*** | | | | | | |
| B260 Demo (SCMI Building Demo) | 2a | 2017 | 464 | 18 | | |
| **BERTHS 58-60 (POLA)** | | | | | | |
| Construction (Wharf, Ground Improvements, Transit Shed) | 2b | 2019 | 464 | 18 | | |
| Construction (Pump Station) | 2c | 2019 | 310 | 12 | | |
| Construction (Promenade) | 2d | 2020 | 155 | 6 | | |
| **BERTH 58-60 (Tenant)** | | | | | | |
| Building Interior Construction; Temporary NOAA facility | 2e | 2020 | 310 | 12 | | |
| **Westways** | | | | | | |
| Construction (Berths 70-71 NOAA Building and Wave Tank) | 2g | 2023 | 464 | 18 | | |
| ***BASELINE*** | | | | | | |
| Berth 56 - CDFG Buiding | 5 | 2011 | | | | |
| Berth 57 - Transit Shed Warehouse | 6 | 2011 | | | | |
| Berth 57 - San Pedro Bait Company | 6b | 2011 | | | | |
| Berth 60 - Water Taxi | 7 | 2011 | | | | |
| Berth 260 - SMCI Facility | 8 | 2011 | | | | |
| ***PROPOSED PROJECT*** | | | | | | |
| Berth 60 - Water Taxi | 7b | 2016 | | | | |
| Berth 56-57 - Learning Center; SCMI Research Facility | 9 | 2016 | | | 1 | 1 |
| Berth 58-60 - NOAA Temporary Berths | 10a | 2021 | | | | |
| Berth 58-60 - Research Facility, Marine Business Park, Water Taxi, Café, Public Plaza | 10b | 2021 | | | 1 | 1 |
| B70-71 - NOAA Facility, Wave Tank | 11 | 2024 | | | 1 | 1 |
| San Pedro Bait Company | 12 | 2014 | | | 1 | 1 |

**Table C.2 Construction Equipment Utilizatio**

| Phase | Task | Construction Element | ID | Year | Equipment[1] | Source Type | Emissions Location | Fuel | CARB 2011 Assumed Minimum Power (hp)[2] | Power (hp)[3] | Power (kW) | Load Factor[2] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PHASE 1 | BERTH 56 BUILDING | Construction (New Building) | 1a | 2015 | **Construction Equipment** | | | | | | | |
| | | | | | Cranes | construction equipment | onsite | dsl | 250 | 365 | | 0.2881 |
| | | | | | Forklifts | construction equipment | onsite | dsl | 120 | 149 | | 0.201 |
| | | | | | Generator | construction equipment | onsite | dsl | 50 | 84 | | 0.3417 |
| | | | | | Water Truck | construction equipment | onsite | dsl | 250 | 381 | | 0.3819 |
| | | | | | Tractors/loaders/backhoes | construction equipment | onsite | dsl | 50 | 75 | | 0.3685 |
| | | | | | Welding Equipment | construction equipment | onsite | dsl | 0 | 46 | | 0.3417 |

| | | | | | | | | | Truck Capacity (cu.yd) | Volume of Soil Hauled | Miles Traveled (mi/trip) | Idling (min) / trip |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **Vehicle Exhaust** | | | Fuel | | | | |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | vehicle | offsite | dsl | | | 35 | |
| | | | | | Trucks material deliveries - onsite transit exhaust | vehicle | onsite | dsl | | | 0.5 | |
| | | | | | Trucks material deliveries - onsite idling exhaus | vehicle | onsite idlin | dsl | | | | 5 |
| | | | | | Worker vehicles exhaus | worker vehicle | offsite | gas&dsl | | | 30.0 | |
| | | | | | **Fugitive Emissions** | | | | | | | |
| | | | | | Trucks material deliveries paved road dust | fugitive | offsite | dsl | 22 | | 35 | |
| | | | | | Worker vehicles paved road dust | fugitive | offsite | | | | 30 | |

| | | | | | | | | | | Building Footprint (sqft) | exterior&interior | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Architectural coatings | fugitive | onsite | | | 11,500 | 100% | |

| | | | | | | | | | | Total Acres | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Asphalt off-gas | fugitive | onsite | | | 0 | | |
| PHASE 1 | BERTH 57 (POLA) | Construction (Wharf, Ground Improvements, and Transit Shed) | 1b | 2014 | **Construction Equipment** | | | | | | | |
| | | *Wharf Improvements* | | | Rubber tired dozers | construction equipment | onsite | dsl | 250 | 358 | | 0.3953 |
| | | | | | Tractors/loaders/backhoes | construction equipment | onsite | dsl | 50 | 75 | | 0.3685 |
| | | | | | Water Truck | construction equipment | onsite | dsl | 250 | 381 | | 0.3819 |
| | | | | | Cranes | construction equipment | onsite | dsl | 250 | 365 | | 0.2881 |
| | | | | | Dump Truck | construction equipment | onsite | dsl | 250 | 381 | | 0.3819 |
| | | | | | Pile Driving | construction equipment | onsite | dsl | 250 | 381 | | 0.3819 |
| | | | | | Forklifts | construction equipment | onsite | dsl | 120 | 149 | | 0.201 |
| | | *Ground Improvements* | | | Graders | construction equipment | onsite | dsl | 120 | 162 | | 0.4087 |
| | | | | | Excavators | construction equipment | onsite | dsl | 120 | 157 | | 0.3819 |
| | | | | | Jet pump | construction equipment | onsite | dsl | 250 | 500 | | 0.4154 |
| | | | | | Asphalt truck | construction equipment | onsite | dsl | 250 | 381 | | 0.3819 |
| | | | | | Pavers | construction equipment | onsite | dsl | 50 | 89 | | 0.4154 |
| | | | | | Water Truck | construction equipment | onsite | dsl | 250 | 381 | | 0.3819 |
| | | | | | Striper | construction equipment | onsite | dsl | 250 | 381 | | 0.4154 |

**Table C.2 Construction Equipment Utilizatio**

| Phase | Task | Construction Element | ID | Year | Equipment[1] | Number Active[1] | Peak Day Activity | | | Total Activity total operating days |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | hr/day | daily hp-hr | fuel use (lb/day) | |
| PHASE 1 | BERTH 56 BUILDING | Construction (New Building) | 1a | 2015 | **Construction Equipment** | | | | | |
| | | | | | Cranes | 1 | 8 | | 284 | 240 |
| | | | | | Forklifts | 1 | 8 | | 185 | 180 |
| | | | | | Generator | 1 | 4 | | 50 | 90 |
| | | | | | Water Truck | 1 | 4 | | 211 | 300 |
| | | | | | Tractors/loaders/backhoes | 1 | 8 | | 90 | 180 |
| | | | | | Welding Equipment | 1 | 2 | | 13 | 90 |
| | | | | | | Number Active[3] | | trip/day/vehicle | VMT (mi/day)/unit | Idling (hr/day) | total operating days |
| | | | | | **Vehicle Exhaust** | | | | | | |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | 4 | | 8 | 280 | | 120 |
| | | | | | Trucks material deliveries - onsite transit exhaust | 4 | | 8 | 4.0 | | 120 |
| | | | | | Trucks material deliveries - onsite idling exhaus | 4 | | 8 | | | 120 |
| | | | | | Worker vehicles exhaus | 8 | | 2 | 60 | | 120 |
| | | | | | **Fugitive Emissions** | | | | | | |
| | | | | | Trucks material deliveries paved road dust | 4 | | 8 | 280 | | 120 |
| | | | | | Worker vehicles paved road dust | 8 | | 2 | 60 | | 120 |
| | | | | | | | peak day paint rate | | | | |
| | | | | | Architectural coatings | | 25% | | | | |
| | | | | | | | acres/day | | | | |
| | | | | | Asphalt off-gas | | 0.00 | | | | |
| PHASE 1 | BERTH 57 (POLA) | Construction (Wharf, Ground Improvements, and Transit Shed) | 1b | 2014 | **Construction Equipment** | | hr/day | daily hp-hr | fuel use (lb/day) | total operating days |
| | | *Wharf Improvements* | | | Rubber tired dozers | 1 | 4 | | 209 | 90 |
| | | | | | Tractors/loaders/backhoes | 1 | 4 | | 45 | 180 |
| | | | | | Water Truck | 1 | 2 | | 105 | 90 |
| | | | | | Cranes | 1 | 6 | | 213 | 90 |
| | | | | | Dump Truck | 1 | 8 | | 421 | 180 |
| | | | | | Pile Driving | 1 | 8 | | 439 | 60 |
| | | | | | Forklifts | 1 | 4 | | 93 | 90 |
| | | *Ground Improvements* | | | Graders | 1 | 8 | | 181 | 60 |
| | | | | | Excavators | 1 | 8 | | 164 | 60 |
| | | | | | Jet pump | 1 | 4 | | 219 | 60 |
| | | | | | Asphalt truck | 1 | 4 | | 211 | 5 |
| | | | | | Pavers | 1 | 4 | | 48 | 10 |
| | | | | | Water Truck | 1 | 2 | | 105 | 45 |
| | | | | | Striper | 1 | 2 | | 110 | 10 |

**Table C.2 Construction Equipment Utilizatio**

| Phase | Task | Construction Element | ID | Year | Equipment[1] | |
|---|---|---|---|---|---|---|
| | | | | | | fuel use |
| PHASE 1 | BERTH 56 BUILDING | Construction (New Building) | 1a | 2015 | **Construction Equipment** | (lb/yr) |
| | | | | | Cranes | 68,206 |
| | | | | | Forklifts | 33,340 |
| | | | | | Generator | 4,466 |
| | | | | | Water Truck | 63,181 |
| | | | | | Tractors/loaders/backhoes | 16,284 |
| | | | | | Welding Equipment | 1,169 |
| | | | | | | VMT |
| | | | | | **Vehicle Exhaust** | (mi/yr)/unit |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | 33,600 |
| | | | | | Trucks material deliveries - onsite transit exhaust | 480 |
| | | | | | Trucks material deliveries - onsite idling exhaus | |
| | | | | | Worker vehicles exhaus | 7,200 |
| | | | | | **Fugitive Emissions** | |
| | | | | | Trucks material deliveries paved road dust | 33,600 |
| | | | | | Worker vehicles paved road dust | 7,200 |
| | | | | | Architectural coatings | |
| | | | | | Asphalt off-gas | |
| | | Construction (Wharf, Ground Improvements, | | | | fuel use |
| PHASE 1 | BERTH 57 (POLA) | and Transit Shed) | 1b | 2014 | **Construction Equipment** | (lb/yr) |
| | | *Wharf Improvements* | | | Rubber tired dozers | 18,779 |
| | | | | | Tractors/loaders/backhoes | 8,147 |
| | | | | | Water Truck | 9,476 |
| | | | | | Cranes | 19,188 |
| | | | | | Dump Truck | 75,807 |
| | | | | | Pile Driving | 26,332 |
| | | | | | Forklifts | 8,335 |
| | | *Ground Improvements* | | | Graders | 10,883 |
| | | | | | Excavators | 9,830 |
| | | | | | Jet pump | 13,166 |
| | | | | | Asphalt truck | 1,053 |
| | | | | | Pavers | 483 |
| | | | | | Water Truck | 4,738 |
| | | | | | Striper | 1,097 |

**Table C.2 Construction Equipment Utilizatio**

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Rollers | | | | | | | | | |
| | | | | | | construction equipment | onsite | dsl | 50 | 84 | | 0.3752 | | |
| | | | | | Tractors/loaders/backhoes | | | | | | | | | |
| | | | | | | construction equipment | onsite | dsl | 50 | 75 | | 0.3685 | | |
| | | *Transit Shed/Building Construction* | | | Cranes | | | | | | | | | |
| | | | | | | construction equipment | onsite | dsl | 250 | 365 | | 0.2881 | | |
| | | | | | Forklifts | | | | | | | | | |
| | | | | | | construction equipment | onsite | dsl | 120 | 149 | | 0.201 | | |
| | | | | | Tractors/loaders/backhoes | | | | | | | | | |
| | | | | | | construction equipment | onsite | dsl | 50 | 75 | | 0.3685 | | |
| | | | | | Welding Equipment | | | | | | | | | |
| | | | | | | construction equipment | onsite | dsl | 0 | 46 | | 0.3417 | | |
| | | | | | | | | | Truck Capacity (cu.yd) | Volume of Soil Hauled | Miles Traveled (mi/trip) | Idling (min) / trip | | |
| | | | | | **Vehicle Exhaust** | | | Fuel | | | | | | |
| | | *Wharf Improvements* | | | Trucks material deliveries - offsite transit & idling exhaus | vehicle | offsite | dsl | | | 35 | | | |
| | | | | | Trucks material deliveries - onsite transit exhaust | vehicle | onsite | dsl | | | 0.5 | | | |
| | | | | | Trucks material deliveries - onsite idling exhaus | vehicle | onsite idlin | dsl | | | | | | 5 |
| | | *Ground Improvements* | | | Trucks material deliveries - offsite transit & idling exhaus | vehicle | offsite | dsl | | | 35 | | | |
| | | | | | Trucks material deliveries - onsite transit exhaust | vehicle | onsite | dsl | | | 0.5 | | | |
| | | | | | Trucks material deliveries - onsite idling exhaus | vehicle | onsite idlin | dsl | | | | | | 5 |
| | | *Transit Shed/Building Construction* | | | Trucks material deliveries - offsite transit & idling exhaus | vehicle | offsite | dsl | | | 35 | | | |
| | | | | | Trucks material deliveries - onsite transit exhaust | vehicle | onsite | dsl | | | 0.5 | | | |
| | | | | | Trucks material deliveries - onsite idling exhaus | vehicle | onsite idlin | dsl | | | | | | 5 |
| | | *Ground Improvements* | | | Trucks jet grouting haul away - offsite transit & idling exhaus | vehicle | offsite | dsl | | | 35 | | | |
| | | | | | Trucks jet grouting haul away - onsite transit exhaust | vehicle | onsite | dsl | | | 0.5 | | | |
| | | | | | Trucks jet grouting haul away - onsite idling exhaus | vehicle | onsite idlin | dsl | | | | | | 5 |
| | | *Transit Shed/Building Construction* | | | Trucks construction/demolition - offsite transit & idling exhaus | vehicle | offsite | dsl | | | 35 | | | |
| | | | | | Trucks construction/demolition - onsite transit exhaust | vehicle | onsite | dsl | | | 0.5 | | | |
| | | | | | Trucks construction/demolition - onsite idling exhaust | vehicle | onsite idlin | dsl | | | | | | 5 |
| | | | | | Worker vehicles exhaus | worker vehicle | offsite | gas&dsl | | | 30.0 | | | |
| | | | | | **Fugitive Emissions** | | | | | | | | | |
| | | | | | Trucks (all) paved road dust | fugitive | offsite | dsl | 22 | | 175 | | | |
| | | | | | Worker vehicles paved road dust | fugitive | offsite | | | | 30 | | | |
| | | | | | | | | | | Site Acreage | | | | |
| | | | | | Fugitive construction dust - grading | fugitive | onsite | | | 3.55 | | | | |
| | | | | | Fugitive construction dust - soil moving/handling | fugitive | onsite | | | | | | | |
| | | | | | Fugitive construction dust - soil loading/unloading | fugitive | onsite | | | | | | | |
| | | | | | | | | | | Building Footprint (sqft) | exterior | | | |
| | | | | | Architectural coatings | fugitive | onsite | | | 46,500 | 75% | | | |
| | | | | | | | | | | Total Acres | | | | |
| | | | | | Asphalt off-gas | fugitive | onsite | | | 1.65 | | | | |
| PHASE 1 | BERTH 57 (POLA) | Construction (Floating Dock, Public Plaza, Signal Street) | 1c | 2014 | **Construction Equipment** | | | | | | | | | |
| | | *Floating Dock* | | | Cranes | | | | | | | | | |
| | | | | | | construction equipment | onsite | dsl | 250 | 365 | | 0.2881 | | |
| | | | | | Forklifts | | | | | | | | | |
| | | | | | | construction equipment | onsite | dsl | 120 | 149 | | 0.201 | | |
| | | | | | Tractors/loaders/backhoes | | | | | | | | | |
| | | | | | | construction equipment | onsite | dsl | 50 | 75 | | 0.3685 | | |
| | | | | | Derrick Barge | construction equipment | onsite | dsl | 500 | 750 | | 0.4154 | | |
| | | | | | Tugboat (propulsion engine) | construction equipment | onsite | dsl | | 678 | | 0.31 | | |
| | | | | | Tugboat (auxiliary engine | construction equipment | onsite | dsl | | 47 | | 0.43 | | |
| | | | | | Pile Driving | | | | | | | | | |
| | | | | | | construction equipment | onsite | dsl | 250 | 381 | | 0.3819 | | |
| | | *Public Plaza* | | | Cranes | | | | | | | | | |
| | | | | | | construction equipment | onsite | dsl | 250 | 365 | | 0.2881 | | |

**Table C.2 Construction Equipment Utilizatio**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Rollers | | | | | | |
| | | | | | | 1 | 4 | | | 48 | 10 |
| | | | | | Tractors/loaders/backhoes | | | | | | |
| | | | | | | 1 | 4 | | | 45 | 30 |
| | | *Transit Shed/Building Construction* | | | Cranes | | | | | | |
| | | | | | | 1 | 8 | | | 284 | 120 |
| | | | | | Forklifts | | | | | | |
| | | | | | | 1 | 4 | | | 93 | 120 |
| | | | | | Tractors/loaders/backhoes | | | | | | |
| | | | | | | 1 | 4 | | | 45 | 120 |
| | | | | | Welding Equipment | | | | | | |
| | | | | | | 1 | 4 | | | 26 | 90 |
| | | | | | | | | | | | total |
| | | | | | | Number | | trip/day/v | | | operating |
| | | | | | **Vehicle Exhaust** | Active[3] | | ehicle | VMT (mi/day) | | days |
| | | *Wharf Improvements* | | | Trucks material deliveries - offsite transit & idling exhaus | 4 | | 8 | 280 | | 180 |
| | | | | | Trucks material deliveries - onsite transit exhaust | 4 | | 8 | 4.0 | | 180 |
| | | | | | Trucks material deliveries - onsite idling exhaus | 4 | | 8 | | | 180 |
| | | *Ground Improvements* | | | Trucks material deliveries - offsite transit & idling exhaus | 4 | | 8 | 280 | | 45 |
| | | | | | Trucks material deliveries - onsite transit exhaust | 4 | | 8 | 4.0 | | 45 |
| | | | | | Trucks material deliveries - onsite idling exhaus | 4 | | 8 | | | 45 |
| | | *Transit Shed/Building Construction* | | | Trucks material deliveries - offsite transit & idling exhaus | 4 | | 8 | 280 | | 120 |
| | | | | | Trucks material deliveries - onsite transit exhaust | 4 | | 8 | 4.0 | | 120 |
| | | | | | Trucks material deliveries - onsite idling exhaus | 4 | | 8 | | | 120 |
| | | *Ground Improvements* | | | Trucks jet grouting haul away - offsite transit & idling exhaus | 5 | | 10 | 361 | | 60 |
| | | | | | Trucks jet grouting haul away - onsite transit exhaust | 5 | | 10 | 5.2 | | 60 |
| | | | | | Trucks jet grouting haul away - onsite idling exhaus | 5 | | 10 | | | 60 |
| | | *Transit Shed/Building Construction* | | | Trucks construction/demolition - offsite transit & idling exhaus | 1 | | 1.0 | 35 | | 120 |
| | | | | | Trucks construction/demolition - onsite transit exhaust | 1 | | 1.0 | 0.5 | | 120 |
| | | | | | Trucks construction/demolition - onsite idling exhaust | 1 | | 1.0 | | | 120 |
| | | | | | Worker vehicles exhaus | 25 | | 2 | 60 | | 180 |
| | | | | | **Fugitive Emissions** | | | | | | |
| | | | | | Trucks (all) paved road dust | 9 | | 35 | 1,236 | | 180 |
| | | | | | Worker vehicles paved road dust | 25 | | 2 | 60 | | 180 |
| | | | | | | | | | VMT (mi/day) | | |
| | | | | | Fugitive construction dust - grading | 3 | | | 1.03 | | 60 |
| | | | | | Fugitive construction dust - soil moving/handling | | 8 | | | | 180 |
| | | | | | | | cy/day | | | | |
| | | | | | Fugitive construction dust - soil loading/unloading | | 35 | | | | 180 |
| | | | | | | | peak day paint rate | | | | |
| | | | | | Architectural coatings | | 25% | | | | |
| | | | | | | | acres/day | | | | |
| | | | | | Asphalt off-gas | | 0.41 | | | | |
| | | | | | | | | | | | total |
| | | Construction (Floating Dock, Public Plaza, | | | | | | | | fuel use | operating |
| PHASE 1 | BERTH 57 (POLA) | Signal Street) | 1c | 2014 | **Construction Equipment** | | hr/day | | daily hp-hr | (lb/day) | days |
| | | *Floating Dock* | | | Cranes | | | | | | |
| | | | | | | 1 | 4 | | | 142 | 90 |
| | | | | | Forklifts | | | | | | |
| | | | | | | 1 | 8 | | | 185 | 90 |
| | | | | | Tractors/loaders/backhoes | | | | | | |
| | | | | | | 1 | 4 | | | 45 | 90 |
| | | | | | Derrick Barge | 1 | 4 | | | 365 | 60 |
| | | | | | Tugboat (propulsion engine) | 2 | 2 | | 841 | | 60 |
| | | | | | Tugboat (auxiliary engine | 1 | 2 | | 56 | | 60 |
| | | | | | Pile Driving | | | | | | |
| | | | | | | 1 | 4 | | | 219 | 45 |
| | | *Public Plaza* | | | Cranes | | | | | | |
| | | | | | | 1 | 8 | | | 284 | 120 |

**Table C.2 Construction Equipment Utilizatio**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Rollers | | | | 480 |
| | | | | | Tractors/loaders/backhoes | | | | 1,358 |
| | | *Transit Shed/Building Construction* | | | Cranes | | | | 34,112 |
| | | | | | Forklifts | | | | 11,114 |
| | | | | | Tractors/loaders/backhoes | | | | 5,432 |
| | | | | | Welding Equipment | | | | 2,338 |
| | | | | | **Vehicle Exhaust** | total trips/yr | | | VMT (mi/yr) |
| | | *Wharf Improvements* | | | Trucks material deliveries - offsite transit & idling exhaus | | | | 50,400 |
| | | | | | Trucks material deliveries - onsite transit exhaust | | | | 720 |
| | | | | | Trucks material deliveries - onsite idling exhaus | | | | |
| | | *Ground Improvements* | | | Trucks material deliveries - offsite transit & idling exhaus | | | | 12,600 |
| | | | | | Trucks material deliveries - onsite transit exhaust | | | | 180 |
| | | | | | Trucks material deliveries - onsite idling exhaus | | | | |
| | | *Transit Shed/Building Construction* | | | Trucks material deliveries - offsite transit & idling exhaus | | | | 33,600 |
| | | | | | Trucks material deliveries - onsite transit exhaust | | | | 480 |
| | | | | | Trucks material deliveries - onsite idling exhaus | | | | |
| | | *Ground Improvements* | | | Trucks jet grouting haul away - offsite transit & idling exhaus | | 619 | | 21,665 |
| | | | | | Trucks jet grouting haul away - onsite transit exhaust | | | | 310 |
| | | | | | Trucks jet grouting haul away - onsite idling exhaus | | | | |
| | | *Transit Shed/Building Construction* | | | Trucks construction/demolition - offsite transit & idling exhaus | | 50 | | 1,750 |
| | | | | | Trucks construction/demolition - onsite transit exhaust | | | | 60 |
| | | | | | Trucks construction/demolition - onsite idling exhaust | | | | |
| | | | | | Worker vehicles exhaus | | | | 10,800 |
| | | | | | **Fugitive Emissions** | | | | |
| | | | | | Trucks (all) paved road dust | | | | 222,495 |
| | | | | | Worker vehicles paved road dust | | | | 10,800 |
| | | | | | | | | | VMT (mi/yr) |
| | | | | | Fugitive construction dust - grading | | | | 2.440625 |
| | | | | | Fugitive construction dust - soil moving/handling | | | | |
| | | | | | Fugitive construction dust - soil loading/unloading | total volume of soil handled (cy) | 6250 | | |
| | | | | | Architectural coatings | | | | |
| | | | | | Asphalt off-gas | | | | |
| PHASE 1 | BERTH 57 (POLA) | Construction (Floating Dock, Public Plaza, Signal Street) | 1c | 2014 | **Construction Equipment** | | | annual hp-hr | fuel use (lb/yr) |
| | | *Floating Dock* | | | Cranes | | | | 12,792 |
| | | | | | Forklifts | | | | 16,671 |
| | | | | | Tractors/loaders/backhoes | | | | 4,074 |
| | | | | | Derrick Barge | | | | 21,908 |
| | | | | | Tugboat (propulsion engine) | | | 50,443 | |
| | | | | | Tugboat (auxiliary engine | | | 3,335 | |
| | | | | | Pile Driving | | | | 9,874 |
| | | *Public Plaza* | | | Cranes | | | | 34,112 |

**Table C.2 Construction Equipment Utilizatio**

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Forklifts | construction equipment | onsite | dsl | 120 | 149 | | 0.201 | | |
| | | | | | Water Truck | construction equipment | onsite | dsl | 250 | 381 | | 0.3819 | | |
| | | | | | Tractors/loaders/backhoes | construction equipment | onsite | dsl | 50 | 75 | | 0.3685 | | |
| | | | | | Welding Equipment | construction equipment | onsite | dsl | 0 | 46 | | 0.3417 | | |
| | | *Signal Street* | | | Asphalt truck | construction equipment | onsite | dsl | 250 | 381 | | 0.3819 | | |
| | | | | | Pavers | construction equipment | onsite | dsl | 50 | 89 | | 0.4154 | | |
| | | | | | Water Truck | construction equipment | onsite | dsl | 250 | 381 | | 0.3819 | | |
| | | | | | Striper | construction equipment | onsite | dsl | 250 | 381 | | 0.4154 | | |
| | | | | | Rollers | construction equipment | onsite | dsl | 50 | 84 | | 0.3752 | | |
| | | | | | Tractors/loaders/backhoes | construction equipment | onsite | dsl | 50 | 75 | | 0.3685 | | |
| | | | | | | | | | Truck Capacity | Volume of Soil | Miles Traveled | Idling (min) / | | |
| | | | | | **Vehicle Exhaust** | | | Fuel | (cu.yd) | Hauled | (mi/trip) | trip | | |
| | | *Floating Dock* | | | Trucks material deliveries - offsite transit & idling exhaus | vehicle | offsite | dsl | | | 35 | | | |
| | | | | | Trucks material deliveries - onsite transit exhaust | vehicle | onsite | dsl | | | 0.5 | | | |
| | | | | | Trucks material deliveries - onsite idling exhaus | vehicle | onsite idlin | dsl | | | | 5 | | |
| | | | | | Worker vehicles exhaus | worker vehicle | offsite | gas&dsl | | | 30.0 | | | |
| | | | | | **Fugitive Emissions** | | | | | | | | | |
| | | | | | Trucks (all) paved road dust | fugitive | offsite | dsl | 22 | | 35 | | | |
| | | | | | Worker vehicles paved road dust | fugitive | offsite | | | | 30 | | | |
| | | | | | | | | | | Site Acreage | | | | |
| | | | | | Fugitive construction dust - grading | fugitive | onsite | | | 4.9 | | | | |
| | | | | | Fugitive construction dust - soil moving/handling | fugitive | onsite | | | | | | | |
| | | | | | Fugitive construction dust - soil loading/unloading | fugitive | onsite | | | | | | | |
| | | | | | | | | | | Building Footprint (sqft) | exterior | | | |
| | | | | | Architectural coatings | fugitive | onsite | | | 0 | 75% | | | |
| | | | | | | | | | | Total Acres | | | | |
| | | | | | Asphalt off-gas | fugitive | onsite | | | 3.83 | | | | |
| PHASE 1 | BERTH 57 (POLA) | Construction (Promenade) | 1d | 2015 | **Construction Equipment** | | | | | | | | | |
| | | | | | Tractors/loaders/backhoes | construction equipment | onsite | dsl | 50 | 75 | | 0.3685 | | |
| | | | | | Dump Truck | construction equipment | onsite | dsl | 250 | 381 | | 0.3819 | | |
| | | | | | Forklifts | construction equipment | onsite | dsl | 120 | 149 | | 0.201 | | |
| | | | | | | | | | Truck Capacity | Volume of Soil | Miles Traveled | Idling (min) / | | |
| | | | | | **Vehicle Exhaust** | | | Fuel | (cu.yd) | Hauled | (mi/trip) | trip | | |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | vehicle | offsite | dsl | | | 35 | | | |
| | | | | | Trucks material deliveries - onsite transit exhaust | vehicle | onsite | dsl | | | 0.5 | | | |
| | | | | | Trucks material deliveries - onsite idling exhaus | vehicle | onsite idlin | dsl | | | | 5 | | |
| | | | | | Worker vehicles exhaus | worker vehicle | offsite | gas&dsl | | | 30.0 | | | |
| | | | | | **Fugitive Emissions** | | | | | | | | | |
| | | | | | Trucks (all) paved road dust | fugitive | offsite | dsl | 22 | | 35 | | | |
| | | | | | Worker vehicles paved road dust | fugitive | offsite | | | | 30 | | | |

**Table C.2 Construction Equipment Utilizatio**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Forklifts | 1 | 8 | | | 185 | 90 |
| | | | | | Water Truck | 1 | 2 | | | 105 | 45 |
| | | | | | Tractors/loaders/backhoes | 1 | 4 | | | 45 | 45 |
| | | | | | Welding Equipment | 1 | 2 | | | 13 | 45 |
| | | *Signal Street* | | | Asphalt truck | 1 | 4 | | | 211 | 10 |
| | | | | | Pavers | 1 | 4 | | | 48 | 10 |
| | | | | | Water Truck | 1 | 2 | | | 105 | 10 |
| | | | | | Striper | 1 | 2 | | | 110 | 5 |
| | | | | | Rollers | 1 | 4 | | | 48 | 5 |
| | | | | | Tractors/loaders/backhoes | 1 | 4 | | | 45 | 10 |
| | | | | | | | | | | | total |
| | | | | | | Number | | trip/day/v | | | operating |
| | | | | | **Vehicle Exhaust** | Active[3] | | ehicle | VMT (mi/day) | | days |
| | | *Floating Dock* | | | Trucks material deliveries - offsite transit & idling exhaus | 4 | | 8 | 280 | | 60 |
| | | | | | Trucks material deliveries - onsite transit exhaust | 4 | | 8 | 4.0 | | 60 |
| | | | | | Trucks material deliveries - onsite idling exhaus | 4 | | 8 | | | 60 |
| | | | | | Worker vehicles exhaus | 24 | | 2 | 60 | | 60 |
| | | | | | **Fugitive Emissions** | | | | | | |
| | | | | | Trucks (all) paved road dust | 4 | | 8 | 280 | | 60 |
| | | | | | Worker vehicles paved road dust | 24 | | 2 | 60 | | 60 |
| | | | | | | | | | VMT (mi/day) | | |
| | | | | | Fugitive construction dust - grading | 3 | | | 1.03 | | 0 |
| | | | | | Fugitive construction dust - soil moving/handling | | 8 | | | | 120 |
| | | | | | | | cy/day | | | | |
| | | | | | Fugitive construction dust - soil loading/unloading | | 0 | | | | 120 |
| | | | | | | | peak day paint rate | | | | |
| | | | | | Architectural coatings | | 25% | | | | |
| | | | | | | | acres/day | | | | |
| | | | | | Asphalt off-gas | | 0.96 | | | | |
| | | | | | | | | | | fuel use | total operating |
| PHASE 1 | BERTH 57 (POLA) | Construction (Promenade) | 1d | 2015 | **Construction Equipment** | | hr/day | | daily hp-hr | (lb/day) | days |
| | | | | | Tractors/loaders/backhoes | 1 | 8 | | | 90 | 30 |
| | | | | | Dump Truck | 1 | 4 | | | 211 | 30 |
| | | | | | Forklifts | 1 | 4 | | | 93 | 30 |
| | | | | | | | | | | | total |
| | | | | | | Number | | trip/day/v | | | operating |
| | | | | | **Vehicle Exhaust** | Active[3] | | ehicle | VMT (mi/day) | | days |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | 4 | | 8 | 280 | | 25 |
| | | | | | Trucks material deliveries - onsite transit exhaust | 4 | | 8 | 4.0 | | 25 |
| | | | | | Trucks material deliveries - onsite idling exhaus | 4 | | 8 | | | 25 |
| | | | | | Worker vehicles exhaus | 4 | | 2 | 60 | | 25 |
| | | | | | **Fugitive Emissions** | | | | | | |
| | | | | | Trucks (all) paved road dust | 4 | | 8 | 280 | | 25 |
| | | | | | Worker vehicles paved road dust | 4 | | 2 | 60 | | 25 |

**Table C.2 Construction Equipment Utilizatio**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Forklifts | | | 16,671 |
| | | | | | Water Truck | | | 4,738 |
| | | | | | Tractors/loaders/backhoes | | | 2,037 |
| | | | | | Welding Equipment | | | 584 |
| | | *Signal Street* | | | Asphalt truck | | | 2,106 |
| | | | | | Pavers | | | 483 |
| | | | | | Water Truck | | | 1,053 |
| | | | | | Striper | | | 549 |
| | | | | | Rollers | | | 240 |
| | | | | | Tractors/loaders/backhoes | | | 453 |
| | | | | | **Vehicle Exhaust** | total trips/yr | | VMT (mi/yr) |
| | | *Floating Dock* | | | Trucks material deliveries - offsite transit & idling exhaus | | | 16,800 |
| | | | | | Trucks material deliveries - onsite transit exhaust | | | 240 |
| | | | | | Trucks material deliveries - onsite idling exhaus | | | |
| | | | | | Worker vehicles exhaus | | | 3,600 |
| | | | | | **Fugitive Emissions** | | | |
| | | | | | Trucks (all) paved road dust | | | 16,800 |
| | | | | | Worker vehicles paved road dust | | | 3,600 |
| | | | | | | | | VMT (mi/yr) |
| | | | | | Fugitive construction dust - grading | | | 3.3721875 |
| | | | | | Fugitive construction dust - soil moving/handling | | | |
| | | | | | Fugitive construction dust - soil loading/unloading | total volume of soil handled (cy) | 0 | |
| | | | | | Architectural coatings | | | |
| | | | | | Asphalt off-gas | | | |
| | | | | | | | | fuel use |
| PHASE 1 | BERTH 57 (POLA) | Construction (Promenade) | 1d | 2015 | **Construction Equipment** | | | (lb/yr) |
| | | | | | Tractors/loaders/backhoes | | | 2,714 |
| | | | | | Dump Truck | | | 6,318 |
| | | | | | Forklifts | | | 2,778 |
| | | | | | **Vehicle Exhaust** | total trips/yr | | VMT (mi/yr) |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | | | 7,000 |
| | | | | | Trucks material deliveries - onsite transit exhaust | | | 100 |
| | | | | | Trucks material deliveries - onsite idling exhaus | | | |
| | | | | | Worker vehicles exhaus | | | 1,500 |
| | | | | | **Fugitive Emissions** | | | |
| | | | | | Trucks (all) paved road dust | | | 7,000 |
| | | | | | Worker vehicles paved road dust | | | 1,500 |

**Table C.2 Construction Equipment Utilizatio**

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Fugitive construction dust - soil moving/handling | fugitive | onsite | | | | | | | | |
| | | | | | Fugitive construction dust - soil loading/unloading | fugitive | onsite | | | | | | | | |
| | | | | | | | | | | | Building Footprint (sqft) | exterior | | | |
| | | | | | Architectural coatings | fugitive | onsite | | | | 0 | 75% | | | |
| | | | | | | | | | | | Total Acres | | | | |
| | | | | | Asphalt off-gas | fugitive | onsite | | | | 0 | | | | |
| PHASE 1 | BERTH 57 (SCMI) | Building Interior Construction | 1e | 2016 | **Construction Equipment** | | | | | | | | | | |
| | | | | | Forklifts | construction equipment | onsite | dsl | | 120 | 149 | | | 0.201 | |
| | | | | | Tractors/loaders/backhoes | construction equipment | onsite | dsl | | 50 | 75 | | | 0.3685 | |
| | | | | | Welding Equipment | construction equipment | onsite | dsl | | 0 | 46 | | | 0.3417 | |
| | | | | | | | | | | Truck Capacity | Volume of Soil | Miles Traveled | Idling (min) / | | |
| | | | | | **Vehicle Exhaust** | | | Fuel | | (cu.yd) | Hauled | (mi/trip) | trip | | |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | vehicle | offsite | dsl | | | | 35 | | | |
| | | | | | Trucks material deliveries - onsite transit exhaust | vehicle | onsite | dsl | | | | 0.5 | | | |
| | | | | | Trucks material deliveries - onsite idling exhaus | vehicle | onsite idlin | dsl | | | | | | | 5 |
| | | | | | Worker vehicles exhaus | worker vehicle | offsite | gas&dsl | | | | 30.0 | | | |
| | | | | | **Fugitive Emissions** | | | | | | | | | | |
| | | | | | Trucks (all) paved road dust | fugitive | offsite | dsl | | 22 | | 35 | | | |
| | | | | | Worker vehicles paved road dust | worker vehicle | offsite | gas&dsl | | | | 30 | | | |
| | | | | | Fugitive construction dust - soil moving/handling | fugitive | onsite | | | | | | | | |
| | | | | | Fugitive construction dust - soil loading/unloading | fugitive | onsite | | | | | | | | |
| | | | | | | | | | | | Building Footprint (sqft) | interior | | | |
| | | | | | Architectural coatings | fugitive | onsite | | | | 46,500 | 25% | | | |
| | | | | | | | | | | | Total Acres | | | | |
| | | | | | Asphalt off-gas | fugitive | onsite | | | | 0 | | | | |
| PHASE II | B260 Demo (SCMI Buildin | B260 Demo (SCMI Building Demo) | 2a | 2017 | **Construction Equipment** | | | | | | | | | | |
| | | | | | Rubber tired dozers | construction equipment | onsite | dsl | | 250 | 358 | | | 0.3953 | |
| | | | | | Tractors/loaders/backhoes | construction equipment | onsite | dsl | | 50 | 75 | | | 0.3685 | |
| | | | | | Water Truck | construction equipment | onsite | dsl | | 250 | 381 | | | 0.3819 | |
| | | | | | Cranes | construction equipment | onsite | dsl | | 250 | 365 | | | 0.2881 | |
| | | | | | Dump Truck | construction equipment | onsite | dsl | | 250 | 381 | | | 0.3819 | |
| | | | | | Derrick Barge | construction equipment | onsite | dsl | | 500 | 750 | | | 0.4154 | |
| | | | | | Tugboat (propulsion engine) | construction equipment | onsite | dsl | | | 678 | | | 0.31 | |
| | | | | | Tugboat (auxiliary engine | construction equipment | onsite | dsl | | | 47 | | | 0.43 | |
| | | | | | Forklifts | construction equipment | onsite | dsl | | 120 | 149 | | | 0.201 | |
| | | | | | | | | | | Truck Capacity | Volume of Soil | Miles Traveled | Idling (min) / | | |
| | | | | | **Vehicle Exhaust** | | | Fuel | | (cu.yd) | Hauled | (mi/trip) | trip | | |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | vehicle | offsite | dsl | | | | 35 | | | |
| | | | | | Trucks material deliveries - onsite transit exhaust | vehicle | onsite | dsl | | | | 0.5 | | | |
| | | | | | Trucks material deliveries - onsite idling exhaus | vehicle | onsite idlin | dsl | | | | | | | 5 |
| | | | | | Trucks construction/demolition - offsite transit & idling exhaus | vehicle | offsite | dsl | | | | 35 | | | |
| | | | | | Trucks construction/demolition - onsite transit exhaust | vehicle | onsite | dsl | | | | 0.5 | | | |
| | | | | | Trucks construction/demolition - onsite idling exhaust | vehicle | onsite idlin | dsl | | | | | | | 5 |
| | | | | | Worker vehicles exhaus | worker vehicle | offsite | gas&dsl | | | | 30.0 | | | |

**Table C.2 Construction Equipment Utilizatio**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Fugitive construction dust - soil moving/handling | | | 8 | | | 30 |
| | | | | | | | | cy/day | | | |
| | | | | | Fugitive construction dust - soil loading/unloading | | | 0 | | | 30 |
| | | | | | | | | peak day paint rate | | | |
| | | | | | Architectural coatings | | | 25% | | | |
| | | | | | | | | acres/day | | | |
| | | | | | Asphalt off-gas | | | 0.00 | | | |
| | | | | | | | | | | total | |
| | | | | | | | | | | fuel use | operating |
| PHASE 1 | BERTH 57 (SCMI) | Building Interior Construction | 1e | 2016 | **Construction Equipment** | | | hr/day | daily hp-hr | (lb/day) | days |
| | | | | | Forklifts | 1 | | 4 | | 93 | 120 |
| | | | | | Tractors/loaders/backhoes | 1 | | 4 | | 45 | 120 |
| | | | | | Welding Equipment | 1 | | 4 | | 26 | 90 |
| | | | | | | | | | | | total |
| | | | | | | Number | | trip/day/v | | | operating |
| | | | | | **Vehicle Exhaust** | Active[3] | | ehicle | VMT (mi/day) | | days |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | 4 | | 8 | 280 | | 120 |
| | | | | | Trucks material deliveries - onsite transit exhaust | 4 | | 8 | 4.0 | | 120 |
| | | | | | Trucks material deliveries - onsite idling exhaus | 4 | | 8 | | | 120 |
| | | | | | Worker vehicles exhaus | 4 | | 2 | 60 | | 120 |
| | | | | | **Fugitive Emissions** | | | | | | |
| | | | | | Trucks (all) paved road dust | 4 | | 8 | 280 | | 120 |
| | | | | | Worker vehicles paved road dust | 4 | | 2 | 60 | | 120 |
| | | | | | Fugitive construction dust - soil moving/handling | | | 4 | | | 120 |
| | | | | | | | | cy/day | | | |
| | | | | | Fugitive construction dust - soil loading/unloading | | | 0 | | | 120 |
| | | | | | | | | peak day paint rate | | | |
| | | | | | Architectural coatings | | | 10% | | | |
| | | | | | | | | acres/day | | | |
| | | | | | Asphalt off-gas | | | 0.00 | | | |
| | | | | | | | | | | total | |
| | | | | | | | | | | fuel use | operating |
| PHASE II | B260 Demo (SCMI Buildin | B260 Demo (SCMI Building Demo) | 2a | 2017 | **Construction Equipment** | | | hr/day | daily hp-hr | (lb/day) | days |
| | | | | | Rubber tired dozers | 1 | | 6 | | 313 | 90 |
| | | | | | Tractors/loaders/backhoes | 1 | | 4 | | 45 | 180 |
| | | | | | Water Truck | 1 | | 4 | | 210 | 180 |
| | | | | | Cranes | 1 | | 8 | | 284 | 90 |
| | | | | | Dump Truck | 1 | | 4 | | 210 | 90 |
| | | | | | Derrick Barge | 1 | | 4 | | 365 | 120 |
| | | | | | Tugboat (propulsion engine) | 2 | | 2 | 841 | | 120 |
| | | | | | Tugboat (auxiliary engine | 1 | | 2 | 56 | | 120 |
| | | | | | Forklifts | 1 | | 8 | | 185 | 90 |
| | | | | | | | | | | | total |
| | | | | | | Number | | trip/day/v | | | operating |
| | | | | | **Vehicle Exhaust** | Active[3] | | ehicle | VMT (mi/day) | | days |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | 4 | | 8 | 280 | | 120 |
| | | | | | Trucks material deliveries - onsite transit exhaust | 4 | | 8 | 4.0 | | 120 |
| | | | | | Trucks material deliveries - onsite idling exhaus | 4 | | 8 | | | 120 |
| | | | | | Trucks construction/demolition - offsite transit & idling exhaus | 1 | | 1.0 | 35 | | 120 |
| | | | | | Trucks construction/demolition - onsite transit exhaust | 1 | | 1.0 | 0.5 | | 120 |
| | | | | | Trucks construction/demolition - onsite idling exhaust | 1 | | 1.0 | | | 120 |
| | | | | | Worker vehicles exhaus | 13 | | 2 | 60 | | 120 |

**Table C.2 Construction Equipment Utilizatio**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Fugitive construction dust - soil moving/handling | | | |
| | | | | | | total volume of soil handled (cy) | | |
| | | | | | Fugitive construction dust - soil loading/unloading | | 0 | |
| | | | | | Architectural coatings | | | |
| | | | | | Asphalt off-gas | | | |
| | | | | | | | | fuel use |
| PHASE 1 | BERTH 57 (SCMI) | Building Interior Construction | 1e | 2016 | **Construction Equipment** | | | (lb/yr) |
| | | | | | Forklifts | | | 11,111 |
| | | | | | Tractors/loaders/backhoes | | | 5,420 |
| | | | | | Welding Equipment | | | 2,337 |
| | | | | | **Vehicle Exhaust** | total trips/yr | | VMT (mi/yr) |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | | | 33,600 |
| | | | | | Trucks material deliveries - onsite transit exhaust | | | 480 |
| | | | | | Trucks material deliveries - onsite idling exhaus | | | |
| | | | | | Worker vehicles exhaus | | | 7,200 |
| | | | | | **Fugitive Emissions** | | | |
| | | | | | Trucks (all) paved road dust | | | 33,600 |
| | | | | | Worker vehicles paved road dust | | | 7,200 |
| | | | | | Fugitive construction dust - soil moving/handling | | | |
| | | | | | | total volume of soil handled (cy) | | |
| | | | | | Fugitive construction dust - soil loading/unloading | | 0 | |
| | | | | | Architectural coatings | | | |
| | | | | | Asphalt off-gas | | | |
| | | | | | | | | fuel use |
| PHASE II | B260 Demo (SCMI Buildin | B260 Demo (SCMI Building Demo) | 2a | 2017 | **Construction Equipment** | | | (lb/yr) |
| | | | | | Rubber tired dozers | | | 28,158 |
| | | | | | Tractors/loaders/backhoes | | | 8,121 |
| | | | | | Water Truck | | | 37,820 |
| | | | | | Cranes | | | 25,595 |
| | | | | | Dump Truck | | | 18,910 |
| | | | | | Derrick Barge | | | |
| | | | | | Tugboat (propulsion engine) | | 100,886 | |
| | | | | | Tugboat (auxiliary engine | | 6,669 | |
| | | | | | Forklifts | | | 16,659 |
| | | | | | **Vehicle Exhaust** | total trips/yr | | VMT (mi/yr) |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | | | 33,600 |
| | | | | | Trucks material deliveries - onsite transit exhaust | | | 480 |
| | | | | | Trucks material deliveries - onsite idling exhaus | | | |
| | | | | | Trucks construction/demolition - offsite transit & idling exhaus | | 50 | 1,750 |
| | | | | | Trucks construction/demolition - onsite transit exhaust | | | 60 |
| | | | | | Trucks construction/demolition - onsite idling exhaust | | | |
| | | | | | Worker vehicles exhaus | | | 7,200 |

**Table C.2 Construction Equipment Utilizatio**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **Fugitive Emissions** | | | | | | | | |
| | | | | | Trucks (all) paved road dust | fugitive | offsite | dsl | 22 | | 35 | | |
| | | | | | Worker vehicles paved road dust | fugitive | offsite | | | | 30 | | |
| | | | | | Fugitive construction dust - soil moving/handling | fugitive | onsite | | | | | | |
| | | | | | Fugitive construction dust - soil loading/unloading | fugitive | onsite | | | | | | |
| | | | | | | | | | | Building (sqft) | | | |
| | | | | | Fugitive construction dust - demolition | fugitive | onsite | | | 24,100 | | | |
| | | | | | Fugitive construction dust - demolition debris loading | fugitive | onsite | | | 24,100 | | | |
| | | | | | | | | | | Building Footprint (sqft) | exterior | | |
| | | | | | Architectural coatings | fugitive | onsite | | | 0 | 75% | | |
| | | | | | | | | | | Total Acres | | | |
| | | | | | Asphalt off-gas | fugitive | onsite | | | 0 | | | |
| PHASE II | BERTHS 58-60 (POLA) | Construction (Wharf, Ground Improvements, Transit Shed) | 2b | 2019 | **Construction Equipment** | | | | | | | | |
| | | *Wharf Improvements* | | | Rubber tired dozers | construction equipment | onsite | dsl | 250 | 358 | | 0.3953 | |
| | | | | | Tractors/loaders/backhoes | construction equipment | onsite | dsl | 50 | 75 | | 0.3685 | |
| | | | | | Water Truck | construction equipment | onsite | dsl | 250 | 381 | | 0.3819 | |
| | | | | | Cranes | construction equipment | onsite | dsl | 250 | 365 | | 0.2881 | |
| | | | | | Dump Truck | construction equipment | onsite | dsl | 250 | 381 | | 0.3819 | |
| | | | | | Forklifts | construction equipment | onsite | dsl | 120 | 149 | | 0.201 | |
| | | | | | Pile Driving | construction equipment | onsite | dsl | 250 | 381 | | 0.3819 | |
| | | *Ground Improvements* | | | Graders | construction equipment | onsite | dsl | 120 | 162 | | 0.4087 | |
| | | | | | Excavators | construction equipment | onsite | dsl | 120 | 157 | | 0.3819 | |
| | | | | | Jet pump | construction equipment | onsite | dsl | 250 | 500 | | 0.4154 | |
| | | | | | Asphalt truck | construction equipment | onsite | dsl | 250 | 381 | | 0.3819 | |
| | | | | | Pavers | construction equipment | onsite | dsl | 50 | 89 | | 0.4154 | |
| | | | | | Water Truck | construction equipment | onsite | dsl | 250 | 381 | | 0.3819 | |
| | | | | | Striper | construction equipment | onsite | dsl | 250 | 381 | | 0.4154 | |
| | | | | | Rollers | construction equipment | onsite | dsl | 50 | 84 | | 0.3752 | |
| | | | | | Tractors/loaders/backhoes | construction equipment | onsite | dsl | 50 | 75 | | 0.3685 | |
| | | *Transit Shed/Building Construction* | | | Cranes | construction equipment | onsite | dsl | 250 | 365 | | 0.2881 | |
| | | | | | Forklifts | construction equipment | onsite | dsl | 120 | 149 | | 0.201 | |
| | | | | | Tractors/loaders/backhoes | construction equipment | onsite | dsl | 50 | 75 | | 0.3685 | |
| | | | | | Welding Equipment | construction equipment | onsite | dsl | 0 | 46 | | 0.3417 | |
| | | | | | | | | | Truck Capacity | Volume of Soil | Miles Traveled | Idling (min) / | |
| | | | | | **Vehicle Exhaust** | | | Fuel | (cu.yd) | Hauled | (mi/trip) | trip | |
| | | *Wharf Improvements* | | | Trucks material deliveries - offsite transit & idling exhaus | vehicle | offsite | dsl | | | 35 | | |
| | | | | | Trucks material deliveries - onsite transit exhaust | vehicle | onsite | dsl | | | 0.5 | | |
| | | | | | Trucks material deliveries - onsite idling exhaus | vehicle | onsite idlin | dsl | | | | | 5 |
| | | *Ground Improvements* | | | Trucks material deliveries - offsite transit & idling exhaus | vehicle | offsite | dsl | | | 35 | | |
| | | | | | Trucks material deliveries - onsite transit exhaust | vehicle | onsite | dsl | | | 0.5 | | |
| | | | | | Trucks material deliveries - onsite idling exhaus | vehicle | onsite idlin | dsl | | | | | 5 |
| | | *Transit Shed/Building Construction* | | | Trucks material deliveries - offsite transit & idling exhaus | vehicle | offsite | dsl | | | 35 | | |
| | | | | | Trucks material deliveries - onsite transit exhaust | vehicle | onsite | dsl | | | 0.5 | | |
| | | | | | Trucks material deliveries - onsite idling exhaus | vehicle | onsite idlin | dsl | | | | | 5 |
| | | *Ground Improvements* | | | Trucks jet grouting haul away - offsite transit & idling exhaus | vehicle | offsite | dsl | | | 35 | | |
| | | | | | Trucks jet grouting haul away - onsite transit exhaust | vehicle | onsite | dsl | | | 0.5 | | |
| | | | | | Trucks jet grouting haul away - onsite idling exhaus | vehicle | onsite idlin | dsl | | | | | 5 |
| | | *Transit Shed/Building Construction* | | | Trucks construction/demolition - offsite transit & idling exhaus | vehicle | offsite | dsl | | | 35 | | |
| | | | | | Trucks construction/demolition - onsite transit exhaust | vehicle | onsite | dsl | | | 0.5 | | |
| | | | | | Trucks construction/demolition - onsite idling exhaust | vehicle | onsite idlin | dsl | | | | | 5 |
| | | | | | Worker vehicles exhaus | worker vehicle | offsite | gas&dsl | | | 30.0 | | |
| | | | | | **Fugitive Emissions** | | | | | | | | |
| | | | | | Trucks (all) paved road dust | fugitive | offsite | dsl | 22 | | 175 | | |
| | | | | | Worker vehicles paved road dust | fugitive | offsite | | | | 30 | | |

**Table C.2 Construction Equipment Utilizatio**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **Fugitive Emissions** | | | | | | |
| | | | | | Trucks (all) paved road dust | 4 | | 8 | 280 | | 120 |
| | | | | | Worker vehicles paved road dust | 13 | | 2 | 60 | | 120 |
| | | | | | Fugitive construction dust - soil moving/handling | | 8 | | | | 180 |
| | | | | | | | cy/day | | | | |
| | | | | | Fugitive construction dust - soil loading/unloading | | 0 | | | | 180 |
| | | | | | | | peak day factor | | | | |
| | | | | | Fugitive construction dust - demolition | | 25% | | | | |
| | | | | | Fugitive construction dust - demolition debris loading | | 25% | | | | |
| | | | | | | | peak day factor | | | | |
| | | | | | Architectural coatings | | 25% | | | | |
| | | | | | | | acres/day | | | | |
| | | | | | Asphalt off-gas | | 0.00 | | | | |
| | | | | | | | | | | | total |
| PHASE II | BERTHS 58-60 (POLA) | Construction (Wharf, Ground Improvements, Transit Shed) | 2b | 2019 | **Construction Equipment** | | hr/day | | daily hp-hr | fuel use (lb/day) | operating days |
| | | *Wharf Improvements* | | | Rubber tired dozers | 1 | 6 | | | 313 | 90 |
| | | | | | Tractors/loaders/backhoes | 1 | 4 | | | 45 | 180 |
| | | | | | Water Truck | 1 | 4 | | | 210 | 90 |
| | | | | | Cranes | 1 | 8 | | | 285 | 90 |
| | | | | | Dump Truck | 1 | 8 | | | 420 | 180 |
| | | | | | Forklifts | 1 | 4 | | | 93 | 90 |
| | | | | | Pile Driving | 1 | 8 | | | 438 | 200 |
| | | *Ground Improvements* | | | Graders | 1 | 8 | | | 180 | 60 |
| | | | | | Excavators | 1 | 8 | | | 164 | 60 |
| | | | | | Jet pump | 1 | 4 | | | 219 | 60 |
| | | | | | Asphalt truck | 1 | 4 | | | 210 | 5 |
| | | | | | Pavers | 1 | 4 | | | 48 | 5 |
| | | | | | Water Truck | 1 | 2 | | | 105 | 45 |
| | | | | | Striper | 1 | 2 | | | 109 | 10 |
| | | | | | Rollers | 1 | 4 | | | 48 | 10 |
| | | | | | Tractors/loaders/backhoes | 1 | 4 | | | 45 | 30 |
| | | *Transit Shed/Building Construction* | | | Cranes | 1 | 8 | | | 285 | 180 |
| | | | | | Forklifts | 1 | 4 | | | 93 | 120 |
| | | | | | Tractors/loaders/backhoes | 1 | 4 | | | 45 | 180 |
| | | | | | Welding Equipment | 1 | 2 | | | 13 | 90 |
| | | | | | | | | | | | total |
| | | | | | **Vehicle Exhaust** | Number Active[3] | | trip/day/vehicle | VMT (mi/day) | | operating days |
| | | *Wharf Improvements* | | | Trucks material deliveries - offsite transit & idling exhaus | 4 | | 8 | 280 | | 180 |
| | | | | | Trucks material deliveries - onsite transit exhaust | 4 | | 8 | 4.0 | | 180 |
| | | | | | Trucks material deliveries - onsite idling exhaus | 4 | | 8 | | | 180 |
| | | *Ground Improvements* | | | Trucks material deliveries - offsite transit & idling exhaus | 4 | | 8 | 280 | | 45 |
| | | | | | Trucks material deliveries - onsite transit exhaust | 4 | | 8 | 4.0 | | 45 |
| | | | | | Trucks material deliveries - onsite idling exhaus | 4 | | 8 | | | 45 |
| | | *Transit Shed/Building Construction* | | | Trucks material deliveries - offsite transit & idling exhaus | 4 | | 8 | 280 | | 120 |
| | | | | | Trucks material deliveries - onsite transit exhaust | 4 | | 8 | 4.0 | | 120 |
| | | | | | Trucks material deliveries - onsite idling exhaus | 4 | | 8 | | | 120 |
| | | *Ground Improvements* | | | Trucks jet grouting haul away - offsite transit & idling exhaus | 15 | | 31 | 1,083 | | 60 |
| | | | | | Trucks jet grouting haul away - onsite transit exhaust | 15 | | 31 | 15.5 | | 60 |
| | | | | | Trucks jet grouting haul away - onsite idling exhaus | 15 | | 31 | | | 60 |
| | | *Transit Shed/Building Construction* | | | Trucks construction/demolition - offsite transit & idling exhaus | 1 | | 1.0 | 35 | | 180 |
| | | | | | Trucks construction/demolition - onsite transit exhaust | 1 | | 1.0 | 0.5 | | 180 |
| | | | | | Trucks construction/demolition - onsite idling exhaust | 1 | | 1.0 | | | 180 |
| | | | | | Worker vehicles exhaus | 25 | | 2 | 60 | | 180 |
| | | | | | **Fugitive Emissions** | | | | | | |
| | | | | | Trucks (all) paved road dust | 19 | | 56 | 1,958 | | 180 |
| | | | | | Worker vehicles paved road dust | 25 | | 2 | 60 | | 180 |

**Table C.2 Construction Equipment Utilizatio**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | **Fugitive Emissions** | | | |
| | | | | | Trucks (all) paved road dust | | | 33,600 |
| | | | | | Worker vehicles paved road dust | | | 7,200 |
| | | | | | Fugitive construction dust - soil moving/handling | | | |
| | | | | | | total volume of soil handled (cy) | | |
| | | | | | Fugitive construction dust - soil loading/unloading | | 0 | |
| | | | | | Fugitive construction dust - demolition | | | |
| | | | | | Fugitive construction dust - demolition debris loading | | | |
| | | | | | Architectural coatings | | | |
| | | | | | Asphalt off-gas | | | |
| | | Construction (Wharf, Ground Improvements, | | | | | | fuel use |
| PHASE II | BERTHS 58-60 (POLA) | Transit Shed) | 2b | 2019 | **Construction Equipment** | | | (lb/yr) |
| | | *Wharf Improvements* | | | Rubber tired dozers | | | 28,187 |
| | | | | | Tractors/loaders/backhoes | | | 8,103 |
| | | | | | Water Truck | | | 18,901 |
| | | | | | Cranes | | | 25,619 |
| | | | | | Dump Truck | | | 75,606 |
| | | | | | Forklifts | | | 8,333 |
| | | | | | Pile Driving | | | 87,564 |
| | | *Ground Improvements* | | | Graders | | | 10,795 |
| | | | | | Excavators | | | 9,828 |
| | | | | | Jet pump | | | 13,135 |
| | | | | | Asphalt truck | | | 1,050 |
| | | | | | Pavers | | | 241 |
| | | | | | Water Truck | | | 4,725 |
| | | | | | Striper | | | 1,095 |
| | | | | | Rollers | | | 480 |
| | | | | | Tractors/loaders/backhoes | | | 1,351 |
| | | *Transit Shed/Building Construction* | | | Cranes | | | 51,237 |
| | | | | | Forklifts | | | 11,110 |
| | | | | | Tractors/loaders/backhoes | | | 8,103 |
| | | | | | Welding Equipment | | | 1,167 |
| | | | | | **Vehicle Exhaust** | total trips/yr | | VMT (mi/yr) |
| | | *Wharf Improvements* | | | Trucks material deliveries - offsite transit & idling exhaus | | | 50,400 |
| | | | | | Trucks material deliveries - onsite transit exhaust | | | 720 |
| | | | | | Trucks material deliveries - onsite idling exhaus | | | |
| | | *Ground Improvements* | | | Trucks material deliveries - offsite transit & idling exhaus | | | 12,600 |
| | | | | | Trucks material deliveries - onsite transit exhaust | | | 180 |
| | | | | | Trucks material deliveries - onsite idling exhaus | | | |
| | | *Transit Shed/Building Construction* | | | Trucks material deliveries - offsite transit & idling exhaus | | | 33,600 |
| | | | | | Trucks material deliveries - onsite transit exhaust | | | 480 |
| | | | | | Trucks material deliveries - onsite idling exhaus | | | |
| | | *Ground Improvements* | | | Trucks jet grouting haul away - offsite transit & idling exhaus | | 1,856 | 64,960 |
| | | | | | Trucks jet grouting haul away - onsite transit exhaust | | | 928 |
| | | | | | Trucks jet grouting haul away - onsite idling exhaus | | | |
| | | *Transit Shed/Building Construction* | | | Trucks construction/demolition - offsite transit & idling exhaus | | 60 | 2,100 |
| | | | | | Trucks construction/demolition - onsite transit exhaust | | | 90 |
| | | | | | Trucks construction/demolition - onsite idling exhaust | | | |
| | | | | | Worker vehicles exhaus | | | 10,800 |
| | | | | | **Fugitive Emissions** | | | |
| | | | | | Trucks (all) paved road dust | | | 352,380 |
| | | | | | Worker vehicles paved road dust | | | 10,800 |

**Table C.2 Construction Equipment Utilizatio**

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Fugitive construction dust - grading | fugitive | onsite | | | Site Acreage 4.9 | | | | | |
| | | | | | Fugitive construction dust - soil moving/handling | fugitive | onsite | | | | | | | | |
| | | | | | Fugitive construction dust - soil loading/unloading | fugitive | onsite | | | | | | | | |
| | | | | | | | | | | Building Footprint (sqft) 130,000 | exterior 75% | | | | |
| | | | | | Architectural coatings | fugitive | onsite | | | | | | | | |
| | | | | | | | | | | Total Acres | | | | | |
| | | | | | Asphalt off-gas | fugitive | onsite | | | 1.63 | | | | | |
| PHASE II | BERTHS 58-60 (POLA) | Construction (Pump Station) | 2c | 2019 | **Construction Equipment** | | | | | | | | | | |
| | | | | | Forklifts | construction equipment | onsite | dsl | | 120 | 149 | | | | 0.201 |
| | | | | | Tractors/loaders/backhoes | construction equipment | onsite | dsl | | 50 | 75 | | | | 0.3685 |
| | | | | | Welding Equipment | construction equipment | onsite | dsl | | 0 | 46 | | | | 0.3417 |
| | | | | | | | | | | Truck Capacity | Volume of Soil | Miles Traveled | Idling (min) / | | |
| | | | | | **Vehicle Exhaust** | | | Fuel | | (cu.yd) | Hauled | (mi/trip) | trip | | |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | vehicle | offsite | dsl | | | | 35 | | | |
| | | | | | Trucks material deliveries - onsite transit exhaust | vehicle | onsite | dsl | | | | 0.5 | | | |
| | | | | | Trucks material deliveries - onsite idling exhaus | vehicle | onsite idlin | dsl | | | | | | | 5 |
| | | | | | Worker vehicles exhaus | worker vehicle | offsite | gas&dsl | | | | 30.0 | | | |
| | | | | | **Fugitive Emissions** | | | | | | | | | | |
| | | | | | Trucks (all) paved road dust | fugitive | offsite | dsl | | 22 | | 35 | | | |
| | | | | | Worker vehicles paved road dust | fugitive | offsite | | | | | 30 | | | |
| | | | | | Fugitive construction dust - soil moving/handling | fugitive | onsite | | | | | | | | |
| | | | | | Fugitive construction dust - soil loading/unloading | fugitive | onsite | | | | | | | | |
| | | | | | | | | | | Building Footprint (sqft) | exterior | | | | |
| | | | | | Architectural coatings | fugitive | onsite | | | 0 | 75% | | | | |
| | | | | | | | | | | Total Acres | | | | | |
| | | | | | Asphalt off-gas | fugitive | onsite | | | 0 | | | | | |
| PHASE II | BERTHS 58-60 (POLA) | Construction (Promenade) | 2d | 2020 | **Construction Equipment** | | | | | | | | | | |
| | | | | | Tractors/loaders/backhoes | construction equipment | onsite | dsl | | 50 | 75 | | | | 0.3685 |
| | | | | | Dump Truck | construction equipment | onsite | dsl | | 250 | 381 | | | | 0.3819 |
| | | | | | Forklifts | construction equipment | onsite | dsl | | 120 | 149 | | | | 0.201 |
| | | | | | | | | | | Truck Capacity | Volume of Soil | Miles Traveled | Idling (min) / | | |
| | | | | | **Vehicle Exhaust** | | | Fuel | | (cu.yd) | Hauled | (mi/trip) | trip | | |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | vehicle | offsite | dsl | | | | 35 | | | |
| | | | | | Trucks material deliveries - onsite transit exhaust | vehicle | onsite | dsl | | | | 0.5 | | | |
| | | | | | Trucks material deliveries - onsite idling exhaus | vehicle | onsite idlin | dsl | | | | | | | 5 |
| | | | | | Worker vehicles exhaus | worker vehicle | offsite | gas&dsl | | | | 30.0 | | | |
| | | | | | **Fugitive Emissions** | | | | | | | | | | |
| | | | | | Trucks (all) paved road dust | fugitive | offsite | dsl | | 22 | | 35 | | | |
| | | | | | Worker vehicles paved road dust | fugitive | offsite | | | | | 30 | | | |

**Table C.2 Construction Equipment Utilizatio**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | VMT (mi/day) | | |
| | | | | | Fugitive construction dust - grading | 3 | | | 1.03 | | 90 |
| | | | | | Fugitive construction dust - soil moving/handling | | 8 | | | | 200 |
| | | | | | | | cy/day | | | | |
| | | | | | Fugitive construction dust - soil loading/unloading | | 94 | | | | 200 |
| | | | | | | | peak day paint rate | | | | |
| | | | | | Architectural coatings | | 25% | | | | |
| | | | | | | | acres/day | | | | |
| | | | | | Asphalt off-gas | | 0.41 | | | | |
| | | | | | | | | | | total | |
| PHASE II | BERTHS 58-60 (POLA) | Construction (Pump Station) | 2c | 2019 | **Construction Equipment** | | hr/day | | daily hp-hr | fuel use (lb/day) | operating days |
| | | | | | Forklifts | 1 | 8 | | | 185 | 60 |
| | | | | | Tractors/loaders/backhoes | 1 | 2 | | | 23 | 60 |
| | | | | | Welding Equipment | 1 | 4 | | | 26 | 30 |
| | | | | | | | | | | | total |
| | | | | | | Number | | trip/day/v | | | operating |
| | | | | | **Vehicle Exhaust** | Active[3] | | ehicle | VMT (mi/day) | | days |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | 4 | | 8 | 280 | | 60 |
| | | | | | Trucks material deliveries - onsite transit exhaust | 4 | | 8 | 4.0 | | 60 |
| | | | | | Trucks material deliveries - onsite idling exhaus | 4 | | 8 | | | 60 |
| | | | | | Worker vehicles exhaus | 4 | | 2 | 60 | | 60 |
| | | | | | **Fugitive Emissions** | | | | | | |
| | | | | | Trucks (all) paved road dust | 4 | | 8 | 280 | | 60 |
| | | | | | Worker vehicles paved road dust | 4 | | 2 | 60 | | 60 |
| | | | | | Fugitive construction dust - soil moving/handling | | 8 | | | | 60 |
| | | | | | | | cy/day | | | | |
| | | | | | Fugitive construction dust - soil loading/unloading | | 0 | | | | 60 |
| | | | | | | | peak day paint rate | | | | |
| | | | | | Architectural coatings | | 10% | | | | |
| | | | | | | | acres/day | | | | |
| | | | | | Asphalt off-gas | | 0.00 | | | | |
| | | | | | | | | | | total | |
| PHASE II | BERTHS 58-60 (POLA) | Construction (Promenade) | 2d | 2020 | **Construction Equipment** | | hr/day | | daily hp-hr | fuel use (lb/day) | operating days |
| | | | | | Tractors/loaders/backhoes | 1 | 8 | | | 90 | 30 |
| | | | | | Dump Truck | 1 | 4 | | | 210 | 30 |
| | | | | | Forklifts | 1 | 4 | | | 93 | 30 |
| | | | | | | | | | | | total |
| | | | | | | Number | | trip/day/v | | | operating |
| | | | | | **Vehicle Exhaust** | Active[3] | | ehicle | VMT (mi/day) | | days |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | 4 | | 8 | 280 | | 25 |
| | | | | | Trucks material deliveries - onsite transit exhaust | 4 | | 8 | 4.0 | | 25 |
| | | | | | Trucks material deliveries - onsite idling exhaus | 4 | | 8 | | | 25 |
| | | | | | Worker vehicles exhaus | 4 | | 2 | 60 | | 25 |
| | | | | | **Fugitive Emissions** | | | | | | |
| | | | | | Trucks (all) paved road dust | 4 | | 8 | 280 | | 25 |
| | | | | | Worker vehicles paved road dust | 4 | | 2 | 60 | | 25 |

**Table C.2 Construction Equipment Utilizatio**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | VMT (mi/yr) |
| | | | | | Fugitive construction dust - grading | | 3.3721875 |
| | | | | | Fugitive construction dust - soil moving/handling | | |
| | | | | | | total volume of soil handled (cy) | |
| | | | | | Fugitive construction dust - soil loading/unloading | 18750 | |
| | | | | | Architectural coatings | | |
| | | | | | Asphalt off-gas | | |
| | | | | | | | fuel use |
| PHASE II | BERTHS 58-60 (POLA) | Construction (Pump Station) | 2c | 2019 | **Construction Equipment** | | (lb/yr) |
| | | | | | Forklifts | | 11,110 |
| | | | | | Tractors/loaders/backhoes | | 1,351 |
| | | | | | Welding Equipment | | 778 |
| | | | | | **Vehicle Exhaust** | total trips/yr | VMT (mi/yr) |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | | 16,800 |
| | | | | | Trucks material deliveries - onsite transit exhaust | | 240 |
| | | | | | Trucks material deliveries - onsite idling exhaus | | |
| | | | | | Worker vehicles exhaus | | 3,600 |
| | | | | | **Fugitive Emissions** | | |
| | | | | | Trucks (all) paved road dust | | 16,800 |
| | | | | | Worker vehicles paved road dust | | 3,600 |
| | | | | | Fugitive construction dust - soil moving/handling | | |
| | | | | | | total volume of soil handled (cy) | |
| | | | | | Fugitive construction dust - soil loading/unloading | 0 | |
| | | | | | Architectural coatings | | |
| | | | | | Asphalt off-gas | | |
| | | | | | | | fuel use |
| PHASE II | BERTHS 58-60 (POLA) | Construction (Promenade) | 2d | 2020 | **Construction Equipment** | | (lb/yr) |
| | | | | | Tractors/loaders/backhoes | | 2,700 |
| | | | | | Dump Truck | | 6,297 |
| | | | | | Forklifts | | 2,777 |
| | | | | | **Vehicle Exhaust** | total trips/yr | VMT (mi/yr) |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | | 7,000 |
| | | | | | Trucks material deliveries - onsite transit exhaust | | 100 |
| | | | | | Trucks material deliveries - onsite idling exhaus | | |
| | | | | | Worker vehicles exhaus | | 1,500 |
| | | | | | **Fugitive Emissions** | | |
| | | | | | Trucks (all) paved road dust | | 7,000 |
| | | | | | Worker vehicles paved road dust | | 1,500 |

**Table C.2 Construction Equipment Utilizatio**

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Fugitive construction dust - soil moving/handling | fugitive | onsite | | | | | | | |
| | | | | | Fugitive construction dust - soil loading/unloading | fugitive | onsite | | | | | | | |
| | | | | | | | | | | | Building Footprint (sqft) | exterior | | |
| | | | | | Architectural coatings | fugitive | onsite | | | | 0 | 75% | | |
| | | | | | | | | | | | Total Acres | | | |
| | | | | | Asphalt off-gas | fugitive | onsite | | | | 0 | | | |
| PHASE II | BERTH 58-60 (Tenant) | Building Interior Construction; Temporary NOAA facility | 2e | 2020 | **Construction Equipment** | | | | | | | | | |
| | | | | | Forklifts | construction equipment | onsite | dsl | | 120 | 149 | | 0.201 | |
| | | | | | Tractors/loaders/backhoes | construction equipment | onsite | dsl | | 50 | 75 | | 0.3685 | |
| | | | | | Welding Equipment | construction equipment | onsite | dsl | | 0 | 46 | | 0.3417 | |
| | | | | | | | | | | Truck Capacity | Volume of Soil Hauled | Miles Traveled | Idling (min) / trip | |
| | | | | | **Vehicle Exhaust** | | | Fuel | | (cu.yd) | | (mi/trip) | | |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | vehicle | offsite | dsl | | | | 35 | | |
| | | | | | Trucks material deliveries - onsite transit exhaust | vehicle | onsite | dsl | | | | 0.5 | | |
| | | | | | Trucks material deliveries - onsite idling exhaus | vehicle | onsite idlin | dsl | | | | | | 5 |
| | | | | | Worker vehicles exhaus | worker vehicle | offsite | gas&dsl | | | | 30.0 | | |
| | | | | | **Fugitive Emissions** | | | | | | | | | |
| | | | | | Trucks (all) paved road dust | fugitive | offsite | dsl | | 22 | | 35 | | |
| | | | | | Worker vehicles paved road dust | fugitive | offsite | | | | | 30 | | |
| | | | | | Fugitive construction dust - soil moving/handling | fugitive | onsite | | | | | | | |
| | | | | | Fugitive construction dust - soil loading/unloading | fugitive | onsite | | | | | | | |
| | | | | | | | | | | | Building Footprint (sqft) | interior | | |
| | | | | | Architectural coatings | fugitive | onsite | | | | 180,000 | 25% | | |
| | | | | | | | | | | | Total Acres | | | |
| | | | | | Asphalt off-gas | fugitive | onsite | | | | 0 | | | |
| PHASE II | Westways | Remediation | 2f | 2014 | **Construction Equipment** | | | | | | | | | |
| | | | | | Tractors/loaders/backhoes | construction equipment | onsite | dsl | | 50 | 75 | | 0.3685 | |
| | | | | | Concrete saws | construction equipment | onsite | dsl | | 50 | 81 | | 0.4154 | |
| | | | | | Excavators | construction equipment | onsite | dsl | | 120 | 157 | | 0.3819 | |
| | | | | | Tractors/loaders/backhoes | construction equipment | onsite | dsl | | 50 | 75 | | 0.3685 | |
| | | | | | Graders | construction equipment | onsite | dsl | | 120 | 162 | | 0.4087 | |
| | | | | | Rubber tired dozers | construction equipment | onsite | dsl | | 250 | 358 | | 0.3953 | |
| | | | | | Sweepers/scrubbers | construction equipment | onsite | dsl | | 50 | 88 | | 0.4556 | |
| | | | | | Tractors/loaders/backhoes | construction equipment | onsite | dsl | | 50 | 75 | | 0.3685 | |
| | | | | | Vibratory compactor | construction equipment | onsite | dsl | | 250 | 327 | | 0.4154 | |
| | | | | | Vibratory hammer | construction equipment | onsite | dsl | | 250 | 327 | | 0.4154 | |
| | | | | | Water Truck | construction equipment | onsite | dsl | | 250 | 381 | | 0.3819 | |
| | | | | | | | | | | Truck Capacity | Volume of Soil Hauled | Miles Traveled | Idling (min) / trip | |
| | | | | | **Vehicle Exhaust** | | | Fuel | | (ton) | (ton) | (mi/trip) | | |
| | | | | | Trucks hauling away contaminated soil - offsite transit & idling | vehicle | offsite | dsl | | 22 | 85,652 | 35 | | |
| | | | | | Trucks hauling away contaminated soil - onsite transit exhaust | vehicle | onsite | dsl | | 22 | | 0.5 | | |
| | | | | | Trucks hauling away contaminated soil - onsite idling exhaus | vehicle | onsite idlin | dsl | | 22 | | | | 5 |
| | | | | | Trucks hauling in clean soil - offsite transit & idling exhaus | vehicle | offsite | dsl | | 22 | 102,259 | 35 | | |
| | | | | | Trucks hauling in clean soil - onsite transit exhaus | vehicle | onsite | dsl | | 22 | | 0.5 | | |

**Table C.2 Construction Equipment Utilizatio**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Fugitive construction dust - soil moving/handling | | | 8 | | | 30 |
| | | | | | Fugitive construction dust - soil loading/unloading | | | cy/day 0 | | | 30 |
| | | | | | | | | peak day paint rate | | | |
| | | | | | Architectural coatings | | | 25% | | | |
| | | | | | Asphalt off-gas | | | acres/day 0.00 | | | |
| PHASE II | BERTH 58-60 (Tenant) | Building Interior Construction; Temporary NOAA facility | 2e | 2020 | **Construction Equipment** | | | hr/day | | daily hp-hr | fuel use (lb/day) | total operating days |
| | | | | | Forklifts | 1 | | 4 | | | 93 | 120 |
| | | | | | Tractors/loaders/backhoes | 1 | | 4 | | | 45 | 120 |
| | | | | | Welding Equipment | 1 | | 4 | | | 26 | 90 |
| | | | | | **Vehicle Exhaust** | Number Active[3] | | | trip/day/vehicle | VMT (mi/day) | | total operating days |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | 4 | | | 8 | 280 | | 120 |
| | | | | | Trucks material deliveries - onsite transit exhaust | 4 | | | 8 | 4.0 | | 120 |
| | | | | | Trucks material deliveries - onsite idling exhaus | 4 | | | 8 | | | 120 |
| | | | | | Worker vehicles exhaus | 4 | | | 2 | 60 | | 120 |
| | | | | | **Fugitive Emissions** | | | | | | | |
| | | | | | Trucks (all) paved road dust | 4 | | | 8 | 280 | | 120 |
| | | | | | Worker vehicles paved road dust | 4 | | | 2 | 60 | | 120 |
| | | | | | Fugitive construction dust - soil moving/handling | | | 4 | | | | 120 |
| | | | | | Fugitive construction dust - soil loading/unloading | | | cy/day 0 | | | | 120 |
| | | | | | | | | peak day paint rate | | | | |
| | | | | | Architectural coatings | | | 10% | | | | |
| | | | | | Asphalt off-gas | | | acres/day 0.00 | | | | |
| PHASE II | Westways | Remediation | 2f | 2014 | **Construction Equipment** | | | hr/day | | daily hp-hr | fuel use (lb/day) | total operating days |
| | | | | | Tractors/loaders/backhoes | 1 | | 8 | | | 91 | 550 |
| | | | | | Concrete saws | 1 | | 4 | | | 50 | 550 |
| | | | | | Excavators | 1 | | 8 | | | 164 | 550 |
| | | | | | Tractors/loaders/backhoes | 1 | | 4 | | | 45 | 550 |
| | | | | | Graders | 1 | | 8 | | | 181 | 550 |
| | | | | | Rubber tired dozers | 1 | | 8 | | | 417 | 550 |
| | | | | | Sweepers/scrubbers | 1 | | 4 | | | 52 | 550 |
| | | | | | Tractors/loaders/backhoes | 1 | | 4 | | | 45 | 550 |
| | | | | | Vibratory compactor | 1 | | 8 | | | 439 | 550 |
| | | | | | Vibratory hammer | 1 | | 8 | | | 439 | 550 |
| | | | | | Water Truck | 1 | | 8 | | | 421 | 550 |
| | | | | | **Vehicle Exhaust** | Number Active[3] | | hr/day | one-way trips/day | VMT (mi/day) | | total operating days |
| | | | | | Trucks hauling away contaminated soil - offsite transit & idling | 4 | | 8 | 9 | 303 | | 900 |
| | | | | | Trucks hauling away contaminated soil - onsite transit exhaust | 4 | | 8 | 9 | 4.3 | | 900 |
| | | | | | Trucks hauling away contaminated soil - onsite idling exhaus | 4 | | 8 | | | | 900 |
| | | | | | Trucks hauling in clean soil - offsite transit & idling exhaus | 5 | | 8 | 10 | 362 | | 900 |
| | | | | | Trucks hauling in clean soil - onsite transit exhaus | 5 | | 8 | 10 | 5 | | 900 |

**Table C.2 Construction Equipment Utilizatio**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Fugitive construction dust - soil moving/handling | total volume of soil handled (cy) | | |
| | | | | | Fugitive construction dust - soil loading/unloading | | 0 | |
| | | | | | Architectural coatings | | | |
| | | | | | Asphalt off-gas | | | |
| PHASE II | BERTH 58-60 (Tenant) | Building Interior Construction; Temporary NOAA facility | 2e | 2020 | **Construction Equipment** | | | fuel use (lb/yr) |
| | | | | | Forklifts | | | 11,110 |
| | | | | | Tractors/loaders/backhoes | | | 5,400 |
| | | | | | Welding Equipment | | | 2,333 |
| | | | | | **Vehicle Exhaust** | total trips/yr | | VMT (mi/yr) |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | | | 33,600 |
| | | | | | Trucks material deliveries - onsite transit exhaust | | | 480 |
| | | | | | Trucks material deliveries - onsite idling exhaus | | | |
| | | | | | Worker vehicles exhaus | | | 7,200 |
| | | | | | **Fugitive Emissions** | | | |
| | | | | | Trucks (all) paved road dust | | | 33,600 |
| | | | | | Worker vehicles paved road dust | | | 7,200 |
| | | | | | Fugitive construction dust - soil moving/handling | total volume of soil handled (cy) | | |
| | | | | | Fugitive construction dust - soil loading/unloading | | 0 | |
| | | | | | Architectural coatings | | | |
| | | | | | Asphalt off-gas | | | |
| PHASE II | Westways | Remediation | 2f | 2014 | **Construction Equipment** | | | fuel use (lb/yr) |
| | | | | | Tractors/loaders/backhoes | | | 49,789 |
| | | | | | Concrete saws | | | 27,284 |
| | | | | | Excavators | | | 90,109 |
| | | | | | Tractors/loaders/backhoes | | | 24,894 |
| | | | | | Graders | | | 99,756 |
| | | | | | Rubber tired dozers | | | 229,519 |
| | | | | | Sweepers/scrubbers | | | 28,643 |
| | | | | | Tractors/loaders/backhoes | | | 24,894 |
| | | | | | Vibratory compactor | | | 241,374 |
| | | | | | Vibratory hammer | | | 241,374 |
| | | | | | Water Truck | | | 231,632 |
| | | | | | **Vehicle Exhaust** | total trips/yr | | VMT (mi/yr) |
| | | | | | Trucks hauling away contaminated soil - offsite transit & idling | | | 272,529 |
| | | | | | Trucks hauling away contaminated soil - onsite transit exhaust | | | 3,893 |
| | | | | | Trucks hauling away contaminated soil - onsite idling exhaus | | | |
| | | | | | Trucks hauling in clean soil - offsite transit & idling exhaus | | | 325,370 |
| | | | | | Trucks hauling in clean soil - onsite transit exhaus | | | 4,648 |

**Table C.2 Construction Equipment Utilizatio**

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Trucks hauling in clean soil - onsite idling exhaus | vehicle | onsite idlin | dsl | 22 | | | | | 5 |
| | | | | | Worker vehicles exhaus | worker vehicle | offsite | gas&dsl | | | | | 30.0 | |
| | | | | | | | | | Truck Capacity (ton) | | | | | |
| | | | | | **Fugitive Emissions** | | | | | | | | | |
| | | | | | Trucks (all) paved road dust | fugitive | offsite | dsl | 22 | | | | 35 | |
| | | | | | Worker vehicles paved road dust | fugitive | offsite | | | | | | 30 | |
| | | | | | | | | | | Site Acreage | | | | |
| | | | | | Fugitive construction dust - grading | fugitive | onsite | | | 12.82 | | | | |
| | | | | | Fugitive construction dust - soil moving/handling | fugitive | onsite | | | | | | | |
| | | | | | Fugitive construction dust - soil loading/unloading | fugitive | onsite | | | | | | | |
| | | | | | | | | | | Building (sqft) | | | | |
| | | | | | Fugitive construction dust - demolition | fugitive | onsite | | | 0 | | | | |
| | | | | | Fugitive construction dust - demolition debris loading | fugitive | onsite | | | 0 | | | | |
| | | | | | | | | | | Building Footprint (sqft) | interior&exterior | | | |
| | | | | | Architectural coatings | fugitive | onsite | | | 0 | 100% | | | |
| | | | | | | | | | | Total Acres | | | | |
| | | | | | Asphalt off-gas | fugitive | onsite | | | 0 | | | | |
| PHASE II | Westways | Construction (Berths 70-71 NOAA Building and Wave Tank) | 2g | 2023 | **Construction Equipment** | | | | | | | | | |
| | | | | | Graders | construction equipment | onsite | dsl | 120 | 162 | | | | 0.4087 |
| | | | | | Excavators | construction equipment | onsite | dsl | 120 | 157 | | | | 0.3819 |
| | | | | | Asphalt truck | construction equipment | onsite | dsl | 250 | 381 | | | | 0.3819 |
| | | | | | Pavers | construction equipment | onsite | dsl | 50 | 89 | | | | 0.4154 |
| | | | | | Water Truck | construction equipment | onsite | dsl | 250 | 381 | | | | 0.3819 |
| | | | | | Striper | construction equipment | onsite | dsl | 250 | 381 | | | | 0.4154 |
| | | | | | Rollers | construction equipment | onsite | dsl | 50 | 84 | | | | 0.3752 |
| | | | | | Tractors/loaders/backhoes | construction equipment | onsite | dsl | 50 | 75 | | | | 0.3685 |
| | | | | | Cranes | construction equipment | onsite | dsl | 250 | 365 | | | | 0.2881 |
| | | | | | Pile Driving | construction equipment | onsite | dsl | 250 | 381 | | | | 0.3819 |
| | | | | | | | | | Truck Capacity (cu.yd) | Volume of Soil Hauled | Miles Traveled (mi/trip) | | Idling (min) / trip | |
| | | | | | **Vehicle Exhaust** | | | Fuel | | | | | | |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | vehicle | offsite | dsl | | | 35 | | | |
| | | | | | Trucks material deliveries - onsite transit exhaust | vehicle | onsite | dsl | | | 0.5 | | | |
| | | | | | Trucks material deliveries - onsite idling exhaus | vehicle | onsite idlin | dsl | | | | | | 5 |
| | | | | | Trucks construction/demolition - offsite transit & idling exhaus | vehicle | offsite | dsl | | | 35 | | | |
| | | | | | Trucks construction/demolition - onsite transit exhaust | vehicle | onsite | dsl | | | 0.5 | | | |
| | | | | | Trucks construction/demolition - onsite idling exhaust | vehicle | onsite idlin | dsl | | | | | | 5 |
| | | | | | Worker vehicles exhaus | worker vehicle | offsite | gas&dsl | | | 30.0 | | | |
| | | | | | **Fugitive Emissions** | | | | | | | | | |
| | | | | | Trucks material deliveries paved road dust | fugitive | offsite | dsl | 22 | | 70 | | | |
| | | | | | Worker vehicles paved road dust | fugitive | offsite | | | | 30 | | | |
| | | | | | | | | | | Site Acreage | | | | |
| | | | | | Fugitive construction dust - grading | fugitive | onsite | | | 6.4 | | | | |
| | | | | | Fugitive construction dust - demolition | fugitive | onsite | | | 0 | | | | |
| | | | | | Fugitive construction dust - demolition debris loading | fugitive | onsite | | | 0 | | | | |

**Table C.2 Construction Equipment Utilizatio**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Trucks hauling in clean soil - onsite idling exhaus | 5 | 8 | | | | 900 |
| | | | | | Worker vehicles exhaus | 14 | | 2 | 60 | | 550 |
| | | | | | **Fugitive Emissions** | | | | | | |
| | | | | | Trucks (all) paved road dust | 9 | | 19 | 664 | | 900 |
| | | | | | Worker vehicles paved road dust | 14 | | 2 | 60 | | 550 |
| | | | | | | | | | VMT (mi/day) | | |
| | | | | | Fugitive construction dust - grading | 3 | | | 1.03 | | 0 |
| | | | | | Fugitive construction dust - soil moving/handlin | | 8 | | | | 900 |
| | | | | | | | cy/day | | | | |
| | | | | | Fugitive construction dust - soil loading/unloadin | | 190 | | | | 900 |
| | | | | | | | peak day factor | | | | |
| | | | | | Fugitive construction dust - demolition | | 25% | | | | |
| | | | | | Fugitive construction dust - demolition debris loading | | 25% | | | | |
| | | | | | | | peak day factor | | | | |
| | | | | | Architectural coatings | | 25% | | | | |
| | | | | | | | acres/day | | | | |
| | | | | | Asphalt off-gas | | 0.00 | | | | |
| PHASE II | Westways | Construction (Berths 70-71 NOAA Building and Wave Tank) | 2g | 2023 | **Construction Equipment** | | hr/day | | daily hp-hr | fuel use (lb/day) | total operating days |
| | | | | | Graders | 1 | 6 | | | 135 | 405 |
| | | | | | Excavators | 1 | 8 | | | 164 | 405 |
| | | | | | Asphalt truck | 1 | 4 | | | 210 | 15 |
| | | | | | Pavers | 1 | 4 | | | 48 | 15 |
| | | | | | Water Truck | 1 | 4 | | | 210 | 135 |
| | | | | | Striper | 1 | 2 | | | 110 | 8 |
| | | | | | Rollers | 1 | 4 | | | 48 | 15 |
| | | | | | Tractors/loaders/backhoes | 1 | 8 | | | 90 | 405 |
| | | | | | Cranes | 1 | 8 | | | 284 | 360 |
| | | | | | Pile Driving | 1 | 8 | | | 439 | 90 |
| | | | | | **Vehicle Exhaust** | Number Active[3] | hr/day | one-way trips/day | VMT (mi/day) | | total operating days |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | 4 | | 8 | 280 | | 405 |
| | | | | | Trucks material deliveries - onsite transit exhaust | 4 | | 8 | 4.0 | | 405 |
| | | | | | Trucks material deliveries - onsite idling exhaus | 4 | | 8 | | | 405 |
| | | | | | Trucks construction/demolition - offsite transit & idling exhaus | 1 | | 1.0 | 35 | | 405 |
| | | | | | Trucks construction/demolition - onsite transit exhaust | 1 | | 1.0 | 0.5 | | 405 |
| | | | | | Trucks construction/demolition - onsite idling exhaust | 1 | | 1.0 | | | 405 |
| | | | | | Worker vehicles exhaus | 12 | | 2 | 60 | | 405 |
| | | | | | **Fugitive Emissions** | | | | | | |
| | | | | | Trucks material deliveries paved road dust | 4 | | 9 | 315 | | 810 |
| | | | | | Worker vehicles paved road dust | 12 | | 2 | 60 | | 405 |
| | | | | | | | | | VMT (mi/day) | | |
| | | | | | Fugitive construction dust - grading | 3 | | | 1.03 | | 0 |
| | | | | | Fugitive construction dust - demolition | | 25% | | | | |
| | | | | | Fugitive construction dust - demolition debris loading | | 25% | | | | |

**Table C.2 Construction Equipment Utilizatio**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Trucks hauling in clean soil - onsite idling exhaus | | | |
| | | | | | Worker vehicles exhaus | | | 33,000 |
| | | | | | **Fugitive Emissions** | | | |
| | | | | | Trucks (all) paved road dust | | | 597,899 |
| | | | | | Worker vehicles paved road dust | | | 33,000 |
| | | | | | | | | VMT (mi/yr) |
| | | | | | Fugitive construction dust - grading | | | 8.81375 |
| | | | | | Fugitive construction dust - soil moving/handling | | | |
| | | | | | | total volume of soil handled (cy) | | |
| | | | | | Fugitive construction dust - soil loading/unloading | | 170,828 | |
| | | | | | Fugitive construction dust - demolition | | | |
| | | | | | Fugitive construction dust - demolition debris loading | | | |
| | | | | | Architectural coatings | | | |
| | | | | | Asphalt off-gas | | | |
| | | Construction (Berths 70-71 NOAA Building | | | | | | fuel use |
| PHASE II | Westways | and Wave Tank) | 2g | 2023 | **Construction Equipment** | | | (lb/yr) |
| | | | | | Graders | | | 54,656 |
| | | | | | Excavators | | | 66,349 |
| | | | | | Asphalt truck | | | 3,152 |
| | | | | | Pavers | | | 725 |
| | | | | | Water Truck | | | 28,365 |
| | | | | | Striper | | | 878 |
| | | | | | Rollers | | | 721 |
| | | | | | Tractors/loaders/backhoes | | | 36,551 |
| | | | | | Cranes | | | 102,400 |
| | | | | | Pile Driving | | | 39,514 |
| | | | | | **Vehicle Exhaust** | | | VMT (mi/yr) |
| | | | | | Trucks material deliveries - offsite transit & idling exhaus | | | 113,400 |
| | | | | | Trucks material deliveries - onsite transit exhaust | | | 1,620 |
| | | | | | Trucks material deliveries - onsite idling exhaus | | | |
| | | | | | Trucks construction/demolition - offsite transit & idling exhaus | | 60 | 260,750 |
| | | | | | Trucks construction/demolition - onsite transit exhaust | | | 203 |
| | | | | | Trucks construction/demolition - onsite idling exhaust | | | |
| | | | | | Worker vehicles exhaus | | | 24,300 |
| | | | | | **Fugitive Emissions** | | | |
| | | | | | Trucks material deliveries paved road dust | | | 374,150 |
| | | | | | Worker vehicles paved road dust | | | 24,300 |
| | | | | | | | | VMT (mi/yr) |
| | | | | | Fugitive construction dust - grading | | | 4.4 |
| | | | | | Fugitive construction dust - demolition | | | |
| | | | | | Fugitive construction dust - demolition debris loading | | | |

**Table C.2 Construction Equipment Utilizatio**

| | | | | Building Footprint (sqft) | interior&exterior |
|---|---|---|---|---|---|
| | Architectural coatings | fugitive | onsite | 331,000 | 100% |
| | | | | Total Acres | |
| | Asphalt off-gas | fugitive | onsite | 8.03 | |

[1] Source of equipment categories: POLA staff, URBEMIS defaults, and equipment used in the San Pedro Waterfront analysis.
[2] CARB Air Quality, Emissions Inventory, Mobile Source Emission Inventory -- Categories. http://www.arb.ca.gov/msei/categories.htm#inuse_or_category. Last viewed October 2011
[3] CalEEMod, Appendix D, Table 3.3
[4] URBEMIS defaults and equipment specifications used in the San Pedro Waterfront analysis.

**Table C.2 Construction Equipment Utilizatio**

| | peak day paint rate |
|---|---|
| Architectural coatings | 25% |
| | acres/day |
| Asphalt off-gas | 2.01 |

[1] Source of equipment categories: POLA staff, URBEMIS defaults, and equipment used in the San Pedro Waterfront analysis.
[2] CARB Air Quality, Emissions Inventory, Mobile Source Emission Inventory -- Categories. http://www.arb.ca.gov/msei/categories.htm#inuse_or_category. Last viewed October 2011
[3] CalEEMod, Appendix D, Table 3.3
[4] URBEMIS defaults and equipment specifications used in the San Pedro Waterfront analysis.

**Table C.2 Construction Equipment Utilizatio**

| | |
|---|---|
| Architectural coatings | |
| Asphalt off-gas | |

[1] Source of equipment categories: POLA staff, URBEMIS defaults, and equipment used in the San Pedro Waterfront analysis.
[2] CARB Air Quality, Emissions Inventory, Mobile Source Emission Inventory -- Categories. http://www.arb.ca.gov/msei/categories.htm#inuse_or_category. Last viewed October 2011
[3] CalEEMod, Appendix D, Table 3.3
[4] URBEMIS defaults and equipment specifications used in the San Pedro Waterfront analysis.

**Table C.3 Operational Equipment Utilization**

| er | Element | | ID | Year | Equipment/Process[1] | Source Type | Emissions Location | Fuel | CARB 2011 Assumed Minimum Power (hp)[2] | CARB 2011 Assumed Maximum Power (hp)[2] | CARB 2011 Key | CARB 2007 Assumed Maximum Power (hp) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Baseline | Berth 56 | CDFG Buiding | 5 | 2011 | | | | | | | | |
| | | | | | **Marine Sources** | marine | | | | | | |
| | | | | | **Land-Side Sources** | | | | | | | |
| | | | | | Forklifts | land | onsite | propane/nat | 50 | 120 | 2011_Forklifts_120hp | 120 |
| | | | | | Cranes | land | onsite | dsl | 120 | 120 | 2011_Cranes_120hp | 120 |
| | | | | | Generator Sets | land | onsite | dsl | 120 | 175 | 2011_Other General Industrial Equipment_175l | 120 |
| | | | | | **Vehicle Exhaust** | | | Fuel | Truck Capacity (cu.yd) | | | |
| | | | | | Trucks material deliveries - offsite transit & idling exhaust | vehicle | offsite | dsl | | T6 instate hea | 2011_T6 instate heavy_dsl | |
| | | | | | Trucks material deliveries - onsite transit exhaust | vehicle | onsite | dsl | | T6 instate hea | 2011_T6 instate heavy_dsl_onsite transit | |
| | | | | | Trucks material deliveries - onsite idling exhaust | vehicle | onsite idling | dsl | | T6 instate hea | 2011_HHDT_dsl_onsite idling | |
| | | | | | Worker/visitor vehicles exhaust | vehicle | offsite | gas&dsl | | LDA/LDT1 | 2011_LDA/LDT1_gas&dsl | |
| | | | | | **Fugitive Sources** | | | | | | | |
| | | | | | Trucks (all) paved road dust | fugitive | offsite | dsl | 22 | T6 instate heavy | | |
| | | | | | Worker/visitor vehicles paved road dust | fugitive | offsite | | | LDA | | |
| | | | | | Landscape Equipment | | | | | | | |
| | | | | | Architectural coatings | fugitive | onsite | | | | | |
| | | | | | **GHG-only Sources** | | | | | | | |
| | | | | | Energy Use | utility - Electricity | offsite | | | | | |
| | | | | | | utility - Natural Gas | onsite | | | | | |
| | | | | | Water Use | utility | offsite | | | | | |
| | | | | | Wastewater | utility | offsite | | | | | |

**Table C.3 Operational Equipment Utilization**

| er | Element | | ID | Year | Equipment/Process[1] | CARB 2007 Key | Power (hp)[3] | Power (kW) | Load Factor[2] | Number Active[1] | Peak Day Activity |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Baseline | Berth 56 | CDFG Buiding | 5 | 2011 | | | | | | | hr/day |
| | | | | | **Marine Sources** | | | | | | |
| | | | | | **Land-Side Sources** | | | | | | (hr/day)/unit |
| | | | | | Forklifts | 2011_Forklifts_120hp | 114 | | 0.201 | 1 | 2 |
| | | | | | Cranes | 2016_Cranes_120hp | 139 | | 0.228 | 1 | 2 |
| | | | | | Generator Sets | 2011_Generator Sets_120hp | 175 | | 0.3417 | 1 | 2 |
| | | | | | | | | Miles Traveled (mi/trip) | Idling (min) / trip | Number Active/day | trip/day/vehicle |
| | | | | | **Vehicle Exhaust** | | | | | | |
| | | | | | Trucks material deliveries - offsite transit & idling exhaust | | | 35 | | 2 | |
| | | | | | Trucks material deliveries - onsite transit exhaust | | | 0.5 | | 2 | |
| | | | | | Trucks material deliveries - onsite idling exhaust | | | | 5 | 2 | |
| | | | | | Worker/visitor vehicles exhaust | | | 30.0 | | 3.2 | 2 |
| | | | | | **Fugitive Sources** | | | | | | |
| | | | | | Trucks (all) paved road dust | | | 35 | | 2.0 | 0 |
| | | | | | Worker/visitor vehicles paved road dust | | | 30 | | 3.2 | 2 |
| | | | | | Landscape Equipment | | 15 | | | | |
| | | | | | | | Building Footage (sqft) | exterior&interior | | | peak day paint rate |
| | | | | | Architectural coatings | | 1,600 | 0% | | | 25% |
| | | | | | **GHG-only Sources** | | | | | | |
| | | | | | | | Building Footage (sqft) | | | | Energy Use (kW-hr/day or kBtu/day) |
| | | | | | Energy Use | | 1,600 | | | | 20 |
| | | | | | | | 1,600 | | | | 2 |
| | | | | | | | | | | Electricity Use for Supply, Treatment and Distribution (kw-hr/MMGal) | Water Use (gal/day) |
| | | | | | Water Use | | | | | 13,021 | 266 |
| | | | | | | | | | Wastewater Generation | | |
| | | | | | | | Building Footage (sqft) | | Rate (gpd/1000 sft) | | gal/day |
| | | | | | Wastewater | | 1,600 | | 150.00 | | 240.00 |

**Table C.3 Operational Equipment Utilization**

| er | Element | | ID | Year | Equipment/Process[1] | | | Activity | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | daily hp-hr | fuel use (lb/day) | total operating days | | | fuel use (lb/yr) |
| Baseline | Berth 56 | CDFG Buiding | | 5 2011 | **Marine Sources** | | | | | | |
| | | | | | **Land-Side Sources** | | fuel use (lb/day) | (total days)/unit | | (day/yr)/unit | fuel use (lb/yr) |
| | | | | | Forklifts | | | 12 | 730 | 365 | 4,431 |
| | | | | | Cranes | | | 19 | 730 | 365 | 6,837 |
| | | | | | Generator Sets | | | 37 | 730 | 365 | 13,648 |
| | | | | | **Vehicle Exhaust** | VMT (mi/day)/unit | | total trips/unit | total trips/yr/unit | | VMT (mi/yr)/unit |
| | | | | | Trucks material deliveries - offsite transit & idling exhaust | 70 | | 365 | | 365 | 25,550 |
| | | | | | Trucks material deliveries - onsite transit exhaust | 1 | | 365 | | 365 | 365 |
| | | | | | Trucks material deliveries - onsite idling exhaust | | | 365 | | 365 | |
| | | | | | Worker/visitor vehicles exhaust | 60 | | 365 | | 365 | 21,900 |
| | | | | | **Fugitive Sources** | | | | | | |
| | | | | | Trucks (all) paved road dust | 70 | | 365 | | 365 | 25,550 |
| | | | | | Worker/visitor vehicles paved road dust | 60 | | 365 | | 365 | 21,900 |
| | | | | | Landscape Equipment | | | | | | |
| | | | | | Architectural coatings | | | reapplication rate 10% | | | |
| | | | | | **GHG-only Sources** | | | | | | |
| | | | | | Energy Use | | | Energy Use (kW-hr/yr or kBtu/yr) 7,392 | | | |
| | | | | | | | | 624 | | | |
| | | | | | Water Use | | | Water Use (gal/yr) 97,090 | | | |
| | | | | | Wastewater | | | gal/yr 87,600 | | | |

**Table C.3 Operational Equipment Utilization**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Solid Waste | utility | offsite | | | | | | |
| Baseline | Berth 57 | Transit Shed Warehouse | 6 | 2011 | | | | | | | | | |
| | | | | | **Marine Sources** | | | | | | | | |
| | | | | | **Land-Side Sources** | | | | | | | | |
| | | | | | Forklifts | land | onsite | propane/nat | 50 | 120 | 2011_Forklifts_120hp | 120 | |
| | | | | | Cranes | land | onsite | dsl | 120 | 120 | 2011_Cranes_120hp | 120 | |
| | | | | | Generator Sets | land | onsite | dsl | 120 | 175 | 2011_Other General Industrial Equipment_175l | 120 | |
| | | | | | **Vehicle Exhaust** | | | Fuel | Truck Capacity (cu.yd) | | | | |
| | | | | | Trucks material deliveries - offsite transit & idling exhaust | vehicle | offsite | dsl | | T6 instate hea | 2011_T6 instate heavy_dsl | | |
| | | | | | Trucks material deliveries - onsite transit exhaust | vehicle | onsite | dsl | | T6 instate hea | 2011_T6 instate heavy_dsl_onsite transit | | |
| | | | | | Trucks material deliveries - onsite idling exhaust | vehicle | onsite idling | dsl | | T6 instate hea | 2011_HHDT_dsl_onsite idling | | |
| | | | | | Worker/visitor vehicles exhaust | vehicle | offsite | gas&dsl | | LDA/LDT1 | 2011_LDA/LDT1_gas&dsl | | |
| | | | | | **Fugitive Sources** | | | | | | | | |
| | | | | | Trucks (all) paved road dust | fugitive | offsite | dsl | 22 | T6 instate heavy | | | |
| | | | | | Worker/visitor vehicles paved road dust | fugitive | offsite | | | LDA | | | |
| | | | | | Landscape Equipment | | | | | | | | |
| | | | | | Architectural coatings | fugitive | onsite | | | | | | |
| | | | | | **GHG-only Sources** | | | | | | | | |
| | | | | | Energy Use | utility - Electricity | offsite | | | | | | |
| | | | | | | utility - Natural Gas | onsite | | | | | | |
| | | | | | Water Use | utility | offsite | | | | | | |
| | | | | | Wastewater | utility | offsite | | | | | | |
| | | | | | Solid Waste | utility | offsite | | | | | | |

**Table C.3 Operational Equipment Utilization**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | ton/day | |
| | | | | | Solid Waste | | | | | | 0.00 | |
| Baseline | Berth 57 | Transit Shed Warehouse | 6 | 2011 | | | | | | | | |
| | | | | | **Marine Sources** | | | | | | | |
| | | | | | **Land-Side Sources** | | | | | | | |
| | | | | | | | | | | | (hr/day)/unit | |
| | | | | | Forklifts | 2011_Forklifts_120hp | 114 | | 0.201 | 2 | 2 | |
| | | | | | Cranes | 2016_Cranes_120hp | 139 | | 0.228 | 0 | 2 | |
| | | | | | Generator Sets | 2011_Generator Sets_120hp | 175 | | 0.3417 | 0 | 2 | |
| | | | | | | | | Miles Traveled (mi/trip) | Idling (min) / trip | Number Active (ADT)[3] | | trip/day/vehicle |
| | | | | | **Vehicle Exhaust** | | | | | | | |
| | | | | | Trucks material deliveries - offsite transit & idling exhaust | | | 35 | | 16 | | |
| | | | | | Trucks material deliveries - onsite transit exhaust | | | 0.5 | | 16 | | |
| | | | | | Trucks material deliveries - onsite idling exhaust | | | | 5 | 16 | | |
| | | | | | Worker/visitor vehicles exhaust | | | 30.0 | | 23 | | 2 |
| | | | | | **Fugitive Sources** | | | | | | | |
| | | | | | Trucks (all) paved road dust | | | 35 | | 16 | | 0 |
| | | | | | Worker/visitor vehicles paved road dust | | | 30 | | 23 | | 2 |
| | | | | | Landscape Equipment | | 15 | | | | | |
| | | | | | | | Building Footage (sqft) | exterior&interior | | | peak day paint rate | |
| | | | | | Architectural coatings | | 46,500 | 0% | | | 25% | |
| | | | | | **GHG-only Sources** | | | | | | | |
| | | | | | | | Building Footage (sqft) | | | | Energy Use (kW-hr/day or kBtu/day) | |
| | | | | | Energy Use | | 46,500 | | | | 171 | |
| | | | | | | | 46,500 | | | | 3.8 | |
| | | | | | | | | | | Electricity Use for Supply, Treatment and Distribution (kw-hr/MMGal) | Water Use (gal/day) | |
| | | | | | Water Use | | | | | 13,021 | 1,032 | |
| | | | | | | | Building Footage (sqft) | | Wastewater Generation Rate (gpd/1000 sft) | | gal/day | |
| | | | | | Wastewater | | 46,500 | | 20.00 | | 930.00 | |
| | | | | | | | | | | | ton/day | |
| | | | | | Solid Waste | | | | | | 0.23 | |

**Table C.3 Operational Equipment Utilization**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | ton/yr | | |
| | | | | | Solid Waste | | | 0 | | |
| Baseline | Berth 57 | Transit Shed Warehouse | 6 | 2011 | | | | | | |
| | | | | | **Marine Sources** | | | | | |
| | | | | | **Land-Side Sources** | fuel use (lb/day) | (total days)/unit | | (day/yr)/unit | fuel use (lb/yr) |
| | | | | | Forklifts | | 24 | 730 | 365 | 8,861 |
| | | | | | Cranes | | 0 | 730 | 365 | 0 |
| | | | | | Generator Sets | | 0 | 730 | 365 | 0 |
| | | | | | **Vehicle Exhaust** | VMT (mi/day)/unit | total trips/unit | total trips/yr/unit | | VMT (mi/yr)/unit |
| | | | | | Trucks material deliveries - offsite transit & idling exhaust | 35 | 365 | 365 | | 12,775 |
| | | | | | Trucks material deliveries - onsite transit exhaust | 0.5 | 365 | 365 | | 183 |
| | | | | | Trucks material deliveries - onsite idling exhaust | | 365 | 365 | | |
| | | | | | Worker/visitor vehicles exhaust | 60 | 365 | | | 21,900 |
| | | | | | **Fugitive Sources** | | | | | |
| | | | | | Trucks (all) paved road dust | 35 | 365 | | | 12,775 |
| | | | | | Worker/visitor vehicles paved road dust | 60 | 365 | | | 21,900 |
| | | | | | Landscape Equipment | | | | | |
| | | | | | | | | reapplication rate | | |
| | | | | | Architectural coatings | | | 10% | | |
| | | | | | **GHG-only Sources** | | | | | |
| | | | | | | | | Energy Use (kW-hr/yr or kBtu/yr) | | |
| | | | | | Energy Use | | | 62,310 | | |
| | | | | | | | | 1,395 | | |
| | | | | | | | | Water Use (gal/yr) | | |
| | | | | | Water Use | | | 376,680 | | |
| | | | | | | | | gal/yr | | |
| | | | | | Wastewater | | | 339,450 | | |
| | | | | | | | | ton/yr | | |
| | | | | | Solid Waste | | | 84 | | |

**Table C.3 Operational Equipment Utilization**

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Baseline | Berth 57 | San Pedro Bait Company | 6b | 2011 | | | | | | | | | | |
| | | | | | **Marine Sources** | | | | Number of Engines/Vessel | Number Active/Peak Day | Number Active/Average Day | | Percent of Work in Harbor | |
| | | | | | Fishing vessel 2011 main engine transit & work | marine | offsite | diesel | 1 | 2 | | 2 | 0% | |
| | | | | | Fishing vessel 2011 main engine berth idling | marine | onsite | diesel | 1 | 2 | | 2 | | |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Baseline | Berth 60 | Water Taxi | 7 | 2011 | | | | | | | | | | |
| | | | | | **Marine Sources** | | | | Number of Engines/Vessel | Number Active/Peak Day | Number Active/Average Day | | Percent of Work in Harbor | |
| | | | | | Water taxi main engine transit & work | marine | offsite | diesel | 2 | 5 | | 5 | 100% | |
| | | | | | Water taxi main engine berth idling | marine | onsite | diesel | 2 | 5 | | 5 | | |
| | | | | | Water taxi auxiliary engine transit & work | marine | offsite | diesel | 1 | 5 | | 5 | 100% | |
| | | | | | Water taxi auxiliary engine berth idling | marine | onsite | diesel | 1 | 5 | | 5 | | |

**Table C.3 Operational Equipment Utilization**

| | | | | | | | | | | SCAB/State: Working hr/day | Idling hr/day |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Baseline | Berth 57 | San Pedro Bait Company | 6b | 2011 | | | | | | | |
| | | | | | **Marine Sources** | Percent of Work in SCAB | Power (hp)[3] | Power (kW) | Load Factor[2] | | |
| | | | | | Fishing vessel 2011 main engine transit & work | 50% | | 400 | 0.27 | 4 | |
| | | | | | Fishing vessel 2011 main engine berth idling | | | 400 | 0.27 | | 0.17 |

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| | | | | | | | | | SCAB/State: working hr/day | Idling hr/day |
|---|---|---|---|---|---|---|---|---|---|---|
| Baseline | Berth 60 | Water Taxi | 7 | 2011 | | | | | | |
| | | | | | **Marine Sources** | Power (hp)[3] | Power (kW) | Load Factor[2] | | |
| | | | | | Water taxi main engine transit & work | | 690 | 0.38 | 4 | |
| | | | | | Water taxi main engine berth idling | | 690 | 0.38 | | 0.17 |
| | | | | | Water taxi auxiliary engine transit & work | | 68 | 0.32 | 4 | |
| | | | | | Water taxi auxiliary engine berth idling | | 68 | 0.32 | | 0.17 |

**Table C.3 Operational Equipment Utilization**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Baseline | Berth 57 | San Pedro Bait Company | 6b | 2011 | | Average Harbor: Working hr/day | power requirement (hp-hr/day/vessel); nonworking electrical requirement (kw-hr/day/vessel) | working days/year | SCAB/State power requirement (hp-hr/yr/vessel); nonworking electrical requirement (kw-hr/yr/vessel) | Harbor power requirement (hp-hr/yr/vessel); nonworking electrical requirement (kw-hr/yr/vessel) |
| | | | | | **Marine Sources** | | | | | |
| | | | | | Fishing vessel 2011 main engine transit & work | 0.8 | 432 | 365 | 78,840 | 31,536 |
| | | | | | Fishing vessel 2011 main engine berth idling | | 18 | 365 | 6,570 | 6,570 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Baseline | Berth 60 | Water Taxi | 7 | 2011 | | Peak Harbor: Working hr/day | power requirement (hp-hr/day/vessel); nonworking electrical requirement (kw-hr/day/vessel) | working days/year | SCAB/State power requirement (hp-hr/yr/vessel); nonworking electrical requirement (kw-hr/yr/vessel) | Harbor power requirement (hp-hr/yr/vessel); nonworking electrical requirement (kw-hr/yr/vessel) |
| | | | | | **Marine Sources** | | | | | |
| | | | | | Water taxi main engine transit & work | 4 | 2,099 | 365 | 766,011 | 766,011 |
| | | | | | Water taxi main engine berth idling | | 87 | 365 | 31,917 | 31,917 |
| | | | | | Water taxi auxiliary engine transit & work | 4 | 88 | 365 | 31,940 | 31,940 |
| | | | | | Water taxi auxiliary engine berth idling | | 4 | 365 | 1,331 | 1,331 |

**Table C.3 Operational Equipment Utilization**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Water taxi electrical use at berth | marine | offsite | diesel | 1 | 5 | | 5 | |
| **Land-Side Sources** | | | | | | | | |
| | land | | | | | | | |
| Forklifts | land | onsite | propane/nat | 50 | 120 | 2011_Forklifts_120hp | | 120 |
| Cranes | land | onsite | dsl | 120 | 120 | 2011_Cranes_120hp | | 120 |
| Generator Sets | land | onsite | dsl | 120 | 175 | 2011_Other General Industrial Equipment_175l | | 120 |
| **Vehicle Exhaust** | | | Fuel | Truck Capacity (cu.yd) | | | | |
| Trucks material deliveries - offsite transit & idling exhaust | vehicle | offsite | dsl | | T6 instate hea | 2011_T6 instate heavy_dsl | | |
| Trucks material deliveries - onsite transit exhaust | vehicle | onsite | dsl | | T6 instate hea | 2011_T6 instate heavy_dsl_onsite transit | | |
| Trucks material deliveries - onsite idling exhaust | vehicle | onsite idling | dsl | | T6 instate hea | 2011_HHDT_dsl_onsite idling | | |
| Worker/visitor vehicles exhaust | vehicle | offsite | gas&dsl | | LDA/LDT1 | 2011_LDA/LDT1_gas&dsl | | |
| **Fugitive Sources** | | | | | | | | |
| Trucks (all) paved road dust | fugitive | offsite | dsl | 22 | T6 instate heavy | | | |
| Worker/visitor vehicles paved road dust | fugitive | offsite | | | LDA | | | |
| Landscape Equipment | | | | | | | | |
| Architectural coatings | fugitive | onsite | | | | | | |
| **GHG-only Sources** | | | | | | | | |
| Energy Use | utility - Electricity | offsite | | | | | | |
| | utility - Natural Gas | onsite | | | | | | |
| Water Use | utility | offsite | | | | | | |
| Wastewater | utility | offsite | | | | | | |
| Solid Waste | utility | offsite | | | | | | |

**Table C.3 Operational Equipment Utilization**

| | | | | | |
|---|---|---|---|---|---|
| Water taxi electrical use at berth | | 51 | 0.32 | | |

**Land-Side Sources**

| | | | | | (hr/day)/unit |
|---|---|---|---|---|---|
| Forklifts | 2011_Forklifts_120hp | 114 | 0.201 | 0 | 2 |
| Cranes | 2016_Cranes_120hp | 139 | 0.228 | 0 | 2 |
| Generator Sets | 2011_Generator Sets_120hp | 175 | 0.3417 | 0 | 2 |

| **Vehicle Exhaust** | Miles Traveled (mi/trip) | Idling (min) / trip | Number Active/day | trip/day/vehicle |
|---|---|---|---|---|
| Trucks material deliveries - offsite transit & idling exhaust | 35 | | 2 | |
| Trucks material deliveries - onsite transit exhaust | 0.5 | | 2 | |
| Trucks material deliveries - onsite idling exhaust | | 5 | 2 | |
| Worker/visitor vehicles exhaust | 30.0 | | 2.5 | 2 |

**Fugitive Sources**

| | | | | |
|---|---|---|---|---|
| Trucks (all) paved road dust | 35 | | 2.0 | |
| Worker/visitor vehicles paved road dust | 30 | | 2.5 | 2 |

| | | | | |
|---|---|---|---|---|
| Landscape Equipment | 15 | | | |
| | Building Footage (sqft) | exterior&interior | | peak day paint rate |
| Architectural coatings | 1,232 | 0% | | 25% |

**GHG-only Sources**

| | Building Footage (sqft) | Energy Use (kW-hr/day or kBtu/day) |
|---|---|---|
| Energy Use | 1,232 | 16 |
| | 1,232 | 1.3 |

| | | | Electricity Use for Supply, Treatment and Distribution (kw-hr/MMGal) | Water Use (gal/day) |
|---|---|---|---|---|
| Water Use | | | 13,021 | 109 |

| | Building Footage (sqft) | Wastewater Generation Rate (gpd/1000 sft) | gal/day |
|---|---|---|---|
| Wastewater | 1,232 | 80.00 | 98.56 |

| | ton/day |
|---|---|
| Solid Waste | 0.01 |

**Table C.3 Operational Equipment Utilization**

| | | | | | |
|---|---|---|---|---|---|
| Water taxi electrical use at berth | 0 | 0 | 365 | 0 | 0 |

| | Peak Harbor: Working hr/day | fuel use (lb/day) | (total days)/unit | (day/yr)/unit | fuel use (lb/yr) |
|---|---|---|---|---|---|
| **Land-Side Sources** | | | | | |
| Forklifts | | | 0 730 | 365 | 0 |
| Cranes | | | 0 730 | 365 | 0 |
| Generator Sets | | | 0 730 | 365 | 0 |

| | VMT (mi/day)/unit | total trips/unit | total trips/yr/unit | VMT (mi/yr)/unit |
|---|---|---|---|---|
| **Vehicle Exhaust** | | | | |
| Trucks material deliveries - offsite transit & idling exhaust | 70 | 365 | 365 | 25,550 |
| Trucks material deliveries - onsite transit exhaust | 1 | 365 | 365 | 365 |
| Trucks material deliveries - onsite idling exhaust | | 365 | 365 | |
| Worker/visitor vehicles exhaust | 60 | 365 | | 21,900 |
| **Fugitive Sources** | | | | |
| Trucks (all) paved road dust | 70 | 365 | | 25,550 |
| Worker/visitor vehicles paved road dust | 60 | 365 | | 21,900 |
| Landscape Equipment | | | | |

| | reapplication rate |
|---|---|
| Architectural coatings | 10% |

**GHG-only Sources**

| | Energy Use (kW-hr/yr or kBtu/yr) |
|---|---|
| Energy Use | 5,692 |
| | 481 |

| | Water Use (gal/yr) |
|---|---|
| Water Use | 39,785 |

| | gal/yr |
|---|---|
| Wastewater | 35,974 |

| | ton/yr |
|---|---|
| Solid Waste | 5 |

**Table C.3 Operational Equipment Utilization**

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Baseline | Berth 260 | SMCI Facility | 8 | 2011 | | | | | | | | | |
| | | | | **Marine Sources** | | | | Number of Engines/Vessel | Number Active/Peak Day | Number Active/Average Day | | Percent of Work in Harbor | |
| | | | | SCMI 2011 large vessel main engine transit | marine | offsite | diesel | 2 | 4 | | 2 | 35% | |
| | | | | SCMI 2011 large vessel main engine berth idling | marine | onsite | diesel | 2 | 4 | | 2 | | |
| | | | | SCMI 2011 large vessel auxiliary engine transit | marine | offsite | diesel | 1 | 4 | | 2 | 35% | |
| | | | | SCMI 2011 large vessel auxiliary engine berth idling | marine | onsite | diesel | 1 | 4 | | 2 | | |
| | | | | SCMI 2011 large vessel electrical use at berth | marine | offsite | diesel | 1 | 4 | | 2 | | |
| | | | | SCMI 2011 small vessel main engine transit | marine | offsite | diesel | 2 | 5 | | 2 | 35% | |
| | | | | SCMI 2011 small vessel main engine berth idling | marine | onsite | diesel | 2 | 5 | | 2 | | |
| | | | | SCMI 2011 small vessel auxiliary engine transit | marine | offsite | diesel | 1 | 5 | | 2 | 35% | |
| | | | | SCMI 2011 small vessel auxiliary engine berth idling | marine | onsite | diesel | 1 | 5 | | 2 | | |
| | | | | SCMI 2011 small vessel electrical use at berth | marine | offsite | diesel | 1 | 5 | | 2 | | |

**Table C.3 Operational Equipment Utilization**

| | | | | | | | | | | SCAB/State: working hr/day | Idling hr/day |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Baseline | Berth 260 | SMCI Facility | 8 | 2011 | | | | | | | |
| | | | | | **Marine Sources** | Power (hp)[3] | Power (kW) | Load Factor[2] | | | |
| | | | | | SCMI 2011 large vessel main engine transit | 250 | | 0.38 | | 6 | |
| | | | | | SCMI 2011 large vessel main engine berth idling | 250 | | 0.38 | | | 0.17 |
| | | | | | SCMI 2011 large vessel auxiliary engine transit | 55 | | 0.32 | | 6 | |
| | | | | | SCMI 2011 large vessel auxiliary engine berth idling | 55 | | 0.32 | | | 0.17 |
| | | | | | SCMI 2011 large vessel electrical use at berth | 55 | 41 | 0.32 | | | 18 |
| | | | | | SCMI 2011 small vessel main engine transit | 75 | | 0.38 | | 4 | |
| | | | | | SCMI 2011 small vessel main engine berth idling | 75 | | 0.38 | | | 0.08 |
| | | | | | SCMI 2011 small vessel auxiliary engine transit | 55 | | 0.32 | | 4 | |
| | | | | | SCMI 2011 small vessel auxiliary engine berth idling | 55 | | 0.32 | | | 0.08 |
| | | | | | SCMI 2011 small vessel electrical use at berth | 55 | 41 | 0.32 | | | |

**Table C.3 Operational Equipment Utilization**

| | | | | | | Average Harbor: working hr/day | Harbor: power requirement (hp-hr/day/vessel); nonworking electrical requirement (kw-hr/day/vessel) | working days/year | SCAB/State power requirement (hp-hr/yr/vessel); nonworking electrical requirement (kw-hr/yr/vessel) | Harbor power requirement (hp-hr/yr/vessel); nonworking electrical requirement (kw-hr/yr/vessel) |
|---|---|---|---|---|---|---|---|---|---|---|
| Baseline | Berth 260 | SMCI Facility | 8 | 2011 | | | | | | |
| | | | | | **Marine Sources** | | | | | |
| | | | | | SCMI 2011 large vessel main engine transit | 2.1 | 1,140 | 208 | 237,120 | 82,992 |
| | | | | | SCMI 2011 large vessel main engine berth idling | | 32 | 208 | 6,587 | 6,587 |
| | | | | | SCMI 2011 large vessel auxiliary engine transit | 2.1 | 106 | 208 | 7,688 | 7,688 |
| | | | | | SCMI 2011 large vessel auxiliary engine berth idling | | 3 | 208 | 610 | 610 |
| | | | | | SCMI 2011 large vessel electrical use at berth | | 236 | 208 | 49,157 | 49,157 |
| | | | | | SCMI 2011 small vessel main engine transit | | 228 | 156 | 12,449 | 12,449 |
| | | | | | SCMI 2011 small vessel main engine berth idling | | 5 | 156 | 741 | 741 |
| | | | | | SCMI 2011 small vessel auxiliary engine transit | | 70 | 156 | 3,844 | 3,844 |
| | | | | | SCMI 2011 small vessel auxiliary engine berth idling | | 1 | 156 | 229 | 229 |
| | | | | | SCMI 2011 small vessel electrical use at berth | 0 | - | 156 | 0 | 0 |

**Table C.3 Operational Equipment Utilization**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Land-Side Sources** | | | | | | | |
| Forklifts | land | onsite | propane/nat | 50 | 120 | 2011_Forklifts_120hp | 120 |
| Cranes | land | onsite | dsl | 120 | 120 | 2011_Cranes_120hp | 120 |
| Generator Sets | land | onsite | dsl | 120 | 175 | 2011_Other General Industrial Equipment_175l | 120 |
| | | | | Truck Capacity | | | |
| **Vehicle Exhaust** | | | Fuel | (cu.yd) | | | |
| Trucks material deliveries - offsite transit & idling exhaust | vehicle | offsite | dsl | | T6 instate hea | 2011_T6 instate heavy_dsl | |
| Trucks material deliveries - onsite transit exhaust | vehicle | onsite | dsl | | T6 instate hea | 2011_T6 instate heavy_dsl_onsite transit | |
| Trucks material deliveries - onsite idling exhaust | vehicle | onsite idling | dsl | | T6 instate hea | 2011_HHDT_dsl_onsite idling | |
| Worker/visitor vehicles exhaust | vehicle | offsite | gas&dsl | | LDA/LDT1 | 2011_LDA/LDT1_gas&dsl | |
| **Fugitive Sources** | | | | | | | |
| Trucks (all) paved road dust | fugitive | offsite | dsl | 22 | T6 instate heavy | | |
| Worker/visitor vehicles paved road dust | fugitive | offsite | | | LDA | | |
| Landscape Equipment | | | | | | | |
| Architectural coatings | fugitive | onsite | | | | | |
| **GHG-only Sources** | | | | | | | |
| Energy Use | utility - Electricity | offsite | | | | | |
| | utility - Natural Gas | onsite | | | | | |
| Water Use | utility | offsite | | | | | |
| Wastewater | utility | offsite | | | | | |
| Solid Waste | utility | offsite | | | | | |

**Table C.3 Operational Equipment Utilization**

**Land-Side Sources**

| | | | | | (hr/day)/unit |
|---|---|---|---|---|---|
| Forklifts | 2011_Forklifts_120hp | 114 | 0.201 | 1 | 2 |
| Cranes | 2016_Cranes_120hp | 139 | 0.228 | 1 | 2 |
| Generator Sets | 2011_Generator Sets_120hp | 175 | 0.3417 | 1 | 2 |

| **Vehicle Exhaust** | Miles Traveled (mi/trip) | Idling (min) / trip | Number Active/day | trip/day/vehicle |
|---|---|---|---|---|
| Trucks material deliveries - offsite transit & idling exhaust | 35 | | 2 | |
| Trucks material deliveries - onsite transit exhaust | 0.5 | | 2 | |
| Trucks material deliveries - onsite idling exhaust | | 5 | 2 | |
| Worker/visitor vehicles exhaust | 30.0 | | 5 | 2 |
| **Fugitive Sources** | | | | |
| Trucks (all) paved road dust | 35 | | 2.0 | 0 |
| Worker/visitor vehicles paved road dust | 30 | | 5 | 2 |

| | | | | |
|---|---|---|---|---|
| Landscape Equipment | 15 | | | |
| | Building Footage (sqft) | exterior&interior | | peak day paint rate |
| Architectural coatings | 56,500 | 0% | | 25% |

**GHG-only Sources**

| | Building Footage (sqft) | | | Energy Use (kW-hr/day or kBtu/day) |
|---|---|---|---|---|
| Energy Use | 56,500 | | | 378 |
| | 56,500 | | | 23 |

| | | | Electricity Use for Supply, Treatment and Distribution (kw-hr/MMGal) | Water Use (gal/day) |
|---|---|---|---|---|
| Water Use | | | 13,021 | 3,996 |

| | Building Footage (sqft) | Wastewater Generation Rate (gpd/1000 sft) | gal/day |
|---|---|---|---|
| Wastewater | 56,500 | 170.00 | 3600.00 |

| | ton/day |
|---|---|
| Solid Waste | 0.11 |

**Table C.3 Operational Equipment Utilization**

| | | Peak Harbor: working hr/day | | | | |
|---|---|---|---|---|---|---|
| **Land-Side Sources** | | fuel use (lb/day) | (total days)/unit | | (day/yr)/unit | fuel use (lb/yr) |
| Forklifts | | | 12 | 730 | 365 | 4,431 |
| Cranes | | | 19 | 730 | 365 | 6,837 |
| Generator Sets | | | 37 | 730 | 365 | 13,648 |
| **Vehicle Exhaust** | VMT (mi/day)/unit | | total trips/unit | total trips/yr/unit | | VMT (mi/yr)/unit |
| Trucks material deliveries - offsite transit & idling exhaust | 35 | | 365 | 365 | | 12,775 |
| Trucks material deliveries - onsite transit exhaust | 1 | | 365 | 365 | | 183 |
| Trucks material deliveries - onsite idling exhaust | | | 365 | 365 | | |
| Worker/visitor vehicles exhaust | 60 | | 365 | | | 21,900 |
| **Fugitive Sources** | | | | | | |
| Trucks (all) paved road dust | 35 | | 365 | | | 12,775 |
| Worker/visitor vehicles paved road dust | 60 | | 365 | | | 21,900 |
| Landscape Equipment | | | | | | |
| | | | reapplication rate | | | |
| Architectural coatings | | | 10% | | | |
| **GHG-only Sources** | | | | | | |
| | | | Energy Use (kW-hr/yr or kBtu/yr) | | | |
| Energy Use | | | 138,030 | | | |
| | | | 8,535 | | | |
| | | | Water Use (gal/yr) | | | |
| Water Use | | | 1,458,540 | | | |
| | | | gal/yr | | | |
| Wastewater | | | 3,505,825 | | | |
| | | | ton/'yr | | | |
| Solid Waste | | | 41 | | | |

**Table C.3 Operational Equipment Utilization**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Proposed Project | Berth 56-57 | Learning Center; SCMI Research Facility | 9 | 2016 | | | | | | | | |
| | | | | **Marine Sources** | | | | Number of Engines/Vessel | Number Active/Peak Day | Number Active/Average Day | Percent of Work in Harbor | |
| | | | | SCMI large vessel main engine transit & work | marine | offsite | diesel | 2 | 5 | 2 | 35% | |
| | | | | SCMI large vessel main engine berth idling | marine | onsite | diesel | 2 | 5 | 2 | | |
| | | | | SCMI large vessel auxiliary engine transit & work | marine | offsite | diesel | 1 | 5 | 2 | 35% | |
| | | | | SCMI large vessel auxiliary engine berth idling | marine | onsite | diesel | 1 | 5 | 2 | | |
| | | | | SCMI large vessel electrical use at berth | marine | offsite | diesel | 1 | 5 | 2 | | |
| | | | | SCMI small vessel main engine transit & work | marine | offsite | diesel | 2 | 7 | 2 | 35% | |
| | | | | SCMI small vessel main engine berth idling | marine | onsite | diesel | 2 | 7 | 2 | | |
| | | | | SCMI small vessel auxiliary engine transit & work | marine | offsite | diesel | 1 | 7 | 2 | 35% | |
| | | | | SCMI small vessel auxiliary engine berth idling | marine | onsite | diesel | 1 | 7 | 2 | | |
| | | | | SCMI small vessel electrical use at berth | marine | offsite | diesel | 1 | 7 | 2 | | |

**Table C.3 Operational Equipment Utilization**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Proposed Project | Berth 56-57 | Learning Center; SCMI Research Facility | 9 | 2016 | | | | SCAB/State: working hr/day | Idling hr/day |
| | | | | **Marine Sources** | Power (hp)[3] | Power (kW) | Load Factor[2] | | |
| | | | | SCMI large vessel main engine transit & work | 250 | | 0.38 | 6 | |
| | | | | SCMI large vessel main engine berth idling | 250 | | 0.38 | | 0.17 |
| | | | | SCMI large vessel auxiliary engine transit & work | 55 | | 0.32 | 6 | |
| | | | | SCMI large vessel auxiliary engine berth idling | 55 | | 0.32 | | 0.17 |
| | | | | SCMI large vessel electrical use at berth | 55 | 41 | 0.32 | | 18 |
| | | | | SCMI small vessel main engine transit & work | 75 | | 0.38 | 4 | |
| | | | | SCMI small vessel main engine berth idling | 75 | | 0.38 | | 0.08 |
| | | | | SCMI small vessel auxiliary engine transit & work | 55 | | 0.32 | 4 | |
| | | | | SCMI small vessel auxiliary engine berth idling | 55 | | 0.32 | | 0.08 |
| | | | | SCMI small vessel electrical use at berth | 55 | 41 | 0.32 | | 0 |

**Table C.3 Operational Equipment Utilization**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | power requirement (hp-hr/day/vessel); nonworking electrical requirement (kw-hr/day/vessel) | | | | |
| Proposed Project | Berth 56-57 | Learning Center; SCMI Research Facility | 9 | 2016 | | Average Harbor: working hr/day | | working days/year | SCAB/State power requirement (hp-hr/yr/vessel); nonworking electrical requirement (kw-hr/yr/vessel) | Harbor power requirement (hp-hr/yr/vessel); nonworking electrical requirement (kw-hr/yr/vessel) |
| | | | | **Marine Sources** | | | | | | | |
| | | | | SCMI large vessel main engine transit & work | | 2.1 | 1,140 | 208 | 237,120 | 82,992 | |
| | | | | SCMI large vessel main engine berth idling | | | 32 | 208 | 6,587 | 6,587 | |
| | | | | SCMI large vessel auxiliary engine transit & work | | 2.1 | 106 | 208 | 7,688 | 7,688 | |
| | | | | SCMI large vessel auxiliary engine berth idling | | | 3 | 208 | 610 | 610 | |
| | | | | SCMI large vessel electrical use at berth | | | 236 | 208 | 49,157 | 49,157 | |
| | | | | SCMI small vessel main engine transit & work | | 1.4 | 228 | 156 | 12,449 | 12,449 | |
| | | | | SCMI small vessel main engine berth idling | | | 5 | 156 | 741 | 741 | |
| | | | | SCMI small vessel auxiliary engine transit & work | | 1.4 | 70 | 156 | 3,844 | 3,844 | |
| | | | | SCMI small vessel auxiliary engine berth idling | | | 1 | 156 | 229 | 229 | |
| | | | | SCMI small vessel electrical use at berth | | | - | 156 | 0 | 0 | |

**Table C.3 Operational Equipment Utilization**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Land-Side Sources** | | | | | | | |
| Forklifts | land | onsite | propane/nat | 50 | 120 | 2016_Forklifts_120hp | 120 |
| Cranes | land | onsite | dsl | 120 | 120 | 2016_Cranes_120hp | 120 |
| Generator Sets | land | onsite | dsl | 120 | 175 | 2016_Other General Industrial Equipment_175l | 120 |
| | | | | Truck Capacity | | | |
| **Vehicle Exhaust** | | | Fuel | (cu.yd) | | | |
| Trucks material deliveries - offsite transit & idling exhaust | vehicle | offsite | dsl | | T6 instate hea | 2016_T6 instate heavy_dsl | |
| Trucks material deliveries - onsite transit exhaust | vehicle | onsite | dsl | | T6 instate hea | 2016_T6 instate heavy_dsl_onsite transit | |
| Trucks material deliveries - onsite idling exhaust | vehicle | onsite idling | dsl | | T6 instate hea | 2016_HHDT_dsl_onsite idling | |
| Worker/visitor vehicles exhaust | vehicle | offsite | gas&dsl | | LDA/LDT1 | 2016_LDA/LDT1_gas&dsl | |
| **Fugitive Sources** | | | | | | | |
| Trucks (all) paved road dust | fugitive | offsite | dsl | 22 | T6 instate heavy | | |
| Worker/visitor vehicles paved road dust | fugitive | offsite | | | LDA | | |
| Landscape Equipment | | | | | | | |
| Architectural coatings | fugitive | onsite | | | | | |
| **GHG-only Sources** | | | | | | | |
| Energy Use | utility - Electricity | offsite | | | | | |
| | utility - Natural Gas | onsite | | | | | |
| Water Use | utility | offsite | | | | | |
| Wastewater | utility | offsite | | | | | |
| Solid Waste | utility | offsite | | | | | |

**Table C.3 Operational Equipment Utilization**

**Land-Side Sources**

| | | | | | (hr/day) |
|---|---|---|---|---|---|
| Forklifts | 2016_Forklifts_120hp | 114 | 0.201 | 1 | 2 |
| Cranes | 2016_Cranes_120hp | 139 | 0.228 | 1 | 2 |
| Generator Sets | 2016_Generator Sets_120hp | 175 | 0.3417 | 1 | 2 |

| | Miles Traveled (mi/trip) | Idling (min) / trip | Number Active[3] | trip/day/vehicle |
|---|---|---|---|---|
| **Vehicle Exhaust** | | | | |
| Trucks material deliveries - offsite transit & idling exhaust | 35 | | 163 | |
| Trucks material deliveries - onsite transit exhaust | 0.5 | | 163 | |
| Trucks material deliveries - onsite idling exhaust | | 5 | 163 | |
| | | | ADTs | |
| Worker/visitor vehicles exhaust | 30.0 | | 1,440 | |
| **Fugitive Sources** | | | | |
| Trucks (all) paved road dust | 35 | | 163 | |
| Worker/visitor vehicles paved road dust | 30 | | 1,440 | |

| | | | | |
|---|---|---|---|---|
| Landscape Equipment | 15 | | | |
| | Building Footage (sqft) | exterior&interior | | peak day paint rate |
| Architectural coatings | 53,456 | 100% | | 25% |

**GHG-only Sources**

| | Building Footage (sqft) | Energy Use (kW-hr/day or kBtu/day) |
|---|---|---|
| Energy Use | 53,456 | 1,980 |
| | 53,456 | 2,403 |

| | Electricity Use for Supply, Treatment and Distribution (kw-hr/MMGal) | Water Use (gal/day) |
|---|---|---|
| Water Use | 13,021 | 4,166 |

| | Building Footage (sqft) | Wastewater Generation Rate (gpd/1000 sft) | gal/day |
|---|---|---|---|
| Wastewater | 53,456 | varies by space use | 8,961 |

| | ton/day |
|---|---|
| Solid Waste | 0.42 |

**Table C.3 Operational Equipment Utilization**

| | | Peak Harbor: working hr/day | | | | |
|---|---|---|---|---|---|---|
| **Land-Side Sources** | | fuel use (lb/day) | (total days)/unit | | (day/yr)/unit | fuel use (lb/yr) |
| Forklifts | | | 12 | 730 | 365 | 4,431 |
| Cranes | | | 19 | 730 | 365 | 6,831 |
| Generator Sets | | | 37 | 730 | 365 | 13,648 |
| **Vehicle Exhaust** | VMT (mi/day)/unit | | total trips/unit | total trips/yr/unit | | VMT (mi/yr)/unit |
| Trucks material deliveries - offsite transit & idling exhaust | 35 | | | 365 | 365 | 12,775 |
| Trucks material deliveries - onsite transit exhaust | 1 | | | 365 | 365 | 183 |
| Trucks material deliveries - onsite idling exhaust | | | | 365 | 365 | |
| Worker/visitor vehicles exhaust | 30 | | | 365 | | 10,950 |
| **Fugitive Sources** | | | | | | |
| Trucks (all) paved road dust | 35 | | | 365 | | 12,775 |
| Worker/visitor vehicles paved road dust | 30 | | | 365 | | 10,950 |
| Landscape Equipment | | | | | | |
| | | | reapplication rate | | | |
| Architectural coatings | | | 10% | | | |
| **GHG-only Sources** | | | | | | |
| | | | Energy Use (kW-hr/yr or kBtu/yr) | | | |
| Energy Use | | | 722,700 | | | |
| | | | 877,095 | | | |
| | | | Water Use (gal/yr) | | | |
| Water Use | | | 1,520,590 | | | |
| | | | gal/yr | | | |
| Wastewater | | | 3,270,765 | | | |
| | | | ton/yr | | | |
| Solid Waste | | | 152 | | | |

**Table C.3 Operational Equipment Utilization**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Proposed Project | Berth 58-60 | NOAA Temporary Berths | 10a | 2021 | | | | | | | | |
| | | | | **Marine Sources** | | | | Number of Engines/Vessel | Number Active/Peak Day | Number Active/Average Day | | Percent of Work in Harbor |
| | | | | NOAA vessel main engine transit | marine | offsite | diesel | 2 | 3 | | 2 | 0% |
| | | | | NOAA vessel main engine berth idling | marine | onsite | diesel | 2 | 3 | | 2 | |
| | | | | NOAA vessel auxiliary engine transit | marine | offsite | diesel | 2 | 3 | | 2 | 0% |
| | | | | NOAA vessel auxiliary engine berth idling | marine | onsite | diesel | 2 | 3 | | 2 | |
| | | | | NOAA vessel electrical use at berth | marine | offsite | diesel | 2 | 3 | | 2 | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Proposed Project | Berth 58-60 | SCMI Research Facility, Marine Business Park, Water Taxi, Café, Public Plaza | 7b | 2016 | | | | | | | | |
| | | | | **Marine Sources** | | | | Number of Engines/Vessel | Number Active/Peak Day | Number Active/Average Day | | Percent of Work in Harbor |
| | | | | Water taxi main engine transit & work | marine | offsite | diesel | 2 | 5 | | 5 | 100% |

**Table C.3 Operational Equipment Utilization**

| | | | | | | | | | SCAB/State: working hr/day | Idling hr/day |
|---|---|---|---|---|---|---|---|---|---|---|
| Proposed Project | Berth 58-60 | NOAA Temporary Berths | 10a | 2021 | | | | | | |
| | | | | **Marine Sources** | Power (hp)[3] | Power (kW) | Load Factor[2] | | | |
| | | | | NOAA vessel main engine transit | 1,772 | | 0.38 | | 2.4 | |
| | | | | NOAA vessel main engine berth idling | 1,772 | | 0.38 | | | 0.17 |
| | | | | NOAA vessel auxiliary engine transit | 1,210 | | 0.32 | | 2.4 | |
| | | | | NOAA vessel auxiliary engine berth idling | 1,210 | | 0.32 | | | 0.17 |
| | | | | NOAA vessel electrical use at berth | 1,210 | 903 | 0.32 | | | |

| | | | | | | | | | SCAB/State: working hr/day | Idling hr/day |
|---|---|---|---|---|---|---|---|---|---|---|
| Proposed Project | Berth 58-60 | SCMI Research Facility, Marine Business Park, Water Taxi, Café, Public Plaza | 7b | 2016 | | | | | | |
| | | | | **Marine Sources** | Power (hp)[3] | Power (kW) | Load Factor[2] | | | |
| | | | | Water taxi main engine transit & work | 690 | | 0.38 | | 4 | |

**Table C.3 Operational Equipment Utilization**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Proposed Project | Berth 58-60 | NOAA Temporary Berths | 10a | 2021 | | Average Harbor: working hr/day | Peak Day power requirement (hp-hr/day/vessel); nonworking electrical requirement (kw-hr/day/vesse | working days/year | SCAB/State power requirement (hp-hr/yr/vessel); nonworking electrical requirement (kw-hr/yr/vessel) | Harbor power requirement (hp-hr/yr/vessel); nonworking electrical requirement (kw-hr/yr/vessel) |
| | | | | | **Marine Sources** | | | | | | |
| | | | | | NOAA vessel main engine transit | 0.4 | 3,232 | 6 | 19,663 | 3,277 |
| | | | | | NOAA vessel main engine berth idling | | 224 | 6 | 1,366 | 1,366 |
| | | | | | NOAA vessel auxiliary engine transit | 0.4 | 1,859 | 6 | 11,310 | 1,885 |
| | | | | | NOAA vessel auxiliary engine berth idling | | 129 | 6 | 785 | 785 |
| | | | | | NOAA vessel electrical use at berth | 24 | 13,870 | 60 | 832,205 | 832,205 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Peak Harbor: working hr/day | | | | | |
| Proposed Project | Berth 58-60 | SCMI Research Facility, Marine Business Park, Water Taxi, Café, Public Plaza | 7b | 2016 | | Average/Peak Harbor: working hr/day | Peak Day power requirement (hp-hr/day/vessel); nonworking electrical requirement (kw-hr/day/vesse l) | working days/year | SCAB/State power requirement (hp-hr/yr/vessel); nonworking electrical requirement (kw-hr/yr/vessel) | Harbor power requirement (hp-hr/yr/vessel); nonworking electrical requirement (kw-hr/yr/vessel) |
| | | | | | **Marine Sources** | | | | | | |
| | | | | | Water taxi main engine transit & work | 4 | 2,099 | 365 | 766,011 | 766,011 |

**Table C.3 Operational Equipment Utilization**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Water taxi main engine berth idling | marine | onsite | diesel | 2 | 5 | 5 | |
| | | | | Water taxi auxiliary engine transit & work | marine | offsite | diesel | 1 | 5 | 5 | 100% |
| | | | | Water taxi auxiliary engine berth idling | marine | onsite | diesel | 1 | 5 | 5 | |
| | | | | Water taxi electrical use at berth | marine | offsite | diesel | 1 | 5 | 5 | |
| Proposed Projec | Berth 58-60 | SCMI Research Facility, Marine Business Park, Water Taxi, Café, Public Plaza | 10b | 2021 | | | | | | | |
| | | | | **Marine Sources** | | | | Number of Engines/Vessel | Number Active/Peak Day | Number Active/Average Day | Percent of Work in Harbor |
| | | | | Water taxi main engine transit & work | marine | offsite | diesel | 2 | 5 | 5 | 100% |
| | | | | Water taxi main engine berth idling | marine | onsite | diesel | 2 | 5 | 5 | |
| | | | | Water taxi auxiliary engine transit & work | marine | offsite | diesel | 1 | 5 | 5 | 100% |
| | | | | Water taxi auxiliary engine berth idling | marine | onsite | diesel | 1 | 5 | 5 | |
| | | | | Water taxi electrical use at berth | marine | offsite | diesel | 1 | 5 | 5 | |

**Table C.3 Operational Equipment Utilization**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Water taxi main engine berth idling | 690 | | 0.38 | | | 0.17 |
| | | | | Water taxi auxiliary engine transit & work | 68 | | 0.32 | | 4 | |
| | | | | Water taxi auxiliary engine berth idling | 68 | | 0.32 | | | 0.17 |
| | | | | Water taxi electrical use at berth | 68 | 51 | 0.32 | | | |
| Proposed Project | Berth 58-60 | SCMI Research Facility, Marine Business Park, Water Taxi, Café, Public Plaza | 10b | 2021 | | | | | SCAB/State: working hr/day | Idling hr/day |
| | | | | **Marine Sources** | Power (hp)[3] | Power (kW) | Load Factor[2] | | | |
| | | | | Water taxi main engine transit & work | 690 | | 0.38 | | 4 | |
| | | | | Water taxi main engine berth idling | 690 | | 0.38 | | | 0.17 |
| | | | | Water taxi auxiliary engine transit & work | 68 | | 0.32 | | 4 | |
| | | | | Water taxi auxiliary engine berth idling | 68 | | 0.32 | | | 0.17 |
| | | | | Water taxi electrical use at berth | 68 | 51 | 0.32 | | | |

**Table C.3 Operational Equipment Utilization**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Water taxi main engine berth idling | | | 87 | | 365 | 31,917 | 31,917 | |
| | | | | Water taxi auxiliary engine transit & work | | 4 | 88 | | 365 | 31,940 | 31,940 | |
| | | | | Water taxi auxiliary engine berth idling | | | 4 | | 365 | 1,331 | 1,331 | |
| | | | | Water taxi electrical use at berth | | 0 | - | | 365 | 0 | 0 | |
| Proposed Projec | Berth 58-60 | SCMI Research Facility, Marine Business Park, Water Taxi, Café, Public Plaza | 10b | 2021 | | Average/Peak Harbor: working hr/day | Peak Day power requirement (hp-hr/day/vessel); nonworking electrical requirement (kw-hr/day/vessel) | working days/year | | SCAB/State power requirement (hp-hr/yr/vessel); nonworking electrical requirement (kw-hr/yr/vessel) | Harbor power requirement (hp-hr/yr/vessel); nonworking electrical requirement (kw-hr/yr/vessel) | |
| | | | | **Marine Sources** | | | | | | | | |
| | | | | Water taxi main engine transit & work | | 4 | 2,099 | | 365 | 766,011 | 766,011 | |
| | | | | Water taxi main engine berth idling | | | 87 | | 365 | 31,917 | 31,917 | |
| | | | | Water taxi auxiliary engine transit & work | | 4 | 88 | | 365 | 31,940 | 31,940 | |
| | | | | Water taxi auxiliary engine berth idling | | | 4 | | 365 | 1,331 | 1,331 | |
| | | | | Water taxi electrical use at berth | | 0 | - | | 365 | 0 | 0 | |
| | | | | | Peak Harbor: working hr/day | | | | | | | |

**Table C.3 Operational Equipment Utilization**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Land-Side Sources** | | | | | | | |
| Forklifts | land | onsite | propane/nat | 50 | 120 | 2021_Forklifts_120hp | 120 |
| Cranes | land | onsite | dsl | 120 | 120 | 2021_Cranes_120hp | 120 |
| Generator Sets | land | onsite | dsl | 120 | 175 | 2021_Other General Industrial Equipment_175l | 120 |
| | | | | Truck Capacity | | | |
| **Vehicle Exhaust** | | | Fuel | (cu.yd) | | | |
| Trucks material deliveries - offsite transit & idling exhaust | vehicle | offsite | dsl | | T6 instate hea | 2021_T6 instate heavy_dsl | |
| Trucks material deliveries - onsite transit exhaust | vehicle | onsite | dsl | | T6 instate hea | 2021_T6 instate heavy_dsl_onsite transit | |
| Trucks material deliveries - onsite idling exhaust | vehicle | onsite idling | dsl | | T6 instate hea | 2021_HHDT_dsl_onsite idling | |
| Worker/visitor vehicles exhaust | vehicle | offsite | gas&dsl | | LDA/LDT1 | 2021_LDA/LDT1_gas&dsl | |
| **Fugitive Sources** | | | | | | | |
| Trucks (all) paved road dust | fugitive | offsite | dsl | 22 | T6 instate heavy | | |
| Worker/visitor vehicles paved road dust | fugitive | offsite | | | LDA | | |
| Landscape Equipment | | | | | | | |
| Architectural coatings | fugitive | onsite | | | | | |
| **GHG-only Sources** | | | | | | | |
| Energy Use | utility - Electricity | offsite | | | | | |
| | utility - Natural Gas | onsite | | | | | |
| Water Use | utility | offsite | | | | | |
| Wastewater | utility | offsite | | | | | |
| Solid Waste | utility | offsite | | | | | |

**Table C.3 Operational Equipment Utilization**

**Land-Side Sources**

| | | | | | (hr/day) |
|---|---|---|---|---|---|
| Forklifts | 2021_Forklifts_120hp | 114 | 0.201 | 1 | 2 |
| Cranes | 2021_Cranes_120hp | 139 | 0.228 | 1 | 2 |
| Generator Sets | 2021_Generator Sets_120hp | 175 | 0.3417 | 1 | 2 |

| | Miles Traveled (mi/trip) | Idling (min) / trip | Number Active[3] | trip/day/vehicle |
|---|---|---|---|---|
| **Vehicle Exhaust** | | | | |
| Trucks material deliveries - offsite transit & idling exhaust | 35 | | 359 | |
| Trucks material deliveries - onsite transit exhaust | 0.5 | | 359 | |
| Trucks material deliveries - onsite idling exhaust | | 5 | 359 | |
| Worker/visitor vehicles exhaust | 30.0 | | 1,533 | 2 |
| **Fugitive Sources** | | | | |
| Trucks (all) paved road dust | 35 | | 359.5 | 0 |
| Worker/visitor vehicles paved road dust | 30 | | 1,533 | 2 |

| | | | | |
|---|---|---|---|---|
| Landscape Equipment | 15 | | | |
| | Building Footage (sqft) | exterior&interior | | peak day paint rate |
| Architectural coatings | 130,280 | 100% | | 25% |

**GHG-only Sources**

| | Building Footage (sqft) | Energy Use (kW-hr/day or kBtu/day) |
|---|---|---|
| Energy Use | 130,280 | 7,535 |
| | 130,280 | 7,373 |

| | | Electricity Use for Supply, Treatment and Distribution (kw-hr/MMGal) | Water Use (gal/day) |
|---|---|---|---|
| Water Use | | 13,021 | 25,401 |

| | Building Footage (sqft) | Wastewater Generation Rate (gpd/1000 sft) | gal/day |
|---|---|---|---|
| Wastewater | 130,280 | varies by space use | 124,884 |

| | ton/day |
|---|---|
| Solid Waste | 0.65 |

**Table C.3 Operational Equipment Utilization**

| **Land-Side Sources** | fuel use (lb/day) | (total days)/unit | (day/yr)/unit | fuel use (lb/yr) |
|---|---|---|---|---|
| Forklifts | 12 | 730 | 365 | 4,431 |
| Cranes | 19 | 730 | 365 | 6,834 |
| Generator Sets | 37 | 730 | 365 | 13,648 |

| **Vehicle Exhaust** | VMT (mi/day) | total trips/unit | total trips/yr/unit | | VMT (mi/yr)/unit |
|---|---|---|---|---|---|
| Trucks material deliveries - offsite transit & idling exhaust | 35 | 365 | 365 | | 12,775 |
| Trucks material deliveries - onsite transit exhaust | 0.5 | 365 | 365 | | 183 |
| Trucks material deliveries - onsite idling exhaust | | 365 | 365 | | |
| Worker/visitor vehicles exhaust | 60 | 365 | | | 21,900 |
| **Fugitive Sources** | | | | | |
| Trucks (all) paved road dust | 35 | 365 | | | 12,775 |
| Worker/visitor vehicles paved road dust | 60 | 365 | | | 21,900 |

| Landscape Equipment | reapplication rate |
|---|---|
| Architectural coatings | 10% |

**GHG-only Sources**

| | Energy Use (kW-hr/yr or kBtu/yr) |
|---|---|
| Energy Use | 2,750,275 |
| | 2,691,145 |

| | Water Use (gal/yr) |
|---|---|
| Water Use | 9,271,365 |

| | gal/yr |
|---|---|
| Wastewater | 45,582,660 |

| | ton/yr |
|---|---|
| Solid Waste | 238 |

**Table C.3 Operational Equipment Utilization**

| | | | | |
|---|---|---|---|---|
| Proposed Project | B70-71 | NOAA Facility, Wave Tank | 11 | 2024 |

| **Marine Sources** | | | | Number of Engines/Vessel | Number Active/Peak Day | Number Active/Average Day | | Percent of Work in Harbor | |
|---|---|---|---|---|---|---|---|---|---|
| NOAA vessel main engine transit | marine | offsite | diesel | 2 | 3 | | 2 | | 0% |
| NOAA vessel main engine berth idling | marine | onsite | diesel | 2 | 3 | | 2 | | |
| NOAA vessel auxiliary engine transit | marine | offsite | diesel | 2 | 3 | | 2 | | 0% |
| NOAA vessel auxiliary engine berth idling | marine | onsite | diesel | 2 | 3 | | 2 | | |
| NOAA vessel electrical use at berth | marine | offsite | diesel | 2 | 3 | | 2 | | |
| **Land-Side Sources** | | | | | | | | | |
| Forklifts | land | onsite | propane/nat | 50 | 120 | 2024_Forklifts_120hp | | | 120 |
| Cranes | land | onsite | dsl | 120 | 120 | 2024_Cranes_120hp | | | 120 |
| Generator Sets | land | onsite | dsl | 120 | 175 | 2024_Other General Industrial Equipment_175l | | | 120 |
| **Vehicle Exhaust** | | | Fuel | Truck Capacity (cu.yd) | | | | | |
| Trucks material deliveries - offsite transit & idling exhaust | vehicle | offsite | dsl | | T6 instate hea | 2024_T6 instate heavy_dsl | | | |
| Trucks material deliveries - onsite transit exhaust | vehicle | onsite | dsl | | T6 instate hea | 2024_T6 instate heavy_dsl_onsite transit | | | |
| Trucks material deliveries - onsite idling exhaust | vehicle | onsite idling | dsl | | T6 instate hea | 2024_HHDT_dsl_onsite idling | | | |
| Worker/visitor vehicles exhaust | vehicle | offsite | gas&dsl | | LDA/LDT1 | 2024_LDA/LDT1_gas&dsl | | | |
| **Fugitive Sources** | | | | | | | | | |
| Trucks (all) paved road dust | fugitive | offsite | dsl | 22 | T6 instate heavy | | | | |
| Worker/visitor vehicles paved road dust | fugitive | offsite | | | LDA | | | | |
| Landscape Equipment | | | | | | | | | |

**Table C.3 Operational Equipment Utilization**

| | | | | SCAB/State: working hr/day | Idling hr/day |
|---|---|---|---|---|---|
| Proposed Project | B70-71 | NOAA Facility, Wave Tank | 11 2024 | | |

| **Marine Sources** | | Power (hp)[3] | Power (kW) | Load Factor[2] | | |
|---|---|---|---|---|---|---|
| NOAA vessel main engine transit | | 1,772 | | 0.38 | 2.4 | |
| NOAA vessel main engine berth idling | | 1,772 | | 0.38 | | 0.17 |
| NOAA vessel auxiliary engine transit | | 1,210 | | 0.32 | 2.4 | |
| NOAA vessel auxiliary engine berth idling | | 1,210 | | 0.32 | | 0.17 |
| NOAA vessel electrical use at berth | | 1,210 | 903 | 0.32 | | |

| **Land-Side Sources** | | | | (hr/day) | |
|---|---|---|---|---|---|
| Forklifts | 2024_Forklifts_120hp | 114 | 0.201 | 1 | 2 |
| Cranes | 2024_Cranes_120hp | 139 | 0.228 | 1 | 2 |
| Generator Sets | 2024_Generator Sets_120hp | 175 | 0.3417 | 1 | 2 |

| **Vehicle Exhaust** | Miles Traveled (mi/trip) | Idling (min) / trip | Number Active[3] | trip/day/vehicle |
|---|---|---|---|---|
| Trucks material deliveries - offsite transit & idling exhaust | 35 | | 95 | |
| Trucks material deliveries - onsite transit exhaust | 0.5 | | 95 | |
| Trucks material deliveries - onsite idling exhaust | | 5 | 95 | |
| Worker/visitor vehicles exhaust | 30.0 | | 406 | 2 |
| **Fugitive Sources** | | | | |
| Trucks (all) paved road dust | 35 | | 95.2 | 0 |
| Worker/visitor vehicles paved road dust | 30 | | 406 | 2 |
| Landscape Equipment | 15 | | | |

**Table C.3 Operational Equipment Utilization**

| | | | | | Average Harbor: working hr/day | Peak Day power requirement (hp-hr/day/vessel); nonworking electrical requirement (kw-hr/day/vessel) | Working days/year | SCAB/State power requirement (hp-hr/yr/vessel); nonworking electrical requirement (kw-hr/yr/vessel) | Harbor power requirement (hp-hr/yr/vessel); nonworking electrical requirement (kw-hr/yr/vessel) |
|---|---|---|---|---|---|---|---|---|---|
| Proposed Project | B70-71 | NOAA Facility, Wave Tank | 11 | 2024 | | | | | |
| **Marine Sources** | | | | | | | | | |
| NOAA vessel main engine transit | | | | | 0.4 | 3,232 | 6 | 19,663 | 3,277 |
| NOAA vessel main engine berth idling | | | | | | 224 | 6 | 1,366 | 1,366 |
| NOAA vessel auxiliary engine transit | | | | | 0.4 | 1,859 | 6 | 11,310 | 1,885 |
| NOAA vessel auxiliary engine berth idling | | | | | | 129 | 6 | 785 | 785 |
| NOAA vessel electrical use at berth | | | | | 24 | 13,870 | 60 | 832,205 | 832,205 |

| **Land-Side Sources** | Peak Harbor: working hr/day | fuel use (lb/day) | (total days)/unit | (day/yr)/unit | fuel use (lb/yr) |
|---|---|---|---|---|---|
| Forklifts | | 12 | 730 | 365 | 4,431 |
| Cranes | | 19 | 730 | 365 | 6,834 |
| Generator Sets | | 37 | 730 | 365 | 13,648 |

| **Vehicle Exhaust** | VMT (mi/day) | total trips/unit | total trips/yr/unit | VMT (mi/yr)/unit |
|---|---|---|---|---|
| Trucks material deliveries - offsite transit & idling exhaust | 35 | 365 | 365 | 12,775 |
| Trucks material deliveries - onsite transit exhaust | 0.5 | 365 | 365 | 183 |
| Trucks material deliveries - onsite idling exhaust | | 365 | 365 | |
| Worker/visitor vehicles exhaust | 60 | 365 | | 21,900 |
| **Fugitive Sources** | | | | |
| Trucks (all) paved road dust | 35 | 365 | | 12,775 |
| Worker/visitor vehicles paved road dust | 60 | 365 | | 21,900 |
| Landscape Equipment | | | | |

**Table C.3 Operational Equipment Utilization**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Architectural coatings | fugitive | onsite | | | | | |
| | | | | **GHG-only Sources** | | | | | | | |
| | | | | Energy Use | utility - Electricity | offsite | | | | | |
| | | | | | utility - Natural Gas | onsite | | | | | |
| | | | | Water Use | utility | offsite | | | | | |
| | | | | Wastewater | utility | offsite | | | | | |
| | | | | Solid Waste | utility | offsite | | | | | |
| Proposed Projec | Fish Harbor | San Pedro Bait Company | 12 | 2014 | | | | | | | |
| | | | | **Marine Sources** | | | | Number of Engines/Vessel | Number Active/Peak Day | Number Active/Average Day | Percent of Work in Harbor |
| | | | | Fishing vessel main engine transit & work | marine | offsite | diesel | 1 | 2 | 2 | 0% |
| | | | | Fishing vessel main engine berth idling | marine | onsite | diesel | 1 | 2 | 2 | |

**Table C.3 Operational Equipment Utilization**

| | Building Footage (sqft) | exterior&interior | peak day paint rate |
|---|---|---|---|
| Architectural coatings | 130,000 | 100% | 25% |

**GHG-only Sources**

| | Building Footage (sqft) | Energy Use (kW-hr/day or kBtu/day) |
|---|---|---|
| Energy Use | 130,000 | 5,025 |
| | 130,000 | 5,980 |

| | Electricity Use for Supply, Treatment and Distribution (kw-hr/MMGal) | Water Use (gal/day) |
|---|---|---|
| Water Use | 13,021 | 9,990 |

| | Building Footage (sqft) | Wastewater Generation Rate (gpd/1000 sft) | gal/day |
|---|---|---|---|
| Wastewater | 130,000 | varies by space use | 9,000 |

| | ton/day |
|---|---|
| Solid Waste | 0.68 |

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| | | | | | SCAB/State: Working hr/day | Idling hr/day |
|---|---|---|---|---|---|---|
| Proposed Project | San Pedro Bait Fish Harbor Company | 12 | 2014 | | | |

**Marine Sources**

| | Percent of Work in SCAB | Power (hp)[3] | Power (kW) | Load Factor[2] | | |
|---|---|---|---|---|---|---|
| Fishing vessel main engine transit & work | 50% | 400 | | 0.27 | 4 | |
| Fishing vessel main engine berth idling | | 400 | | 0.27 | | 0.17 |

**Table C.3 Operational Equipment Utilization**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | reapplication rate | | | |
| | | | | Architectural coatings | | | | 10% | | | |
| | | | | **GHG-only Sources** | | | | | | | |
| | | | | Energy Use | | | | Energy Use (kW-hr/yr or kBtu/yr) 1,834,125 | | | |
| | | | | | | | | 2,182,700 | | | |
| | | | | Water Use | | | | Water Use (gal/yr) 3,646,350 | | | |
| | | | | Wastewater | | | | gal/yr 3,285,000 | | | |
| | | | | Solid Waste | | | | ton/yr 249 | | | |
| Proposed Project | Fish Harbor | San Pedro Bait Company | 12 | 2014 | | Average Harbor: Working hr/day | power requirement (hp-hr/day/vessel); nonworking electrical requirement (kw-hr/day/vessel) | working days/year | SCAB/State power requirement (hp-hr/yr/vessel); nonworking electrical requirement (kw-hr/yr/vessel) | Harbor power requirement (hp-hr/yr/vessel); nonworking electrical requirement (kw-hr/yr/vessel) | |
| | | | | **Marine Sources** | | | | | | | |
| | | | | Fishing vessel main engine transit & work | | 1.0 | 432 | 365 | 78,840 | 39,420 | |
| | | | | Fishing vessel main engine berth idling | | | 18 | 365 | 6,570 | 6,570 | |

**Table C.3 Operational Equipment Utilization**

[1] Source of equipment categories: POLA staff, CalEEMod defaults, and equipment used in the San Pedro Waterfront analysis.
[2] CARB Air Quality, Emissions Inventory, Mobile Source Emission Inventory -- Categories. http://www.arb.ca.gov/msei/categories.htm#inuse_or_category. Last viewed October 2011.
[3] CalEEMod, Appendix D, Table 3.3
Indirect source activities (energy use, water use, wastewater, solid waste, etc.) were developed by ICF - Utility Tables.

**Table C.3 Operational Equipment Utilization**

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[1] Source of equipment categories: POLA staff, CalEEMod defaults, and equipment used in the San Pedro Waterfront analysis.
[2] CARB Air Quality, Emissions Inventory, Mobile Source Emission Inventory -- Categories. http://www.arb.ca.gov/msei/categories.htm
[3] CalEEMod, Appendix D, Table 3.3
Indirect source activities (energy use, water use, wastewater, solid waste, etc.) were developed by ICF - Utility Tables.

**Table C.3 Operational Equipment Utilization**

| | Peak Harbor: working hr/day |
|---|---|

[1] Source of equipment categories: POLA staff, CalEEMod defaults, and equipment used in the San Pedro Waterfront analysis.
[2] CARB Air Quality, Emissions Inventory, Mobile Source Emission Inventory -- Categories. http://www.arb.ca.gov/msei/categories.htm
[3] CalEEMod, Appendix D, Table 3.3
Indirect source activities (energy use, water use, wastewater, solid waste, etc.) were developed by ICF - Utility Tables.

**Table C.4** **Research Vessel Characteristics**

| | kW | hp | Model Year | Number of Engines per vessel | Percent of work done in harbor | SCAB/State: working hr/day | Harbor: working hr/day | Idling time (hr/day) | Engines operating at berth hr/day | Load factor | Peak Day power requirement (hp-hr/day/vessel); nonworking electrical requirement (kw- | Working days/year | SCAB/State power requirement (hp-hr/yr/vessel); nonworking electrical requirement (kw-hr/yr/vessel) | Harbor power requirement (hp-hr/yr/vessel); nonworking electrical requirement (kw-hr/yr/vessel) | Tier in 2011 | Tier in 2016 | Tier in 2021 | Tier in 2021 following mitigation | Tier in 2024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOAA vessel main engine transit | 1,322 | 1,772 | 1986 | 2 | 0% | 2.4 | 0.4 | | | 0.38 | 3,232 | 6.1 | 19,663 | 3,277 | | | Tier 4 | Tier 4 | Tier 4 |
| NOAA vessel main engine berth idling | 1,322 | 1,772 | 1986 | 2 | | | | 0.17 | | 0.38 | 224 | 6.1 | 1,366 | 1,366 | | | Tier 4 | Tier 4 | Tier 4 |
| NOAA vessel auxiliary engine transit | 903 | 1,210 | 1988 | 2 | 0% | 2.4 | 0.4 | | | 0.32 | 1,859 | 6.1 | 11,310 | 1,885 | | | Tier 2 | Tier 2 | Tier 2 |
| NOAA vessel auxiliary engine berth idling | 903 | 1,210 | 1988 | 2 | | | | 0.17 | | 0.32 | 129 | 6.1 | 785 | 785 | | | Tier 2 | Tier 2 | Tier 2 |
| NOAA vessel electrical use at berth | 903 | 1,210 | 1988 | 2 | | | | | 24 | 0.32 | 13,870 | 60 | 832,205 | 832,205 | | | Tier 2 | Tier 2 | Tier 2 |
| | | | | | | | Harbor: working hr/day | | | | | | | | **Tier in 2011** | **Tier in 2016** | **Tier in 2021** | **Tier in 2021 following mitigation** | **Tier in 2024** |
| Water taxi main engine transit & work | 515 | 690 | 2000 | 2 | 100% | 4 | 4 | | | 0.38 | 2,099 | 365 | 766,011 | 766,011 | Tier 1 | Tier 3 | Tier 3 | Tier 3 | Tier 3 |
| Water taxi main engine berth idling | 515 | 690 | 2000 | 2 | | | | 0.17 | | 0.38 | 87 | 365 | 31,917 | 31,917 | Tier 1 | Tier 3 | Tier 3 | Tier 3 | Tier 3 |
| Water taxi auxiliary engine transit & work | 51 | 68 | 1997 | 1 | 100% | 4 | 4 | | | 0.32 | 88 | 365 | 31,940 | 31,940 | Tier 1 | Tier 3 | Tier 3 | Tier 3 | Tier 3 |
| Water taxi auxiliary engine berth idling | 51 | 68 | 1997 | 1 | | | | 0.17 | | 0.32 | 4 | 365 | 1,331 | 1,331 | Tier 1 | Tier 3 | Tier 3 | Tier 3 | Tier 3 |
| Water taxi electrical use at berth | 51 | 68 | 1997 | 1 | | | | | 0 | 0.32 | 0 | 365 | 0 | 0 | Tier 1 | Tier 3 | Tier 3 | Tier 3 | Tier 3 |
| **SCMI Existing Operation** | | | | | | | Harbor: working hr/day | | | | | | | | **Tier in 2011** | **Tier in 2016** | **Tier in 2021** | **Tier in 2024** | **Mitigation** |
| SCMI 2011 large vessel main engine transit | 187 | 250 | 1998 | 2 | 35% | 6 | 2.1 | | | 0.38 | 1,140 | 208 | 237,120 | 82,992 | Tier 2 | | | | |
| SCMI 2011 large vessel main engine berth idling | 187 | 250 | 1998 | 2 | | | | 0.17 | | 0.38 | 32 | 208 | 6,587 | 6,587 | Tier 2 | | | | |
| SCMI 2011 large vessel auxiliary engine transit | 41 | 55 | 2003 | 1 | 35% | 6 | 2.1 | | | 0.32 | 106 | 208 | 7,688 | 7,688 | Tier 2 | | | | |
| SCMI 2011 large vessel auxiliary engine berth idling | 41 | 55 | 2003 | 1 | | | | 0.17 | | 0.32 | 3 | 208 | 610 | 610 | Tier 2 | | | | |
| SCMI 2011 large vessel electrical use at berth | 41 | 55 | 2003 | 1 | | | | | 18 | 0.32 | 236 | 208 | 49,157 | 49,157 | Tier 2 | | | | |
| SCMI 2011 small vessel main engine transit | 56 | 75 | 1998 | 2 | 35% | 4 | 1.4 | | | 0.38 | 228 | 156 | 12,449 | 12,449 | Tier 2 | | | | |
| SCMI 2011 small vessel main engine berth idling | 56 | 75 | 1998 | 2 | | | | 0.08 | | 0.38 | 5 | 156 | 741 | 741 | Tier 2 | | | | |
| SCMI 2011 small vessel auxiliary engine transit | 41 | 55 | 2003 | 1 | 35% | 4 | 1.4 | | | 0.32 | 70 | 156 | 3,844 | 3,844 | Tier 2 | | | | |
| SCMI 2011 small vessel auxiliary engine berth idling | 41 | 55 | 2003 | 1 | | | | 0.08 | | 0.32 | 1 | 156 | 229 | 229 | Tier 2 | | | | |
| SCMI 2011 small vessel electrical use at berth | 41 | 55 | 2003 | 1 | | | | | 0 | 0.32 | 0 | 156 | 0 | 0 | Tier 2 | | | | |
| **SCMI Future Operation** | | | | | | | | | | | | | | | | | | | |
| SCMI large vessel main engine transit & work | 187 | 250 | 1998 | 2 | 35% | 6 | 2.1 | | | 0.38 | 1,140 | 208 | 237,120 | 82,992 | Tier 2 | Tier 3 | Tier 3 | Tier 3 | Tier 3 |
| SCMI large vessel main engine berth idling | 187 | 250 | 1998 | 2 | | | | 0.17 | | 0.38 | 32 | 208 | 6,587 | 6,587 | Tier 2 | Tier 3 | Tier 3 | Tier 3 | Tier 3 |
| SCMI large vessel auxiliary engine transit & work | 41 | 55 | 2003 | 1 | 35% | 6 | 2.1 | | | 0.32 | 106 | 208 | 7,688 | 7,688 | Tier 2 | Tier 2 | Tier 2 | Tier 2 | Tier 2 |
| SCMI large vessel auxiliary engine berth idling | 41 | 55 | 2003 | 1 | | | | 0.17 | | 0.32 | 3 | 208 | 610 | 610 | Tier 2 | Tier 2 | Tier 2 | Tier 2 | Tier 2 |
| SCMI large vessel electrical use at berth | 41 | 55 | 2003 | 1 | | | | | 18 | 0.32 | 236 | 208 | 49,157 | 49,157 | Tier 2 | Tier 2 | Tier 2 | Tier 2 | Tier 2 |
| SCMI small vessel main engine transit & work | 56 | 75 | 1998 | 2 | 35% | 4 | 1.4 | | | 0.38 | 228 | 156 | 12,449 | 12,449 | Tier 2 | Tier 3 | Tier 3 | Tier 3 | Tier 3 |
| SCMI small vessel main engine berth idling | 56 | 75 | 1998 | 2 | | | | 0.08 | | 0.38 | 5 | 156 | 741 | 741 | Tier 2 | Tier 3 | Tier 3 | Tier 3 | Tier 3 |
| SCMI small vessel auxiliary engine transit & work | 41 | 55 | 2003 | 1 | 35% | 4 | 1.4 | | | 0.32 | 70 | 156 | 3,844 | 3,844 | Tier 2 | Tier 2 | Tier 2 | Tier 2 | Tier 2 |
| SCMI small vessel auxiliary engine berth idling | 41 | 55 | 2003 | 1 | | | | 0.08 | | 0.32 | 1 | 156 | 229 | 229 | Tier 2 | Tier 2 | Tier 2 | Tier 2 | Tier 2 |
| SCMI small vessel electrical use at berth | 41 | 55 | 2003 | 1 | | | | | 0 | 0.32 | 0 | 156 | 0 | 0 | Tier 2 | Tier 2 | Tier 2 | Tier 2 | Tier 2 |
| **San Pedro Bait Company Existing Operation** | | | | | Percent of work done in SCAB | SCAB/State: peak working hr/day | Harbor: working hr/day | | | | | | | | **Tier in 2011** | **Tier in 2016** | **Tier in 2021** | **Tier in 2024** | **Mitigation** |
| Fishing vessel 2011 main engine transit & work | | 400 | 1984 | 1 | 50% | 4.0 | 0.8 | | | 0.27 | 432 | 365 | 78,840 | 31,536 | Tier 2 | | | | |
| Fishing vessel 2011 main engine berth idling | | 400 | 1984 | 1 | | | | 0.17 | | 0.27 | 18 | 365 | 6,570 | 6,570 | Tier 2 | | | | |
| **San Pedro Bait Company Future Operation** | | | | | | | | | | | | | | | | | | | |
| Fishing vessel main engine transit & work | | 400 | 1984 | 1 | 50% | 4.0 | 1.0 | | | 0.27 | 432 | 365 | 78,840 | 39,420 | Tier 2 | Tier 2 | Tier 2 | Tier 2 | Tier 2 |
| Fishing vessel main engine berth idling | | 400 | 1984 | 1 | | | | 0.17 | | 0.27 | 18 | 365 | 6,570 | 6,570 | Tier 2 | Tier 2 | Tier 2 | Tier 2 | Tier 2 |

**Table C.5** **Vehicle Estimates**

| | Proposed Element | Land Use Categ | Total ADTs | Visitor ADTs | Employee ADTs | Deliveries ADTs | Visitors Daily | Employees Daily |
|---|---|---|---|---|---|---|---|---|
| Baseline | Transit Shed 57-58/Crescent Warehouse | Warehouse | **39** | 0 | 23 | 16 | 0 | 0 |
| Berth 56-57 | Research & Development Facility | Research & De | 371 | 178 | 122 | 70 | 156 | 70 |
| | Support Facilities & Storage | Research & De | 62 | 30 | 20 | 12 | 26 | 12 |
| | Learning Center - Museum/Intrpretive Center | Educational | 14 | 12 | 1 | 1 | 11 | 1 |
| | Learning Center - Classrooms & Auditorium | Educational | 994 | 881 | 64 | 50 | 771 | 37 |
| | Boat Slips (Floating Finger Dock) | Recreational | 144 | 69 | 48 | 27 | 60 | 27 |
| | Public Plaza | Recreational | 18 | 9 | 6 | 3 | 8 | 3 |
| | **Subtotal** | | **1,603** | **1,179** | **261** | **163** | **1,031** | **150** |
| Berth 58-60 | Research & Development Facility | Research & De | 1802 | 865 | 595 | 342 | 757 | 342 |
| | Waterfront Café | Recreational | 80 | 38 | 26 | 15 | 34 | 15 |
| | Public Plaza | Recreational | 10 | 5 | 3 | 2 | 4 | 2 |
| | **Subtotal** | | **1,892** | **908** | **624** | **359** | **795** | **359** |
| Berth 70-71 | NOAA Offices | General office | 501 | 240 | 165 | 95 | 210 | 95 |
| | Wave Tank (10,000 sf Office) | | | | | | | |

| | Visitors - Daily | Employees - Daily |
|---|---|---|
| Total | 3,862 | 1,113 |

| Land Use Type | Visitors | Employees | Deliveries |
|---|---|---|---|
| Educational | 88.60% | 6.40% | 5% |
| Recreational | 48% | 33% | 19% |
| Research & Development | 48% | 33% | 19% |
| General office | 48% | 33% | 19% |
| Industrial/Unrefrigerated | 0% | 59% | 41% |

Source: CalEEMod 2011, Appendix D, Table 4.3

| | Persons per vehicle |
|---|---|
| **Visitors** | 1.75 |
| **Employees** | 1.15 |

**Table C.6** **Asphalt Assumptions**

| Contruction Element | Description | Acres | Asphalt Requirements | |
|---|---|---|---|---|
| | ***PHASE 1*** | | | |
| | **BERTH 56 BUILDING** | | | |
| 1a | Construction (New Building) | 1.01 | | |
| | **BERTH 57 (POLA)** | | | |
| 1b | Construction (Wharf, Ground Improvem | 1.65 | 1.65 | |
| 1c | Construction (Floating Dock, Public Plaz | 4.9 | 3.83 | |
| 1d | Construction (Promenade) | 1.63 | | |
| | **BERTH 57 (SCMI)** | | | |
| 1e | Building Interior Construction | | | |
| | ***PHASE II*** | | | |
| 2a | B260 Demo (SCMI Building Demo) | | | |
| | **BERTHS 58-60 (POLA)** | | | |
| 2b | Construction (Wharf, Ground Improvem | 4.9 | 1.63 | promenade asphalting was assumed to occur during this task |
| 2c | Construction (Pump Station) | | | |
| 2d | Construction (Promenade) | 3.72 | | |
| | **BERTH 58-60 (Tenant)** | | | |
| 2e | Building Interior Construction; Temporary NOAA facility | | | |
| | **Westways** | | | |
| 2f | Remediation | | | |
| 2g | Construction (Berths 70-71 NOAA Build | 6.4 | 8.03 | promenade asphalting was assumed to occur during this task |

Source is ICF map of facilities: Working_SitePlan_TZ (January 2012).

ICF INTERNATIONAL

**Table C.7 EPA Tier 1-4 Nonroad Diesel Engine Emission Standards**

(g/bhp·hr)

| Engine Power (hp | Tier | Year | HC | CO | NOx | PM | NMHC+NOx |
|---|---|---|---|---|---|---|---|
| <11 | Tier 1 | 2000 | 0.39 | 6 | 7.41 | 0.75 | 7.8 |
| <11 | Tier 2 | 2005 | 0.28 | 6 | 5.32 | 0.6 | 5.6 |
| <11 | Tier 4 | 2008 | 0.28 | 6 | 5.32 | 0.3 | 5.6 |
| 11-25 | Tier 1 | 2000 | 0.355 | 4.9 | 6.745 | 0.6 | 7.1 |
| 11-25 | Tier 2 | 2005 | 0.28 | 4.9 | 5.32 | 0.6 | 5.6 |
| 11-25 | Tier 4 | 2008 | 0.28 | 4.9 | 5.32 | 0.3 | 5.6 |
| 25-50 | Tier 1 | 1999 | 0.355 | 4.1 | 6.745 | 0.6 | 7.1 |
| 25-50 | Tier 2 | 2004 | 0.28 | 4.1 | 5.32 | 0.45 | 5.6 |
| 25-50 | Tier 4 | 2008 | 0.28 | 4.1 | 5.32 | 0.22 | 5.6 |
| 25-50 | Tier 4 | 2013 | 0.175 | 4.1 | 3.325 | 0.022 | 3.5 |
| 50-100 | Tier 1 | 1998 | 1 | 6.9 | 6.9 | 0.4 | |
| 50-100 | Tier 2 | 2004 | 0.265 | 3.7 | 5.035 | 0.3 | 5.3 |
| 50-100 | Tier 3 | 2008 | 0.175 | 3.7 | 3.325 | 0.3 | 3.5 |
| 50-75 | Tier 4 | 2008 | 0.175 | 3.7 | 3.325 | 0.22 | 3.5 |
| 50-75 | Tier 4 | 2013 | 0.175 | 3.7 | 3.325 | 0.022 | 3.5 |
| 100-175 | Tier 1 | 1997 | 1 | 6.9 | 6.9 | 0.4 | |
| 100-175 | Tier 2 | 2003 | 0.245 | 3.7 | 4.655 | 0.22 | 4.9 |
| 100-175 | Tier 3 | 2007 | 0.15 | 3.7 | 2.85 | 0.22 | 3 |
| 75-175 | Tier 4 | 2012-2014 | 0.14 | 3.7 | 0.3 | 0.015 | |
| 175-300 | Tier 1 | 1996 | 1 | 6.9 | 6.9 | 0.4 | |
| 175-300 | Tier 2 | 2003 | 0.245 | 2.6 | 4.655 | 0.15 | 4.9 |
| 175-300 | Tier 3 | 2006 | 0.15 | 2.6 | 2.85 | 0.15 | 3 |
| 300-600 | Tier 1 | 1996 | 1 | 8.5 | 6.9 | 0.4 | |
| 300-600 | Tier 2 | 2001 | 0.24 | 2.6 | 4.56 | 0.15 | 4.8 |
| 300-600 | Tier 3 | 2006 | 0.15 | 2.6 | 2.85 | 0.15 | 3 |
| 600-750 | Tier 1 | 1996 | 1 | 8.5 | 6.9 | 0.4 | |
| 600-750 | Tier 2 | 2002 | 0.24 | 2.6 | 4.56 | 0.15 | 4.8 |
| 600-750 | Tier 3 | 2006 | 0.15 | 2.6 | 2.85 | 0.15 | 3 |
| 175-750 | Tier 4 | 2011-2014 | 0.14 | 2.6 | 0.3 | 0.015 | |
| >750 | Tier 1 | 2000 | 1 | 8.5 | 6.9 | 0.4 | |
| >750 | Tier 2 | 2006 | 0.24 | 2.6 | 4.56 | 0.15 | 4.8 |
| 750-900 | Tier 4 | 2015 | 0.14 | 2.6 | 0.5 | 0.022 | |
| 750-900 | Tier 4 | 2015 | 0.14 | 2.6 | 2.6 | 0.03 | |
| >900 | Tier 4 - ge | 2011 | 0.3 | 2.6 | 0.5 | 0.075 | |
| >900 | Tier 4 | 2011 | 0.3 | 2.6 | 2.6 | 0.075 | |

Source: Diesel Net, Non Road Diesel Engines. http://www.dieselnet.com/standards/us/nonroad.php. Last viewed: 11/2011

EPA Tier 2 emission standards are reported as NOx+THC. 5% is HC per Carl Moyer Program guidelines.

**Table C.8 Harbor Craft Emission Factors**

| | | | | g/hp-hr | | | | |
|---|---|---|---|---|---|---|---|---|
| Engine Power (kw) | (hp) | EPA Tier | EPA Year | HC | CO | NOx | PM | NMHC+NOx |
| | | Tier 1 | 2000 | 0.35 | 3.73 | 7.31 | 0.30 | 6.95 |
| 37-75; displacement >0. | 50-100 | Tier 2 | 2005 | 0.28 | 3.73 | 5.3 | 0.30 | 5.59 |
| 75-130; 0.9 < displ < 1.2 | 100-175 | Tier 2 | 2004 | 0.27 | 3.73 | 5.1 | 0.22 | 5.37 |
| 130-560; 1.2 < displ < 2 | 175-750 | Tier 2 | 2004 | 0.27 | 3.73 | 5.1 | 0.15 | 5.37 |
| >560 2.5 < displ < 5 | >750 | Tier 2 | 2007 | 0.27 | 3.73 | 5.1 | 0.15 | 5.37 |
| 37-75; displacement <0. | 50-100 | Tier 3 | 2014 | 0.18 | 3.73 | 3.3 | 0.22 | 3.5 |
| 75-130; 0.9 < displ < 1.2 | 100-175 | Tier 3 | 2013 | 0.20 | 3.73 | 3.8 | 0.09 | 4.0 |
| 130-560; 1.2 < displ < 2 | 175-750 | Tier 3 | 2014 | 0.21 | 3.73 | 4.0 | 0.08 | 4.2 |
| >560 2.5 < displ < 5 | >750 | Tier 3 | 2013 | 0.21 | 3.73 | 4.0 | 0.08 | 4.2 |
| 600-1400 | | Tier 4 | 2017 | 0.14 | 3.73 | 1.3 | 0.03 | |
| 1400-2000 | | Tier 4 | 2016 | 0.14 | 3.73 | 1.3 | 0.03 | |
| 2000-3700 | | Tier 4 | 2014 | 0.14 | 3.73 | 1.3 | 0.03 | |
| >3700 | | Tier 4 | 2014 | 0.14 | 3.73 | 1.3 | 0.09 | |

Source: Amendments to the Regulations to Reduce Emissions From Diesel Engines on Commercial Harbor Craft Operated Within California Waters and 24 Nautical Miles of the California Baseline. ARB 2011. Table 9, Compliance Dates for Engines on Crew and Supply Vessels

http://www.arb.ca.gov/regact/2010/chc10/frochc931185.pdf

EPA Tier 2 and Tier 3 emission standards are reported as NOx+THC. 5% is HC per Carl Moyer Program guidelines.

**Table C.9 SOx Emission Factor**

| | | |
|---|---|---|
| Harbor Craft | 0.00552 g/hp-hr | |
| Dredging Equipment | use OFFROAD BSCF and convert to g SOx /hp-hr | |
| SOx (gms/hp-hr) = (S content in X/1,000,000) x (MW SO2/ MW S) x BSF = | | |
| Where: | 2006 | |
| X = S content in parts per million (ppm) | 15 | ppm |
| S MW = Molecular Weight | 32 | |
| SO2 MW = Molecular Weight | 64 | |
| BSFC for harbor craft = Brake Specific Fuel Consumption (per CARB 2007 Harbor Craft Methodology) | 184 | (g/hp-hr) |

**Table C.10 Harbor Craft Useful Life (UL) in years**

| Harbor Vessel Type | Main Engines | Auxiliary Engines |
|---|---|---|
| Assist tug | 21 | 22.5 |
| Tugboat | 21 | 22.5 |
| Work boat | 17 | 23 |
| Commercial fishing | 21 | 15 |
| Crew and Supply | 22 | 22 |

Source: California Air Resources Board. Mobile Emissions Inventory, Commercial Harbor Craft. 2011.
http://www.arb.ca.gov/msei/categories.htm#offroad_motor_vehicles

**Table C.11 Road Dust**

**Paved Road Dust** AP42, Chapter 13.2.1, January 2011 revision

$E = [k \times (sL)^{0.91} \times (W)^{1.02}] * (1-P/4N)$

E = lb/VMT

k = Particle size multiplier, AP42, Table 13.2.1-1

sL = Road surface silt loading (g/m2), AP42, Table 13.2.1-2 for average daily traffic category of >10,000

W = Average weight of vehicles in tons (CARB vehicle categories)

P = Days of precipitation, AP42, Figure 13.2.1-2

N = Days in period (365 for annual calculation)

| CARB Vehicle Categor | E PM10 (lb/VMT) | E PM2.5 (lb/VMT) | | W (ton) | k PM10 | k PM2.5 | sL | P (days/yr) | N (days) |
|---|---|---|---|---|---|---|---|---|---|
| Average Vehicle | 0.000197 | 4.828E-05 | | 2.2 | 0.0022 | 0.00054 | 0.03 | 40 | 365 |

**Unpaved Road Dust** AP42, Chapter 13.2.2, November 2006 revision

$E = [k \times (s/12)^{a} \times (W/3)^{b}$

E = lb/VMT

k = Particle size multiplier, AP42, Table 13.2.2-2

s = surface material silt content (%) for construction sites, AP42, Table 13.2.2-1

W = Average weight of vehicles in tons (CARB vehicle categories)

P = Days of precipitation, AP42, Figure 13.2.1-2

N = Days in period (365 for annual calculation)

| CARB Vehicle Categor | E PM10 (lb/VMT) | E PM2.5 (lb/VMT) | | W (ton) | k PM10 | k PM2.5 | s (%) | a | b |
|---|---|---|---|---|---|---|---|---|---|
| Average Vehicle | 0.956513 | 0.0956513 | | 2.2 | 1.5 | 0.15 | 8.5 | 0.9 | 0.45 |

**Table C.12 Fugitive Construction Dust**

**Dust from Soil Moving/Handling (bulldozing)**

**$EF_{TSP} = C_{TSP} * s^{1.2} / M^{1.3}$**

| | | |
|---|---|---|
| $EF_{TSP}$ = | 6.245663 | lb/hr |
| $EF_{PM15}$ = | 4.684247 | lb/hr |
| $EF_{PM2.5}$ = | 0.655795 | lb/hr |

| | |
|---|---|
| $C_{TSP}$ | 5.7 |
| M | 7.9% |
| s | 6.9% |
| $F_{PM15}$ | 0.75 |
| $F_{PM2.5}$ | 0.105 |

**Dust from Soil Loading/Unloading**

**$EF = k * (0.0032) * (U/5)^{1.3} / (M/2)^{1.4}$**

| | | | |
|---|---|---|---|
| $EF_{PM10}$ = | 0.101163 | lb/ton | 0.127886 lb/cy |
| $EF_{PM2.5}$ = | 0.015319 | lb/ton | 0.019366 lb/cy |

Source: CalEEMOD, Appendix A, Section 4.3, Dust from Material
February 2011.

Wind speed, state default 2.2 m/s
4.9 mph

| | |
|---|---|
| $k_{PM10}$ | 0.35 |
| $k_{PM2.5}$ | 0.053 |
| U | 4.9 |
| M | 7.9% |

**Dust from Building Demolition**

Source: CalEEMod, Appendix A, Chapter 4.4

**E (lb) = EF (lb/ton debris) * SF (sqft) * 0.046 (ton/sqft)**

where:

| | |
|---|---|
| $EF_{PM10}$ (lb/debris) = | 0.0011 |
| $EF_{PM2.5}$ (lb/debris) = | 0.00017 |

SF is the building square footage

**Dust from Debris Loading**

Source: CalEEMod, Appendix A, Chapter 4.4

**E (lb) = EF (lb/ton debris) * SF (sqft) * 0.046 (ton/sqft)**

| | | |
|---|---|---|
| $EF_{TSP}$ = | 0.058 | lb/ton |
| $k_{M10}$ = | 0.35 | |
| $k_{M2.5}$ = | 0.053 | |

$EF = k\ EF_{TSP}$

| | | |
|---|---|---|
| $EF_{PM10}$ = | 0.0203 | lb/ton |
| $EF_{PM2.5}$ = | 0.003074 | lb/ton |

**Dust from Grading**

E (lb) = EF (lb/VMT) * VMT (miles)

$EF_{TSP} = 0.04 * S^{2.5}$ $EF_{PM2.5} = EF_{TSP} * F_{PM2.5}$

$EF_{PM15} = 0.051 * S^{2}$ $EF_{PM10} = EF_{PM15} * F_{PM10}$

VMT = As (acre) / Wb (ft) * 43560 (sqft/acre) / 5280 (ft/mile)

S is the mean vehicle speed = 7.1 mph

Wb is the blade width of grading equipment = 12 ft

VMT is the vehicle miles traveled

$F_{PM10}$ is the PM10 scaling factor = 0.6

$F_{PM2.5}$ is the PM2.5 scaling factor = 0.031

| | | |
|---|---|---|
| $EF_{PM10}$ = | 1.542546 | lb/VMT |
| $EF_{PM2.5}$ = | 0.166559 | |

Peak day equipment-specific grading rates:

0.5 acre/8-hr day for crawlers
0.5 acre/8-hr day for graders
0.5 acre/8-hr day for rubber tired dozers
1 acre/8-hr day for scrapers

**Table C.13 GHG Emission Factors**

GHG emission factors (kg CO2/gal fuel)

| | CO2 | CH4 | N2O | Fuel |
|---|---|---|---|---|
| offroad construction equipment[1],[2] | 10.15 | 0.00058 | 0.00026 | diesel |
| onroad trucks[3] | 10.15 | 0.0051 | 0.0048 | diesel |
| ships and boats[1],[2] | 10.15 | 0.00074 | 0.00026 | diesel |

[1] CO2 emission factors: 2011 Climate Registry Default Emission Factors, Table 13.1.
[2]N2O and CH4 emission factors: 2011 Climate Registry Default Emission Factors, Table 13.6 for diesel equipment (Other Large Utility Non-Highway Vehicles).
[3] GHG emission factors are from the 2011 Climate Registry Default Emission Factors. Table 13.1 for CO2 and Table 13.4 for N2O and CH4.

Fuel density

| | |
|---|---|
| Diesel (lb/gal) | 7.04 |

Global Warming Potentials (GWP):

| CO2 | CH4 | N2O |
|---|---|---|
| 1 | 21 | 310 |

**Table C.14 Architectural Coatings**

Source: CalEEMod, Appendix A, Chapter 4.7, Appendix D Table 6.1.
**$E_{VOC}$ = EF * F * A**
where:
EF = VOC content (g/L) / 454 (g/lb) * 37.85 (L/gal) / 180 (sqft/gal)
VOC content = 250 for South Coast nonresidential coatings
F is the fraction of surface area be 100%
exterior 75%
interior 25%
A is building surface a 2 * usable square footage

**Table C.15 Asphalt Paving Off-Gasing**

Source: CalEEMod, Appendix A, Chapter 4.8.
**$E_{VOC}$ = EF * A**
where:
EF is the emission fact 2.62 default
A is the area to be paved (acres)

**Table C.16 Wastewater Treatment Direct Emissions**
(mton/gallon of wastewater)

| Wastewater Treatment Type | CO2_NBI | CH4 | N2O | % in South Coast | CO2 | CH4 | N2O |
|---|---|---|---|---|---|---|---|
| Septic | 0 | 2.50E-07 | 8.34E-10 | 10% | 0 | 2.50335E-08 | 8.3445E-11 |
| Aerobic | 0 | 0 | 8.34E-10 | 84.69% | 0 | 0 | 7.06696E-10 |
| AnaerobicFacultative | 0 | 4.01E-07 | 8.34E-10 | 2.14% | 0 | 8.57147E-09 | 1.78572E-11 |
| DigesterBurn | 3.90E-07 | 1.34E-09 | 8.34E-10 | 3.17% | 1.2363E-08 | 4.25519E-11 | 2.64521E-11 |
| DigesterCogen | 1.34E-09 | 8.34E-10 | | 0% | 0 | 0 | 0 |
| Sum | | | | | 1.2363E-08 | 3.36475E-08 | 8.3445E-10 |

Source: CalEEmod, Appendix D, Table 9.4

**Table C.17 % of PM10 which is PM2.5**

| | |
|---|---|
| Fugitive PM | 21% |
| Combustion from Off-Road Equi | 89% |
| Stationary Source Combustion | 99% |

Source: SCAQMD, Final –Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds, 2006.
http://www.aqmd.gov/ceqa/handbook/PM2_5/PM2_5.html

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2013 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 50 | 97776.37546 | 1.386687624 | 0.101402942 | 0.180291409 | 97776.37546 | 1.386687624 | 0.101402942 | 0.180291409 | 11709.9768 | 11709.9768 | 37.0769116 | | 0.24 | 0.02 | 0.03 | 0.02 | 8.35 |
| 2013 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 120 | 589644.6529 | 8.300718872 | 0.511390518 | 0.531689783 | 589644.6529 | 8.300718872 | 0.511390518 | 0.531689783 | 40220.64092 | 40220.64092 | 113.5724345 | | 0.41 | 0.03 | 0.03 | 0.02 | 14.66 |
| 2013 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 175 | 696371.2358 | 8.883768679 | 0.41195933 | 0.546122785 | 696381.239 | 8.858932334 | 0.409296349 | 0.544057641 | 25024.8203 | 25024.8203 | 88.98458783 | | 0.71 | 0.03 | 0.04 | 0.03 | 27.83 |
| 2013 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 250 | 986286.586 | 12.01659804 | 0.371685851 | 0.597235299 | 986335.7627 | 11.93738879 | 0.3671202 | 0.590402033 | 25815.39014 | 25815.39014 | 88.59430455 | | 0.93 | 0.03 | 0.05 | 0.03 | 38.21 |
| 2013 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 500 | 1092628.4 | 11.75156932 | 0.386700769 | 0.609038725 | 1092497.066 | 11.72770439 | 0.385662852 | 0.60718193 | 17349.34342 | 17349.34342 | 62.05504151 | | 1.35 | 0.04 | 0.07 | 0.04 | 62.97 |
| 2013 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 750 | 1505711.326 | 11.46495242 | 0.390570935 | 0.595340668 | 1505711.326 | 11.46465768 | 0.390565259 | 0.595106584 | 13127.72103 | 13127.72103 | 30.83237912 | | 1.75 | 0.06 | 0.09 | 0.05 | 114.70 |
| 2013 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 1000 | 118645.7359 | 1.233946597 | 0.029177166 | 0.039637597 | 118645.7359 | 1.233946597 | 0.029177166 | 0.039637597 | 699.2608041 | 699.2608041 | 1.17084984 | | 3.53 | 0.08 | 0.11 | 0.08 | 169.67 |
| 2013 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 9999 | 401506.0286 | 5.093595867 | 0.12202526 | 0.162526996 | 401506.0286 | 5.093595867 | 0.12202526 | 0.162526996 | 816.434236 | 816.434236 | 1.17084984 | | 12.48 | 0.30 | 0.40 | 0.28 | 491.78 |
| 2013 | SC | Construction and Mining | 12 | Cranes | 50 | 31651.45844 | 0.529097726 | 0.052863314 | 0.153133112 | 31651.45844 | 0.529097726 | 0.052863314 | 0.153133112 | 6713.232288 | 6713.232288 | 17.1741803 | | 0.16 | 0.02 | 0.05 | 0.01 | 4.71 |
| 2013 | SC | Construction and Mining | 12 | Cranes | 120 | 754953.999 | 24.01895114 | 1.77908347 | 2.403679916 | 754953.999 | 23.84921161 | 1.766244898 | 2.383615132 | 80675.42955 | 80675.42955 | 207.0715453 | | 0.60 | 0.04 | 0.06 | 0.04 | 9.36 |
| 2013 | SC | Construction and Mining | 12 | Cranes | 175 | 1993066.095 | 52.56472904 | 2.83621195 | 4.061304636 | 1993066.095 | 52.56143447 | 2.834813448 | 4.06091836 | 126714.5386 | 126714.5386 | 310.607318 | | 0.83 | 0.04 | 0.06 | 0.04 | 15.73 |
| 2013 | SC | Construction and Mining | 12 | Cranes | 250 | 3365657.315 | 82.30691242 | 3.7810723 | 5.698091904 | 3365667.54 | 82.27317073 | 3.778435307 | 5.696072811 | 146384.8027 | 146384.8027 | 348.8812055 | | 1.12 | 0.05 | 0.08 | 0.05 | 22.99 |
| 2013 | SC | Construction and Mining | 12 | Cranes | 500 | 5154393.237 | 101.2049253 | 4.197411659 | 6.397420471 | 5153898.443 | 100.8944924 | 4.181110132 | 6.375837271 | 145072.8149 | 145072.8149 | 334.6511704 | | 1.40 | 0.06 | 0.09 | 0.05 | 35.53 |
| 2013 | SC | Construction and Mining | 12 | Cranes | 750 | 1359068.198 | 17.85907341 | 0.614430884 | 0.930372637 | 1359068.198 | 17.85907341 | 0.614430884 | 0.930372637 | 22701.83365 | 22701.83365 | 49.06908657 | | 1.57 | 0.05 | 0.08 | 0.05 | 59.87 |
| 2013 | SC | Construction and Mining | 12 | Cranes | 1000 | 318035.8379 | 11.14988589 | 0.552359862 | 0.825608134 | 318035.8379 | 11.14988589 | 0.552359862 | 0.825608134 | 3227.194996 | 3227.194996 | 7.360362986 | | 6.91 | 0.34 | 0.51 | 0.31 | 98.55 |
| 2013 | SC | Construction and Mining | 12 | Cranes | 9999 | 24495.578 | 0.480108528 | 0.011682539 | 0.020565149 | 24495.578 | 0.480108528 | 0.011682539 | 0.020565149 | 224.9267687 | 224.9267687 | 0.490690866 | | 4.27 | 0.10 | 0.18 | 0.10 | 108.90 |
| 2013 | SC | Construction and Mining | 13 | Crawler Tractors | 50 | 96440.85594 | 1.70448262 | 0.199503065 | 0.563536784 | 96440.85594 | 1.70448262 | 0.199503065 | 0.563536784 | 13194.11018 | 13194.11018 | 43.55136322 | | 0.26 | 0.03 | 0.09 | 0.03 | 7.31 |
| 2013 | SC | Construction and Mining | 13 | Crawler Tractors | 120 | 4274885.726 | 97.29261601 | 8.090939294 | 9.432705946 | 4273761.672 | 97.16538151 | 8.080488456 | 9.418363477 | 309489.4314 | 309489.4314 | 749.518961 | | 0.63 | 0.05 | 0.06 | 0.05 | 13.81 |
| 2013 | SC | Construction and Mining | 13 | Crawler Tractors | 175 | 4649591.393 | 98.5460112 | 5.329908884 | 7.400267455 | 4650077.203 | 98.13412931 | 5.304796037 | 7.362062991 | 197666.1113 | 197666.1113 | 490.3883498 | | 1.00 | 0.05 | 0.07 | 0.05 | 23.52 |
| 2013 | SC | Construction and Mining | 13 | Crawler Tractors | 250 | 4691481.944 | 89.7876157 | 3.487979374 | 5.373037213 | 4691454.823 | 89.47602025 | 3.468603471 | 5.34782969 | 146554.2833 | 146554.2833 | 358.4277193 | | 1.23 | 0.05 | 0.07 | 0.04 | 32.01 |
| 2013 | SC | Construction and Mining | 13 | Crawler Tractors | 500 | 12583505.15 | 219.9432289 | 8.496644857 | 13.16392063 | 12584734.47 | 218.4614056 | 8.421448891 | 13.04847871 | 232798.33 | 232798.33 | 576.1845354 | | 1.89 | 0.07 | 0.11 | 0.07 | 54.06 |
| 2013 | SC | Construction and Mining | 13 | Crawler Tractors | 750 | 4894939.662 | 74.96647233 | 2.693667756 | 4.274587481 | 4894939.662 | 74.77531708 | 2.682514079 | 4.257824642 | 54421.53432 | 54421.53432 | 118.0241943 | | 2.76 | 0.10 | 0.16 | 0.09 | 89.94 |
| 2013 | SC | Construction and Mining | 13 | Crawler Tractors | 1000 | 647496.51 | 14.27422923 | 0.41803947 | 0.752727334 | 647496.51 | 14.27422923 | 0.41803947 | 0.752727334 | 4936.905469 | 4936.905469 | 10.45232717 | | 5.78 | 0.17 | 0.30 | 0.16 | 131.15 |
| 2013 | SC | Construction and Mining | 13 | Crawler Tractors | 9999 | 342295.0763 | 6.415783547 | 0.167269563 | 0.29353541 | 342295.0763 | 6.415783547 | 0.167269563 | 0.29353541 | 1482.813744 | 1482.813744 | 2.613081793 | | 8.65 | 0.23 | 0.40 | 0.21 | 230.84 |
| 2013 | SC | Construction and Mining | 14 | Excavators | 50 | 3861749.515 | 52.65531438 | 4.09943687 | 7.213719476 | 3861776.678 | 52.6283387 | 4.09443779 | 7.200145542 | 692341.899 | 692341.899 | 1066.674552 | | 0.15 | 0.01 | 0.02 | 0.01 | 5.58 |
| 2013 | SC | Construction and Mining | 14 | Excavators | 120 | 5013497.832 | 81.81142874 | 6.160193679 | 6.762833948 | 5013472.435 | 81.73796461 | 6.153603637 | 6.754155384 | 442119.6098 | 442119.6098 | 771.5161412 | | 0.37 | 0.03 | 0.03 | 0.03 | 11.34 |
| 2013 | SC | Construction and Mining | 14 | Excavators | 175 | 10562051.54 | 161.7309314 | 8.059426379 | 11.12736954 | 10562535.28 | 161.4058612 | 8.036528415 | 11.0972629 | 515802.0051 | 515802.0051 | 980.222828 | | 0.63 | 0.03 | 0.04 | 0.03 | 20.48 |
| 2013 | SC | Construction and Mining | 14 | Excavators | 250 | 13437819.47 | 201.2667017 | 6.470373912 | 10.92529803 | 13436373.16 | 199.0300308 | 6.335823548 | 10.74296845 | 438284.5472 | 438284.5472 | 842.6859947 | | 0.92 | 0.03 | 0.05 | 0.03 | 30.66 |
| 2013 | SC | Construction and Mining | 14 | Excavators | 500 | 22292126.48 | 253.2026377 | 8.237522623 | 13.95921724 | 22294006.92 | 250.8221755 | 8.11140971 | 13.77993768 | 485386.4443 | 485386.4443 | 857.0946153 | | 1.04 | 0.03 | 0.06 | 0.03 | 45.93 |
| 2013 | SC | Construction and Mining | 14 | Excavators | 750 | 2015476.986 | 24.79046275 | 0.816054223 | 1.345540047 | 2015472.688 | 24.01883113 | 0.771612799 | 1.281367492 | 25127.08348 | 25127.08348 | 43.66248677 | | 1.97 | 0.06 | 0.11 | 0.06 | 80.21 |
| 2013 | SC | Construction and Mining | 14 | Excavators | 1000 | 226215.8002 | 4.674818614 | 0.151033298 | 0.247728766 | 226215.8002 | 3.989118577 | 0.109001076 | 0.185627632 | 1921.732227 | 1921.732227 | 3.492998942 | | 4.87 | 0.16 | 0.26 | 0.14 | 117.71 |
| 2013 | SC | Construction and Mining | 14 | Excavators | 9999 | 441078.4946 | 5.376496555 | 0.148552442 | 0.24652683 | 441078.4946 | 5.376496555 | 0.148552442 | 0.24652683 | 2024.944117 | 2024.944117 | 3.056374074 | | 5.31 | 0.15 | 0.24 | 0.13 | 217.82 |
| 2013 | SC | Construction and Mining | 15 | Graders | 50 | 25502.44457 | 0.482411964 | 0.064190518 | 0.189784614 | 25502.44457 | 0.482411964 | 0.064190518 | 0.189784614 | 4160.802449 | 4160.802449 | 13.60433316 | | 0.23 | 0.03 | 0.09 | 0.03 | 6.13 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2013 | SC | Construction and Mining | 15 | Graders | 120 | 689382.1445 | 21.23722515 | 1.761135916 | 2.230083649 | 689382.1445 | 21.23678529 | 1.761108359 | 2.229863865 | 50576.90606 | 50576.90606 | 144.8203208 | 0.84 | 0.07 | 0.09 | 0.06 | 13.63 |
| 2013 | SC | Construction and Mining | 15 | Graders | 175 | 6403368.107 | 166.2571888 | 9.318907057 | 13.33375892 | 6403207.158 | 166.1475809 | 9.312078321 | 13.32271486 | 282183.4329 | 282183.4329 | 677.5835614 | 1.18 | 0.07 | 0.09 | 0.06 | 22.69 |
| 2013 | SC | Construction and Mining | 15 | Graders | 250 | 11110877.37 | 189.6641157 | 6.104921547 | 10.4491685 | 11110825.22 | 189.6376823 | 6.102905416 | 10.4474578 | 358497.4625 | 358497.4625 | 538.0294341 | 1.06 | 0.03 | 0.06 | 0.03 | 30.99 |
| 2013 | SC | Construction and Mining | 15 | Graders | 500 | 3168373.521 | 35.27416432 | 1.343050072 | 2.373025379 | 3168373.521 | 35.27416432 | 1.343050072 | 2.373025379 | 71942.13474 | 71942.13474 | 100.4965256 | 0.98 | 0.04 | 0.07 | 0.03 | 44.04 |
| 2013 | SC | Construction and Mining | 15 | Graders | 1000 | 30633.07515 | 0.854971881 | 0.029754871 | 0.053950945 | 30633.07515 | 0.854971881 | 0.029754871 | 0.053950945 | 256.5705627 | 256.5705627 | 0.438849457 | 6.66 | 0.23 | 0.42 | 0.21 | 119.39 |
| 2013 | SC | Construction and Mining | 15 | Graders | 9999 | 431530.7502 | 8.478341241 | 0.254462754 | 0.460645957 | 431530.7502 | 8.478341241 | 0.254462754 | 0.460645957 | 1446.332337 | 1446.332337 | 2.194247284 | 11.72 | 0.35 | 0.64 | 0.32 | 298.36 |
| 2013 | SC | Construction and Mining | 16 | Off-Highway Tractors | 50 | 1595475.719 | 24.9980833 | 2.539479748 | 6.163215701 | 1594923.556 | 24.88912599 | 2.50869275 | 6.060924159 | 238998.4159 | 238998.4159 | 408.5812906 | 0.21 | 0.02 | 0.05 | 0.02 | 6.67 |
| 2013 | SC | Construction and Mining | 16 | Off-Highway Tractors | 120 | 2042433.662 | 41.8811703 | 3.481937099 | 3.931387439 | 2043109.628 | 41.31498372 | 3.428677113 | 3.863493828 | 169917.0449 | 169917.0449 | 297.0717498 | 0.49 | 0.04 | 0.05 | 0.04 | 12.02 |
| 2013 | SC | Construction and Mining | 16 | Off-Highway Tractors | 175 | 1739825.107 | 28.25549286 | 1.46420776 | 1.970241833 | 1739825.107 | 28.25549286 | 1.46420776 | 1.970241833 | 68683.53354 | 68683.53354 | 112.8011572 | 0.82 | 0.04 | 0.06 | 0.04 | 25.33 |
| 2013 | SC | Construction and Mining | 16 | Off-Highway Tractors | 250 | 1457870.992 | 26.9032958 | 0.964291398 | 1.554455709 | 1457860.676 | 26.86123789 | 0.960994394 | 1.552219774 | 42794.74479 | 42794.74479 | 73.62212929 | 1.26 | 0.05 | 0.07 | 0.04 | 34.07 |
| 2013 | SC | Construction and Mining | 16 | Off-Highway Tractors | 500 | 4118229.175 | 54.92975054 | 1.971759185 | 3.134877366 | 4115956.41 | 54.50695926 | 1.937973678 | 3.110458113 | 77048.16646 | 77048.16646 | 126.5783977 | 1.43 | 0.05 | 0.08 | 0.05 | 53.42 |
| 2013 | SC | Construction and Mining | 16 | Off-Highway Tractors | 750 | 1037495.486 | 14.08072206 | 0.497882065 | 0.787356247 | 1034449.834 | 13.43001488 | 0.463054043 | 0.738473979 | 11276.92125 | 11276.92125 | 18.51316701 | 2.50 | 0.09 | 0.14 | 0.08 | 91.73 |
| 2013 | SC | Construction and Mining | 16 | Off-Highway Tractors | 1000 | 29314.89395 | 1.080567204 | 0.054976653 | 0.075542181 | 29314.89395 | 1.080567204 | 0.054976653 | 0.075542181 | 183.4146848 | 183.4146848 | 0.430538768 | 11.78 | 0.60 | 0.82 | 0.55 | 159.83 |
| 2013 | SC | Construction and Mining | 16 | Off-Highway Tractors | 9999 | 228592.6433 | 6.851895061 | 0.257710105 | 0.452234774 | 236276.1537 | 5.197782173 | 0.169278578 | 0.297884863 | 851.6207935 | 851.6207935 | 1.722155071 | 16.09 | 0.61 | 1.06 | 0.56 | 277.44 |
| 2013 | SC | Construction and Mining | 17 | Off-Highway Trucks | 50 | 152668.534 | 2.45922272 | 0.255509649 | 0.577027231 | 152668.534 | 2.45922272 | 0.255509649 | 0.577027231 | 34721.01683 | 34721.01683 | 24.31627099 | 0.14 | 0.01 | 0.03 | 0.01 | 4.40 |
| 2013 | SC | Construction and Mining | 17 | Off-Highway Trucks | 120 | 187482.9154 | 4.125287753 | 0.33226931 | 0.415454982 | 187482.9154 | 4.125287753 | 0.33226931 | 0.415454982 | 15583.75946 | 15583.75946 | 13.65123986 | 0.53 | 0.04 | 0.05 | 0.04 | 12.03 |
| 2013 | SC | Construction and Mining | 17 | Off-Highway Trucks | 175 | 3627283.882 | 63.27825447 | 3.612790661 | 5.104972086 | 3627283.882 | 63.27825447 | 3.612790661 | 5.104972086 | 163589.8052 | 163589.8052 | 130.5399811 | 0.77 | 0.04 | 0.06 | 0.04 | 22.17 |
| 2013 | SC | Construction and Mining | 17 | Off-Highway Trucks | 250 | 7440567.9 | 138.3680828 | 6.034592769 | 9.915878653 | 7439471.065 | 136.2705026 | 5.912421439 | 9.740841394 | 253217.1025 | 253217.1025 | 223.5390526 | 1.09 | 0.05 | 0.08 | 0.04 | 29.38 |
| 2013 | SC | Construction and Mining | 17 | Off-Highway Trucks | 500 | 31619311.85 | 480.8214744 | 18.74959884 | 33.16471731 | 31623095.91 | 476.9006129 | 18.51382133 | 32.8720164 | 600881.2511 | 600881.2511 | 496.5638497 | 1.60 | 0.06 | 0.11 | 0.06 | 52.63 |
| 2013 | SC | Construction and Mining | 17 | Off-Highway Trucks | 750 | 11361326.8 | 215.4447551 | 9.240988711 | 15.32463141 | 11361827.02 | 212.8918278 | 9.057223106 | 15.12702407 | 122213.7392 | 122213.7392 | 113.4759313 | 3.53 | 0.15 | 0.25 | 0.14 | 92.97 |
| 2013 | SC | Construction and Mining | 17 | Off-Highway Trucks | 1000 | 7862013.918 | 162.3516994 | 4.834174879 | 8.88317705 | 7862013.918 | 162.3516994 | 4.834174879 | 8.88317705 | 62359.92441 | 62359.92441 | 52.04535195 | 5.21 | 0.16 | 0.28 | 0.14 | 126.07 |
| 2013 | SC | Construction and Mining | 17 | Off-Highway Trucks | 9999 | 11321558.27 | 212.0639058 | 6.802241198 | 12.54164507 | 11363559.73 | 217.6294893 | 7.002482652 | 12.9044247 | 45300.19167 | 45300.19167 | 33.70149839 | 9.36 | 0.30 | 0.55 | 0.28 | 250.85 |
| 2013 | SC | Construction and Mining | 18 | Other Construction Equipment | 50 | 864816.9289 | 12.98992069 | 1.1798499 | 2.530425346 | 864816.9289 | 12.98992069 | 1.1798499 | 2.530425346 | 133200.8755 | 133200.8755 | 315.5233638 | 0.20 | 0.02 | 0.04 | 0.02 | 6.49 |
| 2013 | SC | Construction and Mining | 18 | Other Construction Equipment | 120 | 2701456.329 | 55.72801065 | 4.337919906 | 5.063493815 | 2701369.665 | 55.58465158 | 4.326508793 | 5.046617894 | 217950.7876 | 217950.7876 | 556.7309959 | 0.51 | 0.04 | 0.05 | 0.04 | 12.39 |
| 2013 | SC | Construction and Mining | 18 | Other Construction Equipment | 175 | 1473432.522 | 29.77118911 | 1.56937144 | 2.188969248 | 1473470.81 | 29.74255056 | 1.560183213 | 2.185694206 | 63660.98907 | 63660.98907 | 173.2618202 | 0.94 | 0.05 | 0.07 | 0.05 | 23.15 |
| 2013 | SC | Construction and Mining | 18 | Other Construction Equipment | 250 | 1892906.623 | 35.59616373 | 1.359735544 | 2.089847955 | 1892833.253 | 35.22520649 | 1.334048595 | 2.06292747 | 56773.6967 | 56773.6967 | 155.4260446 | 1.25 | 0.05 | 0.07 | 0.04 | 33.34 |
| 2013 | SC | Construction and Mining | 18 | Other Construction Equipment | 500 | 6477013.218 | 100.0095385 | 3.800766419 | 5.956644651 | 6476449.912 | 98.93316277 | 3.735817174 | 5.878852468 | 117717.1281 | 117717.1281 | 301.9342014 | 1.70 | 0.06 | 0.10 | 0.06 | 55.02 |
| 2013 | SC | Construction and Mining | 18 | Other Construction Equipment | 750 | 2515137.641 | 33.40403454 | 1.129472517 | 1.788366129 | 2515137.641 | 32.04083974 | 1.062514448 | 1.68177877 | 27561.64854 | 27561.64854 | 62.42521464 | 2.42 | 0.08 | 0.13 | 0.08 | 91.25 |
| 2013 | SC | Construction and Mining | 18 | Other Construction Equipment | 1000 | 293451.4069 | 4.379493876 | 0.11965739 | 0.19273343 | 293451.4069 | 4.379493876 | 0.11965739 | 0.19273343 | 2322.279377 | 2322.279377 | 5.520597213 | 3.77 | 0.10 | 0.17 | 0.09 | 126.36 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2013 | SC | Construction and Mining | 18 | Other Construction Equipment | 9999 | 182159.4229 | 3.715154477 | 0.12296535 | 0.202790407 | 182159.4229 | 3.715154477 | 0.12296535 | 0.202790407 | 1088.159375 | 1088.159375 | 2.547967945 | 6.83 | 0.23 | 0.37 | 0.21 | 167.40 |
| 2013 | SC | Construction and Mining | 19 | Pavers | 50 | 105966.6876 | 1.663927223 | 0.172366444 | 0.450155031 | 105966.6876 | 1.663927223 | 0.172366444 | 0.450155031 | 16105.28721 | 16105.28721 | 51.14114777 | 0.21 | 0.02 | 0.06 | 0.02 | 6.58 |
| 2013 | SC | Construction and Mining | 19 | Pavers | 120 | 1024410.267 | 19.95311914 | 1.552808994 | 1.822115603 | 1024403.255 | 19.90476632 | 1.549168915 | 1.816364891 | 84868.48413 | 84868.48413 | 248.4607429 | 0.47 | 0.04 | 0.04 | 0.03 | 12.07 |
| 2013 | SC | Construction and Mining | 19 | Pavers | 175 | 1392206.139 | 25.43574923 | 1.276454586 | 1.838847786 | 1392176.832 | 25.31594776 | 1.269802266 | 1.828262209 | 57700.83401 | 57700.83401 | 167.9134352 | 0.88 | 0.04 | 0.06 | 0.04 | 24.13 |
| 2013 | SC | Construction and Mining | 19 | Pavers | 250 | 940128.6191 | 11.90264569 | 0.299059512 | 0.480117231 | 940128.6191 | 11.89349803 | 0.298317256 | 0.479767737 | 28797.04612 | 28797.04612 | 72.44995934 | 0.83 | 0.02 | 0.03 | 0.02 | 32.65 |
| 2013 | SC | Construction and Mining | 19 | Pavers | 500 | 354285.5748 | 3.647471621 | 0.126258032 | 0.181270685 | 354285.5748 | 3.647471621 | 0.126258032 | 0.181270685 | 7167.931068 | 7167.931068 | 17.89940172 | 1.02 | 0.04 | 0.05 | 0.03 | 49.43 |
| 2013 | SC | Construction and Mining | 19 | Pavers | 750 | 40940.17936 | 0.297756274 | 0.012611069 | 0.016110322 | 40940.17936 | 0.297756274 | 0.012611069 | 0.016110322 | 358.0600939 | 358.0600939 | 0.852352463 | 1.66 | 0.07 | 0.09 | 0.06 | 114.34 |
| 2013 | SC | Construction and Mining | 20 | Paving Equipment | 50 | 131732.1891 | 1.909629027 | 0.166926663 | 0.339343584 | 131732.1891 | 1.901637495 | 0.164573994 | 0.330854005 | 26333.77499 | 26333.77499 | 62.97264929 | 0.15 | 0.01 | 0.03 | 0.01 | 5.00 |
| 2013 | SC | Construction and Mining | 20 | Paving Equipment | 120 | 598555.6204 | 11.98616013 | 0.913487456 | 1.058917009 | 598378.7438 | 11.93306974 | 0.909088734 | 1.052343128 | 51683.18147 | 51683.18147 | 128.4982438 | 0.46 | 0.04 | 0.04 | 0.03 | 11.58 |
| 2013 | SC | Construction and Mining | 20 | Paving Equipment | 175 | 563840.7769 | 9.519591811 | 0.460084795 | 0.627834145 | 563837.364 | 9.518902025 | 0.46003967 | 0.627638333 | 29243.22106 | 29243.22106 | 70.20599414 | 0.65 | 0.03 | 0.04 | 0.03 | 19.28 |
| 2013 | SC | Construction and Mining | 20 | Paving Equipment | 250 | 295756.6726 | 5.081977807 | 0.188143976 | 0.289196628 | 295774.2021 | 4.663475651 | 0.160168345 | 0.251216931 | 10518.21135 | 10518.21135 | 25.52945241 | 0.97 | 0.04 | 0.05 | 0.03 | 28.12 |
| 2013 | SC | Construction and Mining | 20 | Paving Equipment | 500 | 417090.8825 | 6.050919099 | 0.216082129 | 0.33446231 | 417044.7164 | 6.024899748 | 0.214088546 | 0.333421356 | 9508.591066 | 9508.591066 | 22.97650717 | 1.27 | 0.05 | 0.07 | 0.04 | 43.86 |
| 2013 | SC | Construction and Mining | 20 | Paving Equipment | 750 | 197780.9047 | 2.327609351 | 0.052964411 | 0.103485541 | 197780.9047 | 2.327609351 | 0.052964411 | 0.103485541 | 2507.659613 | 2507.659613 | 5.531381357 | 1.86 | 0.04 | 0.08 | 0.04 | 78.87 |
| 2013 | SC | Construction and Mining | 20 | Paving Equipment | 1000 | 38677.42344 | 0.868259731 | 0.025108546 | 0.047054303 | 38677.42344 | 0.868259731 | 0.025108546 | 0.047054303 | 352.0490424 | 352.0490424 | 0.850981747 | 4.93 | 0.14 | 0.27 | 0.13 | 109.86 |
| 2013 | SC | Construction and Mining | 21 | Rollers | 50 | 2174062.167 | 32.24246046 | 2.93336553 | 6.517190751 | 2174167.077 | 32.22765122 | 2.928661263 | 6.500988019 | 396974.2624 | 396974.2624 | 1292.038367 | 0.16 | 0.01 | 0.03 | 0.01 | 5.48 |
| 2013 | SC | Construction and Mining | 21 | Rollers | 120 | 3397932.767 | 69.13409424 | 5.16708224 | 6.231912045 | 3398348.365 | 68.55735741 | 5.118267941 | 6.162218061 | 282733.5396 | 282733.5396 | 963.5540363 | 0.49 | 0.04 | 0.04 | 0.03 | 12.02 |
| 2013 | SC | Construction and Mining | 21 | Rollers | 175 | 3509806.175 | 54.40565648 | 2.538071637 | 3.473527108 | 3509805.34 | 53.92450939 | 2.507029691 | 3.429653683 | 177344.7168 | 177344.7168 | 557.1094246 | 0.61 | 0.03 | 0.04 | 0.03 | 19.79 |
| 2013 | SC | Construction and Mining | 21 | Rollers | 250 | 554048.6168 | 9.866999829 | 0.353226046 | 0.571163483 | 554048.6168 | 9.866999829 | 0.353226046 | 0.571163483 | 18826.54203 | 18826.54203 | 68.32474075 | 1.05 | 0.04 | 0.06 | 0.03 | 29.43 |
| 2013 | SC | Construction and Mining | 21 | Rollers | 500 | 349125.8096 | 6.215762864 | 0.255980252 | 0.386611716 | 349125.8096 | 5.642056446 | 0.22127694 | 0.33886624 | 7491.866456 | 7491.866456 | 28.03066287 | 1.66 | 0.07 | 0.10 | 0.06 | 46.60 |
| 2013 | SC | Construction and Mining | 21 | Rollers | 750 | 17056.16266 | 0.438349678 | 0.016237822 | 0.025826656 | 17056.16266 | 0.438349678 | 0.016237822 | 0.025826656 | 237.618662 | 237.618662 | 0.875958215 | 3.69 | 0.14 | 0.22 | 0.13 | 71.78 |
| 2013 | SC | Construction and Mining | 22 | Rough Terrain | 50 | 110705.0264 | 1.594582368 | 0.13544397 | 0.295939156 | 110705.0264 | 1.594582368 | 0.13544397 | 0.295939156 | 14250.21338 | 14250.21338 | 58.6837897 | 0.22 | 0.02 | 0.04 | 0.02 | 7.77 |
| 2013 | SC | Construction and Mining | 22 | Rough Terrain | 120 | 8904048.328 | 131.9695897 | 8.019298075 | 8.767459526 | 8903605.528 | 131.5002675 | 7.977501377 | 8.715470044 | 625725.945 | 625725.945 | 2514.296852 | 0.42 | 0.03 | 0.03 | 0.02 | 14.23 |
| 2013 | SC | Construction and Mining | 22 | Rough Terrain | 175 | 1637109.831 | 19.62518454 | 0.776323584 | 1.004370775 | 1637109.831 | 19.2309349 | 0.753187539 | 0.970346429 | 85719.0386 | 85719.0386 | 336.4200013 | 0.46 | 0.02 | 0.02 | 0.02 | 19.10 |
| 2013 | SC | Construction and Mining | 22 | Rough Terrain | 250 | 134744.7867 | 2.562838699 | 0.113067884 | 0.172189058 | 134977.3849 | 1.936976018 | 0.074060805 | 0.117291172 | 4371.980743 | 4371.980743 | 19.72989481 | 1.17 | 0.05 | 0.08 | 0.05 | 30.87 |
| 2013 | SC | Construction and Mining | 22 | Rough Terrain | 500 | 57059.72357 | 0.799484876 | 0.024329984 | 0.040236814 | 57059.72357 | 0.799484876 | 0.024329984 | 0.040236814 | 1044.429082 | 1044.429082 | 4.553052649 | 1.53 | 0.05 | 0.08 | 0.04 | 54.63 |
| 2013 | SC | Construction and Mining | 22 | Rough Terrain | 750 | 8927.918458 | 0.403262178 | 0.021354832 | 0.032221847 | 8927.918458 | 0.034945431 | 0.000235644 | 0.001647388 | 96.82289868 | 96.82289868 | 0.505894739 | 8.33 | 0.44 | 0.67 | 0.41 | 92.21 |
| 2013 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 50 | 95276.2989 | 1.730347471 | 0.226764212 | 0.633520506 | 95276.2989 | 1.730347471 | 0.226764212 | 0.633520506 | 14412.9667 | 14412.9667 | 17.09996773 | 0.24 | 0.03 | 0.09 | 0.03 | 6.61 |
| 2013 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 120 | 454627.693 | 12.92098889 | 1.151199664 | 1.368668877 | 454627.693 | 12.92098889 | 1.151199664 | 1.368668877 | 38086.77618 | 38086.77618 | 50.88283082 | 0.68 | 0.06 | 0.07 | 0.06 | 11.94 |
| 2013 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 175 | 380787.8193 | 11.19801878 | 0.639588813 | 0.901421856 | 380787.8193 | 11.19801878 | 0.639588813 | 0.901421856 | 17477.52073 | 17477.52073 | 26.27556018 | 1.28 | 0.07 | 0.10 | 0.07 | 21.79 |
| 2013 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 250 | 397207.7026 | 9.609285066 | 0.468144388 | 0.707882089 | 397207.7026 | 9.609285066 | 0.468144388 | 0.707882089 | 12893.23408 | 12893.23408 | 20.4365468 | 1.49 | 0.07 | 0.11 | 0.07 | 30.81 |
| 2013 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 500 | 4553619.623 | 112.1523491 | 5.24436532 | 8.071927465 | 4553619.623 | 112.1523491 | 5.24436532 | 8.071927465 | 87201.19176 | 87201.19176 | 136.3826695 | 2.57 | 0.12 | 0.19 | 0.11 | 52.22 |
| 2013 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 750 | 534904.1199 | 12.00870018 | 0.440403252 | 0.714332054 | 534904.1199 | 12.00870018 | 0.440403252 | 0.714332054 | 6298.269836 | 6298.269836 | 8.341447675 | 3.81 | 0.14 | 0.23 | 0.13 | 84.93 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2013 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 50 | 301889.0159 | 5.062818635 | 0.568577712 | 1.477139706 | 301889.0159 | 5.046826443 | 0.567306356 | 1.476798866 | 49070.00759 | 49070.00759 | 64.33793734 | 0.21 | 0.02 | 0.06 | 0.02 | 6.15 |
| 2013 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 120 | 7363535.799 | 167.8110627 | 14.67525547 | 16.96373401 | 7363116.933 | 167.0710346 | 14.61206281 | 16.87608206 | 650370.252 | 650370.252 | 799.8770588 | 0.52 | 0.05 | 0.05 | 0.04 | 11.32 |
| 2013 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 175 | 17441417.11 | 347.4429849 | 19.40095046 | 27.43224531 | 17440849.99 | 346.6583027 | 19.33935563 | 27.35594561 | 877178.2909 | 877178.2909 | 1048.099777 | 0.79 | 0.04 | 0.06 | 0.04 | 19.88 |
| 2013 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 250 | 24040563.41 | 417.4745559 | 14.24910039 | 25.02884005 | 24040563.41 | 417.2422037 | 14.23387949 | 25.00725697 | 883199.9471 | 883199.9471 | 931.5959441 | 0.95 | 0.03 | 0.06 | 0.03 | 27.22 |
| 2013 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 500 | 31398601.04 | 523.1542022 | 19.91477056 | 34.38096909 | 31401370.94 | 519.5878065 | 19.71335076 | 34.10808542 | 744506.8111 | 744506.8111 | 865.5191436 | 1.41 | 0.05 | 0.09 | 0.05 | 42.18 |
| 2013 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 750 | 5536630.651 | 85.91151991 | 3.425136402 | 5.862435875 | 5536630.651 | 85.71372569 | 3.409589582 | 5.848879179 | 71705.59425 | 71705.59425 | 76.50997954 | 2.40 | 0.10 | 0.16 | 0.09 | 77.21 |
| 2013 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 1000 | 1612385.069 | 32.37276234 | 0.937047236 | 1.633852203 | 1612385.069 | 32.37026138 | 0.936859928 | 1.63269353 | 14547.97256 | 14547.97256 | 13.91090537 | 4.45 | 0.13 | 0.22 | 0.12 | 110.83 |
| 2013 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 9999 | 641093.061 | 12.2508533 | 0.349546365 | 0.64748273 | 641093.061 | 12.2508533 | 0.349546365 | 0.64748273 | 3195.538622 | 3195.538622 | 3.04301055 | 7.67 | 0.22 | 0.41 | 0.20 | 200.62 |
| 2013 | SC | Construction and Mining | 25 | Scrapers | 50 | 6915.123919 | 0.125532976 | 0.016607717 | 0.048712762 | 6915.123919 | 0.125532976 | 0.016607717 | 0.048712762 | 976.2408187 | 976.2408187 | 3.007546068 | 0.26 | 0.03 | 0.10 | 0.03 | 7.08 |
| 2013 | SC | Construction and Mining | 25 | Scrapers | 120 | 315671.5915 | 6.554401758 | 0.484037132 | 0.546393266 | 315671.5915 | 6.554401758 | 0.484037132 | 0.546393266 | 20622.05286 | 20622.05286 | 43.39459327 | 0.64 | 0.05 | 0.05 | 0.04 | 15.31 |
| 2013 | SC | Construction and Mining | 25 | Scrapers | 175 | 3334611.76 | 82.35741895 | 4.333367235 | 6.150397269 | 3334360.864 | 82.19049531 | 4.323944219 | 6.136125289 | 111663.725 | 111663.725 | 278.8424855 | 1.48 | 0.08 | 0.11 | 0.07 | 29.86 |
| 2013 | SC | Construction and Mining | 25 | Scrapers | 250 | 3829867.451 | 106.5879062 | 4.899637194 | 7.424698586 | 3829867.451 | 106.5879062 | 4.899637194 | 7.424698586 | 96809.59231 | 96809.59231 | 270.6791462 | 2.20 | 0.10 | 0.15 | 0.09 | 39.56 |
| 2013 | SC | Construction and Mining | 25 | Scrapers | 500 | 33545116.95 | 658.7678638 | 26.68109736 | 41.49496405 | 33548024.06 | 655.6489847 | 26.51348271 | 41.26393585 | 496110.4579 | 496110.4579 | 1189.699295 | 2.66 | 0.11 | 0.17 | 0.10 | 67.62 |
| 2013 | SC | Construction and Mining | 25 | Scrapers | 750 | 15355587.48 | 247.1253418 | 9.455354887 | 14.86739632 | 15355351.87 | 245.8774261 | 9.373327284 | 14.78803187 | 153275.0301 | 153275.0301 | 338.9934069 | 3.22 | 0.12 | 0.19 | 0.11 | 100.18 |
| 2013 | SC | Construction and Mining | 25 | Scrapers | 1000 | 240039.7711 | 9.655323831 | 0.450166496 | 0.699336143 | 240039.7711 | 9.655323831 | 0.450166496 | 0.699336143 | 1427.204595 | 1427.204595 | 5.585442698 | 13.53 | 0.63 | 0.98 | 0.58 | 168.19 |
| 2013 | SC | Construction and Mining | 25 | Scrapers | 9999 | 872489.0405 | 18.5785022 | 0.690455628 | 1.054378654 | 872489.0405 | 18.5785022 | 0.690455628 | 1.054378654 | 2507.518929 | 2507.518929 | 5.585442698 | 14.82 | 0.55 | 0.84 | 0.51 | 347.95 |
| 2013 | SC | Construction and Mining | 26 | Skid Steer Loaders | 50 | 1642847.978 | 21.43217818 | 1.494941489 | 2.796293601 | 1642859.41 | 21.40196304 | 1.490848793 | 2.787408375 | 250186.0607 | 250186.0607 | 895.0994737 | 0.17 | 0.01 | 0.02 | 0.01 | 6.57 |
| 2013 | SC | Construction and Mining | 26 | Skid Steer Loaders | 120 | 8730087.481 | 116.559392 | 7.115758522 | 7.386879854 | 8729666.808 | 116.3950003 | 7.1017162 | 7.367926174 | 914471.492 | 914471.492 | 2888.548574 | 0.25 | 0.02 | 0.02 | 0.01 | 9.55 |
| 2013 | SC | Construction and Mining | 26 | Skid Steer Loaders | 175 | 59039.87679 | 0.774126287 | 0.035045229 | 0.046785081 | 59039.87679 | 0.774126287 | 0.035045229 | 0.046785081 | 2874.073547 | 2874.073547 | 11.98199593 | 0.54 | 0.02 | 0.03 | 0.02 | 20.54 |
| 2013 | SC | Construction and Mining | 26 | Skid Steer Loaders | 250 | 45360.60272 | 0.628428318 | 0.024888562 | 0.036754534 | 45348.6293 | 0.610349282 | 0.023628184 | 0.035831719 | 1699.186743 | 1699.186743 | 6.656664405 | 0.74 | 0.03 | 0.04 | 0.03 | 26.69 |
| 2013 | SC | Construction and Mining | 26 | Skid Steer Loaders | 500 | 12454.6044 | 0.117810509 | 0.004132758 | 0.007026125 | 12454.6044 | 0.117810509 | 0.004132758 | 0.007026125 | 341.8189076 | 341.8189076 | 1.331332881 | 0.69 | 0.02 | 0.04 | 0.02 | 36.44 |
| 2013 | SC | Construction and Mining | 26 | Skid Steer Loaders | 750 | 13137.96623 | 0.094323815 | 0.003866099 | 0.004436634 | 13137.96623 | 0.094323815 | 0.003866099 | 0.004436634 | 183.2941968 | 183.2941968 | 0.443777627 | 1.03 | 0.04 | 0.05 | 0.04 | 71.68 |
| 2013 | SC | Construction and Mining | 26 | Skid Steer Loaders | 1000 | 21438.80263 | 0.531048786 | 0.01904057 | 0.033868124 | 21438.80263 | 0.241937779 | 0.007514858 | 0.011127884 | 158.5247108 | 158.5247108 | 0.887555254 | 6.70 | 0.24 | 0.43 | 0.22 | 135.24 |
| 2013 | SC | Construction and Mining | 27 | Surfacing Equipment | 50 | 15130.91238 | 0.223127736 | 0.01841726 | 0.040721802 | 15130.91238 | 0.223127736 | 0.01841726 | 0.040721802 | 3398.94804 | 3398.94804 | 15.7013237 | 0.13 | 0.01 | 0.02 | 0.01 | 4.45 |
| 2013 | SC | Construction and Mining | 27 | Surfacing Equipment | 120 | 118870.7473 | 2.078682986 | 0.14830268 | 0.173604316 | 118870.7473 | 2.078682986 | 0.14830268 | 0.173604316 | 12126.18653 | 12126.18653 | 50.32475546 | 0.34 | 0.02 | 0.03 | 0.02 | 9.80 |
| 2013 | SC | Construction and Mining | 27 | Surfacing Equipment | 175 | 61600.84261 | 1.102819585 | 0.053616087 | 0.075960828 | 61610.41454 | 1.101121021 | 0.053047449 | 0.075801763 | 3693.60387 | 3693.60387 | 16.90911783 | 0.60 | 0.03 | 0.04 | 0.03 | 16.68 |
| 2013 | SC | Construction and Mining | 27 | Surfacing Equipment | 250 | 130775.636 | 2.300938417 | 0.073751529 | 0.119826292 | 130767.2605 | 2.286744967 | 0.072699038 | 0.119156519 | 5414.75326 | 5414.75326 | 25.36367675 | 0.85 | 0.03 | 0.04 | 0.03 | 24.15 |
| 2013 | SC | Construction and Mining | 27 | Surfacing Equipment | 500 | 413121.8587 | 5.108661294 | 0.163983353 | 0.25052066 | 413121.8587 | 5.108661294 | 0.163983353 | 0.25052066 | 10365.72257 | 10365.72257 | 41.87019654 | 0.99 | 0.03 | 0.05 | 0.03 | 39.85 |
| 2013 | SC | Construction and Mining | 27 | Surfacing Equipment | 750 | 382209.0908 | 3.98018861 | 0.125934205 | 0.171973068 | 382209.0908 | 3.98018861 | 0.125934205 | 0.171973068 | 5625.360669 | 5625.360669 | 20.93509827 | 1.42 | 0.04 | 0.06 | 0.04 | 67.94 |
| 2013 | SC | Construction and Mining | 27 | Surfacing Equipment | 1000 | 62334.70836 | 1.066732554 | 0.025916815 | 0.04545705 | 62334.70836 | 1.066732554 | 0.025916815 | 0.04545705 | 689.3779667 | 689.3779667 | 2.818186306 | 3.09 | 0.08 | 0.13 | 0.07 | 90.42 |
| 2013 | SC | Construction and Mining | 27 | Surfacing Equipment | 9999 | 21849.30455 | 0.254633787 | 0.005696876 | 0.008813351 | 21849.30455 | 0.254633787 | 0.005696876 | 0.008813351 | 175.8275917 | 175.8275917 | 0.805196087 | 2.90 | 0.06 | 0.10 | 0.06 | 124.27 |
| 2013 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 50 | 3244567.065 | 49.34677347 | 4.677590951 | 10.71309749 | 3247333.288 | 49.24110633 | 4.646405455 | 10.61932757 | 574670.8121 | 574670.8121 | 1252.624006 | 0.17 | 0.02 | 0.04 | 0.01 | 5.65 |
| 2013 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 120 | 52619865.1 | 918.1092284 | 73.16541456 | 79.93931284 | 52618358.93 | 916.4157262 | 72.98929909 | 79.72613517 | 4640848.112 | 4640848.112 | 8505.186065 | 0.40 | 0.03 | 0.03 | 0.03 | 11.34 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2013 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 175 | 9079950.831 | 146.0601603 | 7.393401671 | 10.26559151 | 9079858.294 | 145.9727298 | 7.384375013 | 10.25654199 | 468723.738 | 468723.738 | 951.4704994 | 0.62 | 0.03 | 0.04 | 0.03 | 19.37 |
| 2013 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 250 | 5260790.051 | 82.91329323 | 2.675011404 | 4.460779772 | 5260772.484 | 82.7064744 | 2.661665181 | 4.445955253 | 190947.6544 | 190947.6544 | 380.5881998 | 0.87 | 0.03 | 0.05 | 0.03 | 27.55 |
| 2013 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 500 | 7091781.651 | 101.6057347 | 3.454383135 | 5.712684695 | 7089868.252 | 101.3801757 | 3.443396569 | 5.696898616 | 163318.8487 | 163318.8487 | 343.4895794 | 1.24 | 0.04 | 0.07 | 0.04 | 43.41 |
| 2013 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 750 | 997636.1246 | 13.11880777 | 0.471078289 | 0.754050097 | 997636.1246 | 13.11880777 | 0.471078289 | 0.754050097 | 13022.45185 | 13022.45185 | 24.00498966 | 2.01 | 0.07 | 0.12 | 0.07 | 76.61 |
| 2013 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 1000 | 169119.8667 | 2.197551248 | 0.041164224 | 0.084800626 | 169119.8667 | 2.197551248 | 0.041164224 | 0.084800626 | 1420.195492 | 1420.195492 | 2.182271788 | 3.09 | 0.06 | 0.12 | 0.05 | 119.08 |
| 2013 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 9999 | 2371925.483 | 41.44425102 | 1.290518055 | 2.070588652 | 2371925.483 | 40.78007193 | 1.271187559 | 2.055276859 | 8731.696424 | 8731.696424 | 16.14881123 | 9.49 | 0.30 | 0.47 | 0.27 | 271.65 |
| 2013 | SC | Construction and Mining | 29 | Trenchers | 50 | 1152400.619 | 17.05267857 | 1.576000103 | 3.305690968 | 1152408.205 | 17.05247694 | 1.575989357 | 3.305560823 | 140459.2853 | 140459.2853 | 410.7784947 | 0.24 | 0.02 | 0.05 | 0.02 | 8.20 |
| 2013 | SC | Construction and Mining | 29 | Trenchers | 120 | 834948.6257 | 18.54041911 | 1.449951959 | 1.74697922 | 834942.075 | 18.53532878 | 1.448849383 | 1.746574735 | 54736.05204 | 54736.05204 | 190.4518475 | 0.68 | 0.05 | 0.06 | 0.05 | 15.25 |
| 2013 | SC | Construction and Mining | 29 | Trenchers | 175 | 170241.6234 | 4.383352683 | 0.22749474 | 0.328395304 | 170241.6234 | 4.383352683 | 0.22749474 | 0.328395304 | 6475.397867 | 6475.397867 | 25.20686217 | 1.35 | 0.07 | 0.10 | 0.06 | 26.29 |
| 2013 | SC | Construction and Mining | 29 | Trenchers | 250 | 333740.927 | 7.062079316 | 0.277710679 | 0.436300953 | 333684.8594 | 7.039421106 | 0.276076681 | 0.43537549 | 8265.285158 | 8265.285158 | 29.87479961 | 1.71 | 0.07 | 0.11 | 0.06 | 40.37 |
| 2013 | SC | Construction and Mining | 29 | Trenchers | 500 | 563622.2363 | 7.794315497 | 0.287731144 | 0.442559892 | 563622.2363 | 7.794315497 | 0.287731144 | 0.442559892 | 8528.201601 | 8528.201601 | 27.07403715 | 1.83 | 0.07 | 0.10 | 0.06 | 66.09 |
| 2013 | SC | Construction and Mining | 29 | Trenchers | 750 | 254160.3949 | 1.560164542 | 0.053440665 | 0.076068041 | 254160.3949 | 1.560164542 | 0.053440665 | 0.076068041 | 2212.702501 | 2212.702501 | 5.601524928 | 1.41 | 0.05 | 0.07 | 0.04 | 114.86 |
| 2013 | SC | Construction and Mining | 29 | Trenchers | 1000 | 15011.43428 | 0.589720816 | 0.026618812 | 0.041928362 | 15011.43428 | 0.589720816 | 0.026618812 | 0.041928362 | 94.65021561 | 94.65021561 | 0.466793744 | 12.46 | 0.56 | 0.89 | 0.52 | 158.60 |
| 2013 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 50 | 1001759.047 | 15.67966632 | 1.650743731 | 4.010842865 | 1001759.047 | 15.64857525 | 1.643797826 | 3.988368603 | 151285.5927 | 151285.5927 | 241.1137887 | 0.21 | 0.02 | 0.05 | 0.02 | 6.62 |
| 2013 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 120 | 1548251.828 | 33.09628814 | 2.897515324 | 3.279124465 | 1548251.828 | 33.09450851 | 2.89737466 | 3.278215425 | 118919.1404 | 118919.1404 | 196.3050315 | 0.56 | 0.05 | 0.06 | 0.04 | 13.02 |
| 2013 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 175 | 386195.8507 | 11.29980852 | 0.632727116 | 0.9017991 | 386195.8507 | 11.29980852 | 0.632727116 | 0.9017991 | 14450.84264 | 14450.84264 | 22.61775363 | 1.56 | 0.09 | 0.12 | 0.08 | 26.72 |
| 2013 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 250 | 205826.8226 | 4.136298953 | 0.163242909 | 0.25469607 | 205826.8226 | 4.136298953 | 0.163242909 | 0.25469607 | 6046.855929 | 6046.855929 | 9.388501508 | 1.37 | 0.05 | 0.08 | 0.05 | 34.04 |
| 2013 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 500 | 57422.9915 | 1.034340138 | 0.044448612 | 0.063919177 | 57422.9915 | 1.034340138 | 0.044448612 | 0.063919177 | 1135.300045 | 1135.300045 | 1.707000274 | 1.82 | 0.08 | 0.11 | 0.07 | 50.58 |
| 2013 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 1000 | 40243.55107 | 0.483459377 | 0.012045228 | 0.014412189 | 40243.55107 | 0.483459377 | 0.012045228 | 0.014412189 | 283.8250112 | 283.8250112 | 0.426750069 | 3.41 | 0.08 | 0.10 | 0.08 | 141.79 |
| 2014 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 50 | 102029.835 | 1.427443691 | 0.102210108 | 0.184513466 | 102029.835 | 1.427443691 | 0.102210108 | 0.184513466 | 12305.44448 | 12305.44448 | 38.38212172 | 0.23 | 0.02 | 0.03 | 0.02 | 8.29 |
| 2014 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 120 | 620294.49 | 8.1734223 | 0.487842171 | 0.517921021 | 622756.2827 | 8.086033248 | 0.480116968 | 0.507938339 | 42265.91326 | 42265.91326 | 117.5704992 | 0.39 | 0.02 | 0.02 | 0.02 | 14.73 |
| 2014 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 175 | 730687.4414 | 8.798429537 | 0.403309101 | 0.550680106 | 730688.2127 | 8.796662316 | 0.402455583 | 0.550498518 | 26297.36524 | 26297.36524 | 92.11709213 | 0.67 | 0.03 | 0.04 | 0.03 | 27.79 |
| 2014 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 250 | 1031635.218 | 11.28785915 | 0.338819899 | 0.576889207 | 1030716.458 | 11.00295679 | 0.327463048 | 0.560643158 | 27128.13659 | 27128.13659 | 91.7130698 | 0.83 | 0.02 | 0.04 | 0.02 | 37.99 |
| 2014 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 500 | 1150822.912 | 11.57006724 | 0.37400483 | 0.611615391 | 1150204.943 | 11.23534397 | 0.355968229 | 0.588120997 | 18231.58029 | 18231.58029 | 64.23955109 | 1.27 | 0.04 | 0.07 | 0.04 | 63.09 |
| 2014 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 750 | 1583340.066 | 11.27089569 | 0.383379188 | 0.617134005 | 1582810.27 | 11.09778774 | 0.376297393 | 0.606385611 | 13795.28286 | 13795.28286 | 31.91776438 | 1.63 | 0.06 | 0.09 | 0.05 | 114.74 |
| 2014 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 1000 | 124527.8303 | 1.116314868 | 0.02180558 | 0.032459708 | 124527.8303 | 1.116314868 | 0.02180558 | 0.032459708 | 734.8191332 | 734.8191332 | 1.212067002 | 3.04 | 0.06 | 0.09 | 0.05 | 169.47 |
| 2014 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 9999 | 421923.1367 | 5.379949523 | 0.130529436 | 0.179225459 | 421923.1367 | 5.379949523 | 0.130529436 | 0.179225459 | 857.9509877 | 857.9509877 | 1.212067002 | 12.54 | 0.30 | 0.42 | 0.28 | 491.78 |
| 2014 | SC | Construction and Mining | 12 | Cranes | 50 | 33259.476 | 0.554625655 | 0.055277153 | 0.159082201 | 33259.476 | 0.554625655 | 0.055277153 | 0.159082201 | 7054.608955 | 7054.608955 | 17.77875908 | 0.16 | 0.02 | 0.05 | 0.01 | 4.71 |
| 2014 | SC | Construction and Mining | 12 | Cranes | 120 | 793263.1161 | 25.07752683 | 1.863242548 | 2.51171 | 793263.1161 | 24.66958966 | 1.831737179 | 2.46365002 | 84777.88095 | 84777.88095 | 214.3610381 | 0.59 | 0.04 | 0.06 | 0.04 | 9.36 |
| 2014 | SC | Construction and Mining | 12 | Cranes | 175 | 2093787.492 | 53.21766994 | 2.876763187 | 4.121826546 | 2093675.461 | 52.97224649 | 2.858116534 | 4.100391461 | 133158.1391 | 133158.1391 | 321.5415571 | 0.80 | 0.04 | 0.06 | 0.04 | 15.72 |
| 2014 | SC | Construction and Mining | 12 | Cranes | 250 | 3536891.175 | 84.22960618 | 3.876943138 | 5.864098809 | 3536588.952 | 83.32619756 | 3.819180041 | 5.788725241 | 153828.6619 | 153828.6619 | 361.1627916 | 1.10 | 0.05 | 0.08 | 0.05 | 22.99 |
| 2014 | SC | Construction and Mining | 12 | Cranes | 500 | 5417872.123 | 103.2631608 | 4.29136255 | 6.589250037 | 5417071.855 | 101.9329847 | 4.224058665 | 6.493785635 | 152449.9579 | 152449.9579 | 346.4318198 | 1.35 | 0.06 | 0.09 | 0.05 | 35.53 |
| 2014 | SC | Construction and Mining | 12 | Cranes | 750 | 1427818.869 | 18.5952702 | 0.647707293 | 0.993995853 | 1427818.869 | 18.5952702 | 0.647707293 | 0.993995853 | 23856.25167 | 23856.25167 | 50.79645452 | 1.56 | 0.05 | 0.08 | 0.05 | 59.85 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2014 | SC | Construction and Mining | 12 | Cranes | 1000 | 334209.7667 | 11.73157501 | 0.581463413 | 0.869539282 | 334209.7667 | 11.73157501 | 0.581463413 | 0.869539282 | 3391.302094 | 3391.302094 | 7.619468178 | 6.92 | 0.34 | 0.51 | 0.32 | 98.55 |
| 2014 | SC | Construction and Mining | 12 | Cranes | 9999 | 25741.21027 | 0.176337445 | 0.004204078 | 0.007693804 | 25741.21027 | 0.176337445 | 0.004204078 | 0.007693804 | 236.3645899 | 236.3645899 | 0.507964545 | 1.49 | 0.04 | 0.07 | 0.03 | 108.90 |
| 2014 | SC | Construction and Mining | 13 | Crawler Tractors | 50 | 101358.6259 | 1.786135039 | 0.208421493 | 0.585189501 | 101358.6259 | 1.781823814 | 0.207105005 | 0.580468305 | 13865.04799 | 13865.04799 | 45.084492 | 0.26 | 0.03 | 0.08 | 0.03 | 7.31 |
| 2014 | SC | Construction and Mining | 13 | Crawler Tractors | 120 | 4494533.828 | 100.9205533 | 8.43833356 | 9.807755662 | 4492586.371 | 100.4661626 | 8.391196586 | 9.750829876 | 325227.3749 | 325227.3749 | 775.9041073 | 0.62 | 0.05 | 0.06 | 0.05 | 13.81 |
| 2014 | SC | Construction and Mining | 13 | Crawler Tractors | 175 | 4885752.503 | 102.0759717 | 5.569431288 | 7.7334171 | 4886106.976 | 100.9486705 | 5.494997373 | 7.629789096 | 207717.6923 | 207717.6923 | 507.6513799 | 0.98 | 0.05 | 0.07 | 0.05 | 23.52 |
| 2014 | SC | Construction and Mining | 13 | Crawler Tractors | 250 | 4927913.681 | 93.25536682 | 3.625545859 | 5.634092017 | 4929475.33 | 92.1035021 | 3.559539061 | 5.540856999 | 154006.7608 | 154006.7608 | 371.0453691 | 1.21 | 0.05 | 0.07 | 0.04 | 32.01 |
| 2014 | SC | Construction and Mining | 13 | Crawler Tractors | 500 | 13228906.13 | 224.8090081 | 8.735093559 | 13.68111017 | 13214538.17 | 221.2435903 | 8.556535971 | 13.41791273 | 244636.4304 | 244636.4304 | 596.4678291 | 1.84 | 0.07 | 0.11 | 0.07 | 54.02 |
| 2014 | SC | Construction and Mining | 13 | Crawler Tractors | 750 | 5143069.01 | 75.63295441 | 2.763588784 | 4.434113086 | 5143069.01 | 75.43234242 | 2.751906775 | 4.416655321 | 57188.94072 | 57188.94072 | 122.1789733 | 2.65 | 0.10 | 0.16 | 0.09 | 89.93 |
| 2014 | SC | Construction and Mining | 13 | Crawler Tractors | 1000 | 680544.3282 | 15.08042703 | 0.443114079 | 0.797690718 | 680544.3282 | 15.08042703 | 0.443114079 | 0.797690718 | 5187.953588 | 5187.953588 | 10.82027808 | 5.81 | 0.17 | 0.31 | 0.16 | 131.18 |
| 2014 | SC | Construction and Mining | 13 | Crawler Tractors | 9999 | 359701.2299 | 6.778986168 | 0.178118845 | 0.313196194 | 359701.2299 | 6.778986168 | 0.178118845 | 0.313196194 | 1558.216768 | 1558.216768 | 2.70506952 | 8.70 | 0.23 | 0.40 | 0.21 | 230.84 |
| 2014 | SC | Construction and Mining | 14 | Excavators | 50 | 4057813.106 | 54.36927011 | 4.165084567 | 7.471357007 | 4057813.151 | 54.34620327 | 4.161736468 | 7.463680433 | 727548.3927 | 727548.3927 | 1104.224455 | 0.15 | 0.01 | 0.02 | 0.01 | 5.58 |
| 2014 | SC | Construction and Mining | 14 | Excavators | 120 | 5270203.475 | 82.45031205 | 6.159196387 | 6.829804431 | 5270148.028 | 82.07281084 | 6.115617941 | 6.780992623 | 464601.9718 | 464601.9718 | 798.6756493 | 0.35 | 0.03 | 0.03 | 0.02 | 11.34 |
| 2014 | SC | Construction and Mining | 14 | Excavators | 175 | 11100212.2 | 156.4700472 | 7.715888884 | 10.85535058 | 11100392.26 | 155.1877893 | 7.627791831 | 10.74148246 | 542031.2135 | 542031.2135 | 1014.72939 | 0.58 | 0.03 | 0.04 | 0.03 | 20.48 |
| 2014 | SC | Construction and Mining | 14 | Excavators | 250 | 14122820.1 | 189.209308 | 6.115174692 | 10.61995735 | 14121643.07 | 185.2721645 | 5.878019785 | 10.29966221 | 460571.8913 | 460571.8913 | 872.350879 | 0.82 | 0.03 | 0.05 | 0.02 | 30.66 |
| 2014 | SC | Construction and Mining | 14 | Excavators | 500 | 23425471.86 | 242.6312044 | 7.946568434 | 14.0101599 | 23429923.14 | 236.602282 | 7.624577794 | 13.56941322 | 510068.9817 | 510068.9817 | 887.266723 | 0.95 | 0.03 | 0.05 | 0.03 | 45.93 |
| 2014 | SC | Construction and Mining | 14 | Excavators | 750 | 2119364.654 | 22.60210077 | 0.722019811 | 1.252677029 | 2119432.036 | 22.74740457 | 0.73429335 | 1.267304576 | 26404.82863 | 26404.82863 | 45.19952741 | 1.71 | 0.05 | 0.09 | 0.05 | 80.27 |
| 2014 | SC | Construction and Mining | 14 | Excavators | 1000 | 237786.7272 | 4.677335989 | 0.14947515 | 0.247815138 | 237786.7272 | 3.957838633 | 0.105385778 | 0.183052463 | 2019.454831 | 2019.454831 | 3.615962193 | 4.63 | 0.15 | 0.25 | 0.14 | 117.75 |
| 2014 | SC | Construction and Mining | 14 | Excavators | 9999 | 463507.9145 | 5.051937369 | 0.130384177 | 0.234586811 | 463507.9145 | 5.051937369 | 0.130384177 | 0.234586811 | 2127.915181 | 2127.915181 | 3.163966918 | 4.75 | 0.12 | 0.22 | 0.11 | 217.82 |
| 2014 | SC | Construction and Mining | 15 | Graders | 50 | 26800.74842 | 0.505246729 | 0.066896322 | 0.197233937 | 26800.74842 | 0.505246729 | 0.066896322 | 0.197233937 | 4372.38471 | 4372.38471 | 14.08324342 | 0.23 | 0.03 | 0.09 | 0.03 | 6.13 |
| 2014 | SC | Construction and Mining | 15 | Graders | 120 | 724388.3148 | 22.08452607 | 1.839311461 | 2.323788001 | 723659.7017 | 21.7573755 | 1.812801469 | 2.285480423 | 53148.80807 | 53148.80807 | 149.9183977 | 0.83 | 0.07 | 0.09 | 0.06 | 13.62 |
| 2014 | SC | Construction and Mining | 15 | Graders | 175 | 6725492.375 | 173.0358862 | 9.727853923 | 13.93364934 | 6722959.792 | 171.9925495 | 9.652684492 | 13.83350443 | 296532.8306 | 296532.8306 | 701.4363821 | 1.17 | 0.07 | 0.09 | 0.06 | 22.67 |
| 2014 | SC | Construction and Mining | 15 | Graders | 250 | 11674559.15 | 199.2184305 | 6.436077735 | 11.18267322 | 11674502.86 | 199.0801852 | 6.428016489 | 11.17246734 | 376727.5286 | 376727.5286 | 556.9695625 | 1.06 | 0.03 | 0.06 | 0.03 | 30.99 |
| 2014 | SC | Construction and Mining | 15 | Graders | 500 | 3329171.652 | 37.27581446 | 1.434680438 | 2.605993986 | 3329171.652 | 37.08188468 | 1.424788141 | 2.59180177 | 75600.48665 | 75600.48665 | 104.0342821 | 0.99 | 0.04 | 0.07 | 0.03 | 44.04 |
| 2014 | SC | Construction and Mining | 15 | Graders | 1000 | 32190.8072 | 0.898448322 | 0.031267945 | 0.056694421 | 32190.8072 | 0.898448322 | 0.031267945 | 0.056694421 | 269.6175123 | 269.6175123 | 0.454298175 | 6.66 | 0.23 | 0.42 | 0.21 | 119.39 |
| 2014 | SC | Construction and Mining | 15 | Graders | 9999 | 453474.6549 | 8.944684171 | 0.269765955 | 0.493014727 | 453474.6549 | 8.944684171 | 0.269765955 | 0.493014727 | 1519.880233 | 1519.880233 | 2.271490875 | 11.77 | 0.35 | 0.65 | 0.33 | 298.36 |
| 2014 | SC | Construction and Mining | 16 | Off-Highway Tractors | 50 | 1675474.253 | 26.13046716 | 2.643101812 | 6.426945231 | 1676157.198 | 25.58843275 | 2.525210693 | 6.088589321 | 251151.7988 | 251151.7988 | 422.9644853 | 0.21 | 0.02 | 0.05 | 0.02 | 6.67 |
| 2014 | SC | Construction and Mining | 16 | Off-Highway Tractors | 120 | 2145691.664 | 41.61594523 | 3.431148915 | 3.865967944 | 2144188.92 | 40.12417458 | 3.279424932 | 3.685810255 | 178557.5495 | 178557.5495 | 307.5294993 | 0.47 | 0.04 | 0.04 | 0.04 | 12.01 |
| 2014 | SC | Construction and Mining | 16 | Off-Highway Tractors | 175 | 1828750.28 | 27.81297928 | 1.431073708 | 1.94649767 | 1828926.517 | 27.52396183 | 1.411647861 | 1.919978282 | 72176.18131 | 72176.18131 | 116.7720708 | 0.77 | 0.04 | 0.05 | 0.04 | 25.34 |
| 2014 | SC | Construction and Mining | 16 | Off-Highway Tractors | 250 | 1530280.329 | 26.17323056 | 0.940788964 | 1.546507051 | 1530272.616 | 26.13390593 | 0.937741892 | 1.543846692 | 44970.9137 | 44970.9137 | 76.21383244 | 1.16 | 0.04 | 0.07 | 0.04 | 34.03 |
| 2014 | SC | Construction and Mining | 16 | Off-Highway Tractors | 500 | 4323096.921 | 52.49861624 | 1.883484348 | 3.098294613 | 4322851.965 | 51.22769927 | 1.806650373 | 3.009161095 | 80966.16678 | 80966.16678 | 131.0343084 | 1.30 | 0.05 | 0.08 | 0.04 | 53.39 |
| 2014 | SC | Construction and Mining | 16 | Off-Highway Tractors | 750 | 1087078.27 | 13.2010156 | 0.443677923 | 0.728040667 | 1086850.658 | 13.07224074 | 0.433807504 | 0.718696671 | 11850.36749 | 11850.36749 | 19.16488184 | 2.23 | 0.07 | 0.12 | 0.07 | 91.71 |
| 2014 | SC | Construction and Mining | 16 | Off-Highway Tractors | 1000 | 30805.59475 | 1.135515464 | 0.057772287 | 0.0793836 | 30805.59475 | 0.21090426 | 0.005021745 | 0.006468234 | 192.7415621 | 192.7415621 | 0.445694927 | 11.78 | 0.60 | 0.82 | 0.55 | 159.83 |
| 2014 | SC | Construction and Mining | 16 | Off-Highway Tractors | 9999 | 240377.1913 | 7.244848559 | 0.272434108 | 0.478446472 | 252423.628 | 4.309682899 | 0.137988127 | 0.241318807 | 894.9268278 | 894.9268278 | 1.782779706 | 16.19 | 0.61 | 1.07 | 0.56 | 282.06 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2014 | SC | Construction and Mining | 17 | Off-Highway Trucks | 50 | 160512.3164 | 2.601876214 | 0.270729908 | 0.612379832 | 160512.3164 | 2.601876214 | 0.270729908 | 0.612379832 | 36486.62608 | 36486.62608 | 25.17227118 | 0.14 | 0.01 | 0.03 | 0.01 | 4.40 |
| 2014 | SC | Construction and Mining | 17 | Off-Highway Trucks | 120 | 197014.7903 | 3.576765029 | 0.29011071 | 0.353703385 | 197014.7903 | 3.39049968 | 0.274871802 | 0.3325696 | 16376.21407 | 16376.21407 | 14.13180136 | 0.44 | 0.04 | 0.04 | 0.03 | 12.03 |
| 2014 | SC | Construction and Mining | 17 | Off-Highway Trucks | 175 | 3809188.829 | 60.27963934 | 3.378792486 | 4.895490107 | 3809188.829 | 60.01368022 | 3.358981912 | 4.872492847 | 171908.5613 | 171908.5613 | 135.1353505 | 0.70 | 0.04 | 0.06 | 0.04 | 22.16 |
| 2014 | SC | Construction and Mining | 17 | Off-Highway Trucks | 250 | 7815225.356 | 136.0432896 | 6.010510819 | 10.02869198 | 7811856.382 | 128.6142586 | 5.566148825 | 9.434129362 | 266093.5242 | 266093.5242 | 231.4082473 | 1.02 | 0.05 | 0.08 | 0.04 | 29.36 |
| 2014 | SC | Construction and Mining | 17 | Off-Highway Trucks | 500 | 33225045.56 | 476.8699717 | 18.50955922 | 33.13392744 | 33241097.13 | 463.8670354 | 17.77333109 | 32.1881087 | 631436.8508 | 631436.8508 | 514.0442745 | 1.51 | 0.06 | 0.10 | 0.05 | 52.64 |
| 2014 | SC | Construction and Mining | 17 | Off-Highway Trucks | 750 | 11929520.87 | 217.393976 | 9.298051349 | 15.69993652 | 11911574.8 | 197.813377 | 8.182186103 | 14.20904177 | 128428.4681 | 128428.4681 | 117.4705988 | 3.39 | 0.14 | 0.24 | 0.13 | 92.75 |
| 2014 | SC | Construction and Mining | 17 | Off-Highway Trucks | 1000 | 8250388.373 | 159.7535159 | 4.709230256 | 8.642074831 | 8245540.692 | 157.5528119 | 4.634679206 | 8.47927957 | 65531.00835 | 65531.00835 | 53.87749269 | 4.88 | 0.14 | 0.26 | 0.13 | 125.83 |
| 2014 | SC | Construction and Mining | 17 | Off-Highway Trucks | 9999 | 11849348.47 | 209.2981793 | 6.558453171 | 12.36900431 | 11841368.71 | 207.6911379 | 6.497712392 | 12.22081151 | 47603.76583 | 47603.76583 | 34.88788461 | 8.79 | 0.28 | 0.52 | 0.25 | 248.75 |
| 2014 | SC | Construction and Mining | 18 | Other Construction Equipment | 50 | 908873.4301 | 13.55753426 | 1.223572985 | 2.618488301 | 908873.4301 | 13.55753426 | 1.223572985 | 2.618488301 | 139974.3147 | 139974.3147 | 326.6306613 | 0.19 | 0.02 | 0.04 | 0.02 | 6.49 |
| 2014 | SC | Construction and Mining | 18 | Other Construction Equipment | 120 | 2840536.086 | 56.95958168 | 4.448881699 | 5.175682446 | 2840418.803 | 56.73584559 | 4.42805302 | 5.149714526 | 229033.871 | 229033.871 | 576.3294711 | 0.50 | 0.04 | 0.05 | 0.04 | 12.40 |
| 2014 | SC | Construction and Mining | 18 | Other Construction Equipment | 175 | 1548571.841 | 30.39384043 | 1.608217058 | 2.245415378 | 1548931.915 | 29.76408835 | 1.556457919 | 2.187143246 | 66898.23386 | 66898.23386 | 179.3611169 | 0.91 | 0.05 | 0.07 | 0.04 | 23.15 |
| 2014 | SC | Construction and Mining | 18 | Other Construction Equipment | 250 | 1986659.227 | 34.68920899 | 1.285804847 | 2.017888086 | 1987041.454 | 34.19731848 | 1.25775903 | 1.985949938 | 59660.71364 | 59660.71364 | 160.8974725 | 1.16 | 0.04 | 0.07 | 0.04 | 33.31 |
| 2014 | SC | Construction and Mining | 18 | Other Construction Equipment | 500 | 6786901.075 | 95.84004098 | 3.605821484 | 5.782579626 | 6786087.394 | 92.1920751 | 3.396591758 | 5.505660448 | 123703.1985 | 123703.1985 | 312.5631228 | 1.55 | 0.06 | 0.09 | 0.05 | 54.86 |
| 2014 | SC | Construction and Mining | 18 | Other Construction Equipment | 750 | 2643740.937 | 33.77951992 | 1.147602654 | 1.84984481 | 2643840.595 | 30.66125578 | 0.981143443 | 1.605794257 | 28963.19451 | 28963.19451 | 64.62275534 | 2.33 | 0.08 | 0.13 | 0.07 | 91.28 |
| 2014 | SC | Construction and Mining | 18 | Other Construction Equipment | 1000 | 308351.4827 | 4.124496295 | 0.108384665 | 0.1696617 | 308351.4827 | 4.117627364 | 0.108061258 | 0.168641214 | 2440.370329 | 2440.370329 | 5.714937547 | 3.38 | 0.09 | 0.14 | 0.08 | 126.35 |
| 2014 | SC | Construction and Mining | 18 | Other Construction Equipment | 9999 | 191912.852 | 3.130953362 | 0.085997114 | 0.144716894 | 192033.223 | 2.898109549 | 0.079533397 | 0.137609667 | 1143.493707 | 1143.493707 | 2.637663483 | 5.48 | 0.15 | 0.25 | 0.14 | 167.94 |
| 2014 | SC | Construction and Mining | 19 | Pavers | 50 | 111304.5094 | 1.711211605 | 0.17797693 | 0.469544558 | 111304.5094 | 1.711211605 | 0.17797693 | 0.469544558 | 16924.26219 | 16924.26219 | 52.94145801 | 0.20 | 0.02 | 0.06 | 0.02 | 6.58 |
| 2014 | SC | Construction and Mining | 19 | Pavers | 120 | 1077308.362 | 20.2396228 | 1.577590993 | 1.846050582 | 1077301.199 | 20.14566456 | 1.568768313 | 1.83483555 | 89184.15786 | 89184.15786 | 257.2072502 | 0.45 | 0.04 | 0.04 | 0.03 | 12.08 |
| 2014 | SC | Construction and Mining | 19 | Pavers | 175 | 1462117.844 | 25.31211107 | 1.266525486 | 1.834125963 | 1462086.306 | 25.18565761 | 1.259474118 | 1.823035248 | 60634.99709 | 60634.99709 | 173.8244538 | 0.83 | 0.04 | 0.06 | 0.04 | 24.11 |
| 2014 | SC | Construction and Mining | 19 | Pavers | 250 | 987602.3356 | 12.24187641 | 0.31122855 | 0.507952184 | 987602.3356 | 12.23221695 | 0.310433488 | 0.507569507 | 30261.41368 | 30261.41368 | 75.00039885 | 0.81 | 0.02 | 0.03 | 0.02 | 32.64 |
| 2014 | SC | Construction and Mining | 19 | Pavers | 500 | 372706.4994 | 3.440969843 | 0.114266752 | 0.168074481 | 372706.4994 | 3.440969843 | 0.114266752 | 0.168074481 | 7532.429764 | 7532.429764 | 18.52951031 | 0.91 | 0.03 | 0.04 | 0.03 | 49.48 |
| 2014 | SC | Construction and Mining | 19 | Pavers | 750 | 43022.04118 | 0.314334979 | 0.013464061 | 0.017787809 | 43022.04118 | 0.314334979 | 0.013464061 | 0.017787809 | 376.2679193 | 376.2679193 | 0.882357634 | 1.67 | 0.07 | 0.09 | 0.07 | 114.34 |
| 2014 | SC | Construction and Mining | 20 | Paving Equipment | 50 | 138405.4903 | 1.967924525 | 0.168473869 | 0.341800457 | 138408.8368 | 1.955060697 | 0.16475534 | 0.328306377 | 27672.88199 | 27672.88199 | 65.18946121 | 0.14 | 0.01 | 0.02 | 0.01 | 5.00 |
| 2014 | SC | Construction and Mining | 20 | Paving Equipment | 120 | 629020.0291 | 12.12466438 | 0.926012139 | 1.068887591 | 628846.9513 | 11.99727253 | 0.914995791 | 1.053526339 | 54311.33903 | 54311.33903 | 133.0217384 | 0.45 | 0.03 | 0.04 | 0.03 | 11.58 |
| 2014 | SC | Construction and Mining | 20 | Paving Equipment | 175 | 592496.4321 | 9.356903319 | 0.449699464 | 0.616103796 | 592495.571 | 9.310713789 | 0.444176101 | 0.612450111 | 30730.2772 | 30730.2772 | 72.67743986 | 0.61 | 0.03 | 0.04 | 0.03 | 19.28 |
| 2014 | SC | Construction and Mining | 20 | Paving Equipment | 250 | 310797.3278 | 4.978826679 | 0.180571363 | 0.282707596 | 310816.0468 | 4.462310328 | 0.147770591 | 0.239123875 | 11053.07619 | 11053.07619 | 26.42815995 | 0.90 | 0.03 | 0.05 | 0.03 | 28.12 |
| 2014 | SC | Construction and Mining | 20 | Paving Equipment | 500 | 438276.3265 | 6.144458674 | 0.220008665 | 0.344740767 | 438227.0231 | 6.116913781 | 0.217866448 | 0.343595364 | 9992.115393 | 9992.115393 | 23.78534395 | 1.23 | 0.04 | 0.07 | 0.04 | 43.86 |
| 2014 | SC | Construction and Mining | 20 | Paving Equipment | 750 | 207840.5829 | 2.459275403 | 0.056594975 | 0.112446718 | 207840.5829 | 2.459275403 | 0.056594975 | 0.112446718 | 2635.177393 | 2635.177393 | 5.726101322 | 1.87 | 0.04 | 0.09 | 0.04 | 78.87 |
| 2014 | SC | Construction and Mining | 20 | Paving Equipment | 1000 | 40644.22115 | 0.557528717 | 0.013486739 | 0.022009607 | 40644.22115 | 0.557528717 | 0.013486739 | 0.022009607 | 369.9511979 | 369.9511979 | 0.880938665 | 3.01 | 0.07 | 0.12 | 0.07 | 109.86 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2014 | SC | Construction and Mining | 21 | Rollers | 50 | 2284238.567 | 33.30203375 | 2.996870195 | 6.711637103 | 2284141.805 | 33.19837428 | 2.976754015 | 6.654525919 | 417160.9243 | 417160.9243 | 1337.521701 | 0.16 | 0.01 | 0.03 | 0.01 | 5.48 |
| 2014 | SC | Construction and Mining | 21 | Rollers | 120 | 3568014.896 | 68.96216089 | 5.148884376 | 6.219880408 | 3568447.206 | 68.20869379 | 5.079375616 | 6.13049336 | 297110.9109 | 297110.9109 | 997.4738109 | 0.46 | 0.03 | 0.04 | 0.03 | 12.01 |
| 2014 | SC | Construction and Mining | 21 | Rollers | 175 | 3689552.867 | 53.21465536 | 2.485881731 | 3.44697031 | 3689309.319 | 52.34910172 | 2.428026757 | 3.369113893 | 186362.9282 | 186362.9282 | 576.7212216 | 0.57 | 0.03 | 0.04 | 0.02 | 19.80 |
| 2014 | SC | Construction and Mining | 21 | Rollers | 250 | 582222.1088 | 9.210085574 | 0.326414998 | 0.532694855 | 582257.6948 | 9.428415009 | 0.33402711 | 0.549691345 | 19783.89639 | 19783.89639 | 70.72996114 | 0.93 | 0.03 | 0.05 | 0.03 | 29.43 |
| 2014 | SC | Construction and Mining | 21 | Rollers | 500 | 366834.8513 | 6.414308404 | 0.264182305 | 0.402254447 | 366834.8513 | 5.651719922 | 0.219747445 | 0.340455798 | 7872.837692 | 7872.837692 | 29.01741995 | 1.63 | 0.07 | 0.10 | 0.06 | 46.59 |
| 2014 | SC | Construction and Mining | 21 | Rollers | 750 | 17923.4909 | 0.462332574 | 0.017217827 | 0.02732069 | 17923.4909 | 0.462332574 | 0.017217827 | 0.02732069 | 249.7018827 | 249.7018827 | 0.906794374 | 3.70 | 0.14 | 0.22 | 0.13 | 71.78 |
| 2014 | SC | Construction and Mining | 22 | Rough Terrain | 50 | 116337.9977 | 1.639869996 | 0.136767847 | 0.306516431 | 116337.9977 | 1.639869996 | 0.136767847 | 0.306516431 | 14974.85542 | 14974.85542 | 60.74962186 | 0.22 | 0.02 | 0.04 | 0.02 | 7.77 |
| 2014 | SC | Construction and Mining | 22 | Rough Terrain | 120 | 9356548.812 | 126.3925872 | 7.412706562 | 8.247911301 | 9356003.383 | 125.3859828 | 7.324458686 | 8.13542711 | 657544.93 | 657544.93 | 2602.807075 | 0.38 | 0.02 | 0.03 | 0.02 | 14.23 |
| 2014 | SC | Construction and Mining | 22 | Rough Terrain | 175 | 1720384.675 | 19.239256 | 0.759565967 | 1.001042288 | 1720384.675 | 18.59315271 | 0.721376665 | 0.946461222 | 90077.96414 | 90077.96414 | 348.2629184 | 0.43 | 0.02 | 0.02 | 0.02 | 19.10 |
| 2014 | SC | Construction and Mining | 22 | Rough Terrain | 250 | 141538.223 | 2.590192029 | 0.114611146 | 0.175264305 | 141502.7293 | 1.265343196 | 0.036935967 | 0.065267161 | 4594.301698 | 4594.301698 | 20.42444183 | 1.13 | 0.05 | 0.08 | 0.05 | 30.80 |
| 2014 | SC | Construction and Mining | 22 | Rough Terrain | 500 | 59958.07586 | 0.844470243 | 0.025822658 | 0.042878474 | 59958.07586 | 0.636395662 | 0.013846461 | 0.025567093 | 1097.539671 | 1097.539671 | 4.713332731 | 1.54 | 0.05 | 0.08 | 0.04 | 54.63 |
| 2014 | SC | Construction and Mining | 22 | Rough Terrain | 750 | 9381.914822 | 0.424921298 | 0.022591277 | 0.034028512 | 9381.914822 | 0.036847315 | 0.000250032 | 0.001830328 | 101.7464701 | 101.7464701 | 0.523703637 | 8.35 | 0.44 | 0.67 | 0.41 | 92.21 |
| 2014 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 50 | 100113.8586 | 1.825874234 | 0.240592807 | 0.671815695 | 100113.8586 | 1.825874234 | 0.240592807 | 0.671815695 | 15145.88496 | 15145.88496 | 17.70193403 | 0.24 | 0.03 | 0.09 | 0.03 | 6.61 |
| 2014 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 120 | 477801.5906 | 13.62296507 | 1.219299521 | 1.448949031 | 477801.5906 | 13.62296507 | 1.219299521 | 1.448949031 | 40023.5387 | 40023.5387 | 52.67404759 | 0.68 | 0.06 | 0.07 | 0.06 | 11.94 |
| 2014 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 175 | 400137.9513 | 11.78024118 | 0.674103551 | 0.951164533 | 400137.9513 | 11.78024118 | 0.674103551 | 0.951164533 | 18366.27558 | 18366.27558 | 27.20053277 | 1.28 | 0.07 | 0.10 | 0.07 | 21.79 |
| 2014 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 250 | 417409.83 | 9.930058307 | 0.488863248 | 0.742511081 | 417409.83 | 9.930058307 | 0.488863248 | 0.742511081 | 13548.87194 | 13548.87194 | 21.15596993 | 1.47 | 0.07 | 0.11 | 0.07 | 30.81 |
| 2014 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 500 | 4782569.092 | 114.9365885 | 5.364799564 | 8.337488678 | 4780009.037 | 113.9197692 | 5.311519516 | 8.26324361 | 91635.48673 | 91635.48673 | 141.1837177 | 2.51 | 0.12 | 0.18 | 0.11 | 52.16 |
| 2014 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 750 | 562096.1294 | 12.63703592 | 0.464537981 | 0.757241986 | 562096.1294 | 12.03948541 | 0.434020464 | 0.714344265 | 6618.545118 | 6618.545118 | 8.635089769 | 3.82 | 0.14 | 0.23 | 0.13 | 84.93 |
| 2014 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 50 | 316927.7511 | 5.27757401 | 0.586723206 | 1.516806665 | 316920.1497 | 5.233410053 | 0.579464537 | 1.49848213 | 51565.28184 | 51565.28184 | 66.60281118 | 0.20 | 0.02 | 0.06 | 0.02 | 6.15 |
| 2014 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 120 | 7724494.578 | 169.7402851 | 14.76921414 | 17.12268687 | 7717397.074 | 167.4035297 | 14.53283252 | 16.84040625 | 683442.4323 | 683442.4323 | 828.0349498 | 0.50 | 0.04 | 0.05 | 0.04 | 11.29 |
| 2014 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 175 | 18326312.39 | 348.2431477 | 19.53741039 | 27.81041605 | 18328018.1 | 345.8504743 | 19.31708012 | 27.57669532 | 921783.9575 | 921783.9575 | 1084.995796 | 0.76 | 0.04 | 0.06 | 0.04 | 19.88 |
| 2014 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 250 | 25257968.19 | 420.59786 | 14.32449182 | 25.74608429 | 25255888.16 | 418.8316277 | 14.23763326 | 25.61006215 | 928111.8228 | 928111.8228 | 964.3907052 | 0.91 | 0.03 | 0.06 | 0.03 | 27.21 |
| 2014 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 500 | 32978431.16 | 531.940512 | 20.24272779 | 35.71356045 | 32944971.58 | 518.1370458 | 19.52553916 | 34.71549275 | 782365.9589 | 782365.9589 | 895.987818 | 1.36 | 0.05 | 0.09 | 0.05 | 42.11 |
| 2014 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 750 | 5811683.292 | 86.44760795 | 3.421684672 | 6.03996912 | 5810918.137 | 86.80635077 | 3.43030891 | 6.055833099 | 75351.91777 | 75351.91777 | 79.20334303 | 2.29 | 0.09 | 0.16 | 0.08 | 77.12 |
| 2014 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 1000 | 1694285.665 | 34.14794029 | 0.995079848 | 1.745365103 | 1694285.665 | 34.14540111 | 0.994889677 | 1.744188722 | 15287.75605 | 15287.75605 | 14.40060782 | 4.47 | 0.13 | 0.23 | 0.12 | 110.83 |
| 2014 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 9999 | 673693.484 | 12.96066997 | 0.37398186 | 0.698798065 | 673693.484 | 12.96066997 | 0.37398186 | 0.698798065 | 3358.035953 | 3358.035953 | 3.150132961 | 7.72 | 0.22 | 0.42 | 0.20 | 200.62 |
| 2014 | SC | Construction and Mining | 25 | Scrapers | 50 | 7266.76704 | 0.132452869 | 0.017660035 | 0.051942431 | 7266.76704 | 0.132452869 | 0.017660035 | 0.051942431 | 1025.883945 | 1025.883945 | 3.113420032 | 0.26 | 0.03 | 0.10 | 0.03 | 7.08 |
| 2014 | SC | Construction and Mining | 25 | Scrapers | 120 | 331861.0565 | 6.865729272 | 0.511347037 | 0.577373896 | 331861.0565 | 6.865729272 | 0.511347037 | 0.577373896 | 21670.71129 | 21670.71129 | 44.92220332 | 0.63 | 0.05 | 0.05 | 0.04 | 15.31 |
| 2014 | SC | Construction and Mining | 25 | Scrapers | 175 | 3502878.176 | 82.86151951 | 4.398275723 | 6.231498625 | 3502297.006 | 81.98304101 | 4.342017945 | 6.154187851 | 117341.9718 | 117341.9718 | 288.6585144 | 1.41 | 0.07 | 0.11 | 0.07 | 29.85 |
| 2014 | SC | Construction and Mining | 25 | Scrapers | 250 | 4024583.263 | 109.5652193 | 5.023000254 | 7.63843553 | 4022262.294 | 107.2805343 | 4.90424132 | 7.461814202 | 101732.4871 | 101732.4871 | 280.2078029 | 2.15 | 0.10 | 0.15 | 0.09 | 39.54 |
| 2014 | SC | Construction and Mining | 25 | Scrapers | 500 | 35252179.65 | 675.4109068 | 27.44811302 | 43.05682861 | 35247107.02 | 658.947153 | 26.5798684 | 41.82803011 | 521338.3253 | 521338.3253 | 1231.58001 | 2.59 | 0.11 | 0.17 | 0.10 | 67.61 |
| 2014 | SC | Construction and Mining | 25 | Scrapers | 750 | 16135190.29 | 248.6795406 | 9.532574927 | 15.19610122 | 16133616.79 | 242.5422932 | 9.17074132 | 14.74998301 | 161069.2664 | 161069.2664 | 350.926915 | 3.09 | 0.12 | 0.19 | 0.11 | 100.17 |
| 2014 | SC | Construction and Mining | 25 | Scrapers | 1000 | 252246.1083 | 10.14630971 | 0.473058053 | 0.734898303 | 252246.1083 | 10.14630971 | 0.473058053 | 0.734898303 | 1499.779821 | 1499.779821 | 5.782065773 | 13.53 | 0.63 | 0.98 | 0.58 | 168.19 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2014 | SC | Construction and Mining | 25 | Scrapers | 9999 | 916856.2526 | 19.71118557 | 0.73914957 | 1.134446728 | 916856.2526 | 19.71118557 | 0.73914957 | 1.134446728 | 2635.029555 | 2635.029555 | 5.782065773 | 14.96 | 0.56 | 0.86 | 0.52 | 347.95 |
| 2014 | SC | Construction and Mining | 26 | Skid Steer Loaders | 50 | 1726224.406 | 21.19052263 | 1.344332599 | 2.592712926 | 1726372.807 | 21.07915181 | 1.32603524 | 2.549179332 | 262908.35 | 262908.35 | 926.6094578 | 0.16 | 0.01 | 0.02 | 0.01 | 6.57 |
| 2014 | SC | Construction and Mining | 26 | Skid Steer Loaders | 120 | 9175603.408 | 110.8375975 | 6.49346185 | 6.956198058 | 9174428.804 | 110.4998973 | 6.457158487 | 6.919173559 | 960973.5668 | 960973.5668 | 2990.233496 | 0.23 | 0.01 | 0.01 | 0.01 | 9.55 |
| 2014 | SC | Construction and Mining | 26 | Skid Steer Loaders | 175 | 62030.07698 | 0.779365588 | 0.035528311 | 0.047000548 | 62030.07698 | 0.779365588 | 0.035528311 | 0.047000548 | 3020.223957 | 3020.223957 | 12.40379542 | 0.52 | 0.02 | 0.03 | 0.02 | 20.54 |
| 2014 | SC | Construction and Mining | 26 | Skid Steer Loaders | 250 | 47721.08829 | 0.511779879 | 0.018169169 | 0.028652477 | 47701.6504 | 0.534951391 | 0.019255085 | 0.030382031 | 1785.592618 | 1785.592618 | 6.890997455 | 0.57 | 0.02 | 0.03 | 0.02 | 26.71 |
| 2014 | SC | Construction and Mining | 26 | Skid Steer Loaders | 500 | 13087.93737 | 0.12398366 | 0.004361853 | 0.007553222 | 13087.93737 | 0.12398366 | 0.004361853 | 0.007553222 | 359.2008474 | 359.2008474 | 1.378199491 | 0.69 | 0.02 | 0.04 | 0.02 | 36.44 |
| 2014 | SC | Construction and Mining | 26 | Skid Steer Loaders | 750 | 13806.04904 | 0.099491944 | 0.004117431 | 0.004884143 | 13806.04904 | 0.099491944 | 0.004117431 | 0.004884143 | 192.6149471 | 192.6149471 | 0.45939983 | 1.03 | 0.04 | 0.05 | 0.04 | 71.68 |
| 2014 | SC | Construction and Mining | 26 | Skid Steer Loaders | 1000 | 22528.99386 | 0.559290237 | 0.020023678 | 0.035668469 | 22528.99386 | 0.259226414 | 0.008119558 | 0.012298867 | 166.5859003 | 166.5859003 | 0.918799661 | 6.71 | 0.24 | 0.43 | 0.22 | 135.24 |
| 2014 | SC | Construction and Mining | 27 | Surfacing Equipment | 50 | 15899.35099 | 0.229699266 | 0.018384171 | 0.03992917 | 15899.35099 | 0.229699266 | 0.018384171 | 0.03992917 | 3571.789006 | 3571.789006 | 16.25405385 | 0.13 | 0.01 | 0.02 | 0.01 | 4.45 |
| 2014 | SC | Construction and Mining | 27 | Surfacing Equipment | 120 | 124966.1827 | 2.073997248 | 0.147019845 | 0.173545861 | 124966.1827 | 2.073216834 | 0.146768877 | 0.17350668 | 12742.81902 | 12742.81902 | 52.09632643 | 0.33 | 0.02 | 0.03 | 0.02 | 9.81 |
| 2014 | SC | Construction and Mining | 27 | Surfacing Equipment | 175 | 64728.62485 | 1.114146495 | 0.053703558 | 0.076159096 | 64738.99613 | 1.112343475 | 0.053101728 | 0.075989184 | 3881.428472 | 3881.428472 | 17.50436568 | 0.57 | 0.03 | 0.04 | 0.03 | 16.68 |
| 2014 | SC | Construction and Mining | 27 | Surfacing Equipment | 250 | 137304.1752 | 2.150805444 | 0.064863756 | 0.108453141 | 137303.9479 | 2.084579212 | 0.061002629 | 0.103343488 | 5690.100565 | 5690.100565 | 26.25654852 | 0.76 | 0.02 | 0.04 | 0.02 | 24.13 |
| 2014 | SC | Construction and Mining | 27 | Surfacing Equipment | 500 | 434191.9903 | 5.109720162 | 0.164622989 | 0.256985236 | 434191.9903 | 5.109720162 | 0.164622989 | 0.256985236 | 10892.83316 | 10892.83316 | 43.34414359 | 0.94 | 0.03 | 0.05 | 0.03 | 39.86 |
| 2014 | SC | Construction and Mining | 27 | Surfacing Equipment | 750 | 402076.3086 | 3.968821557 | 0.124680481 | 0.173502653 | 402076.3086 | 3.968821557 | 0.124680481 | 0.173502653 | 5911.417637 | 5911.417637 | 21.67207179 | 1.34 | 0.04 | 0.06 | 0.04 | 68.02 |
| 2014 | SC | Construction and Mining | 27 | Surfacing Equipment | 1000 | 65506.01308 | 1.124498953 | 0.027455427 | 0.048214997 | 65506.01308 | 1.124498953 | 0.027455427 | 0.048214997 | 724.4337405 | 724.4337405 | 2.91739428 | 3.10 | 0.08 | 0.13 | 0.07 | 90.42 |
| 2014 | SC | Construction and Mining | 27 | Surfacing Equipment | 9999 | 22960.37034 | 0.268305779 | 0.006040723 | 0.00940751 | 22960.37034 | 0.268305779 | 0.006040723 | 0.00940751 | 184.7686554 | 184.7686554 | 0.833541223 | 2.90 | 0.07 | 0.10 | 0.06 | 124.27 |
| 2014 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 50 | 3414963.252 | 50.80680026 | 4.662347238 | 10.58200246 | 3415447.43 | 50.44624718 | 4.587281716 | 10.37209577 | 603893.5766 | 603893.5766 | 1296.719845 | 0.17 | 0.02 | 0.04 | 0.01 | 5.66 |
| 2014 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 120 | 55198742.69 | 918.6119185 | 72.32266411 | 79.37675602 | 55184562.88 | 913.7418462 | 71.77988133 | 78.77335998 | 4876841.326 | 4876841.326 | 8804.592204 | 0.38 | 0.03 | 0.03 | 0.03 | 11.32 |
| 2014 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 175 | 9537028.268 | 143.4795142 | 7.240613913 | 10.18197411 | 9536981.377 | 142.201755 | 7.151874059 | 10.06532278 | 492558.9548 | 492558.9548 | 984.9649 | 0.58 | 0.03 | 0.04 | 0.03 | 19.36 |
| 2014 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 250 | 5526986.302 | 82.72954773 | 2.685926058 | 4.553782056 | 5526135.921 | 81.92395389 | 2.642356659 | 4.49718526 | 200657.593 | 200657.593 | 393.98596 | 0.82 | 0.03 | 0.05 | 0.02 | 27.54 |
| 2014 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 500 | 7436828.491 | 100.8305471 | 3.421566896 | 5.815991645 | 7437540.513 | 100.1683508 | 3.388270202 | 5.758700748 | 171623.8264 | 171623.8264 | 355.5813653 | 1.18 | 0.04 | 0.07 | 0.04 | 43.34 |
| 2014 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 750 | 1052538.595 | 13.55416597 | 0.490658394 | 0.804303127 | 1052538.595 | 13.55416597 | 0.490658394 | 0.804303127 | 13684.66061 | 13684.66061 | 24.85003188 | 1.98 | 0.07 | 0.12 | 0.07 | 76.91 |
| 2014 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 1000 | 177705.7222 | 2.004946997 | 0.044475494 | 0.073806209 | 177705.7222 | 2.004946997 | 0.044475494 | 0.073806209 | 1492.414296 | 1492.414296 | 2.259093807 | 2.69 | 0.06 | 0.10 | 0.05 | 119.07 |
| 2014 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 9999 | 2492541.005 | 40.24275625 | 1.206522668 | 1.997574277 | 2492541.005 | 41.23981602 | 1.269877522 | 2.090560246 | 9175.714639 | 9175.714639 | 16.71729417 | 8.77 | 0.26 | 0.44 | 0.24 | 271.65 |
| 2014 | SC | Construction and Mining | 29 | Trenchers | 50 | 1210781.944 | 17.77257439 | 1.633961125 | 3.426637877 | 1210782.172 | 17.74160958 | 1.627737842 | 3.407806336 | 147601.8242 | 147601.8242 | 425.239037 | 0.24 | 0.02 | 0.05 | 0.02 | 8.20 |
| 2014 | SC | Construction and Mining | 29 | Trenchers | 120 | 877699.6555 | 19.09810461 | 1.494088877 | 1.795340427 | 877376.0222 | 18.86843491 | 1.471637138 | 1.767665726 | 57519.45207 | 57519.45207 | 197.1562808 | 0.66 | 0.05 | 0.06 | 0.05 | 15.25 |
| 2014 | SC | Construction and Mining | 29 | Trenchers | 175 | 178898.6333 | 4.294980119 | 0.221947777 | 0.320649222 | 178974.1658 | 4.17508965 | 0.214278644 | 0.310439366 | 6804.680342 | 6804.680342 | 26.09421364 | 1.26 | 0.07 | 0.09 | 0.06 | 26.30 |
| 2014 | SC | Construction and Mining | 29 | Trenchers | 250 | 350655.2414 | 6.838093742 | 0.272741833 | 0.432437389 | 350594.7712 | 6.81390997 | 0.270978755 | 0.431424556 | 8685.585749 | 8685.585749 | 30.92647542 | 1.57 | 0.06 | 0.10 | 0.06 | 40.37 |
| 2014 | SC | Construction and Mining | 29 | Trenchers | 500 | 589212.175 | 7.777661223 | 0.286717411 | 0.449898926 | 589212.175 | 7.777661223 | 0.286717411 | 0.449898926 | 8961.871838 | 8961.871838 | 28.02711835 | 1.74 | 0.06 | 0.10 | 0.06 | 65.75 |
| 2014 | SC | Construction and Mining | 29 | Trenchers | 750 | 267093.8198 | 1.455568161 | 0.048873138 | 0.077552266 | 267093.8198 | 1.455568161 | 0.048873138 | 0.077552266 | 2325.221325 | 2325.221325 | 5.798714141 | 1.25 | 0.04 | 0.07 | 0.04 | 114.87 |
| 2014 | SC | Construction and Mining | 29 | Trenchers | 1000 | 15774.7854 | 0.621175349 | 0.028131927 | 0.044248369 | 15774.7854 | 0.621175349 | 0.028131927 | 0.044248369 | 99.46330321 | 99.46330321 | 0.483226178 | 12.49 | 0.57 | 0.89 | 0.52 | 158.60 |
| 2014 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 50 | 1052699.808 | 16.41165797 | 1.724013724 | 4.179476656 | 1052699.808 | 16.34144848 | 1.712690599 | 4.150144262 | 158978.6635 | 158978.6635 | 249.6016628 | 0.21 | 0.02 | 0.05 | 0.02 | 6.62 |
| 2014 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 120 | 1626982.465 | 34.39384081 | 3.036888749 | 3.430772512 | 1626982.465 | 33.73684428 | 2.96968673 | 3.348137446 | 124966.3346 | 124966.3346 | 203.2155131 | 0.55 | 0.05 | 0.05 | 0.04 | 13.02 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2014 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 175 | 405834.4163 | 11.49993449 | 0.638962135 | 0.91684861 | 405834.4163 | 11.07707696 | 0.612067132 | 0.879934443 | 15185.68694 | 15185.68694 | 23.41396129 | 1.51 | 0.08 | 0.12 | 0.08 | 26.72 |
| 2014 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 250 | 216293.3865 | 4.373129359 | 0.173065792 | 0.272045519 | 216293.3865 | 4.373129359 | 0.173065792 | 0.272045519 | 6354.346484 | 6354.346484 | 9.719002801 | 1.38 | 0.05 | 0.09 | 0.05 | 34.04 |
| 2014 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 500 | 60343.02593 | 1.091480205 | 0.047154399 | 0.068489013 | 60343.02593 | 1.091480205 | 0.047154399 | 0.068489013 | 1193.031541 | 1193.031541 | 1.767091418 | 1.83 | 0.08 | 0.11 | 0.07 | 50.58 |
| 2014 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 1000 | 42289.98842 | 0.512230607 | 0.013027716 | 0.016644956 | 42289.98842 | 0.512230607 | 0.013027716 | 0.016644956 | 298.2578853 | 298.2578853 | 0.441772855 | 3.43 | 0.09 | 0.11 | 0.08 | 141.79 |
| 2015 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 50 | 106964.4117 | 1.489044571 | 0.106479853 | 0.196527111 | 106964.4117 | 1.489044571 | 0.106479853 | 0.196527111 | 12906.46285 | 12906.46285 | 39.67732112 | 0.23 | 0.02 | 0.03 | 0.02 | 8.29 |
| 2015 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 120 | 651596.9803 | 8.250842227 | 0.49315132 | 0.543658632 | 654060.2599 | 8.142548194 | 0.483742921 | 0.531477515 | 44330.25075 | 44330.25075 | 121.5378994 | 0.37 | 0.02 | 0.02 | 0.02 | 14.75 |
| 2015 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 175 | 764599.7434 | 8.978393379 | 0.408942478 | 0.576666959 | 764123.0428 | 8.859829961 | 0.398461742 | 0.566634551 | 27581.77228 | 27581.77228 | 95.22557068 | 0.65 | 0.03 | 0.04 | 0.03 | 27.70 |
| 2015 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 250 | 1080795.083 | 11.22002436 | 0.339428292 | 0.596195975 | 1079715.053 | 10.88541543 | 0.325962126 | 0.577100865 | 28453.11989 | 28453.11989 | 94.80791467 | 0.79 | 0.02 | 0.04 | 0.02 | 37.95 |
| 2015 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 500 | 1204425.737 | 11.40632951 | 0.370109889 | 0.629170891 | 1203703.557 | 11.10686894 | 0.354567011 | 0.608963234 | 19122.04098 | 19122.04098 | 66.40730587 | 1.19 | 0.04 | 0.07 | 0.04 | 62.95 |
| 2015 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 750 | 1662462.543 | 11.83067056 | 0.403424253 | 0.666745152 | 1661924.613 | 11.65131553 | 0.396032749 | 0.655753243 | 14469.06741 | 14469.06741 | 32.99482493 | 1.64 | 0.06 | 0.09 | 0.05 | 114.86 |
| 2015 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 1000 | 130583.9683 | 1.174568545 | 0.022960954 | 0.035426086 | 130583.9683 | 1.174568545 | 0.022960954 | 0.035426086 | 770.7089215 | 770.7089215 | 1.252968035 | 3.05 | 0.06 | 0.09 | 0.05 | 169.43 |
| 2015 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 9999 | 442530.5643 | 5.667052151 | 0.138951392 | 0.195487161 | 442530.5643 | 5.667052151 | 0.138951392 | 0.195487161 | 899.8547406 | 899.8547406 | 1.252968035 | 12.60 | 0.31 | 0.43 | 0.28 | 491.78 |
| 2015 | SC | Construction and Mining | 12 | Cranes | 50 | 34882.32035 | 0.585041965 | 0.05889864 | 0.170270117 | 34882.32035 | 0.579965427 | 0.057330044 | 0.164637078 | 7399.167787 | 7399.167787 | 18.37870085 | 0.16 | 0.02 | 0.05 | 0.01 | 4.71 |
| 2015 | SC | Construction and Mining | 12 | Cranes | 120 | 831951.068 | 25.97436136 | 1.930884192 | 2.602268227 | 832050.7233 | 25.26855635 | 1.875416185 | 2.51934172 | 88918.57363 | 88918.57363 | 221.5946217 | 0.58 | 0.04 | 0.06 | 0.04 | 9.36 |
| 2015 | SC | Construction and Mining | 12 | Cranes | 175 | 2195979.828 | 55.81742897 | 3.034059393 | 4.348017667 | 2196030.801 | 54.60767214 | 2.952192306 | 4.239537046 | 139661.8041 | 139661.8041 | 332.3919326 | 0.80 | 0.04 | 0.06 | 0.04 | 15.72 |
| 2015 | SC | Construction and Mining | 12 | Cranes | 250 | 3709545.925 | 87.7845624 | 4.050420272 | 6.147721021 | 3709472.398 | 84.74194759 | 3.868664616 | 5.900964085 | 161341.9096 | 161341.9096 | 373.3501802 | 1.09 | 0.05 | 0.08 | 0.05 | 22.99 |
| 2015 | SC | Construction and Mining | 12 | Cranes | 500 | 5681228.265 | 106.6835315 | 4.436142381 | 6.855801262 | 5680130.705 | 104.5202127 | 4.324314456 | 6.700280634 | 159895.8673 | 159895.8673 | 358.1221137 | 1.33 | 0.06 | 0.09 | 0.05 | 35.52 |
| 2015 | SC | Construction and Mining | 12 | Cranes | 750 | 1497443.379 | 19.43345498 | 0.684293415 | 1.065071082 | 1497443.379 | 19.43345498 | 0.684293415 | 1.065071082 | 25021.43067 | 25021.43067 | 52.51057386 | 1.55 | 0.05 | 0.09 | 0.05 | 59.85 |
| 2015 | SC | Construction and Mining | 12 | Cranes | 1000 | 350534.6405 | 12.31969034 | 0.610907833 | 0.914014659 | 350534.6405 | 12.31969034 | 0.610907833 | 0.914014659 | 3556.938928 | 3556.938928 | 7.87658608 | 6.93 | 0.34 | 0.51 | 0.32 | 98.55 |
| 2015 | SC | Construction and Mining | 12 | Cranes | 9999 | 26998.45378 | 0.186087252 | 0.004494582 | 0.008789325 | 26998.45378 | 0.186087252 | 0.004494582 | 0.008789325 | 247.9090295 | 247.9090295 | 0.525105739 | 1.50 | 0.04 | 0.07 | 0.03 | 108.90 |
| 2015 | SC | Construction and Mining | 13 | Crawler Tractors | 50 | 106319.6625 | 1.880960951 | 0.22067858 | 0.620441256 | 106319.6625 | 1.86347055 | 0.216475972 | 0.606777457 | 14542.23998 | 14542.23998 | 46.60586195 | 0.26 | 0.03 | 0.09 | 0.03 | 7.31 |
| 2015 | SC | Construction and Mining | 13 | Crawler Tractors | 120 | 4714464.682 | 105.6067233 | 8.886947828 | 10.31782007 | 4712241.988 | 104.9453131 | 8.822042891 | 10.23694299 | 341112.0207 | 341112.0207 | 802.0868842 | 0.62 | 0.05 | 0.06 | 0.05 | 13.81 |
| 2015 | SC | Construction and Mining | 13 | Crawler Tractors | 175 | 5124217.925 | 107.0751224 | 5.894635103 | 8.183879997 | 5126202.717 | 105.4771158 | 5.786808697 | 8.037946368 | 217862.9698 | 217862.9698 | 524.7820056 | 0.98 | 0.05 | 0.08 | 0.05 | 23.53 |
| 2015 | SC | Construction and Mining | 13 | Crawler Tractors | 250 | 5168983.01 | 97.48177558 | 3.802366987 | 5.956254855 | 5171451.892 | 95.14009519 | 3.668596461 | 5.773258024 | 161528.7071 | 161528.7071 | 383.5662439 | 1.21 | 0.05 | 0.07 | 0.04 | 32.02 |
| 2015 | SC | Construction and Mining | 13 | Crawler Tractors | 500 | 13870094.22 | 234.1083054 | 9.155257909 | 14.47157577 | 13863767.66 | 226.5633744 | 8.77656162 | 13.93365398 | 256584.8804 | 256584.8804 | 616.5955537 | 1.82 | 0.07 | 0.11 | 0.07 | 54.03 |
| 2015 | SC | Construction and Mining | 13 | Crawler Tractors | 750 | 5393596.814 | 79.13804142 | 2.903105336 | 4.710357367 | 5393596.814 | 78.927899 | 2.890892198 | 4.692206828 | 59982.14368 | 59982.14368 | 126.3018859 | 2.64 | 0.10 | 0.16 | 0.09 | 89.92 |
| 2015 | SC | Construction and Mining | 13 | Crawler Tractors | 1000 | 713927.6094 | 15.89693041 | 0.468579235 | 0.843267273 | 713927.6094 | 15.89693041 | 0.468579235 | 0.843267273 | 5441.341868 | 5441.341868 | 11.18540687 | 5.84 | 0.17 | 0.31 | 0.16 | 131.20 |
| 2015 | SC | Construction and Mining | 13 | Crawler Tractors | 9999 | 377269.6361 | 7.14635561 | 0.189147429 | 0.33316555 | 377269.6361 | 7.14635561 | 0.189147429 | 0.33316555 | 1634.322666 | 1634.322666 | 2.796351717 | 8.75 | 0.23 | 0.41 | 0.21 | 230.84 |
| 2015 | SC | Construction and Mining | 14 | Excavators | 50 | 4256634.748 | 56.4870402 | 4.305397279 | 7.909331491 | 4256634.811 | 56.4624237 | 4.301801177 | 7.901275043 | 763083.0659 | 763083.0659 | 1141.486356 | 0.15 | 0.01 | 0.02 | 0.01 | 5.58 |
| 2015 | SC | Construction and Mining | 14 | Excavators | 120 | 5528751.82 | 84.93836926 | 6.354373901 | 7.127831804 | 5528182.862 | 84.19758677 | 6.264885374 | 7.03010694 | 487293.9047 | 487293.9047 | 825.6268488 | 0.35 | 0.03 | 0.03 | 0.02 | 11.34 |
| 2015 | SC | Construction and Mining | 14 | Excavators | 175 | 11643139.08 | 158.9682015 | 7.884187164 | 11.28297007 | 11643190.82 | 156.6051856 | 7.72983062 | 11.08231809 | 568504.9193 | 568504.9193 | 1048.971293 | 0.56 | 0.03 | 0.04 | 0.03 | 20.48 |
| 2015 | SC | Construction and Mining | 14 | Excavators | 250 | 14812122.87 | 191.6083346 | 6.234809668 | 11.04328242 | 14810906.22 | 185.8079228 | 5.911918389 | 10.59932044 | 483066.9883 | 483066.9883 | 901.7882389 | 0.79 | 0.03 | 0.05 | 0.02 | 30.66 |
| 2015 | SC | Construction and Mining | 14 | Excavators | 500 | 24573393.58 | 247.0735311 | 8.174551571 | 14.83045475 | 24568644.5 | 237.8785634 | 7.714116325 | 14.19344875 | 534981.5989 | 534981.5989 | 917.2074161 | 0.92 | 0.03 | 0.06 | 0.03 | 45.92 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2015 | SC | Construction and Mining | 14 | Excavators | 750 | 2222583.001 | 23.24233216 | 0.747495024 | 1.332492652 | 2222657.906 | 23.40013673 | 0.760939736 | 1.347972035 | 27694.48437 | 27694.48437 | 46.72477922 | 1.68 | 0.05 | 0.10 | 0.05 | 80.26 |
| 2015 | SC | Construction and Mining | 14 | Excavators | 1000 | 249480.7915 | 4.918207223 | 0.157597881 | 0.261990378 | 249480.7915 | 4.164643788 | 0.11143565 | 0.194562796 | 2118.088363 | 2118.088363 | 3.737982337 | 4.64 | 0.15 | 0.25 | 0.14 | 117.79 |
| 2015 | SC | Construction and Mining | 14 | Excavators | 9999 | 486146.4118 | 5.328362945 | 0.138697381 | 0.257331325 | 486146.4118 | 5.328362945 | 0.138697381 | 0.257331325 | 2231.846097 | 2231.846097 | 3.270734545 | 4.77 | 0.12 | 0.23 | 0.11 | 217.82 |
| 2015 | SC | Construction and Mining | 15 | Graders | 50 | 28111.47421 | 0.531541932 | 0.070688788 | 0.208525144 | 28111.47421 | 0.531541932 | 0.070688788 | 0.208525144 | 4585.93925 | 4585.93925 | 14.55848053 | 0.23 | 0.03 | 0.09 | 0.03 | 6.13 |
| 2015 | SC | Construction and Mining | 15 | Graders | 120 | 759687.2786 | 23.15250401 | 1.933264439 | 2.443129099 | 758182.2951 | 22.25349009 | 1.858228034 | 2.340231948 | 55744.68423 | 55744.68423 | 154.9773734 | 0.83 | 0.07 | 0.09 | 0.06 | 13.60 |
| 2015 | SC | Construction and Mining | 15 | Graders | 175 | 7052412.521 | 181.3823943 | 10.23426029 | 14.67343165 | 7047854.962 | 179.0529933 | 10.06772992 | 14.45814203 | 311015.9871 | 311015.9871 | 725.106256 | 1.17 | 0.07 | 0.09 | 0.06 | 22.66 |
| 2015 | SC | Construction and Mining | 15 | Graders | 250 | 1245942.69 | 209.6616354 | 6.827644596 | 12.00682455 | 1247086.18 | 208.3512434 | 6.753176428 | 11.90600369 | 395127.5276 | 395127.5276 | 575.7644235 | 1.06 | 0.03 | 0.06 | 0.03 | 31.00 |
| 2015 | SC | Construction and Mining | 15 | Graders | 500 | 3491592.465 | 39.17478409 | 1.520774554 | 2.836988167 | 3491592.465 | 38.97162802 | 1.510403831 | 2.822297804 | 79292.94013 | 79292.94013 | 107.5449045 | 0.99 | 0.04 | 0.07 | 0.04 | 44.03 |
| 2015 | SC | Construction and Mining | 15 | Graders | 1000 | 33763.05975 | 0.942330032 | 0.032795123 | 0.059463471 | 33763.05975 | 0.942330032 | 0.032795123 | 0.059463471 | 282.78608 | 282.78608 | 0.469628404 | 6.66 | 0.23 | 0.42 | 0.21 | 119.39 |
| 2015 | SC | Construction and Mining | 15 | Graders | 9999 | 475623.1111 | 9.410313547 | 0.285152544 | 0.525646673 | 475623.1111 | 9.410313547 | 0.285152544 | 0.525646673 | 1594.113711 | 1594.113711 | 2.348142021 | 11.81 | 0.36 | 0.66 | 0.33 | 298.36 |
| 2015 | SC | Construction and Mining | 16 | Off-Highway Tractors | 50 | 1757609.503 | 27.26573185 | 2.75000055 | 6.712181014 | 1759990.108 | 26.32915142 | 2.544253536 | 6.12702189 | 263418.4702 | 263418.4702 | 437.2373634 | 0.21 | 0.02 | 0.05 | 0.02 | 6.68 |
| 2015 | SC | Construction and Mining | 16 | Off-Highway Tractors | 120 | 2250300.43 | 42.88211211 | 3.54042199 | 4.001889556 | 2247970.406 | 40.65351021 | 3.31135173 | 3.73452438 | 187278.5971 | 187278.5971 | 317.9070398 | 0.46 | 0.04 | 0.04 | 0.03 | 12.00 |
| 2015 | SC | Construction and Mining | 16 | Off-Highway Tractors | 175 | 1917254.853 | 27.68378136 | 1.411103909 | 1.955882633 | 1917149.205 | 27.13570797 | 1.374556016 | 1.907202895 | 75701.38602 | 75701.38602 | 120.7125282 | 0.73 | 0.04 | 0.05 | 0.03 | 25.33 |
| 2015 | SC | Construction and Mining | 16 | Off-Highway Tractors | 250 | 1605068.207 | 27.12744056 | 0.982876192 | 1.628405899 | 1605145.206 | 26.76542756 | 0.962977424 | 1.60233894 | 47167.3679 | 47167.3679 | 78.78565769 | 1.15 | 0.04 | 0.07 | 0.04 | 34.03 |
| 2015 | SC | Construction and Mining | 16 | Off-Highway Tractors | 500 | 4533537.052 | 54.02493464 | 1.953329077 | 3.289077923 | 4533827.113 | 51.17757687 | 1.801063222 | 3.091216369 | 84920.689 | 84920.689 | 135.456043 | 1.27 | 0.05 | 0.08 | 0.04 | 53.39 |
| 2015 | SC | Construction and Mining | 16 | Off-Highway Tractors | 750 | 1140135.136 | 13.94094336 | 0.474481975 | 0.79473619 | 1138653.597 | 13.25852491 | 0.431791666 | 0.741775812 | 12429.15914 | 12429.15914 | 19.81159813 | 2.24 | 0.08 | 0.13 | 0.07 | 91.61 |
| 2015 | SC | Construction and Mining | 16 | Off-Highway Tractors | 1000 | 32310.19122 | 1.190975927 | 0.060593982 | 0.083260827 | 32310.19122 | 0.223189317 | 0.005415617 | 0.007703388 | 202.1553804 | 202.1553804 | 0.46073484 | 11.78 | 0.60 | 0.82 | 0.55 | 159.83 |
| 2015 | SC | Construction and Mining | 16 | Off-Highway Tractors | 9999 | 252293.9947 | 7.640757896 | 0.287434785 | 0.504918379 | 264892.077 | 4.548774638 | 0.145869901 | 0.259722256 | 938.6365422 | 938.6365422 | 1.842939361 | 16.28 | 0.61 | 1.08 | 0.56 | 282.21 |
| 2015 | SC | Construction and Mining | 17 | Off-Highway Trucks | 50 | 168441.4091 | 2.74131374 | 0.285089632 | 0.64647881 | 168441.4091 | 2.74131374 | 0.285089632 | 0.64647881 | 38268.69356 | 38268.69356 | 26.02170599 | 0.14 | 0.01 | 0.03 | 0.01 | 4.40 |
| 2015 | SC | Construction and Mining | 17 | Off-Highway Trucks | 120 | 206624.5944 | 3.764831032 | 0.305726633 | 0.376414554 | 206624.5944 | 3.570240993 | 0.289831793 | 0.354649702 | 17176.0556 | 17176.0556 | 14.60867705 | 0.44 | 0.04 | 0.04 | 0.03 | 12.03 |
| 2015 | SC | Construction and Mining | 17 | Off-Highway Trucks | 175 | 3994156.156 | 62.16664062 | 3.47550214 | 5.118871015 | 3994156.156 | 61.56122617 | 3.42970412 | 5.065136884 | 180304.8613 | 180304.8613 | 139.6954743 | 0.69 | 0.04 | 0.06 | 0.04 | 22.15 |
| 2015 | SC | Construction and Mining | 17 | Off-Highway Trucks | 250 | 8198289.078 | 140.170173 | 6.231895441 | 10.49806695 | 8196334.747 | 129.9668398 | 5.621239307 | 9.699408924 | 279089.9744 | 279089.9744 | 239.2170866 | 1.00 | 0.04 | 0.08 | 0.04 | 29.37 |
| 2015 | SC | Construction and Mining | 17 | Off-Highway Trucks | 500 | 34846861.26 | 489.2814256 | 19.02206726 | 34.35380802 | 34869686.81 | 470.1375302 | 17.95762044 | 32.99169839 | 662277.2765 | 662277.2765 | 531.3906276 | 1.48 | 0.06 | 0.10 | 0.05 | 52.65 |
| 2015 | SC | Construction and Mining | 17 | Off-Highway Trucks | 750 | 12509045.19 | 227.4017264 | 9.744683098 | 16.53322765 | 12462015.88 | 190.5926746 | 7.753297605 | 13.8842385 | 134701.1281 | 134701.1281 | 121.434628 | 3.38 | 0.14 | 0.25 | 0.13 | 92.52 |
| 2015 | SC | Construction and Mining | 17 | Off-Highway Trucks | 1000 | 8651567.016 | 167.2419627 | 4.932076648 | 9.105000855 | 8638911.134 | 163.0356127 | 4.791951976 | 8.818912125 | 68731.65177 | 68731.65177 | 55.69558124 | 4.87 | 0.14 | 0.26 | 0.13 | 125.69 |
| 2015 | SC | Construction and Mining | 17 | Off-Highway Trucks | 9999 | 12423643.62 | 217.7237969 | 6.810879297 | 13.07342406 | 12414774.12 | 213.6775204 | 6.669043569 | 12.78692975 | 49928.81291 | 49928.81291 | 36.06517146 | 8.72 | 0.27 | 0.52 | 0.25 | 248.65 |
| 2015 | SC | Construction and Mining | 18 | Other Construction Equipment | 50 | 953161.8666 | 14.22352831 | 1.287383964 | 2.767663502 | 953161.8666 | 14.2159085 | 1.286060982 | 2.76392143 | 146810.893 | 146810.893 | 337.6527679 | 0.19 | 0.02 | 0.04 | 0.02 | 6.49 |
| 2015 | SC | Construction and Mining | 18 | Other Construction Equipment | 120 | 2979929.106 | 58.82262026 | 4.610692024 | 5.381126012 | 2979834.231 | 58.64267047 | 4.592057617 | 5.360110787 | 240220.2661 | 240220.2661 | 595.7776295 | 0.49 | 0.04 | 0.04 | 0.04 | 12.40 |
| 2015 | SC | Construction and Mining | 18 | Other Construction Equipment | 175 | 1624037.374 | 31.69722149 | 1.688610808 | 2.362284793 | 1624517.235 | 30.52533203 | 1.599245536 | 2.255805085 | 70165.65484 | 70165.65484 | 185.413633 | 0.90 | 0.05 | 0.07 | 0.04 | 23.15 |
| 2015 | SC | Construction and Mining | 18 | Other Construction Equipment | 250 | 2083788.776 | 36.21052449 | 1.349913622 | 2.133622593 | 2084162.948 | 35.29404923 | 1.296287693 | 2.068411023 | 62574.6421 | 62574.6421 | 166.3269355 | 1.16 | 0.04 | 0.07 | 0.04 | 33.31 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2015 | SC | Construction and Mining | 18 | Other Construction Equipment | 500 | 7114615.072 | 99.96237186 | 3.784215091 | 6.146589227 | 7111177.714 | 93.60774035 | 3.447804256 | 5.683213242 | 129745.0684 | 129745.0684 | 323.1105222 | 1.54 | 0.06 | 0.09 | 0.05 | 54.81 |
| 2015 | SC | Construction and Mining | 18 | Other Construction Equipment | 750 | 2773504.165 | 35.4406111 | 1.212742301 | 1.983634848 | 2773498.671 | 31.88827887 | 1.023671682 | 1.708150631 | 30377.8051 | 30377.8051 | 66.8034413 | 2.33 | 0.08 | 0.13 | 0.07 | 91.30 |
| 2015 | SC | Construction and Mining | 18 | Other Construction Equipment | 1000 | 323385.9487 | 4.344269335 | 0.115155738 | 0.183550054 | 323385.9487 | 4.336793892 | 0.114809203 | 0.182491562 | 2559.562074 | 2559.562074 | 5.907787326 | 3.39 | 0.09 | 0.14 | 0.08 | 126.34 |
| 2015 | SC | Construction and Mining | 18 | Other Construction Equipment | 9999 | 201249.5802 | 3.307332553 | 0.091581796 | 0.15591099 | 201383.5696 | 3.06334808 | 0.084709995 | 0.148648939 | 1199.343841 | 1199.343841 | 2.726671073 | 5.52 | 0.15 | 0.26 | 0.14 | 167.91 |
| 2015 | SC | Construction and Mining | 19 | Pavers | 50 | 116726.083 | 1.777679032 | 0.183043534 | 0.48377017 | 116726.083 | 1.769827059 | 0.181797412 | 0.480750681 | 17750.87129 | 17750.87129 | 54.72796021 | 0.20 | 0.02 | 0.05 | 0.02 | 6.58 |
| 2015 | SC | Construction and Mining | 19 | Pavers | 120 | 1129943.688 | 21.16696153 | 1.658783304 | 1.944534778 | 1130410.826 | 20.93275334 | 1.634001052 | 1.915417445 | 93540.06043 | 93540.06043 | 265.8866733 | 0.45 | 0.04 | 0.04 | 0.03 | 12.08 |
| 2015 | SC | Construction and Mining | 19 | Pavers | 175 | 1533804.968 | 25.86341981 | 1.300575474 | 1.894434577 | 1533937.052 | 25.49653623 | 1.277269502 | 1.8625311 | 63596.51118 | 63596.51118 | 179.690136 | 0.81 | 0.04 | 0.06 | 0.04 | 24.12 |
| 2015 | SC | Construction and Mining | 19 | Pavers | 250 | 1035862.511 | 12.90240689 | 0.331056412 | 0.549090544 | 1035862.511 | 12.89222788 | 0.330207075 | 0.548673426 | 31739.43145 | 31739.43145 | 77.53127696 | 0.81 | 0.02 | 0.03 | 0.02 | 32.64 |
| 2015 | SC | Construction and Mining | 19 | Pavers | 500 | 390221.0719 | 3.455142739 | 0.114684275 | 0.172352087 | 390221.0719 | 3.455142739 | 0.114684275 | 0.172352087 | 7900.326159 | 7900.326159 | 19.15478607 | 0.87 | 0.03 | 0.04 | 0.03 | 49.39 |
| 2015 | SC | Construction and Mining | 19 | Pavers | 750 | 45123.30921 | 0.331158168 | 0.014338252 | 0.019534638 | 45123.30921 | 0.331158168 | 0.014338252 | 0.019534638 | 394.6454701 | 394.6454701 | 0.91213267 | 1.68 | 0.07 | 0.10 | 0.07 | 114.34 |
| 2015 | SC | Construction and Mining | 20 | Paving Equipment | 50 | 145127.4673 | 2.002021346 | 0.164759289 | 0.334645334 | 145131.0371 | 1.98872924 | 0.160881747 | 0.320552734 | 29024.47156 | 29024.47156 | 67.38927057 | 0.14 | 0.01 | 0.02 | 0.01 | 5.00 |
| 2015 | SC | Construction and Mining | 20 | Paving Equipment | 120 | 660186.6094 | 12.35816793 | 0.948559974 | 1.105267677 | 660012.5979 | 12.13878047 | 0.929959114 | 1.079177406 | 56963.99514 | 56963.99514 | 137.5105386 | 0.43 | 0.03 | 0.04 | 0.03 | 11.59 |
| 2015 | SC | Construction and Mining | 20 | Paving Equipment | 175 | 621543.0421 | 9.34616543 | 0.459595537 | 0.639527237 | 621542.1264 | 9.297271553 | 0.453656314 | 0.635644335 | 32231.19504 | 32231.19504 | 75.12993003 | 0.58 | 0.03 | 0.04 | 0.03 | 19.28 |
| 2015 | SC | Construction and Mining | 20 | Paving Equipment | 250 | 325978.3214 | 5.21191295 | 0.18983543 | 0.300329033 | 325998.2774 | 4.669924442 | 0.15535044 | 0.254755999 | 11592.92681 | 11592.92681 | 27.31997456 | 0.90 | 0.03 | 0.05 | 0.03 | 28.12 |
| 2015 | SC | Construction and Mining | 20 | Paving Equipment | 500 | 459679.3533 | 6.476462706 | 0.233828676 | 0.36974426 | 459626.7864 | 6.447360583 | 0.231532902 | 0.368489641 | 10480.14692 | 10480.14692 | 24.5879771 | 1.24 | 0.04 | 0.07 | 0.04 | 43.86 |
| 2015 | SC | Construction and Mining | 20 | Paving Equipment | 750 | 217994.3308 | 2.59304471 | 0.060322989 | 0.121748758 | 217994.3308 | 2.59304471 | 0.060322989 | 0.121748758 | 2763.883839 | 2763.883839 | 5.919327821 | 1.88 | 0.04 | 0.09 | 0.04 | 78.87 |
| 2015 | SC | Construction and Mining | 20 | Paving Equipment | 1000 | 42629.3525 | 0.588179843 | 0.01437464 | 0.02367012 | 42629.3525 | 0.588179843 | 0.01437464 | 0.02367012 | 388.0202296 | 388.0202296 | 0.910665819 | 3.03 | 0.07 | 0.12 | 0.07 | 109.86 |
| 2015 | SC | Construction and Mining | 21 | Rollers | 50 | 2395596.151 | 34.80175546 | 3.137694933 | 7.080554076 | 2395581.308 | 34.64149922 | 3.106448493 | 6.992623546 | 437535.7575 | 437535.7575 | 1382.656186 | 0.16 | 0.01 | 0.03 | 0.01 | 5.48 |
| 2015 | SC | Construction and Mining | 21 | Rollers | 120 | 3742537.863 | 71.41679736 | 5.342478698 | 6.464091644 | 3742629.82 | 70.21036846 | 5.232313618 | 6.322287078 | 311622.3018 | 311622.3018 | 1031.133427 | 0.46 | 0.03 | 0.04 | 0.03 | 12.01 |
| 2015 | SC | Construction and Mining | 21 | Rollers | 175 | 3870259.392 | 55.0690573 | 2.584552415 | 3.604319073 | 3869857.356 | 53.82035273 | 2.504287055 | 3.495784977 | 195465.2035 | 195465.2035 | 596.1825996 | 0.56 | 0.03 | 0.04 | 0.02 | 19.80 |
| 2015 | SC | Construction and Mining | 21 | Rollers | 250 | 610846.7569 | 9.305584988 | 0.331745036 | 0.544398431 | 611016.9826 | 9.025951912 | 0.312651297 | 0.524797144 | 20750.17478 | 20750.17478 | 73.11673391 | 0.90 | 0.03 | 0.05 | 0.03 | 29.45 |
| 2015 | SC | Construction and Mining | 21 | Rollers | 500 | 385148.5483 | 6.556283443 | 0.269959795 | 0.41547195 | 385148.5483 | 5.754215798 | 0.223025213 | 0.350537074 | 8257.360176 | 8257.360176 | 29.99660878 | 1.59 | 0.07 | 0.10 | 0.06 | 46.64 |
| 2015 | SC | Construction and Mining | 21 | Rollers | 750 | 18798.904 | 0.281709285 | 0.013481522 | 0.021266327 | 18798.904 | 0.281709285 | 0.013481522 | 0.021266327 | 261.8977378 | 261.8977378 | 0.937394024 | 2.15 | 0.10 | 0.16 | 0.09 | 71.78 |
| 2015 | SC | Construction and Mining | 22 | Rough Terrain | 50 | 122015.0057 | 1.707952609 | 0.141966439 | 0.323336664 | 122015.0057 | 1.707952609 | 0.141966439 | 0.323336664 | 15706.25226 | 15706.25226 | 62.79960946 | 0.22 | 0.02 | 0.04 | 0.02 | 7.77 |
| 2015 | SC | Construction and Mining | 22 | Rough Terrain | 120 | 9814901.944 | 127.446903 | 7.409390932 | 8.377914981 | 9814444.459 | 125.997686 | 7.282785851 | 8.216026232 | 689660.5178 | 689660.5178 | 2690.63844 | 0.37 | 0.02 | 0.02 | 0.02 | 14.23 |
| 2015 | SC | Construction and Mining | 22 | Rough Terrain | 175 | 1804421.309 | 19.23972923 | 0.759844634 | 1.029933418 | 1804421.309 | 18.55720659 | 0.719330942 | 0.972354726 | 94477.52169 | 94477.52169 | 360.0150025 | 0.41 | 0.02 | 0.02 | 0.01 | 19.10 |
| 2015 | SC | Construction and Mining | 22 | Rough Terrain | 250 | 148439.5736 | 2.731157491 | 0.121573937 | 0.1862765 | 148313.7627 | 1.095365719 | 0.025885525 | 0.051419409 | 4818.695032 | 4818.695032 | 21.1136618 | 1.13 | 0.05 | 0.08 | 0.05 | 30.78 |
| 2015 | SC | Construction and Mining | 22 | Rough Terrain | 500 | 62883.13112 | 0.890288346 | 0.027353154 | 0.045626856 | 62883.13112 | 0.671473222 | 0.01470875 | 0.027431182 | 1151.145334 | 1151.145334 | 4.872383493 | 1.55 | 0.05 | 0.08 | 0.04 | 54.63 |
| 2015 | SC | Construction and Mining | 22 | Rough Terrain | 750 | 9840.143142 | 0.44688417 | 0.023852549 | 0.035866877 | 9840.143142 | 0.038775008 | 0.000264709 | 0.00202139 | 106.7159369 | 106.7159369 | 0.541375944 | 8.38 | 0.45 | 0.67 | 0.41 | 92.21 |
| 2015 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 50 | 104995.4617 | 1.920518063 | 0.25384149 | 0.707767805 | 104995.4617 | 1.920518063 | 0.25384149 | 0.707767805 | 15885.63517 | 15885.63517 | 18.29928335 | 0.24 | 0.03 | 0.09 | 0.03 | 6.61 |
| 2015 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 120 | 501199.2679 | 14.32408174 | 1.285856692 | 1.528391963 | 503320.7736 | 14.12607134 | 1.264716083 | 1.502899929 | 41978.35489 | 41978.35489 | 54.45152605 | 0.68 | 0.06 | 0.07 | 0.06 | 11.99 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2015 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 175 | 419666.757 | 12.36846157 | 0.709031074 | 1.001587695 | 419666.757 | 12.36846157 | 0.709031074 | 1.001587695 | 19263.31502 | 19263.31502 | 28.118411 | 1.28 | 0.07 | 0.10 | 0.07 | 21.79 |
| 2015 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 250 | 437800.8067 | 10.43010666 | 0.514585549 | 0.786448556 | 437800.8067 | 10.43010666 | 0.514585549 | 0.786448556 | 14210.62138 | 14210.62138 | 21.86987522 | 1.47 | 0.07 | 0.11 | 0.07 | 30.81 |
| 2015 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 500 | 5014157.611 | 119.6493974 | 5.588539878 | 8.749213536 | 5011523.237 | 118.581953 | 5.532586682 | 8.672392656 | 96111.11628 | 96111.11628 | 145.9479428 | 2.49 | 0.12 | 0.18 | 0.11 | 52.14 |
| 2015 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 750 | 589540.4184 | 13.27231277 | 0.489011637 | 0.800987092 | 589540.4184 | 12.64644811 | 0.457020373 | 0.756686101 | 6941.805867 | 6941.805867 | 8.926479681 | 3.82 | 0.14 | 0.23 | 0.13 | 84.93 |
| 2015 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 50 | 332391.5239 | 5.543550977 | 0.614441308 | 1.585714094 | 332383.1326 | 5.497179392 | 0.606726085 | 1.566706916 | 54083.81595 | 54083.81595 | 68.85031385 | 0.20 | 0.02 | 0.06 | 0.02 | 6.15 |
| 2015 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 120 | 8102756.811 | 176.5228073 | 15.31164193 | 17.87755327 | 8097389.992 | 172.6788905 | 14.92666334 | 17.41555934 | 716822.8971 | 716822.8971 | 855.9768749 | 0.49 | 0.04 | 0.05 | 0.04 | 11.30 |
| 2015 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 175 | 19218368.73 | 358.2712061 | 20.15411297 | 28.95403656 | 19220758.86 | 352.6434601 | 19.70398186 | 28.44225083 | 966805.4187 | 966805.4187 | 1121.608829 | 0.74 | 0.04 | 0.06 | 0.04 | 19.88 |
| 2015 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 250 | 26487946.5 | 433.475118 | 14.85671345 | 27.09534663 | 26485085.25 | 429.2061507 | 14.6536216 | 26.79250668 | 973442.3475 | 973442.3475 | 996.9339364 | 0.89 | 0.03 | 0.06 | 0.03 | 27.21 |
| 2015 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 500 | 34575560.31 | 554.3205927 | 21.24827671 | 37.91753235 | 34490437.29 | 525.1481763 | 19.82841381 | 35.90723635 | 820578.0133 | 820578.0133 | 926.2228032 | 1.35 | 0.05 | 0.09 | 0.05 | 42.03 |
| 2015 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 750 | 6094797.401 | 90.63356677 | 3.61454994 | 6.478872503 | 6103209.519 | 86.22560993 | 3.3901193 | 6.17510351 | 79032.23073 | 79032.23073 | 81.8760489 | 2.29 | 0.09 | 0.16 | 0.08 | 77.22 |
| 2015 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 1000 | 1776931.229 | 35.92343739 | 1.052798432 | 1.857544204 | 1776931.229 | 35.92086748 | 1.05260596 | 1.856353589 | 16034.43547 | 16034.43547 | 14.88655435 | 4.48 | 0.13 | 0.23 | 0.12 | 110.82 |
| 2015 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 9999 | 706597.794 | 13.67570797 | 0.398616954 | 0.751013067 | 706597.794 | 13.67570797 | 0.398616954 | 0.751013067 | 3522.048012 | 3522.048012 | 3.256433763 | 7.77 | 0.23 | 0.43 | 0.21 | 200.62 |
| 2015 | SC | Construction and Mining | 25 | Scrapers | 50 | 7621.688026 | 0.139463689 | 0.018732335 | 0.055238898 | 7621.688026 | 0.139463689 | 0.018732335 | 0.055238898 | 1075.989822 | 1075.989822 | 3.218481961 | 0.26 | 0.03 | 0.10 | 0.03 | 7.08 |
| 2015 | SC | Construction and Mining | 25 | Scrapers | 120 | 348066.9139 | 7.24152011 | 0.545115691 | 0.615641811 | 348066.9139 | 7.24152011 | 0.545115691 | 0.615641811 | 22729.14487 | 22729.14487 | 46.43809686 | 0.64 | 0.05 | 0.05 | 0.04 | 15.31 |
| 2015 | SC | Construction and Mining | 25 | Scrapers | 175 | 3673824.724 | 86.08305915 | 4.613060509 | 6.555783314 | 3673213.349 | 84.43828968 | 4.512539601 | 6.416031735 | 123073.1489 | 123073.1489 | 298.3992561 | 1.40 | 0.07 | 0.11 | 0.07 | 29.85 |
| 2015 | SC | Construction and Mining | 25 | Scrapers | 250 | 4221323.669 | 114.9330699 | 5.277752727 | 8.045084514 | 4218081.222 | 110.5829752 | 5.044883105 | 7.696695877 | 106701.2709 | 106701.2709 | 289.6633765 | 2.15 | 0.10 | 0.15 | 0.09 | 39.53 |
| 2015 | SC | Construction and Mining | 25 | Scrapers | 500 | 36968544.18 | 705.2551838 | 28.82643261 | 45.53832436 | 36956993.41 | 674.8068028 | 27.25403079 | 43.27252822 | 546801.3561 | 546801.3561 | 1273.139507 | 2.58 | 0.11 | 0.17 | 0.10 | 67.59 |
| 2015 | SC | Construction and Mining | 25 | Scrapers | 750 | 16923019.01 | 260.8217291 | 10.06842437 | 16.23862052 | 16919716.47 | 245.5648515 | 9.226290318 | 15.08366187 | 168936.1572 | 168936.1572 | 362.7688953 | 3.09 | 0.12 | 0.19 | 0.11 | 100.15 |
| 2015 | SC | Construction and Mining | 25 | Scrapers | 1000 | 264566.2277 | 10.64187235 | 0.496162995 | 0.770791959 | 264566.2277 | 10.64187235 | 0.496162995 | 0.770791959 | 1573.031561 | 1573.031561 | 5.977180784 | 13.53 | 0.63 | 0.98 | 0.58 | 168.19 |
| 2015 | SC | Construction and Mining | 25 | Scrapers | 9999 | 961637.0365 | 20.87269313 | 0.789602514 | 1.217444305 | 961637.0365 | 20.87269313 | 0.789602514 | 1.217444305 | 2763.728781 | 2763.728781 | 5.977180784 | 15.10 | 0.57 | 0.88 | 0.53 | 347.95 |
| 2015 | SC | Construction and Mining | 26 | Skid Steer Loaders | 50 | 1811323.052 | 21.75980651 | 1.329056631 | 2.638294986 | 1811333.503 | 21.5992969 | 1.302076512 | 2.572266544 | 275749.231 | 275749.231 | 957.877766 | 0.16 | 0.01 | 0.02 | 0.01 | 6.57 |
| 2015 | SC | Construction and Mining | 26 | Skid Steer Loaders | 120 | 9619342.536 | 110.4257025 | 6.399027294 | 7.053780918 | 9618428.858 | 110.0434341 | 6.359201557 | 7.013248486 | 1007909.114 | 1007909.114 | 3091.138512 | 0.22 | 0.01 | 0.01 | 0.01 | 9.54 |
| 2015 | SC | Construction and Mining | 26 | Skid Steer Loaders | 175 | 65045.87544 | 0.800879456 | 0.036545547 | 0.049571003 | 65045.87544 | 0.800879456 | 0.036545547 | 0.049571003 | 3167.736717 | 3167.736717 | 12.82235978 | 0.51 | 0.02 | 0.03 | 0.02 | 20.53 |
| 2015 | SC | Construction and Mining | 26 | Skid Steer Loaders | 250 | 50023.94937 | 0.544082782 | 0.019612045 | 0.031237459 | 50004.27096 | 0.569735323 | 0.020826778 | 0.033143936 | 1872.80393 | 1872.80393 | 7.123533213 | 0.58 | 0.02 | 0.03 | 0.02 | 26.70 |
| 2015 | SC | Construction and Mining | 26 | Skid Steer Loaders | 500 | 13727.17399 | 0.13018537 | 0.004590529 | 0.008088074 | 13727.17399 | 0.13018537 | 0.004590529 | 0.008088074 | 376.7448141 | 376.7448141 | 1.424706643 | 0.69 | 0.02 | 0.04 | 0.02 | 36.44 |
| 2015 | SC | Construction and Mining | 26 | Skid Steer Loaders | 750 | 14480.35944 | 0.104712214 | 0.004371689 | 0.005338192 | 14480.35944 | 0.104712214 | 0.004371689 | 0.005338192 | 202.0225814 | 202.0225814 | 0.474902214 | 1.04 | 0.04 | 0.05 | 0.04 | 71.68 |
| 2015 | SC | Construction and Mining | 26 | Skid Steer Loaders | 1000 | 23629.34738 | 0.587904239 | 0.021017264 | 0.037492498 | 23629.34738 | 0.277451596 | 0.008761453 | 0.01354036 | 174.7222326 | 174.7222326 | 0.949804428 | 6.73 | 0.24 | 0.43 | 0.22 | 135.24 |
| 2015 | SC | Construction and Mining | 27 | Surfacing Equipment | 50 | 16674.79464 | 0.241748844 | 0.019487672 | 0.042548131 | 16674.79464 | 0.23334483 | 0.01784832 | 0.03772757 | 3746.24112 | 3746.24112 | 16.80254465 | 0.13 | 0.01 | 0.02 | 0.01 | 4.45 |
| 2015 | SC | Construction and Mining | 27 | Surfacing Equipment | 120 | 130825.1006 | 2.117724374 | 0.149181451 | 0.178265807 | 130825.1006 | 2.116904583 | 0.148916126 | 0.178224486 | 13365.19949 | 13365.19949 | 53.85430977 | 0.32 | 0.02 | 0.03 | 0.02 | 9.79 |
| 2015 | SC | Construction and Mining | 27 | Surfacing Equipment | 175 | 67885.02172 | 1.172996133 | 0.056931416 | 0.08075358 | 67896.24296 | 1.17108518 | 0.056296454 | 0.080572549 | 4071.003892 | 4071.003892 | 18.09504808 | 0.58 | 0.03 | 0.04 | 0.03 | 16.68 |
| 2015 | SC | Construction and Mining | 27 | Surfacing Equipment | 250 | 143982.4741 | 2.261555691 | 0.068677731 | 0.115191691 | 143982.2215 | 2.190774001 | 0.064518529 | 0.109709118 | 5968.014538 | 5968.014538 | 27.14257212 | 0.76 | 0.02 | 0.04 | 0.02 | 24.13 |
| 2015 | SC | Construction and Mining | 27 | Surfacing Equipment | 500 | 455396.0763 | 5.366407311 | 0.174031992 | 0.273818028 | 455396.0763 | 5.366407311 | 0.174031992 | 0.273818028 | 11424.85724 | 11424.85724 | 44.80678573 | 0.94 | 0.03 | 0.05 | 0.03 | 39.86 |
| 2015 | SC | Construction and Mining | 27 | Surfacing Equipment | 750 | 421744.4197 | 4.165753154 | 0.13179735 | 0.186094203 | 421744.4197 | 4.165753154 | 0.13179735 | 0.186094203 | 6200.141104 | 6200.141104 | 22.40339286 | 1.34 | 0.04 | 0.06 | 0.04 | 68.02 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2015 | SC | Construction and Mining | 27 | Surfacing Equipment | 1000 | 68707.1236 | 1.182988246 | 0.029019504 | 0.051022567 | 68707.1236 | 1.182988246 | 0.029019504 | 0.051022567 | 759.816289 | 759.816289 | 3.015841347 | 3.11 | 0.08 | 0.13 | 0.07 | 90.43 |
| 2015 | SC | Construction and Mining | 27 | Surfacing Equipment | 9999 | 24081.79301 | 0.28237056 | 0.006407646 | 0.010158755 | 24081.79301 | 0.28237056 | 0.006407646 | 0.010158755 | 193.7930637 | 193.7930637 | 0.861668956 | 2.91 | 0.07 | 0.10 | 0.06 | 124.27 |
| 2015 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 50 | 3584926.127 | 52.97862216 | 4.810655234 | 10.93787351 | 3584783.736 | 52.43206649 | 4.701419441 | 10.64702971 | 633388.7431 | 633388.7431 | 1340.477478 | 0.17 | 0.02 | 0.03 | 0.01 | 5.66 |
| 2015 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 120 | 57869561.65 | 941.0063202 | 73.97509321 | 82.00812854 | 57841657.13 | 931.1148421 | 72.87921317 | 80.79929956 | 5115034.365 | 5115034.365 | 9101.701953 | 0.37 | 0.03 | 0.03 | 0.03 | 11.31 |
| 2015 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 175 | 10004277.62 | 147.8212119 | 7.497242097 | 10.66754632 | 10002955.43 | 146.0695595 | 7.379099719 | 10.51782406 | 516616.3532 | 516616.3532 | 1018.202405 | 0.57 | 0.03 | 0.04 | 0.03 | 19.36 |
| 2015 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 250 | 5793347.97 | 84.72502339 | 2.772243566 | 4.782943315 | 5792431.912 | 83.50458447 | 2.712653917 | 4.701547793 | 210458.0435 | 210458.0435 | 407.2809618 | 0.81 | 0.03 | 0.05 | 0.02 | 27.52 |
| 2015 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 500 | 7803171.813 | 103.4047763 | 3.551828818 | 6.140554941 | 7800721.919 | 101.7868275 | 3.490071248 | 6.034876584 | 180006.2194 | 180006.2194 | 367.5804093 | 1.15 | 0.04 | 0.07 | 0.04 | 43.34 |
| 2015 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 750 | 1103949.495 | 14.27001979 | 0.521371143 | 0.869210943 | 1103949.495 | 14.01975076 | 0.509387337 | 0.851406031 | 14353.04219 | 14353.04219 | 25.68859277 | 1.99 | 0.07 | 0.12 | 0.07 | 76.91 |
| 2015 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 1000 | 186368.5533 | 2.115774016 | 0.047631217 | 0.080703871 | 186368.5533 | 2.115774016 | 0.047631217 | 0.080703871 | 1565.306292 | 1565.306292 | 2.335326616 | 2.70 | 0.06 | 0.10 | 0.06 | 119.06 |
| 2015 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 9999 | 2614280.852 | 40.81380294 | 1.222098967 | 2.037977006 | 2614280.852 | 41.90229393 | 1.291725701 | 2.139516453 | 9623.8718 | 9623.8718 | 17.28141696 | 8.48 | 0.25 | 0.42 | 0.23 | 271.65 |
| 2015 | SC | Construction and Mining | 29 | Trenchers | 50 | 1269525.473 | 18.51462144 | 1.69817546 | 3.592370676 | 1269486.11 | 18.43854938 | 1.682951375 | 3.548390937 | 154810.9428 | 154810.9428 | 439.5886696 | 0.24 | 0.02 | 0.05 | 0.02 | 8.20 |
| 2015 | SC | Construction and Mining | 29 | Trenchers | 120 | 920414.2804 | 19.8769592 | 1.560005141 | 1.874879224 | 920079.7853 | 19.68408947 | 1.539949374 | 1.851590376 | 60328.79776 | 60328.79776 | 203.8092923 | 0.66 | 0.05 | 0.06 | 0.05 | 15.25 |
| 2015 | SC | Construction and Mining | 29 | Trenchers | 175 | 187636.34 | 4.489891184 | 0.233186928 | 0.338238338 | 187713.8724 | 4.364563734 | 0.225135342 | 0.327609015 | 7137.032245 | 7137.032245 | 26.97475927 | 1.26 | 0.07 | 0.09 | 0.06 | 26.30 |
| 2015 | SC | Construction and Mining | 29 | Trenchers | 250 | 367761.7785 | 7.200716217 | 0.288504903 | 0.458120415 | 367696.6426 | 7.174944502 | 0.28660683 | 0.457015691 | 9109.804199 | 9109.804199 | 31.97008506 | 1.58 | 0.06 | 0.10 | 0.06 | 40.36 |
| 2015 | SC | Construction and Mining | 29 | Trenchers | 500 | 617748.8838 | 8.182283753 | 0.303541731 | 0.480455358 | 617748.8838 | 8.182283753 | 0.303541731 | 0.480455358 | 9399.58456 | 9399.58456 | 28.97288959 | 1.74 | 0.06 | 0.10 | 0.06 | 65.72 |
| 2015 | SC | Construction and Mining | 29 | Trenchers | 750 | 280149.0797 | 1.35798778 | 0.0444366 | 0.078582334 | 280149.0797 | 1.35798778 | 0.0444366 | 0.078582334 | 2438.789001 | 2438.789001 | 5.994390949 | 1.11 | 0.04 | 0.06 | 0.03 | 114.87 |
| 2015 | SC | Construction and Mining | 29 | Trenchers | 1000 | 16545.25215 | 0.653052667 | 0.02967324 | 0.046606606 | 16545.25215 | 0.653052667 | 0.02967324 | 0.046606606 | 104.3212563 | 104.3212563 | 0.499532579 | 12.52 | 0.57 | 0.89 | 0.52 | 158.60 |
| 2015 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 50 | 1104115.418 | 17.27401854 | 1.833075501 | 4.482149149 | 1104115.418 | 17.20021186 | 1.821124509 | 4.451473159 | 166743.4458 | 166743.4458 | 258.0244365 | 0.21 | 0.02 | 0.05 | 0.02 | 6.62 |
| 2015 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 120 | 1706446.993 | 35.98580663 | 3.200542747 | 3.618991022 | 1706446.993 | 35.14183699 | 3.114292427 | 3.514993494 | 131069.8982 | 131069.8982 | 210.0729925 | 0.55 | 0.05 | 0.06 | 0.04 | 13.02 |
| 2015 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 175 | 425656.044 | 11.86833397 | 0.658475994 | 0.94699782 | 425656.044 | 11.09369735 | 0.611284679 | 0.884300324 | 15927.38114 | 15927.38114 | 24.20406218 | 1.49 | 0.08 | 0.12 | 0.08 | 26.72 |
| 2015 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 250 | 226857.5152 | 4.614508467 | 0.183114706 | 0.289945291 | 226857.5152 | 4.614508467 | 0.183114706 | 0.289945291 | 6664.703332 | 6664.703332 | 10.04696921 | 1.38 | 0.05 | 0.09 | 0.05 | 34.04 |
| 2015 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 500 | 63290.27966 | 1.149554291 | 0.049924774 | 0.073218038 | 63290.27966 | 1.149554291 | 0.049924774 | 0.073218038 | 1251.301186 | 1251.301186 | 1.826721674 | 1.84 | 0.08 | 0.12 | 0.07 | 50.58 |
| 2015 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 1000 | 44355.50178 | 0.541639973 | 0.014052053 | 0.019031068 | 44355.50178 | 0.541639973 | 0.014052053 | 0.019031068 | 312.8252964 | 312.8252964 | 0.456680419 | 3.46 | 0.09 | 0.12 | 0.08 | 141.79 |
| 2016 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 50 | 112021.8628 | 1.557484993 | 0.11248193 | 0.211191904 | 112021.8628 | 1.557484993 | 0.11248193 | 0.211191904 | 13513.03191 | 13513.03191 | 40.96338346 | 0.23 | 0.02 | 0.03 | 0.02 | 8.29 |
| 2016 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 120 | 682149.4711 | 8.254253087 | 0.482398148 | 0.555457898 | 684524.1324 | 8.087361649 | 0.468564451 | 0.537088364 | 46413.65337 | 46413.65337 | 125.4773115 | 0.36 | 0.02 | 0.02 | 0.02 | 14.75 |
| 2016 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 175 | 799898.5868 | 8.817095591 | 0.399365332 | 0.576868717 | 799301.1068 | 8.591014995 | 0.384659504 | 0.560773554 | 28878.04144 | 28878.04144 | 98.31212032 | 0.61 | 0.03 | 0.04 | 0.03 | 27.68 |
| 2016 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 250 | 1133074.285 | 10.84160949 | 0.329029888 | 0.598406854 | 1132303.768 | 9.948929108 | 0.292043292 | 0.54551817 | 29790.34004 | 29790.34004 | 97.88092681 | 0.73 | 0.02 | 0.04 | 0.02 | 38.01 |
| 2016 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 500 | 1260101.928 | 10.9628805 | 0.359363559 | 0.630162705 | 1260237.427 | 9.717824994 | 0.29991093 | 0.547471492 | 20020.72551 | 20020.72551 | 68.55976811 | 1.10 | 0.04 | 0.06 | 0.03 | 62.95 |
| 2016 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 750 | 1739808.898 | 11.32179189 | 0.377039239 | 0.661232754 | 1739178.831 | 11.124517 | 0.368971321 | 0.649085394 | 15149.07469 | 15149.07469 | 34.0642873 | 1.49 | 0.05 | 0.09 | 0.05 | 114.80 |
| 2016 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 1000 | 136718.3712 | 1.235714024 | 0.024355289 | 0.039167167 | 136718.3712 | 1.235714024 | 0.024355289 | 0.039167167 | 806.9301692 | 806.9301692 | 1.29358053 | 3.06 | 0.06 | 0.10 | 0.06 | 169.43 |
| 2016 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 9999 | 463328.3113 | 5.95432942 | 0.147242828 | 0.211134918 | 463328.3113 | 5.95432942 | 0.147242828 | 0.211134918 | 942.1454946 | 942.1454946 | 1.29358053 | 12.64 | 0.31 | 0.45 | 0.29 | 491.78 |
| 2016 | SC | Construction and Mining | 12 | Cranes | 50 | 36519.98433 | 0.615987908 | 0.062627902 | 0.181842369 | 36519.98433 | 0.610755791 | 0.060994538 | 0.175969809 | 7746.908784 | 7746.908784 | 18.9744103 | 0.16 | 0.02 | 0.05 | 0.01 | 4.71 |
| 2016 | SC | Construction and Mining | 12 | Cranes | 120 | 870934.9133 | 26.8137943 | 1.994468174 | 2.687170447 | 871122.8868 | 25.2656231 | 1.86571149 | 2.50755348 | 93097.50758 | 93097.50758 | 228.7771756 | 0.58 | 0.04 | 0.06 | 0.04 | 9.36 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2016 | SC | Construction and Mining | 12 | Cranes | 175 | 2299086.164 | 56.35934245 | 3.07025906 | 4.407788149 | 2299085.648 | 54.16464594 | 2.934261079 | 4.22019892 | 146225.5334 | 146225.5334 | 343.1657635 | 0.77 | 0.04 | 0.06 | 0.04 | 15.72 |
| 2016 | SC | Construction and Mining | 12 | Cranes | 250 | 3883420.3 | 91.41541421 | 4.224520552 | 6.436918286 | 3883521.436 | 85.9204572 | 3.898729723 | 5.992796586 | 168924.5456 | 168924.5456 | 385.4515921 | 1.08 | 0.05 | 0.08 | 0.05 | 22.99 |
| 2016 | SC | Construction and Mining | 12 | Cranes | 500 | 5949420.069 | 106.3839437 | 4.444238936 | 6.930704791 | 5948657.309 | 100.9375775 | 4.166851762 | 6.541571742 | 167410.5433 | 167410.5433 | 369.7299379 | 1.27 | 0.05 | 0.08 | 0.05 | 35.53 |
| 2016 | SC | Construction and Mining | 12 | Cranes | 750 | 1567724.532 | 20.35640627 | 0.721297633 | 1.139524745 | 1567724.532 | 20.35640627 | 0.721297633 | 1.139524745 | 26197.37065 | 26197.37065 | 54.21260086 | 1.55 | 0.06 | 0.09 | 0.05 | 59.84 |
| 2016 | SC | Construction and Mining | 12 | Cranes | 1000 | 367010.4724 | 12.91426401 | 0.640695143 | 0.959036049 | 367010.4724 | 12.91426401 | 0.640695143 | 0.959036049 | 3724.105496 | 3724.105496 | 8.131890129 | 6.94 | 0.34 | 0.52 | 0.32 | 98.55 |
| 2016 | SC | Construction and Mining | 12 | Cranes | 9999 | 28267.30854 | 0.196003712 | 0.004793506 | 0.009943449 | 28267.30854 | 0.196003712 | 0.004793506 | 0.009943449 | 259.5600876 | 259.5600876 | 0.542126009 | 1.51 | 0.04 | 0.08 | 0.03 | 108.90 |
| 2016 | SC | Construction and Mining | 13 | Crawler Tractors | 50 | 111328.147 | 1.950759221 | 0.228594144 | 0.651145901 | 111328.147 | 1.932635873 | 0.224205546 | 0.636917359 | 15225.68617 | 15225.68617 | 48.11649933 | 0.26 | 0.03 | 0.09 | 0.03 | 7.31 |
| 2016 | SC | Construction and Mining | 13 | Crawler Tractors | 120 | 4933429.4 | 109.2827485 | 9.237941 | 10.72699271 | 4931059.034 | 107.7087867 | 9.076620704 | 10.53295076 | 357143.3687 | 357143.3687 | 828.0849534 | 0.61 | 0.05 | 0.06 | 0.05 | 13.81 |
| 2016 | SC | Construction and Mining | 13 | Crawler Tractors | 175 | 5364967.49 | 110.7752156 | 6.136261611 | 8.538024598 | 5366821.323 | 108.3564202 | 5.974259197 | 8.320561153 | 228101.9438 | 228101.9438 | 541.7917824 | 0.97 | 0.05 | 0.07 | 0.05 | 23.53 |
| 2016 | SC | Construction and Mining | 13 | Crawler Tractors | 250 | 5411628.92 | 101.3825933 | 3.964769525 | 6.262415699 | 5411490.452 | 98.06004525 | 3.781088684 | 6.013541853 | 169120.1221 | 169120.1221 | 395.9987895 | 1.20 | 0.05 | 0.07 | 0.04 | 32.00 |
| 2016 | SC | Construction and Mining | 13 | Crawler Tractors | 500 | 14523509.43 | 241.7326827 | 9.505963527 | 15.16442217 | 14522495.41 | 228.3786352 | 8.848075477 | 14.23358524 | 268643.6801 | 268643.6801 | 636.5812861 | 1.80 | 0.07 | 0.11 | 0.07 | 54.06 |
| 2016 | SC | Construction and Mining | 13 | Crawler Tractors | 750 | 5649958.762 | 80.61123628 | 2.972112772 | 4.884103045 | 5646740.024 | 79.94300149 | 2.9409222 | 4.837046534 | 62801.1432 | 62801.1432 | 130.3957132 | 2.57 | 0.09 | 0.16 | 0.09 | 89.91 |
| 2016 | SC | Construction and Mining | 13 | Crawler Tractors | 1000 | 747652.4975 | 16.72322097 | 0.494413382 | 0.889400099 | 747652.4975 | 16.72322097 | 0.494413382 | 0.889400099 | 5697.070309 | 5697.070309 | 11.54795984 | 5.87 | 0.17 | 0.31 | 0.16 | 131.23 |
| 2016 | SC | Construction and Mining | 13 | Crawler Tractors | 9999 | 395000.2949 | 7.517501117 | 0.20033606 | 0.353396835 | 395000.2949 | 7.517501117 | 0.20033606 | 0.353396835 | 1711.131438 | 1711.131438 | 2.88698996 | 8.79 | 0.23 | 0.41 | 0.22 | 230.84 |
| 2016 | SC | Construction and Mining | 14 | Excavators | 50 | 4457815.052 | 58.10311309 | 4.332363053 | 8.154426953 | 4457730.357 | 57.98794961 | 4.310308913 | 8.096889754 | 798945.9189 | 798945.9189 | 1178.485392 | 0.15 | 0.01 | 0.02 | 0.01 | 5.58 |
| 2016 | SC | Construction and Mining | 14 | Excavators | 120 | 5788512.434 | 84.32877285 | 6.214811868 | 7.101002544 | 5787816.228 | 82.69208792 | 6.043906122 | 6.903734711 | 510195.4084 | 510195.4084 | 852.3879197 | 0.33 | 0.02 | 0.03 | 0.02 | 11.34 |
| 2016 | SC | Construction and Mining | 14 | Excavators | 175 | 12193889.79 | 156.4833606 | 7.773027292 | 11.38368634 | 12191742.44 | 149.3370361 | 7.348118669 | 10.81276722 | 595223.1224 | 595223.1224 | 1082.971635 | 0.53 | 0.03 | 0.04 | 0.02 | 20.48 |
| 2016 | SC | Construction and Mining | 14 | Excavators | 250 | 15503200.28 | 182.1769146 | 5.98251371 | 10.9153199 | 15499035 | 170.5909898 | 5.386206376 | 10.07953236 | 505769.8383 | 505769.8383 | 931.0179315 | 0.72 | 0.02 | 0.04 | 0.02 | 30.64 |
| 2016 | SC | Construction and Mining | 14 | Excavators | 500 | 25711132.76 | 234.6823588 | 7.822903119 | 14.79928412 | 25705555.35 | 218.1046711 | 7.021906345 | 13.65554995 | 560124.296 | 560124.296 | 946.9368909 | 0.84 | 0.03 | 0.05 | 0.03 | 45.89 |
| 2016 | SC | Construction and Mining | 14 | Excavators | 750 | 2327832.512 | 23.91569695 | 0.782401992 | 1.42075925 | 2327927.494 | 23.6868643 | 0.777601991 | 1.409449235 | 28996.05069 | 28996.05069 | 48.23927106 | 1.65 | 0.05 | 0.10 | 0.05 | 80.28 |
| 2016 | SC | Construction and Mining | 14 | Excavators | 1000 | 261301.4526 | 5.162019734 | 0.165802895 | 0.276965703 | 261301.4526 | 4.374116089 | 0.117551693 | 0.206867357 | 2217.632823 | 2217.632823 | 3.859141685 | 4.66 | 0.15 | 0.25 | 0.14 | 117.83 |
| 2016 | SC | Construction and Mining | 14 | Excavators | 9999 | 508993.9864 | 5.615933073 | 0.147375174 | 0.282859578 | 508993.9864 | 5.615933073 | 0.147375174 | 0.282859578 | 2336.736864 | 2336.736864 | 3.376748974 | 4.81 | 0.13 | 0.24 | 0.12 | 217.82 |
| 2016 | SC | Construction and Mining | 15 | Graders | 50 | 29434.68975 | 0.558005477 | 0.074483064 | 0.219791374 | 29434.68975 | 0.552292762 | 0.073220178 | 0.215948256 | 4801.466068 | 4801.466068 | 15.03036505 | 0.23 | 0.03 | 0.09 | 0.03 | 6.13 |
| 2016 | SC | Construction and Mining | 15 | Graders | 120 | 795257.056 | 24.19027168 | 2.024678965 | 2.559154783 | 791912.103 | 22.52681578 | 1.866043378 | 2.358883043 | 58364.53455 | 58364.53455 | 160.0006602 | 0.83 | 0.07 | 0.09 | 0.06 | 13.57 |
| 2016 | SC | Construction and Mining | 15 | Graders | 175 | 7377323.667 | 186.0619809 | 10.51602584 | 15.12094811 | 7368641.166 | 179.0519744 | 10.05886992 | 14.52320138 | 325632.9025 | 325632.9025 | 748.6091495 | 1.14 | 0.06 | 0.09 | 0.06 | 22.63 |
| 2016 | SC | Construction and Mining | 15 | Graders | 250 | 12820681.45 | 218.393367 | 7.145034611 | 12.7308352 | 12819464.84 | 215.6771364 | 7.006676108 | 12.53676269 | 413697.4593 | 413697.4593 | 594.4266951 | 1.06 | 0.03 | 0.06 | 0.03 | 30.99 |
| 2016 | SC | Construction and Mining | 15 | Graders | 500 | 3652990.455 | 40.61895852 | 1.590909853 | 3.046106223 | 3653244.723 | 40.41477947 | 1.578914963 | 3.028987675 | 83019.49518 | 83019.49518 | 111.0307612 | 0.98 | 0.04 | 0.07 | 0.04 | 44.00 |
| 2016 | SC | Construction and Mining | 15 | Graders | 1000 | 35349.83281 | 0.986617011 | 0.034336406 | 0.062258095 | 35349.83281 | 0.986617011 | 0.034336406 | 0.062258095 | 296.0762656 | 296.0762656 | 0.484850485 | 6.66 | 0.23 | 0.42 | 0.21 | 119.39 |
| 2016 | SC | Construction and Mining | 15 | Graders | 9999 | 497976.1188 | 9.863889925 | 0.300446513 | 0.557793126 | 497976.1188 | 9.863889925 | 0.300446513 | 0.557793126 | 1669.03277 | 1669.03277 | 2.424252427 | 11.82 | 0.36 | 0.67 | 0.33 | 298.36 |
| 2016 | SC | Construction and Mining | 16 | Off-Highway Tractors | 50 | 1841081.936 | 28.34422006 | 2.84606296 | 7.015567541 | 1844757.3 | 26.88723522 | 2.523634114 | 6.104223615 | 275798.4303 | 275798.4303 | 451.4095528 | 0.21 | 0.02 | 0.05 | 0.02 | 6.69 |
| 2016 | SC | Construction and Mining | 16 | Off-Highway Tractors | 120 | 2354525.638 | 42.92919811 | 3.525742855 | 4.006121986 | 2350906.66 | 39.61235652 | 3.183788495 | 3.621479778 | 196080.1878 | 196080.1878 | 328.2113714 | 0.44 | 0.04 | 0.04 | 0.03 | 11.99 |
| 2016 | SC | Construction and Mining | 16 | Off-Highway Tractors | 175 | 2008228.335 | 27.50679969 | 1.404976112 | 1.979395198 | 2008354.101 | 27.1315372 | 1.377109304 | 1.943408558 | 79259.14768 | 79259.14768 | 124.6251874 | 0.69 | 0.04 | 0.05 | 0.03 | 25.34 |
| 2016 | SC | Construction and Mining | 16 | Off-Highway Tractors | 250 | 1680581.141 | 27.38296261 | 0.996813161 | 1.677992903 | 1681101.974 | 24.99277416 | 0.866174297 | 1.502705005 | 49384.10741 | 49384.10741 | 81.33933987 | 1.11 | 0.04 | 0.07 | 0.04 | 34.04 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2016 | SC | Construction and Mining | 16 | Off-Highway Tractors | 500 | 4738768.489 | 52.10017195 | 1.89638508 | 3.294219388 | 4736739.569 | 45.73827257 | 1.574226023 | 2.854130988 | 88911.73312 | 88911.73312 | 139.8465843 | | 1.17 | 0.04 | 0.07 | 0.04 | 53.27 |
| 2016 | SC | Construction and Mining | 16 | Off-Highway Tractors | 750 | 1193524.434 | 13.60454406 | 0.464854463 | 0.805022645 | 1191984.506 | 12.80059769 | 0.419531845 | 0.746001335 | 13013.29621 | 13013.29621 | 20.45375213 | | 2.09 | 0.07 | 0.12 | 0.07 | 91.60 |
| 2016 | SC | Construction and Mining | 16 | Off-Highway Tractors | 1000 | 33828.68336 | 1.246948594 | 0.063441736 | 0.087173862 | 33828.68336 | 0.235714905 | 0.005822643 | 0.009008822 | 211.6561399 | 211.6561399 | 0.475668654 | | 11.78 | 0.60 | 0.82 | 0.55 | 159.83 |
| 2016 | SC | Construction and Mining | 16 | Off-Highway Tractors | 9999 | 264345.0822 | 6.313474165 | 0.226906714 | 0.398927773 | 277494.4439 | 3.057203007 | 0.077877827 | 0.144255056 | 982.7499366 | 982.7499366 | 1.902674617 | | 12.85 | 0.46 | 0.81 | 0.42 | 282.37 |
| 2016 | SC | Construction and Mining | 17 | Off-Highway Trucks | 50 | 176457.1617 | 2.876072615 | 0.298960095 | 0.679110337 | 176457.1617 | 2.876072615 | 0.298960095 | 0.679110337 | 40067.2193 | 40067.2193 | 26.86514842 | | 0.14 | 0.01 | 0.03 | 0.01 | 4.40 |
| 2016 | SC | Construction and Mining | 17 | Off-Highway Trucks | 120 | 216321.1655 | 3.958454694 | 0.321484948 | 0.401442109 | 216380.0788 | 3.518901376 | 0.283417994 | 0.352265277 | 17983.28404 | 17983.28404 | 15.08218859 | | 0.44 | 0.04 | 0.04 | 0.03 | 12.03 |
| 2016 | SC | Construction and Mining | 17 | Off-Highway Trucks | 175 | 4181373.369 | 60.59667388 | 3.377670065 | 5.094316209 | 4182434.387 | 58.67859034 | 3.253493024 | 4.93552552 | 188778.7051 | 188778.7051 | 144.2234284 | | 0.64 | 0.04 | 0.05 | 0.03 | 22.16 |
| 2016 | SC | Construction and Mining | 17 | Off-Highway Trucks | 250 | 8580141.228 | 141.652964 | 6.355240927 | 10.81562806 | 8579367.875 | 125.2813007 | 5.392292249 | 9.562460697 | 292206.4531 | 292206.4531 | 246.9708381 | | 0.97 | 0.04 | 0.07 | 0.04 | 29.36 |
| 2016 | SC | Construction and Mining | 17 | Off-Highway Trucks | 500 | 36470832.44 | 483.0192184 | 18.82808348 | 34.55097504 | 36459067.62 | 440.0563992 | 16.60193412 | 31.5671822 | 693402.5284 | 693402.5284 | 548.6146099 | | 1.39 | 0.05 | 0.10 | 0.05 | 52.58 |
| 2016 | SC | Construction and Mining | 17 | Off-Highway Trucks | 750 | 13067793.69 | 233.0060435 | 9.99041869 | 17.07956341 | 13022758.72 | 180.7877094 | 7.268442766 | 13.45115881 | 141031.719 | 141031.719 | 125.3706926 | | 3.30 | 0.14 | 0.24 | 0.13 | 92.34 |
| 2016 | SC | Construction and Mining | 17 | Off-Highway Trucks | 1000 | 9053176.021 | 172.7868251 | 5.079896454 | 9.445154091 | 9041829.963 | 164.0406608 | 4.767937821 | 8.825762431 | 71961.85465 | 71961.85465 | 57.50084399 | | 4.80 | 0.14 | 0.26 | 0.13 | 125.65 |
| 2016 | SC | Construction and Mining | 17 | Off-Highway Trucks | 9999 | 13010907.59 | 215.1424326 | 6.545686019 | 12.85330107 | 12992205.18 | 218.0448645 | 6.715235175 | 13.12151066 | 52275.33291 | 52275.33291 | 37.23415308 | | 8.23 | 0.25 | 0.49 | 0.23 | 248.53 |
| 2016 | SC | Construction and Mining | 18 | Other Construction Equipment | 50 | 997974.6602 | 14.78172666 | 1.33029349 | 2.872603646 | 997668.4874 | 14.71078042 | 1.316079626 | 2.831174149 | 153710.6104 | 153710.6104 | 348.5971185 | | 0.19 | 0.02 | 0.04 | 0.02 | 6.49 |
| 2016 | SC | Construction and Mining | 18 | Other Construction Equipment | 120 | 3123175.977 | 60.12859346 | 4.722597412 | 5.541121237 | 3122417.047 | 59.41522127 | 4.656053857 | 5.460132773 | 251509.9729 | 251509.9729 | 615.0885899 | | 0.48 | 0.04 | 0.04 | 0.03 | 12.41 |
| 2016 | SC | Construction and Mining | 18 | Other Construction Equipment | 175 | 1700588.416 | 32.1079047 | 1.718542702 | 2.414238002 | 1700463.156 | 29.84206704 | 1.569342949 | 2.223286932 | 73463.25201 | 73463.25201 | 191.4234513 | | 0.87 | 0.05 | 0.07 | 0.04 | 23.15 |
| 2016 | SC | Construction and Mining | 18 | Other Construction Equipment | 250 | 2180589.962 | 36.64037952 | 1.383447185 | 2.203177545 | 2181897.172 | 34.36125869 | 1.266934101 | 2.048179862 | 65515.48208 | 65515.48208 | 171.718096 | | 1.12 | 0.04 | 0.07 | 0.04 | 33.30 |
| 2016 | SC | Construction and Mining | 18 | Other Construction Equipment | 500 | 7448968.312 | 99.9132609 | 3.803914065 | 6.286981705 | 7442389.616 | 90.78238243 | 3.344143493 | 5.641996336 | 135842.7379 | 135842.7379 | 333.5835144 | | 1.47 | 0.06 | 0.09 | 0.05 | 54.79 |
| 2016 | SC | Construction and Mining | 18 | Other Construction Equipment | 750 | 2903994.979 | 36.35729512 | 1.257764584 | 2.088434603 | 2903988.982 | 32.60846707 | 1.058128647 | 1.799440309 | 31805.48028 | 31805.48028 | 68.96874349 | | 2.29 | 0.08 | 0.13 | 0.07 | 91.30 |
| 2016 | SC | Construction and Mining | 18 | Other Construction Equipment | 1000 | 338521.8215 | 4.326820813 | 0.110256836 | 0.178544573 | 338521.8215 | 4.324884275 | 0.110162054 | 0.177823904 | 2679.854611 | 2679.854611 | 6.099276635 | | 3.23 | 0.08 | 0.13 | 0.08 | 126.32 |
| 2016 | SC | Construction and Mining | 18 | Other Construction Equipment | 9999 | 210666.8985 | 3.487142076 | 0.097297322 | 0.167404401 | 210816.0575 | 3.232040531 | 0.090013006 | 0.159986047 | 1255.709778 | 1255.709778 | 2.815050755 | | 5.55 | 0.15 | 0.27 | 0.14 | 167.89 |
| 2016 | SC | Construction and Mining | 19 | Pavers | 50 | 122212.9758 | 1.849462851 | 0.189769601 | 0.503905334 | 122212.9758 | 1.833779611 | 0.186960901 | 0.496431863 | 18585.11453 | 18585.11453 | 56.50185942 | | 0.20 | 0.02 | 0.05 | 0.02 | 6.58 |
| 2016 | SC | Construction and Mining | 19 | Pavers | 120 | 1182171.602 | 21.35389554 | 1.664906611 | 1.958251431 | 1182661.848 | 21.00823102 | 1.629460747 | 1.916706921 | 97936.19184 | 97936.19184 | 274.504867 | | 0.44 | 0.03 | 0.04 | 0.03 | 12.08 |
| 2016 | SC | Construction and Mining | 19 | Pavers | 175 | 1606430.327 | 24.36797425 | 1.221874119 | 1.799642047 | 1606478.612 | 23.49950689 | 1.167687255 | 1.72629554 | 66585.37626 | 66585.37626 | 185.5144384 | | 0.73 | 0.04 | 0.05 | 0.03 | 24.13 |
| 2016 | SC | Construction and Mining | 19 | Pavers | 250 | 1084263.526 | 13.06543528 | 0.33858989 | 0.573003262 | 1084263.526 | 13.0547291 | 0.337684841 | 0.572550482 | 33231.09941 | 33231.09941 | 80.04430085 | | 0.79 | 0.02 | 0.03 | 0.02 | 32.63 |
| 2016 | SC | Construction and Mining | 19 | Pavers | 500 | 408584.7844 | 3.577248862 | 0.119331001 | 0.184760842 | 408584.7844 | 3.577248862 | 0.119331001 | 0.184760842 | 8271.620253 | 8271.620253 | 19.7756508 | | 0.86 | 0.03 | 0.04 | 0.03 | 49.40 |
| 2016 | SC | Construction and Mining | 19 | Pavers | 750 | 47243.98345 | 0.348222559 | 0.015233158 | 0.021348849 | 47243.98345 | 0.348222559 | 0.015233158 | 0.021348849 | 413.1927464 | 413.1927464 | 0.941697657 | | 1.69 | 0.07 | 0.10 | 0.07 | 114.34 |
| 2016 | SC | Construction and Mining | 20 | Paving Equipment | 50 | 151929.597 | 2.078221487 | 0.171142611 | 0.353756053 | 151933.3997 | 2.064510793 | 0.167106113 | 0.339063527 | 30388.54371 | 30388.54371 | 69.57356127 | | 0.14 | 0.01 | 0.02 | 0.01 | 5.00 |
| 2016 | SC | Construction and Mining | 20 | Paving Equipment | 120 | 691214.1234 | 12.2255874 | 0.93753113 | 1.108207013 | 691039.9877 | 11.85867964 | 0.906607956 | 1.06536345 | 59641.1498 | 59641.1498 | 141.9676723 | | 0.41 | 0.03 | 0.04 | 0.03 | 11.59 |
| 2016 | SC | Construction and Mining | 20 | Paving Equipment | 175 | 650954.3593 | 8.866495323 | 0.444599578 | 0.631904877 | 650953.5652 | 8.471950935 | 0.420404728 | 0.602388702 | 33745.97457 | 33745.97457 | 77.56511898 | | 0.53 | 0.03 | 0.04 | 0.02 | 19.29 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2016 | SC | Construction and Mining | 20 | Paving Equipment | 250 | 341162.2941 | 5.097003635 | 0.186000422 | 0.29783732 | 341177.6347 | 4.537374167 | 0.151323091 | 0.251567833 | 12137.76321 | 12137.76321 | 28.20549781 | | 0.84 | 0.03 | 0.05 | 0.03 | 28.11 |
| 2016 | SC | Construction and Mining | 20 | Paving Equipment | 500 | 481278.824 | 6.637031312 | 0.243635451 | 0.38885996 | 481222.8609 | 6.352905123 | 0.226934217 | 0.366995671 | 10972.68566 | 10972.68566 | 25.38494803 | | 1.21 | 0.04 | 0.07 | 0.04 | 43.86 |
| 2016 | SC | Construction and Mining | 20 | Paving Equipment | 750 | 228242.1714 | 2.669748959 | 0.064113577 | 0.129084517 | 228242.1714 | 2.669748959 | 0.064113577 | 0.129084517 | 2893.77895 | 2893.77895 | 6.111191193 | | 1.85 | 0.04 | 0.09 | 0.04 | 78.87 |
| 2016 | SC | Construction and Mining | 20 | Paving Equipment | 1000 | 44632.81748 | 0.619335544 | 0.015285609 | 0.025384835 | 44632.81748 | 0.619335544 | 0.015285609 | 0.025384835 | 406.2561374 | 406.2561374 | 0.94018326 | | 3.05 | 0.08 | 0.12 | 0.07 | 109.86 |
| 2016 | SC | Construction and Mining | 21 | Rollers | 50 | 2507266.677 | 35.88039602 | 3.200013749 | 7.296168777 | 2507708.729 | 35.39163864 | 3.105406065 | 7.035537375 | 458098.762 | 458098.762 | 1427.472268 | | 0.16 | 0.01 | 0.03 | 0.01 | 5.47 |
| 2016 | SC | Construction and Mining | 21 | Rollers | 120 | 3919606.391 | 70.99570673 | 5.278027516 | 6.421882275 | 3918216.75 | 68.04869739 | 5.010922882 | 6.085485024 | 326267.7124 | 326267.7124 | 1064.555589 | | 0.44 | 0.03 | 0.04 | 0.03 | 12.01 |
| 2016 | SC | Construction and Mining | 21 | Rollers | 175 | 4050337.682 | 53.74260322 | 2.52044132 | 3.569057745 | 4049774.499 | 51.58368301 | 2.397136823 | 3.397391185 | 204651.5427 | 204651.5427 | 615.5066862 | | 0.53 | 0.02 | 0.03 | 0.02 | 19.79 |
| 2016 | SC | Construction and Mining | 21 | Rollers | 250 | 639571.6828 | 9.408814412 | 0.335694305 | 0.556900152 | 639897.1695 | 8.421199179 | 0.287393381 | 0.487763459 | 21725.37722 | 21725.37722 | 75.48666907 | | 0.87 | 0.03 | 0.05 | 0.03 | 29.45 |
| 2016 | SC | Construction and Mining | 21 | Rollers | 500 | 403957.3089 | 6.494076434 | 0.266643941 | 0.414108183 | 404380.5856 | 5.335790216 | 0.207262607 | 0.330516142 | 8645.433908 | 8645.433908 | 30.96888987 | | 1.50 | 0.06 | 0.10 | 0.06 | 46.77 |
| 2016 | SC | Construction and Mining | 21 | Rollers | 750 | 19682.40195 | 0.295903665 | 0.014227324 | 0.022492755 | 19682.40195 | 0.04084047 | 0.000527269 | 0.003265804 | 274.2062275 | 274.2062275 | 0.967777809 | | 2.16 | 0.10 | 0.16 | 0.10 | 71.78 |
| 2016 | SC | Construction and Mining | 22 | Rough Terrain | 50 | 127684.3721 | 1.757001649 | 0.142963463 | 0.329883045 | 127684.3721 | 1.757001649 | 0.142963463 | 0.329883045 | 16444.4039 | 16444.4039 | 64.83513532 | | 0.21 | 0.02 | 0.04 | 0.02 | 7.76 |
| 2016 | SC | Construction and Mining | 22 | Rough Terrain | 120 | 10281418.61 | 120.753939 | 6.765955705 | 7.93550465 | 10280402.73 | 118.3579129 | 6.569013475 | 7.682546617 | 722072.7083 | 722072.7083 | 2777.850194 | | 0.33 | 0.02 | 0.02 | 0.02 | 14.24 |
| 2016 | SC | Construction and Mining | 22 | Rough Terrain | 175 | 1889155.14 | 18.75861373 | 0.737777055 | 1.025301523 | 1889155.14 | 18.22669714 | 0.706808604 | 0.980168024 | 98917.71126 | 98917.71126 | 371.6841809 | | 0.38 | 0.01 | 0.02 | 0.01 | 19.10 |
| 2016 | SC | Construction and Mining | 22 | Rough Terrain | 250 | 155403.4508 | 2.874590413 | 0.128716962 | 0.197575804 | 155279.4521 | 1.149560759 | 0.027331275 | 0.05539222 | 5045.160746 | 5045.160746 | 21.79801963 | | 1.14 | 0.05 | 0.08 | 0.05 | 30.78 |
| 2016 | SC | Construction and Mining | 22 | Rough Terrain | 500 | 65834.88277 | 0.936932696 | 0.028920462 | 0.048444904 | 65834.88277 | 0.707227202 | 0.01559459 | 0.029352168 | 1205.24607 | 1205.24607 | 5.030312223 | | 1.55 | 0.05 | 0.08 | 0.04 | 54.62 |
| 2016 | SC | Construction and Mining | 22 | Rough Terrain | 750 | 10302.60342 | 0.469152355 | 0.02513885 | 0.037737167 | 10302.60342 | 0.04072826 | 0.000279671 | 0.002220377 | 111.731299 | 111.731299 | 0.55892358 | | 8.40 | 0.45 | 0.68 | 0.41 | 92.21 |
| 2016 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 50 | 109921.0089 | 2.015257494 | 0.26691665 | 0.742950908 | 109921.0089 | 2.015257494 | 0.26691665 | 0.742950908 | 16632.21732 | 16632.21732 | 18.89241863 | | 0.24 | 0.03 | 0.09 | 0.03 | 6.61 |
| 2016 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 120 | 524821.4326 | 15.02689631 | 1.35167914 | 1.607420058 | 527446.4038 | 14.63162371 | 1.312130329 | 1.559789369 | 43951.22473 | 43951.22473 | 56.2164652 | | 0.68 | 0.06 | 0.07 | 0.06 | 12.00 |
| 2016 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 175 | 439374.1172 | 12.96162495 | 0.744210256 | 1.052382861 | 439374.1172 | 12.96162495 | 0.744210256 | 1.052382861 | 20168.63905 | 20168.63905 | 29.029814 | | 1.29 | 0.07 | 0.10 | 0.07 | 21.79 |
| 2016 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 250 | 458380.6881 | 10.93585774 | 0.540673578 | 0.831646859 | 458380.6881 | 10.93585774 | 0.540673578 | 0.831646859 | 14878.48238 | 14878.48238 | 22.57874422 | | 1.47 | 0.07 | 0.11 | 0.07 | 30.81 |
| 2016 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 500 | 5248921.982 | 124.5881162 | 5.8214138 | 9.182453058 | 5241826.56 | 119.699112 | 5.569571069 | 8.831131822 | 100628.0804 | 100628.0804 | 150.6785584 | | 2.48 | 0.12 | 0.18 | 0.11 | 52.09 |
| 2016 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 750 | 617236.8797 | 13.91448339 | 0.51382097 | 0.845555796 | 617236.8797 | 13.26009877 | 0.480343419 | 0.799882802 | 7268.052084 | 7268.052084 | 9.215813968 | | 3.83 | 0.14 | 0.23 | 0.13 | 84.92 |
| 2016 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 50 | 348046.0557 | 5.76834499 | 0.633620986 | 1.63250419 | 348037.3443 | 5.69928229 | 0.621149613 | 1.599409047 | 56625.60992 | 56625.60992 | 71.08196139 | | 0.20 | 0.02 | 0.06 | 0.02 | 6.15 |
| 2016 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 120 | 8480481.385 | 176.8788007 | 15.27714123 | 17.94173631 | 8473707.332 | 169.7531394 | 14.57111602 | 17.10320118 | 750511.6465 | 750511.6465 | 883.7216822 | | 0.47 | 0.04 | 0.05 | 0.04 | 11.29 |
| 2016 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 175 | 20117573.99 | 359.7556431 | 20.25836399 | 29.39146127 | 20120047.42 | 346.7047079 | 19.33460609 | 28.28655913 | 1012242.675 | 1012242.675 | 1157.963574 | | 0.71 | 0.04 | 0.06 | 0.04 | 19.88 |
| 2016 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 250 | 27731868.32 | 439.3836565 | 15.17403944 | 28.00647472 | 27727671.22 | 428.105142 | 14.60070494 | 27.20092557 | 1019191.521 | 1019191.521 | 1029.24759 | | 0.86 | 0.03 | 0.05 | 0.03 | 27.21 |
| 2016 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 500 | 36223985.16 | 565.8600645 | 21.78705617 | 39.37018465 | 36057543.42 | 506.8813417 | 19.03945532 | 35.40778363 | 859142.9743 | 859142.9743 | 956.2444941 | | 1.32 | 0.05 | 0.09 | 0.05 | 41.97 |
| 2016 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 750 | 6388434.348 | 90.77353151 | 3.646858174 | 6.652893045 | 6412051.988 | 82.66603152 | 3.249788343 | 6.106235816 | 82746.53314 | 82746.53314 | 84.52990003 | | 2.19 | 0.09 | 0.16 | 0.08 | 77.49 |
| 2016 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 1000 | 1860318.294 | 37.67601057 | 1.108565189 | 1.966644445 | 1860318.294 | 37.67341757 | 1.108370987 | 1.96544313 | 16788.01084 | 16788.01084 | 15.36907273 | | 4.49 | 0.13 | 0.23 | 0.12 | 110.81 |
| 2016 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 9999 | 739805.991 | 14.37868869 | 0.422273809 | 0.80195848 | 739805.991 | 12.39864219 | 0.34318383 | 0.648204272 | 3687.574802 | 3687.574802 | 3.36198466 | | 7.80 | 0.23 | 0.43 | 0.21 | 200.62 |
| 2016 | SC | Construction and Mining | 25 | Scrapers | 50 | 7979.886876 | 0.146510985 | 0.01980085 | 0.058509574 | 7979.886876 | 0.146510985 | 0.01980085 | 0.058509574 | 1126.558452 | 1126.558452 | 3.322802725 | | 0.26 | 0.04 | 0.10 | 0.03 | 7.08 |
| 2016 | SC | Construction and Mining | 25 | Scrapers | 120 | 364415.8213 | 7.62242911 | 0.579499452 | 0.654738319 | 364415.8213 | 7.62242911 | 0.579499452 | 0.654738319 | 23797.35358 | 23797.35358 | 47.94329646 | | 0.64 | 0.05 | 0.06 | 0.04 | 15.31 |
| 2016 | SC | Construction and Mining | 25 | Scrapers | 175 | 3846382.816 | 87.16337682 | 4.707236233 | 6.731224304 | 3845307.586 | 84.07657537 | 4.516623111 | 6.469635591 | 128857.256 | 128857.256 | 308.0712812 | | 1.35 | 0.07 | 0.10 | 0.07 | 29.84 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2016 | SC | Construction and Mining | 25 | Scrapers | 250 | 4419547.931 | 118.409908 | 5.45101237 | 8.33582639 | 4415361.051 | 108.3690137 | 4.903882887 | 7.556534237 | 111715.9438 | 111715.9438 | 299.0522453 | 2.12 | 0.10 | 0.15 | 0.09 | 39.52 |
| 2016 | SC | Construction and Mining | 25 | Scrapers | 500 | 38692060.04 | 720.1683074 | 29.58267701 | 47.14622391 | 38667446.83 | 668.4101168 | 26.94125141 | 43.40171453 | 572499.55 | 572499.55 | 1314.405821 | 2.52 | 0.10 | 0.16 | 0.10 | 67.54 |
| 2016 | SC | Construction and Mining | 25 | Scrapers | 750 | 17713260.49 | 263.5412289 | 10.23043719 | 16.76957772 | 17708137.28 | 238.2759675 | 8.899766603 | 14.92438826 | 176875.7025 | 176875.7025 | 374.5273357 | 2.98 | 0.12 | 0.19 | 0.11 | 100.12 |
| 2016 | SC | Construction and Mining | 25 | Scrapers | 1000 | 277000.1293 | 11.14201174 | 0.519481322 | 0.807017109 | 277000.1293 | 11.14201174 | 0.519481322 | 0.807017109 | 1646.959816 | 1646.959816 | 6.170919347 | 13.53 | 0.63 | 0.98 | 0.58 | 168.19 |
| 2016 | SC | Construction and Mining | 25 | Scrapers | 9999 | 1006831.392 | 22.06385026 | 0.84187135 | 1.303417049 | 1006831.392 | 22.06385026 | 0.84187135 | 1.303417049 | 2893.616604 | 2893.616604 | 6.170919347 | 15.25 | 0.58 | 0.90 | 0.54 | 347.95 |
| 2016 | SC | Construction and Mining | 26 | Skid Steer Loaders | 50 | 1895426.186 | 21.9005995 | 1.249862665 | 2.584067143 | 1895352.337 | 21.75655021 | 1.226345623 | 2.524590487 | 288708.7037 | 288708.7037 | 988.9254903 | 0.15 | 0.01 | 0.02 | 0.01 | 6.56 |
| 2016 | SC | Construction and Mining | 26 | Skid Steer Loaders | 120 | 10069434.44 | 107.4506088 | 6.029345051 | 6.892222261 | 10069459.94 | 106.8637461 | 5.968320553 | 6.825311225 | 1055278.133 | 1055278.133 | 3191.331689 | 0.20 | 0.01 | 0.01 | 0.01 | 9.54 |
| 2016 | SC | Construction and Mining | 26 | Skid Steer Loaders | 175 | 67773.63925 | 0.710027689 | 0.032543983 | 0.044651693 | 68101.09535 | 0.803513095 | 0.037394995 | 0.051655174 | 3316.611828 | 3316.611828 | 13.23797136 | 0.43 | 0.02 | 0.03 | 0.02 | 20.53 |
| 2016 | SC | Construction and Mining | 26 | Skid Steer Loaders | 250 | 52342.05975 | 0.577974656 | 0.021163605 | 0.033982908 | 52342.92112 | 0.559217871 | 0.020415996 | 0.033062773 | 1960.820681 | 1960.820681 | 7.354428535 | 0.59 | 0.02 | 0.03 | 0.02 | 26.69 |
| 2016 | SC | Construction and Mining | 26 | Skid Steer Loaders | 500 | 14372.31427 | 0.061453178 | 0.001618634 | 0.003604319 | 14372.31427 | 0.061453178 | 0.001618634 | 0.003604319 | 394.4508076 | 394.4508076 | 1.470885707 | 0.31 | 0.01 | 0.02 | 0.01 | 36.44 |
| 2016 | SC | Construction and Mining | 26 | Skid Steer Loaders | 750 | 15160.89741 | 0.109981055 | 0.004628349 | 0.005796649 | 15160.89741 | 0.109981055 | 0.004628349 | 0.005796649 | 211.5170997 | 211.5170997 | 0.490295236 | 1.04 | 0.04 | 0.05 | 0.04 | 71.68 |
| 2016 | SC | Construction and Mining | 26 | Skid Steer Loaders | 1000 | 24739.86319 | 0.285378533 | 0.006992509 | 0.012539922 | 24739.86319 | 0.29671908 | 0.0094446 | 0.014857694 | 182.9337079 | 182.9337079 | 0.980590471 | 3.12 | 0.08 | 0.14 | 0.07 | 135.24 |
| 2016 | SC | Construction and Mining | 27 | Surfacing Equipment | 50 | 17457.22422 | 0.25394217 | 0.020608962 | 0.045216318 | 17457.22422 | 0.245150539 | 0.018882712 | 0.040143511 | 3922.304383 | 3922.304383 | 17.34716609 | 0.13 | 0.01 | 0.02 | 0.01 | 4.45 |
| 2016 | SC | Construction and Mining | 27 | Surfacing Equipment | 120 | 137021.7692 | 2.109288102 | 0.146112035 | 0.180717681 | 137021.7692 | 2.083300501 | 0.143782823 | 0.177932046 | 13993.32794 | 13993.32794 | 55.59989133 | 0.30 | 0.02 | 0.03 | 0.02 | 9.79 |
| 2016 | SC | Construction and Mining | 27 | Surfacing Equipment | 175 | 70976.91388 | 1.209312036 | 0.05872146 | 0.083506716 | 70981.08929 | 1.167281725 | 0.05668946 | 0.080879755 | 4262.330132 | 4262.330132 | 18.68156349 | 0.57 | 0.03 | 0.04 | 0.03 | 16.65 |
| 2016 | SC | Construction and Mining | 27 | Surfacing Equipment | 250 | 150731.7841 | 2.375948758 | 0.072633078 | 0.122211115 | 150731.5034 | 2.264956897 | 0.06655823 | 0.113885339 | 6248.49518 | 6248.49518 | 28.02234523 | 0.76 | 0.02 | 0.04 | 0.02 | 24.12 |
| 2016 | SC | Construction and Mining | 27 | Surfacing Equipment | 500 | 476090.8136 | 5.225810435 | 0.171159851 | 0.275379637 | 476122.6106 | 4.995995683 | 0.160055739 | 0.25851282 | 11961.79483 | 11961.79483 | 46.25910958 | 0.87 | 0.03 | 0.05 | 0.03 | 39.80 |
| 2016 | SC | Construction and Mining | 27 | Surfacing Equipment | 750 | 442519.7435 | 3.821132366 | 0.122931889 | 0.177465445 | 442519.7435 | 3.821132366 | 0.122931889 | 0.177465445 | 6491.53107 | 6491.53107 | 23.12955479 | 1.18 | 0.04 | 0.05 | 0.03 | 68.17 |
| 2016 | SC | Construction and Mining | 27 | Surfacing Equipment | 1000 | 71938.07048 | 1.242186926 | 0.030608155 | 0.053878158 | 71938.07048 | 1.242186926 | 0.030608155 | 0.053878158 | 795.5256122 | 795.5256122 | 3.113593914 | 3.12 | 0.08 | 0.14 | 0.07 | 90.43 |
| 2016 | SC | Construction and Mining | 27 | Surfacing Equipment | 9999 | 25213.57255 | 0.296612942 | 0.006781529 | 0.010932043 | 25213.57255 | 0.296612942 | 0.006781529 | 0.010932043 | 202.9008168 | 202.9008168 | 0.889598261 | 2.92 | 0.07 | 0.11 | 0.06 | 124.27 |
| 2016 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 50 | 3754621.4 | 54.5298572 | 4.839514714 | 11.05354461 | 3756118.845 | 53.79781205 | 4.691316333 | 10.66325314 | 663156.3115 | 663156.3115 | 1383.926419 | 0.16 | 0.01 | 0.03 | 0.01 | 5.66 |
| 2016 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 120 | 60518841.11 | 945.5726951 | 73.43472798 | 82.42043571 | 60475697.45 | 924.5772575 | 71.18654266 | 79.94895042 | 5355427.232 | 5355427.232 | 9396.715725 | 0.35 | 0.03 | 0.03 | 0.03 | 11.29 |
| 2016 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 175 | 10452069.22 | 142.2747003 | 7.251726965 | 10.48318289 | 10455691.86 | 138.4967848 | 7.019500788 | 10.17224942 | 540895.9331 | 540895.9331 | 1051.205433 | 0.53 | 0.03 | 0.04 | 0.02 | 19.33 |
| 2016 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 250 | 6065055.654 | 83.32418565 | 2.768136869 | 4.859613657 | 6064677.776 | 80.90384552 | 2.647760891 | 4.693368075 | 220349.0059 | 220349.0059 | 420.4821733 | 0.76 | 0.03 | 0.04 | 0.02 | 27.52 |
| 2016 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 500 | 8170848.929 | 99.26078522 | 3.446776392 | 6.14023525 | 8145591.196 | 92.80334026 | 3.21144418 | 5.749150425 | 188466.0279 | 188466.0279 | 379.4948055 | 1.05 | 0.04 | 0.07 | 0.03 | 43.22 |
| 2016 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 750 | 1155408.679 | 14.5223042 | 0.535559836 | 0.91144128 | 1155830.65 | 14.10616643 | 0.506501994 | 0.870171282 | 15027.59659 | 15027.59659 | 26.521238 | 1.93 | 0.07 | 0.12 | 0.07 | 76.91 |
| 2016 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 1000 | 195107.7148 | 2.23167557 | 0.050946722 | 0.088896988 | 195107.7148 | 2.23167557 | 0.050946722 | 0.088896988 | 1638.87148 | 1638.87148 | 2.411021636 | 2.72 | 0.06 | 0.11 | 0.06 | 119.05 |
| 2016 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 9999 | 2737145.025 | 43.06517612 | 1.310240727 | 2.211114442 | 2737145.025 | 41.93529322 | 1.256524238 | 2.127905401 | 10076.16791 | 10076.16791 | 17.84156011 | 8.55 | 0.26 | 0.44 | 0.24 | 271.65 |
| 2016 | SC | Construction and Mining | 29 | Trenchers | 50 | 1329665.392 | 19.02886931 | 1.716913904 | 3.659419486 | 1329595.018 | 18.9212329 | 1.695384994 | 3.597165164 | 162086.6409 | 162086.6409 | 453.837072 | 0.23 | 0.02 | 0.05 | 0.02 | 8.20 |
| 2016 | SC | Construction and Mining | 29 | Trenchers | 120 | 963591.0225 | 20.21249954 | 1.591287188 | 1.913517102 | 962930.6791 | 19.81571638 | 1.554166368 | 1.869569677 | 63164.08909 | 63164.08909 | 210.4153697 | 0.64 | 0.05 | 0.06 | 0.05 | 15.24 |
| 2016 | SC | Construction and Mining | 29 | Trenchers | 175 | 196454.7436 | 4.178222251 | 0.217638004 | 0.316708732 | 196550.375 | 3.872492828 | 0.195163401 | 0.286670338 | 7472.453576 | 7472.453576 | 27.84909305 | 1.12 | 0.06 | 0.08 | 0.05 | 26.30 |
| 2016 | SC | Construction and Mining | 29 | Trenchers | 250 | 385023.2074 | 7.447163866 | 0.298617882 | 0.475818869 | 384953.1219 | 7.283429224 | 0.290058966 | 0.464853963 | 9537.94051 | 9537.94051 | 33.00633251 | 1.56 | 0.06 | 0.10 | 0.06 | 40.36 |
| 2016 | SC | Construction and Mining | 29 | Trenchers | 500 | 648445.3919 | 8.026756972 | 0.292607293 | 0.478009934 | 648445.3919 | 8.011147267 | 0.292601797 | 0.477485468 | 9841.339769 | 9841.339769 | 29.91198884 | 1.63 | 0.06 | 0.10 | 0.05 | 65.89 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2016 | SC | Construction and Mining | 29 | Trenchers | 750 | 293326.2926 | 1.42769512 | 0.047169056 | 0.086652312 | 293326.2926 | 1.42769512 | 0.047169056 | 0.086652312 | 2553.405529 | 2553.405529 | 6.188687345 | | 1.12 | 0.04 | 0.07 | 0.03 | 114.88 |
| 2016 | SC | Construction and Mining | 29 | Trenchers | 1000 | 17322.83453 | 0.685354753 | 0.031242969 | 0.049003326 | 17322.83453 | 0.685354753 | 0.031242969 | 0.049003326 | 109.224075 | 109.224075 | 0.515723945 | | 12.55 | 0.57 | 0.90 | 0.53 | 158.60 |
| 2016 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 50 | 1156005.874 | 18.03321872 | 1.913303746 | 4.685371229 | 1156005.874 | 17.86561651 | 1.881076877 | 4.593319599 | 174579.9395 | 174579.9395 | 266.3877912 | | 0.21 | 0.02 | 0.05 | 0.02 | 6.62 |
| 2016 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 120 | 1786645.415 | 36.08544584 | 3.216937198 | 3.650556438 | 1786645.415 | 34.48394043 | 3.049205748 | 3.455888985 | 137229.8311 | 137229.8311 | 216.8820955 | | 0.53 | 0.05 | 0.05 | 0.04 | 13.02 |
| 2016 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 175 | 445660.7339 | 11.46945943 | 0.629763462 | 0.915438049 | 445660.7339 | 10.40057603 | 0.559320946 | 0.822959732 | 16675.92524 | 16675.92524 | 24.98858927 | | 1.38 | 0.08 | 0.11 | 0.07 | 26.72 |
| 2016 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 250 | 237519.2086 | 4.858477963 | 0.193299328 | 0.308246747 | 237519.2086 | 4.858477963 | 0.193299328 | 0.308246747 | 6977.926474 | 6977.926474 | 10.37262196 | | 1.39 | 0.06 | 0.09 | 0.05 | 34.04 |
| 2016 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 500 | 66264.75268 | 1.208568544 | 0.052760341 | 0.078108036 | 66264.75268 | 1.208568544 | 0.052760341 | 0.078108036 | 1310.108978 | 1310.108978 | 1.885931265 | | 1.84 | 0.08 | 0.12 | 0.07 | 50.58 |
| 2016 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 1000 | 46440.09114 | 0.571693141 | 0.015118741 | 0.021572555 | 46440.09114 | 0.571693141 | 0.015118741 | 0.021572555 | 327.5272445 | 327.5272445 | 0.471482816 | | 3.49 | 0.09 | 0.13 | 0.08 | 141.79 |
| 2017 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 50 | 116076.6779 | 1.574219317 | 0.11073932 | 0.210781082 | 115781.4734 | 1.555867872 | 0.107782918 | 0.204242746 | 14125.15166 | 14125.15166 | 42.24109851 | | 0.22 | 0.02 | 0.03 | 0.01 | 8.20 |
| 2017 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 120 | 716513.9582 | 8.148049761 | 0.466220421 | 0.545193288 | 717467.9336 | 8.153877469 | 0.466979554 | 0.54482444 | 48516.12114 | 48516.12114 | 129.3911544 | | 0.34 | 0.02 | 0.02 | 0.02 | 14.79 |
| 2017 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 175 | 835970.4186 | 7.810236232 | 0.350458649 | 0.530831045 | 835985.2008 | 7.407133476 | 0.326041715 | 0.501764491 | 30186.17271 | 30186.17271 | 101.3786364 | | 0.52 | 0.02 | 0.04 | 0.02 | 27.69 |
| 2017 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 250 | 1182935.027 | 9.711549092 | 0.293969108 | 0.561745539 | 1183153.072 | 9.035709057 | 0.259738409 | 0.513805758 | 31139.79705 | 31139.79705 | 100.9339933 | | 0.62 | 0.02 | 0.04 | 0.02 | 37.99 |
| 2017 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 500 | 1322229.066 | 10.682761 | 0.341370504 | 0.624427642 | 1323791.59 | 9.582903475 | 0.292696475 | 0.554898275 | 20927.63387 | 20927.63387 | 70.69825961 | | 1.02 | 0.03 | 0.06 | 0.03 | 63.26 |
| 2017 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 750 | 1811698.896 | 11.64590652 | 0.386079628 | 0.689708936 | 1811667.177 | 11.57586382 | 0.383646621 | 0.686446443 | 15835.30468 | 15835.30468 | 35.12680823 | | 1.47 | 0.05 | 0.09 | 0.04 | 114.41 |
| 2017 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 1000 | 142908.0727 | 1.296916745 | 0.025716963 | 0.042788951 | 142908.0727 | 1.296916745 | 0.025716963 | 0.042788951 | 843.4828761 | 843.4828761 | 1.333929427 | | 3.08 | 0.06 | 0.10 | 0.06 | 169.43 |
| 2017 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 9999 | 484316.3778 | 6.241195809 | 0.155354503 | 0.225988097 | 484316.3778 | 6.241195809 | 0.155354503 | 0.225988097 | 984.8232498 | 984.8232498 | 1.333929427 | | 12.67 | 0.32 | 0.46 | 0.29 | 491.78 |
| 2017 | SC | Construction and Mining | 12 | Cranes | 50 | 38172.46053 | 0.647413544 | 0.066463507 | 0.193715861 | 38172.46053 | 0.642029695 | 0.064765351 | 0.187603189 | 8097.831947 | 8097.831947 | 19.56625325 | | 0.16 | 0.02 | 0.05 | 0.02 | 4.71 |
| 2017 | SC | Construction and Mining | 12 | Cranes | 120 | 910289.3433 | 27.22228952 | 2.027236301 | 2.727194823 | 910550.5856 | 25.16259124 | 1.862963672 | 2.490971542 | 97314.6828 | 97314.6828 | 235.9131106 | | 0.56 | 0.04 | 0.06 | 0.04 | 9.36 |
| 2017 | SC | Construction and Mining | 12 | Cranes | 175 | 2403662.65 | 57.52415343 | 3.139343571 | 4.521870687 | 2403483.238 | 52.83450011 | 2.852743208 | 4.130272867 | 152849.3273 | 152849.3273 | 353.8696659 | | 0.75 | 0.04 | 0.06 | 0.04 | 15.72 |
| 2017 | SC | Construction and Mining | 12 | Cranes | 250 | 4060087.102 | 91.75633514 | 4.242404443 | 6.503187708 | 4060252.987 | 80.98509605 | 3.610461745 | 5.637571241 | 176576.5701 | 176576.5701 | 397.4744588 | | 1.04 | 0.05 | 0.07 | 0.04 | 22.99 |
| 2017 | SC | Construction and Mining | 12 | Cranes | 500 | 6221379.872 | 106.8273871 | 4.464664387 | 7.026089488 | 6220837.171 | 97.72436459 | 3.967770283 | 6.331253819 | 174993.9858 | 174993.9858 | 381.2624204 | | 1.22 | 0.05 | 0.08 | 0.05 | 35.55 |
| 2017 | SC | Construction and Mining | 12 | Cranes | 750 | 1638682.49 | 21.18522094 | 0.753817631 | 1.209126725 | 1638633.859 | 20.50919616 | 0.725543742 | 1.16854273 | 27384.07162 | 27384.07162 | 55.9035807 | | 1.55 | 0.06 | 0.09 | 0.05 | 59.84 |
| 2017 | SC | Construction and Mining | 12 | Cranes | 1000 | 383613.7008 | 13.51617183 | 0.670850548 | 1.004646571 | 383613.7008 | 13.51617183 | 0.670850548 | 1.004646571 | 3892.8018 | 3892.8018 | 8.385537106 | | 6.94 | 0.34 | 0.52 | 0.32 | 98.54 |
| 2017 | SC | Construction and Mining | 12 | Cranes | 9999 | 29547.77454 | 0.206085602 | 0.005100759 | 0.011155405 | 29547.77454 | 0.206085602 | 0.005100759 | 0.011155405 | 271.317764 | 271.317764 | 0.559035807 | | 1.52 | 0.04 | 0.08 | 0.03 | 108.90 |
| 2017 | SC | Construction and Mining | 13 | Crawler Tractors | 50 | 116384.274 | 2.017116495 | 0.234981881 | 0.673312776 | 116384.274 | 1.985376745 | 0.227569994 | 0.649913675 | 15915.38656 | 15915.38656 | 49.61733178 | | 0.25 | 0.03 | 0.08 | 0.03 | 7.31 |
| 2017 | SC | Construction and Mining | 13 | Crawler Tractors | 120 | 5157427.67 | 112.5313729 | 9.564752103 | 11.1234599 | 5154001.033 | 109.4475923 | 9.251560162 | 10.75892246 | 373321.4191 | 373321.4191 | 853.9142799 | | 0.60 | 0.05 | 0.06 | 0.05 | 13.81 |
| 2017 | SC | Construction and Mining | 13 | Crawler Tractors | 175 | 5608721.971 | 114.3848863 | 6.37854839 | 8.894223809 | 5609443.84 | 110.422973 | 6.128255864 | 8.557999668 | 238434.6142 | 238434.6142 | 558.6911558 | | 0.96 | 0.05 | 0.07 | 0.05 | 23.53 |
| 2017 | SC | Construction and Mining | 13 | Crawler Tractors | 250 | 5659877.356 | 104.1484504 | 4.073613985 | 6.492495923 | 5660737.046 | 97.62462346 | 3.726746842 | 6.016468078 | 176781.006 | 176781.006 | 408.3506405 | | 1.18 | 0.05 | 0.07 | 0.04 | 32.02 |
| 2017 | SC | Construction and Mining | 13 | Crawler Tractors | 500 | 15183829.24 | 246.3401356 | 9.71703647 | 15.67399181 | 15180832.92 | 227.4298959 | 8.801298492 | 14.38452546 | 280812.8295 | 280812.8295 | 656.4372994 | | 1.75 | 0.07 | 0.11 | 0.06 | 54.06 |
| 2017 | SC | Construction and Mining | 13 | Crawler Tractors | 750 | 5900752.744 | 80.31528576 | 2.973098918 | 4.96035774 | 5899415.385 | 77.14777559 | 2.824313106 | 4.74282201 | 65645.93929 | 65645.93929 | 134.4629691 | | 2.45 | 0.09 | 0.15 | 0.08 | 89.87 |
| 2017 | SC | Construction and Mining | 13 | Crawler Tractors | 1000 | 781726.9762 | 17.55876582 | 0.520594234 | 0.936027075 | 781726.9762 | 17.55876582 | 0.520594234 | 0.936027075 | 5955.138912 | 5955.138912 | 11.90815963 | | 5.90 | 0.17 | 0.31 | 0.16 | 131.27 |
| 2017 | SC | Construction and Mining | 13 | Crawler Tractors | 9999 | 412893.2063 | 7.891988744 | 0.211663423 | 0.373837887 | 412893.2063 | 7.891988744 | 0.211663423 | 0.373837887 | 1788.643085 | 1788.643085 | 2.977039907 | | 8.82 | 0.24 | 0.42 | 0.22 | 230.84 |
| 2017 | SC | Construction and Mining | 14 | Excavators | 50 | 4658896.936 | 58.94837751 | 4.201281983 | 8.095449835 | 4658577.688 | 58.77864487 | 4.169590874 | 8.004664997 | 835136.9515 | 835136.9515 | 1215.244282 | | 0.14 | 0.01 | 0.02 | 0.01 | 5.58 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2017 | SC | Construction and Mining | 14 | Excavators | 120 | 6051556.784 | 82.884818 | 5.969365775 | 6.977888586 | 6052818.728 | 80.40602702 | 5.696665293 | 6.674997888 | 533306.4829 | 533306.4829 | 878.9752954 | 0.31 | 0.02 | 0.03 | 0.02 | 11.35 |
| 2017 | SC | Construction and Mining | 14 | Excavators | 175 | 12743545.64 | 149.1814092 | 7.421939219 | 11.16226666 | 12741458.56 | 141.5173456 | 6.962751174 | 10.54644351 | 622185.8228 | 622185.8228 | 1116.751295 | 0.48 | 0.02 | 0.04 | 0.02 | 20.48 |
| 2017 | SC | Construction and Mining | 14 | Excavators | 250 | 16202055.21 | 172.357623 | 5.703819107 | 10.73838783 | 16193519.67 | 161.3664921 | 5.108654832 | 9.911798503 | 528680.4412 | 528680.4412 | 960.0579061 | 0.65 | 0.02 | 0.04 | 0.02 | 30.63 |
| 2017 | SC | Construction and Mining | 14 | Excavators | 500 | 26892098.39 | 220.9800842 | 7.432797841 | 14.6181072 | 26889385.14 | 203.0868356 | 6.567390734 | 13.37612863 | 585497.0731 | 585497.0731 | 976.473404 | 0.75 | 0.03 | 0.05 | 0.02 | 45.93 |
| 2017 | SC | Construction and Mining | 14 | Excavators | 750 | 2436462.078 | 20.94991159 | 0.709687723 | 1.349543913 | 2436768.158 | 20.05300455 | 0.663244665 | 1.279060418 | 30309.5276 | 30309.5276 | 49.74393296 | 1.38 | 0.05 | 0.09 | 0.04 | 80.40 |
| 2017 | SC | Construction and Mining | 14 | Excavators | 1000 | 270916.3173 | 3.897105697 | 0.093288375 | 0.168865587 | 270834.5221 | 3.887990087 | 0.092940198 | 0.167571074 | 2318.08821 | 2318.08821 | 3.979514637 | 3.36 | 0.08 | 0.15 | 0.07 | 116.84 |
| 2017 | SC | Construction and Mining | 14 | Excavators | 9999 | 532050.6383 | 5.907627345 | 0.156200573 | 0.309070501 | 532050.6383 | 5.907627345 | 0.156200573 | 0.309070501 | 2442.587483 | 2442.587483 | 3.482075307 | 4.84 | 0.13 | 0.25 | 0.12 | 217.82 |
| 2017 | SC | Construction and Mining | 15 | Graders | 50 | 30770.48182 | 0.584210309 | 0.078116437 | 0.230450308 | 30770.48182 | 0.568745137 | 0.074685289 | 0.220036311 | 5018.965164 | 5018.965164 | 15.49918676 | 0.23 | 0.03 | 0.09 | 0.03 | 6.13 |
| 2017 | SC | Construction and Mining | 15 | Graders | 120 | 831124.0773 | 25.20384136 | 2.108648391 | 2.66945031 | 828751.1278 | 22.98793162 | 1.897061623 | 2.40687096 | 61008.35902 | 61008.35902 | 164.9913429 | 0.83 | 0.07 | 0.09 | 0.06 | 13.58 |
| 2017 | SC | Construction and Mining | 15 | Graders | 175 | 7700636.055 | 188.0709282 | 10.6420202 | 15.35726153 | 7681813.437 | 173.845108 | 9.765255195 | 14.19533331 | 340383.5767 | 340383.5767 | 771.9594954 | 1.11 | 0.06 | 0.09 | 0.06 | 22.57 |
| 2017 | SC | Construction and Mining | 15 | Graders | 250 | 13404217.72 | 225.1871987 | 7.431548907 | 13.39486859 | 13401768.04 | 219.9564361 | 7.172967684 | 13.03264309 | 432437.3237 | 432437.3237 | 612.9678376 | 1.04 | 0.03 | 0.06 | 0.03 | 30.99 |
| 2017 | SC | Construction and Mining | 15 | Graders | 500 | 3817433.869 | 41.72552291 | 1.643938289 | 3.233350648 | 3818473.422 | 40.77030456 | 1.596816432 | 3.165544406 | 86780.1518 | 86780.1518 | 114.4939925 | 0.96 | 0.04 | 0.07 | 0.03 | 44.00 |
| 2017 | SC | Construction and Mining | 15 | Graders | 1000 | 36951.12637 | 1.031309258 | 0.035891793 | 0.065078291 | 36951.12637 | 1.031309258 | 0.035891793 | 0.065078291 | 309.4880692 | 309.4880692 | 0.499973766 | 6.66 | 0.23 | 0.42 | 0.21 | 119.39 |
| 2017 | SC | Construction and Mining | 15 | Graders | 9999 | 520533.6781 | 10.35956225 | 0.317212992 | 0.59381554 | 520533.6781 | 10.35956225 | 0.317212992 | 0.59381554 | 1744.637412 | 1744.637412 | 2.499868832 | 11.88 | 0.36 | 0.68 | 0.33 | 298.36 |
| 2017 | SC | Construction and Mining | 16 | Off-Highway Tractors | 50 | 1924732.249 | 29.2345262 | 2.890701868 | 7.13958646 | 1930234.087 | 27.10053189 | 2.415677759 | 5.793227426 | 288291.6789 | 288291.6789 | 465.4897564 | 0.20 | 0.02 | 0.05 | 0.02 | 6.70 |
| 2017 | SC | Construction and Mining | 16 | Off-Highway Tractors | 120 | 2460102.672 | 42.65162562 | 3.478692481 | 3.970875915 | 2456012.013 | 38.99236613 | 3.100873246 | 3.55381933 | 204962.3215 | 204962.3215 | 338.4488218 | 0.42 | 0.03 | 0.04 | 0.03 | 11.98 |
| 2017 | SC | Construction and Mining | 16 | Off-Highway Tractors | 175 | 2097802.862 | 25.9098133 | 1.325427494 | 1.900454732 | 2097253.327 | 25.31137855 | 1.288295425 | 1.849029413 | 82849.46629 | 82849.46629 | 128.5124512 | 0.63 | 0.03 | 0.05 | 0.03 | 25.31 |
| 2017 | SC | Construction and Mining | 16 | Off-Highway Tractors | 250 | 1756021.335 | 26.74745924 | 0.989929503 | 1.691443674 | 1758002.356 | 23.22209674 | 0.800928261 | 1.434372994 | 51621.13222 | 51621.13222 | 83.87644714 | 1.04 | 0.04 | 0.07 | 0.04 | 34.06 |
| 2017 | SC | Construction and Mining | 16 | Off-Highway Tractors | 500 | 4947567.95 | 47.8526249 | 1.761855533 | 3.176712985 | 4947194.03 | 40.19541942 | 1.391217136 | 2.667267324 | 92939.29914 | 92939.29914 | 144.2086284 | 1.03 | 0.04 | 0.07 | 0.03 | 53.23 |
| 2017 | SC | Construction and Mining | 16 | Off-Highway Tractors | 750 | 1246539.054 | 11.40975171 | 0.416541002 | 0.752408521 | 1245272.957 | 12.44735985 | 0.418830681 | 0.766192491 | 13602.7787 | 13602.7787 | 21.09173817 | 1.68 | 0.06 | 0.11 | 0.06 | 91.55 |
| 2017 | SC | Construction and Mining | 16 | Off-Highway Tractors | 1000 | 35361.07117 | 1.303433465 | 0.06631555 | 0.091122705 | 35361.07117 | 0.248477998 | 0.006242598 | 0.010383132 | 221.2438405 | 221.2438405 | 0.490505539 | 11.78 | 0.60 | 0.82 | 0.55 | 159.83 |
| 2017 | SC | Construction and Mining | 16 | Off-Highway Tractors | 9999 | 276532.6916 | 6.630743844 | 0.239081111 | 0.420772608 | 290232.3777 | 3.211045601 | 0.08250995 | 0.158125884 | 1027.267011 | 1027.267011 | 1.962022155 | 12.91 | 0.47 | 0.82 | 0.43 | 282.53 |
| 2017 | SC | Construction and Mining | 17 | Off-Highway Trucks | 50 | 184972.9705 | 2.843392775 | 0.271663381 | 0.609743177 | 184972.9705 | 2.843392775 | 0.271663381 | 0.609743177 | 41882.20327 | 41882.20327 | 27.70311642 | 0.14 | 0.01 | 0.03 | 0.01 | 4.42 |
| 2017 | SC | Construction and Mining | 17 | Off-Highway Trucks | 120 | 226104.2653 | 3.79292451 | 0.311299676 | 0.386663095 | 226165.6734 | 3.299906458 | 0.262074503 | 0.331002514 | 18797.8994 | 18797.8994 | 15.55262676 | 0.40 | 0.03 | 0.04 | 0.03 | 12.03 |
| 2017 | SC | Construction and Mining | 17 | Off-Highway Trucks | 175 | 4372710.501 | 58.70397496 | 3.254405987 | 5.042383759 | 4373654.46 | 55.91743958 | 3.080508759 | 4.813840346 | 197330.0928 | 197330.0928 | 148.7219934 | 0.59 | 0.03 | 0.05 | 0.03 | 22.16 |
| 2017 | SC | Construction and Mining | 17 | Off-Highway Trucks | 250 | 8970145.473 | 136.1279835 | 6.101048841 | 10.63427177 | 8970372.052 | 118.5129996 | 5.120712822 | 9.355108949 | 305442.9601 | 305442.9601 | 254.6742632 | 0.89 | 0.04 | 0.07 | 0.04 | 29.37 |
| 2017 | SC | Construction and Mining | 17 | Off-Highway Trucks | 500 | 38092660.45 | 473.1037666 | 18.35271534 | 34.41654051 | 38072775.14 | 416.8573061 | 15.47463006 | 30.54680699 | 724812.6062 | 724812.6062 | 565.7267984 | 1.31 | 0.05 | 0.09 | 0.05 | 52.53 |
| 2017 | SC | Construction and Mining | 17 | Off-Highway Trucks | 750 | 13628773.32 | 222.9619885 | 9.487325314 | 16.64238839 | 13604768.78 | 173.2681096 | 6.927299408 | 13.24408181 | 147420.241 | 147420.241 | 129.2812099 | 3.02 | 0.13 | 0.23 | 0.12 | 92.29 |
| 2017 | SC | Construction and Mining | 17 | Off-Highway Trucks | 1000 | 9452180.787 | 171.9909189 | 4.974672366 | 9.374589334 | 9437258.632 | 160.5994143 | 4.519276349 | 8.501218943 | 75221.617 | 75221.617 | 59.29438953 | 4.57 | 0.13 | 0.25 | 0.12 | 125.46 |
| 2017 | SC | Construction and Mining | 17 | Off-Highway Trucks | 9999 | 13615522.14 | 219.4289812 | 6.602510933 | 13.26343534 | 13616756.31 | 209.2883253 | 6.212754663 | 12.52085479 | 54643.32583 | 54643.32583 | 38.39554732 | 8.03 | 0.24 | 0.49 | 0.22 | 249.19 |
| 2017 | SC | Construction and Mining | 18 | Other Construction Equipment | 50 | 1042867.91 | 15.26203174 | 1.3562162 | 2.937692868 | 1042554.361 | 15.15751384 | 1.334877349 | 2.875186732 | 160673.4668 | 160673.4668 | 359.4704337 | 0.19 | 0.02 | 0.04 | 0.02 | 6.49 |
| 2017 | SC | Construction and Mining | 18 | Other Construction Equipment | 120 | 3264411.926 | 61.40797865 | 4.823349948 | 5.686556367 | 3263132.49 | 59.59526956 | 4.663077651 | 5.485090517 | 262902.9914 | 262902.9914 | 634.2742108 | 0.47 | 0.04 | 0.04 | 0.03 | 12.41 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2017 | SC | Construction and Mining | 18 | Other Construction Equipment | 175 | 1776644.854 | 31.39808531 | 1.676626172 | 2.365193933 | 1776777.405 | 29.4598563 | 1.55647745 | 2.217605453 | 76791.02538 | 76791.02538 | 197.3942624 | 0.82 | 0.04 | 0.06 | 0.04 | 23.14 |
| 2017 | SC | Construction and Mining | 18 | Other Construction Equipment | 250 | 2278625.154 | 35.69895047 | 1.363312095 | 2.194990541 | 2280749.066 | 32.83605661 | 1.209168492 | 1.990311157 | 68483.23358 | 68483.23358 | 177.0742648 | 1.04 | 0.04 | 0.06 | 0.04 | 33.30 |
| 2017 | SC | Construction and Mining | 18 | Other Construction Equipment | 500 | 7779007.602 | 96.89085816 | 3.653408147 | 6.18330947 | 7769382.355 | 87.63994364 | 3.207126974 | 5.557494711 | 141996.2069 | 141996.2069 | 343.9885308 | 1.36 | 0.05 | 0.09 | 0.05 | 54.72 |
| 2017 | SC | Construction and Mining | 18 | Other Construction Equipment | 750 | 3034491.665 | 36.78051677 | 1.271951736 | 2.152042283 | 3034393.27 | 32.33442592 | 1.044976043 | 1.825332689 | 33246.22007 | 33246.22007 | 71.1199916 | 2.21 | 0.08 | 0.13 | 0.07 | 91.27 |
| 2017 | SC | Construction and Mining | 18 | Other Construction Equipment | 1000 | 353414.7205 | 4.084595909 | 0.096662546 | 0.15968359 | 353396.6987 | 4.07541807 | 0.096299833 | 0.158184289 | 2801.247941 | 2801.247941 | 6.289523066 | 2.92 | 0.07 | 0.11 | 0.06 | 126.16 |
| 2017 | SC | Construction and Mining | 18 | Other Construction Equipment | 9999 | 220164.1431 | 3.286545908 | 0.08845837 | 0.155236178 | 220330.243 | 3.020358892 | 0.080757456 | 0.147656297 | 1312.591517 | 1312.591517 | 2.9028568 | 5.01 | 0.13 | 0.24 | 0.12 | 167.86 |
| 2017 | SC | Construction and Mining | 19 | Pavers | 50 | 127750.2292 | 1.913576102 | 0.194390021 | 0.517268492 | 127750.2292 | 1.868029686 | 0.185419122 | 0.491438939 | 19426.9919 | 19426.9919 | 58.26424499 | 0.20 | 0.02 | 0.05 | 0.02 | 6.58 |
| 2017 | SC | Construction and Mining | 19 | Pavers | 120 | 1235085.098 | 21.98992587 | 1.711514136 | 2.019393255 | 1236176.38 | 21.2360136 | 1.631731983 | 1.927649736 | 102372.5521 | 102372.5521 | 283.0671236 | 0.43 | 0.03 | 0.04 | 0.03 | 12.08 |
| 2017 | SC | Construction and Mining | 19 | Pavers | 175 | 1680299.779 | 23.61297203 | 1.179630506 | 1.756110914 | 1680261.775 | 21.93901943 | 1.079600612 | 1.619816045 | 69601.59233 | 69601.59233 | 191.3009377 | 0.68 | 0.03 | 0.05 | 0.03 | 24.14 |
| 2017 | SC | Construction and Mining | 19 | Pavers | 250 | 1132013.44 | 12.92848428 | 0.33926528 | 0.584493082 | 1131995.306 | 12.91631831 | 0.338274266 | 0.583899944 | 34736.41757 | 34736.41757 | 82.54101374 | 0.74 | 0.02 | 0.03 | 0.02 | 32.59 |
| 2017 | SC | Construction and Mining | 19 | Pavers | 500 | 425910.39 | 3.223187643 | 0.113346805 | 0.179640592 | 425910.39 | 3.223187643 | 0.113346805 | 0.179640592 | 8646.312045 | 8646.312045 | 20.39248575 | 0.75 | 0.03 | 0.04 | 0.02 | 49.26 |
| 2017 | SC | Construction and Mining | 19 | Pavers | 750 | 49384.06391 | 0.365524776 | 0.016148282 | 0.023228425 | 49384.06391 | 0.365524776 | 0.016148282 | 0.023228425 | 431.9097482 | 431.9097482 | 0.97107075 | 1.69 | 0.07 | 0.11 | 0.07 | 114.34 |
| 2017 | SC | Construction and Mining | 20 | Paving Equipment | 50 | 158699.2691 | 2.060757238 | 0.159704773 | 0.346637211 | 158703.3144 | 2.04663745 | 0.155509352 | 0.331343293 | 31765.09843 | 31765.09843 | 71.74367463 | 0.13 | 0.01 | 0.02 | 0.01 | 5.00 |
| 2017 | SC | Construction and Mining | 20 | Paving Equipment | 120 | 722716.0754 | 11.85692773 | 0.897957377 | 1.073844548 | 722559.2974 | 11.25892733 | 0.844300323 | 1.005993046 | 62342.803 | 62342.803 | 146.3958766 | 0.38 | 0.03 | 0.03 | 0.03 | 11.59 |
| 2017 | SC | Construction and Mining | 20 | Paving Equipment | 175 | 680674.3722 | 8.474963921 | 0.427320266 | 0.616047268 | 680680.1538 | 7.984071075 | 0.39881789 | 0.579971191 | 35274.61579 | 35274.61579 | 79.98450213 | 0.48 | 0.02 | 0.03 | 0.02 | 19.30 |
| 2017 | SC | Construction and Mining | 20 | Paving Equipment | 250 | 356801.0793 | 4.861264894 | 0.184556349 | 0.297760733 | 356921.7255 | 4.413967852 | 0.151543546 | 0.254849721 | 12687.58539 | 12687.58539 | 29.0852735 | 0.77 | 0.03 | 0.05 | 0.03 | 28.13 |
| 2017 | SC | Construction and Mining | 20 | Paving Equipment | 500 | 503079.2794 | 6.441560529 | 0.236265155 | 0.383624786 | 502681.2358 | 6.065928778 | 0.219164595 | 0.35996821 | 11469.7316 | 11469.7316 | 26.17674615 | 1.12 | 0.04 | 0.07 | 0.04 | 43.83 |
| 2017 | SC | Construction and Mining | 20 | Paving Equipment | 750 | 238584.1301 | 2.408698437 | 0.058010795 | 0.123160646 | 238584.1301 | 2.404819501 | 0.057906541 | 0.122753487 | 3024.862727 | 3024.862727 | 6.301809258 | 1.59 | 0.04 | 0.08 | 0.04 | 78.87 |
| 2017 | SC | Construction and Mining | 20 | Paving Equipment | 1000 | 46654.61609 | 0.650990935 | 0.016219321 | 0.027153046 | 46654.61609 | 0.650990935 | 0.016219321 | 0.027153046 | 424.6589213 | 424.6589213 | 0.969509117 | 3.07 | 0.08 | 0.13 | 0.07 | 109.86 |
| 2017 | SC | Construction and Mining | 21 | Rollers | 50 | 2620700.443 | 36.66754893 | 3.202293711 | 7.338082974 | 2620426.443 | 36.02053735 | 3.078396427 | 6.994143819 | 478849.9378 | 478849.9378 | 1471.997466 | 0.15 | 0.01 | 0.03 | 0.01 | 5.47 |
| 2017 | SC | Construction and Mining | 21 | Rollers | 120 | 4096177.143 | 70.97009907 | 5.215899385 | 6.389961219 | 4094505.037 | 66.30098593 | 4.803490214 | 5.871726799 | 341047.1426 | 341047.1426 | 1097.760822 | 0.42 | 0.03 | 0.04 | 0.03 | 12.01 |
| 2017 | SC | Construction and Mining | 21 | Rollers | 175 | 4232050.214 | 51.70091587 | 2.421192501 | 3.479402027 | 4232105.909 | 49.27876308 | 2.294561208 | 3.299230036 | 213921.9457 | 213921.9457 | 634.7053482 | 0.48 | 0.02 | 0.03 | 0.02 | 19.78 |
| 2017 | SC | Construction and Mining | 21 | Rollers | 250 | 668619.3145 | 9.05320537 | 0.319583451 | 0.539471789 | 668749.5177 | 7.853391795 | 0.259210945 | 0.453945966 | 22709.5037 | 22709.5037 | 77.84122195 | 0.80 | 0.03 | 0.05 | 0.03 | 29.45 |
| 2017 | SC | Construction and Mining | 21 | Rollers | 500 | 422575.7708 | 5.617657649 | 0.225961502 | 0.358431421 | 423030.3834 | 4.806853166 | 0.187853437 | 0.30702883 | 9037.05889 | 9037.05889 | 31.93486029 | 1.24 | 0.05 | 0.08 | 0.05 | 46.81 |
| 2017 | SC | Construction and Mining | 21 | Rollers | 750 | 20573.98477 | 0.310304697 | 0.014989 | 0.02374651 | 20573.98477 | 0.042880926 | 0.000558054 | 0.00363713 | 286.6273518 | 286.6273518 | 0.997964384 | 2.17 | 0.10 | 0.17 | 0.10 | 71.78 |
| 2017 | SC | Construction and Mining | 22 | Rough Terrain | 50 | 133477.1522 | 1.748708144 | 0.134426791 | 0.321302978 | 133473.2171 | 1.765743852 | 0.137612533 | 0.329777581 | 17189.31033 | 17189.31033 | 66.85744941 | 0.20 | 0.02 | 0.04 | 0.01 | 7.76 |
| 2017 | SC | Construction and Mining | 22 | Rough Terrain | 120 | 10745996.55 | 112.2267887 | 6.029177446 | 7.438325883 | 10745749.06 | 110.1087241 | 5.850746079 | 7.215660949 | 754781.5016 | 754781.5016 | 2864.495893 | 0.30 | 0.02 | 0.02 | 0.01 | 14.24 |
| 2017 | SC | Construction and Mining | 22 | Rough Terrain | 175 | 1974887.915 | 17.79056593 | 0.699894155 | 1.004356542 | 1974887.915 | 17.22928482 | 0.665450716 | 0.954160618 | 103398.5328 | 103398.5328 | 383.2776195 | 0.34 | 0.01 | 0.02 | 0.01 | 19.10 |
| 2017 | SC | Construction and Mining | 22 | Rough Terrain | 250 | 162429.7953 | 3.020497355 | 0.136042013 | 0.209162446 | 162308.2559 | 1.204292731 | 0.028800231 | 0.059486098 | 5273.69884 | 5273.69884 | 22.47793558 | 1.15 | 0.05 | 0.08 | 0.05 | 30.78 |
| 2017 | SC | Construction and Mining | 22 | Rough Terrain | 500 | 68805.07464 | 0.985441608 | 0.030544 | 0.051392482 | 68805.07464 | 0.744694944 | 0.016523288 | 0.031389684 | 1259.841881 | 1259.841881 | 5.187215903 | 1.56 | 0.05 | 0.08 | 0.04 | 54.61 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2017 | SC | Construction and Mining | 22 | Rough Terrain | 750 | 10769.29565 | 0.491727412 | 0.026450385 | 0.03963961 | 10769.29565 | 0.042706818 | 0.000294913 | 0.002427087 | 116.7925566 | 116.7925566 | 0.576357323 | | 8.42 | 0.45 | 0.68 | 0.42 | 92.21 |
| 2017 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 50 | 114890.3895 | 2.108836889 | 0.279586826 | 0.777254181 | 117383.9233 | 1.749055519 | 0.194845702 | 0.534143088 | 17385.63142 | 17385.63142 | 19.48170412 | | 0.24 | 0.03 | 0.09 | 0.03 | 6.75 |
| 2017 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 120 | 548668.8669 | 15.44013103 | 1.377342317 | 1.644980072 | 551297.1308 | 14.00891264 | 1.230476092 | 1.477923718 | 45942.14823 | 45942.14823 | 57.96994886 | | 0.67 | 0.06 | 0.07 | 0.06 | 12.00 |
| 2017 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 175 | 459239.2679 | 13.04969576 | 0.750424871 | 1.064902105 | 458843.4398 | 12.55306019 | 0.721563111 | 1.025749095 | 21082.24766 | 21082.24766 | 29.93530146 | | 1.24 | 0.07 | 0.10 | 0.07 | 21.76 |
| 2017 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 250 | 479149.5359 | 11.30662733 | 0.559706598 | 0.865089774 | 479149.5359 | 10.96759593 | 0.536865919 | 0.834899648 | 15552.45496 | 15552.45496 | 23.28301225 | | 1.45 | 0.07 | 0.11 | 0.07 | 30.81 |
| 2017 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 500 | 5486386.145 | 127.4253968 | 5.964755827 | 9.480491462 | 5484881.894 | 119.0051397 | 5.5282556 | 8.874028954 | 105186.3791 | 105186.3791 | 155.3784695 | | 2.42 | 0.11 | 0.18 | 0.10 | 52.14 |
| 2017 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 750 | 645185.3954 | 13.86859985 | 0.502995003 | 0.840285223 | 645185.3954 | 13.86859985 | 0.502995003 | 0.840285223 | 7597.283767 | 7597.283767 | 9.503270304 | | 3.65 | 0.13 | 0.22 | 0.12 | 84.92 |
| 2017 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 50 | 364205.0747 | 5.971627619 | 0.644409951 | 1.651395441 | 364075.2999 | 5.860197628 | 0.622901956 | 1.59163975 | 59190.66376 | 59190.66376 | 73.29912423 | | 0.20 | 0.02 | 0.06 | 0.02 | 6.15 |
| 2017 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 120 | 8857403.889 | 177.8658496 | 15.25373231 | 17.99706669 | 8858008.875 | 168.0723825 | 14.27324832 | 16.861574 | 784508.6804 | 784508.6804 | 911.2864093 | | 0.45 | 0.04 | 0.05 | 0.04 | 11.29 |
| 2017 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 175 | 21026494.43 | 354.0060405 | 19.92387776 | 29.29047415 | 21034593.84 | 328.8415457 | 18.32200388 | 27.28146045 | 1058095.725 | 1058095.725 | 1194.082355 | | 0.67 | 0.04 | 0.06 | 0.03 | 19.88 |
| 2017 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 250 | 28990882.53 | 435.2085971 | 15.09267242 | 28.27338779 | 28990968.68 | 415.9699197 | 14.17055238 | 26.94631075 | 1065359.344 | 1065359.344 | 1061.351508 | | 0.82 | 0.03 | 0.05 | 0.03 | 27.21 |
| 2017 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 500 | 37796386.62 | 560.6271185 | 21.79693198 | 39.86239518 | 37662109.16 | 486.9864953 | 18.35369797 | 34.94138458 | 898060.8417 | 898060.8417 | 986.0713266 | | 1.25 | 0.05 | 0.09 | 0.04 | 41.94 |
| 2017 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 750 | 6679599.779 | 93.46518184 | 3.771187605 | 6.923167735 | 6703811.435 | 83.90105141 | 3.312242973 | 6.284934685 | 86494.82499 | 86494.82499 | 87.16652611 | | 2.16 | 0.09 | 0.16 | 0.08 | 77.51 |
| 2017 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 1000 | 1944442.545 | 38.38158692 | 1.12360502 | 2.007253404 | 1944442.545 | 38.37897857 | 1.123409669 | 2.006044976 | 17548.48215 | 17548.48215 | 15.84845929 | | 4.37 | 0.13 | 0.23 | 0.12 | 110.80 |
| 2017 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 9999 | 774003.7617 | 13.70190287 | 0.380064152 | 0.724353606 | 774003.7617 | 10.43076548 | 0.249233218 | 0.474070513 | 3854.616321 | 3854.616321 | 3.46685047 | | 7.11 | 0.20 | 0.38 | 0.18 | 200.80 |
| 2017 | SC | Construction and Mining | 25 | Scrapers | 50 | 8341.363591 | 0.153636982 | 0.020884199 | 0.061827405 | 8341.363591 | 0.153636982 | 0.020884199 | 0.061827405 | 1177.589833 | 1177.589833 | 3.426446386 | | 0.26 | 0.04 | 0.11 | 0.03 | 7.08 |
| 2017 | SC | Construction and Mining | 25 | Scrapers | 120 | 380934.7914 | 8.008246412 | 0.614576238 | 0.694610552 | 380934.7914 | 8.008246412 | 0.614576238 | 0.694610552 | 24875.33744 | 24875.33744 | 49.43872643 | | 0.64 | 0.05 | 0.06 | 0.05 | 15.31 |
| 2017 | SC | Construction and Mining | 25 | Scrapers | 175 | 4020072.696 | 85.76576735 | 4.661121546 | 6.712998783 | 4018503.463 | 79.3905274 | 4.277333835 | 6.188914721 | 134694.2934 | 134694.2934 | 317.6805292 | | 1.27 | 0.07 | 0.10 | 0.06 | 29.83 |
| 2017 | SC | Construction and Mining | 25 | Scrapers | 250 | 4619426.061 | 119.5798545 | 5.519181672 | 8.476776519 | 4616072.484 | 103.3597199 | 4.64727799 | 7.23793166 | 116776.5058 | 116776.5058 | 308.3801747 | | 2.05 | 0.09 | 0.15 | 0.09 | 39.53 |
| 2017 | SC | Construction and Mining | 25 | Scrapers | 500 | 40444361.95 | 726.7570896 | 29.94142401 | 48.2320217 | 40417200.08 | 647.9649323 | 26.00210553 | 42.63166981 | 598432.9072 | 598432.9072 | 1355.404292 | | 2.43 | 0.10 | 0.16 | 0.09 | 67.54 |
| 2017 | SC | Construction and Mining | 25 | Scrapers | 750 | 18512486.43 | 266.3972468 | 10.33801978 | 17.250869 | 18507688.88 | 234.1965383 | 8.652793382 | 14.91172701 | 184887.9023 | 184887.9023 | 386.2094569 | | 2.88 | 0.11 | 0.19 | 0.10 | 100.10 |
| 2017 | SC | Construction and Mining | 25 | Scrapers | 1000 | 289547.813 | 11.6467279 | 0.543013034 | 0.843573754 | 289547.813 | 11.6467279 | 0.543013034 | 0.843573754 | 1721.564586 | 1721.564586 | 6.363400431 | | 13.53 | 0.63 | 0.98 | 0.58 | 168.19 |
| 2017 | SC | Construction and Mining | 25 | Scrapers | 9999 | 1052439.32 | 23.2855802 | 0.896019825 | 1.392418999 | 1052439.32 | 23.2855802 | 0.896019825 | 1.392418999 | 3024.693027 | 3024.693027 | 6.363400431 | | 15.40 | 0.59 | 0.92 | 0.55 | 347.95 |
| 2017 | SC | Construction and Mining | 26 | Skid Steer Loaders | 50 | 1982174.543 | 21.99415349 | 1.169196849 | 2.536635593 | 1982178.305 | 21.91544983 | 1.158800908 | 2.503238029 | 301786.768 | 301786.768 | 1019.771697 | | 0.15 | 0.01 | 0.02 | 0.01 | 6.57 |
| 2017 | SC | Construction and Mining | 26 | Skid Steer Loaders | 120 | 10524472.82 | 103.8319701 | 5.57225916 | 6.659160072 | 10523444.67 | 103.8598956 | 5.582074835 | 6.667164014 | 1103080.624 | 1103080.624 | 3290.874553 | | 0.19 | 0.01 | 0.01 | 0.01 | 9.54 |
| 2017 | SC | Construction and Mining | 26 | Skid Steer Loaders | 175 | 70961.34737 | 0.62069131 | 0.026946591 | 0.037257243 | 71108.24313 | 0.716536548 | 0.033552989 | 0.045999524 | 3466.849289 | 3466.849289 | 13.65088538 | | 0.36 | 0.02 | 0.02 | 0.01 | 20.51 |
| 2017 | SC | Construction and Mining | 26 | Skid Steer Loaders | 250 | 54690.00217 | 0.578316773 | 0.021418366 | 0.034709256 | 54674.88584 | 0.593747955 | 0.022040312 | 0.035926574 | 2049.64287 | 2049.64287 | 7.58382521 | | 0.56 | 0.02 | 0.03 | 0.02 | 26.68 |
| 2017 | SC | Construction and Mining | 26 | Skid Steer Loaders | 500 | 15023.35821 | 0.028295578 | 0.000400611 | 0.002419139 | 15023.35821 | 0.064111458 | 0.001678607 | 0.003929562 | 412.3188281 | 412.3188281 | 1.516765042 | | 0.14 | 0.00 | 0.01 | 0.00 | 36.44 |
| 2017 | SC | Construction and Mining | 26 | Skid Steer Loaders | 750 | 15847.66296 | 0.115294827 | 0.004886874 | 0.00625734 | 15847.66296 | 0.115294827 | 0.004886874 | 0.00625734 | 221.098502 | 221.098502 | 0.505588347 | | 1.04 | 0.04 | 0.06 | 0.04 | 71.68 |
| 2017 | SC | Construction and Mining | 26 | Skid Steer Loaders | 1000 | 25860.54129 | 0.304426328 | 0.007579818 | 0.013722951 | 25860.54129 | 0.317154711 | 0.010173858 | 0.016257573 | 191.2203261 | 191.2203261 | 1.011176695 | | 3.18 | 0.08 | 0.14 | 0.07 | 135.24 |
| 2017 | SC | Construction and Mining | 27 | Surfacing Equipment | 50 | 18330.34607 | 0.255307911 | 0.019559427 | 0.042613187 | 18330.34607 | 0.246124759 | 0.017744664 | 0.037283248 | 4099.978794 | 4099.978794 | 17.88825263 | | 0.12 | 0.01 | 0.02 | 0.01 | 4.47 |
| 2017 | SC | Construction and Mining | 27 | Surfacing Equipment | 120 | 143552.3402 | 2.157778154 | 0.147845794 | 0.183951513 | 143552.3402 | 2.130551661 | 0.145395847 | 0.181037093 | 14627.20437 | 14627.20437 | 57.33414303 | | 0.30 | 0.02 | 0.03 | 0.02 | 9.81 |
| 2017 | SC | Construction and Mining | 27 | Surfacing Equipment | 175 | 74129.48799 | 1.252885341 | 0.060981672 | 0.086875576 | 74130.61587 | 1.205632033 | 0.058977751 | 0.084106146 | 4455.407192 | 4455.407192 | 19.26427206 | | 0.56 | 0.03 | 0.04 | 0.03 | 16.64 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2017 | SC | Construction and Mining | 27 | Surfacing Equipment | 250 | 157195.7478 | 2.18737561 | 0.064732886 | 0.111466967 | 157270.8218 | 2.095533571 | 0.060529987 | 0.106005236 | 6531.542489 | 6531.542489 | 28.89640809 | 0.67 | 0.02 | 0.03 | 0.02 | 24.08 |
| 2017 | SC | Construction and Mining | 27 | Surfacing Equipment | 500 | 499927.4084 | 4.818449055 | 0.160694347 | 0.262692108 | 499928.4038 | 4.677510565 | 0.154465578 | 0.253510679 | 12503.6459 | 12503.6459 | 47.702007 | 0.77 | 0.03 | 0.04 | 0.02 | 39.98 |
| 2017 | SC | Construction and Mining | 27 | Surfacing Equipment | 750 | 463144.4765 | 3.841653124 | 0.125410195 | 0.183917732 | 463144.4765 | 3.841653124 | 0.125410195 | 0.183917732 | 6785.587535 | 6785.587535 | 23.8510035 | 1.13 | 0.04 | 0.05 | 0.03 | 68.25 |
| 2017 | SC | Construction and Mining | 27 | Surfacing Equipment | 1000 | 75198.88898 | 1.302081026 | 0.032220464 | 0.056780119 | 75198.88898 | 1.302081026 | 0.032220464 | 0.056780119 | 831.5617101 | 831.5617101 | 3.21071201 | 3.13 | 0.08 | 0.14 | 0.07 | 90.43 |
| 2017 | SC | Construction and Mining | 27 | Surfacing Equipment | 9999 | 26355.70896 | 0.311029586 | 0.007162122 | 0.011726442 | 26355.70896 | 0.311029586 | 0.007162122 | 0.011726442 | 212.0919146 | 212.0919146 | 0.917346289 | 2.93 | 0.07 | 0.11 | 0.06 | 124.27 |
| 2017 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 50 | 3925132.663 | 56.13387083 | 4.876297068 | 11.18188164 | 3927210.197 | 55.11133252 | 4.671425297 | 10.64411007 | 693196.2818 | 693196.2818 | 1427.093352 | 0.16 | 0.01 | 0.03 | 0.01 | 5.67 |
| 2017 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 120 | 63182734.25 | 932.9595953 | 71.03441041 | 81.07286264 | 63139552.38 | 903.7534877 | 67.96740384 | 77.73388922 | 5598019.924 | 5598019.924 | 9689.814684 | 0.33 | 0.03 | 0.03 | 0.02 | 11.28 |
| 2017 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 175 | 10913615.96 | 137.8533402 | 7.059131364 | 10.40598858 | 10909340.23 | 128.2191203 | 6.52136465 | 9.661416979 | 565397.6947 | 565397.6947 | 1083.994253 | 0.49 | 0.02 | 0.04 | 0.02 | 19.29 |
| 2017 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 250 | 6340342.309 | 81.884676 | 2.746279373 | 4.917691461 | 6343023.27 | 77.20313673 | 2.519010707 | 4.599148638 | 230330.48 | 230330.48 | 433.5977012 | 0.71 | 0.02 | 0.04 | 0.02 | 27.54 |
| 2017 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 500 | 8511771.228 | 95.6738902 | 3.384974781 | 6.172035737 | 8509388 | 89.40573117 | 3.125848739 | 5.758643947 | 197003.2518 | 197003.2518 | 391.3318703 | 0.97 | 0.03 | 0.06 | 0.03 | 43.19 |
| 2017 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 750 | 1207386.28 | 14.87768722 | 0.553016061 | 0.958355616 | 1207660.703 | 14.15985593 | 0.511122604 | 0.897984999 | 15708.32382 | 15708.32382 | 27.34847886 | 1.89 | 0.07 | 0.12 | 0.06 | 76.88 |
| 2017 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 1000 | 203922.3816 | 2.348743874 | 0.054300148 | 0.097239985 | 203922.3816 | 2.348743874 | 0.054300148 | 0.097239985 | 1713.109861 | 1713.109861 | 2.486225351 | 2.74 | 0.06 | 0.11 | 0.06 | 119.04 |
| 2017 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 9999 | 2861133.523 | 43.33143897 | 1.31575498 | 2.256555865 | 2861133.523 | 39.79304998 | 1.126340403 | 1.970523342 | 10532.60296 | 10532.60296 | 18.3980676 | 8.23 | 0.25 | 0.43 | 0.23 | 271.65 |
| 2017 | SC | Construction and Mining | 29 | Trenchers | 50 | 1389980.279 | 19.45629397 | 1.710222528 | 3.642783703 | 1390481.354 | 19.28543529 | 1.675523699 | 3.54461392 | 169428.9188 | 169428.9188 | 467.9929938 | 0.23 | 0.02 | 0.04 | 0.02 | 8.21 |
| 2017 | SC | Construction and Mining | 29 | Trenchers | 120 | 1006460.697 | 20.56963136 | 1.617922156 | 1.946908297 | 1006579.765 | 20.04284136 | 1.570062082 | 1.888746253 | 66025.32607 | 66025.32607 | 216.9785699 | 0.62 | 0.05 | 0.06 | 0.05 | 15.25 |
| 2017 | SC | Construction and Mining | 29 | Trenchers | 175 | 205353.8441 | 4.382226126 | 0.229501082 | 0.334228389 | 205363.5532 | 3.689507246 | 0.186950398 | 0.275916133 | 7810.944336 | 7810.944336 | 28.71775189 | 1.12 | 0.06 | 0.09 | 0.05 | 26.29 |
| 2017 | SC | Construction and Mining | 29 | Trenchers | 250 | 402439.1619 | 7.643980693 | 0.310697809 | 0.495655011 | 402363.82 | 7.471752655 | 0.301628288 | 0.484125107 | 9969.99468 | 9969.99468 | 34.0358541 | 1.53 | 0.06 | 0.10 | 0.06 | 40.36 |
| 2017 | SC | Construction and Mining | 29 | Trenchers | 500 | 678433.0883 | 7.047273636 | 0.263297973 | 0.448867975 | 678433.0883 | 7.03075313 | 0.263280605 | 0.447986166 | 10287.13746 | 10287.13746 | 30.84499277 | 1.37 | 0.05 | 0.09 | 0.05 | 65.95 |
| 2017 | SC | Construction and Mining | 29 | Trenchers | 750 | 306585.3841 | 1.30880826 | 0.04185283 | 0.086125271 | 306585.3841 | 1.30880826 | 0.04185283 | 0.086125271 | 2669.070908 | 2669.070908 | 6.381722643 | 0.98 | 0.03 | 0.06 | 0.03 | 114.87 |
| 2017 | SC | Construction and Mining | 29 | Trenchers | 1000 | 18107.53253 | 0.718083592 | 0.032841329 | 0.051438783 | 18107.53253 | 0.718083592 | 0.032841329 | 0.051438783 | 114.1717591 | 114.1717591 | 0.53181022 | 12.58 | 0.58 | 0.90 | 0.53 | 158.60 |
| 2017 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 50 | 1208371.179 | 18.60262728 | 1.948162467 | 4.763582738 | 1208371.179 | 18.34708545 | 1.897267283 | 4.614267915 | 182488.1448 | 182488.1448 | 274.6968629 | 0.20 | 0.02 | 0.05 | 0.02 | 6.62 |
| 2017 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 120 | 1867577.73 | 34.92050993 | 3.038921233 | 3.481838993 | 1867577.73 | 33.62295648 | 2.905576884 | 3.32558379 | 143446.1333 | 143446.1333 | 223.6470034 | 0.49 | 0.04 | 0.05 | 0.04 | 13.02 |
| 2017 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 175 | 465848.486 | 11.79696276 | 0.645840822 | 0.942991048 | 465848.486 | 10.36475101 | 0.550843071 | 0.819775546 | 17431.31925 | 17431.31925 | 25.76802431 | 1.35 | 0.07 | 0.11 | 0.07 | 26.72 |
| 2017 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 250 | 248278.4668 | 4.491218472 | 0.173939689 | 0.286158098 | 248278.4668 | 4.873768711 | 0.197847237 | 0.317205547 | 7294.01591 | 7294.01591 | 10.69616103 | 1.23 | 0.05 | 0.08 | 0.04 | 34.04 |
| 2017 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 500 | 69266.445 | 1.266333688 | 0.055519901 | 0.082981226 | 69266.445 | 1.266333688 | 0.055519901 | 0.082981226 | 1369.454918 | 1369.454918 | 1.944756551 | 1.85 | 0.08 | 0.12 | 0.07 | 50.58 |
| 2017 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 1000 | 48543.75649 | 0.602395775 | 0.01622828 | 0.024271447 | 48543.75649 | 0.602395775 | 0.01622828 | 0.024271447 | 342.3637295 | 342.3637295 | 0.486189138 | 3.52 | 0.09 | 0.14 | 0.09 | 141.79 |
| 2018 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 50 | 120907.401 | 1.579344673 | 0.108546017 | 0.209682745 | 120668.1394 | 1.561627616 | 0.105639012 | 0.203276913 | 14742.82211 | 14742.82211 | 43.51118253 | 0.21 | 0.01 | 0.03 | 0.01 | 8.18 |
| 2018 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 120 | 750252.8698 | 7.951807146 | 0.436530298 | 0.526918594 | 751997.3497 | 7.850592315 | 0.425758194 | 0.513324998 | 50637.65405 | 50637.65405 | 133.2816223 | 0.31 | 0.02 | 0.02 | 0.02 | 14.85 |
| 2018 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 175 | 870614.3928 | 6.443716329 | 0.289917208 | 0.463666381 | 871234.5701 | 6.108775685 | 0.268158326 | 0.435257165 | 31506.16609 | 31506.16609 | 104.4268381 | 0.41 | 0.02 | 0.03 | 0.02 | 27.65 |
| 2018 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 250 | 1230919.2 | 8.696629543 | 0.261526755 | 0.526440453 | 1230382.385 | 8.052901058 | 0.227556058 | 0.477721495 | 32501.49091 | 32501.49091 | 103.9688256 | 0.54 | 0.02 | 0.03 | 0.01 | 37.86 |
| 2018 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 500 | 1391406.657 | 8.868375373 | 0.288698113 | 0.57108095 | 1393026.468 | 7.374795698 | 0.220686087 | 0.470921901 | 21842.76605 | 21842.76605 | 72.82397918 | 0.81 | 0.03 | 0.05 | 0.02 | 63.78 |
| 2018 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 750 | 1862568.38 | 8.85337417 | 0.290777805 | 0.568085558 | 1862670.559 | 9.405029307 | 0.305104786 | 0.583356327 | 16527.7574 | 16527.7574 | 36.18298337 | 1.07 | 0.04 | 0.07 | 0.03 | 112.70 |
| 2018 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 1000 | 149152.7501 | 1.358567527 | 0.027076272 | 0.046386982 | 149152.7501 | 1.358567527 | 0.027076272 | 0.046386982 | 880.3670425 | 880.3670425 | 1.374037343 | 3.09 | 0.06 | 0.11 | 0.06 | 169.42 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2018 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 9999 | 505494.7636 | 6.527054609 | 0.163236236 | 0.239862609 | 505494.7636 | 6.527054609 | 0.163236236 | 0.239862609 | 1027.888006 | 1027.888006 | 1.374037343 | | 12.70 | 0.32 | 0.47 | 0.29 | 491.78 |
| 2018 | SC | Construction and Mining | 12 | Cranes | 50 | 39839.74124 | 0.66026612 | 0.06980912 | 0.193114881 | 39839.74124 | 0.654734291 | 0.068046138 | 0.186761478 | 8451.937274 | 8451.937274 | 20.15456147 | | 0.16 | 0.02 | 0.05 | 0.02 | 4.71 |
| 2018 | SC | Construction and Mining | 12 | Cranes | 120 | 950508.1134 | 26.48735074 | 1.964414419 | 2.635579315 | 950740.4737 | 22.75368679 | 1.672801749 | 2.208961039 | 101570.0993 | 101570.0993 | 243.0064269 | | 0.52 | 0.04 | 0.05 | 0.04 | 9.36 |
| 2018 | SC | Construction and Mining | 12 | Cranes | 175 | 2508009.352 | 57.17232872 | 3.125482687 | 4.509520388 | 2507892.374 | 49.12924138 | 2.630704683 | 3.846226975 | 159533.1856 | 159533.1856 | 364.5096403 | | 0.72 | 0.04 | 0.06 | 0.04 | 15.72 |
| 2018 | SC | Construction and Mining | 12 | Cranes | 250 | 4237579.925 | 90.63926544 | 4.181319097 | 6.461573621 | 4237108.785 | 73.32091991 | 3.173447504 | 5.070374125 | 184297.983 | 184297.983 | 409.4255201 | | 0.98 | 0.05 | 0.07 | 0.04 | 22.99 |
| 2018 | SC | Construction and Mining | 12 | Cranes | 500 | 6498786.711 | 102.8278839 | 4.288825087 | 6.845907921 | 6497129.22 | 90.34885568 | 3.645311154 | 5.957168569 | 182646.1948 | 182646.1948 | 392.7260264 | | 1.13 | 0.05 | 0.07 | 0.04 | 35.57 |
| 2018 | SC | Construction and Mining | 12 | Cranes | 750 | 1709430.616 | 20.07452061 | 0.731530741 | 1.189336442 | 1709301.225 | 19.40283416 | 0.704538917 | 1.151384033 | 28581.53358 | 28581.53358 | 57.58446134 | | 1.40 | 0.05 | 0.08 | 0.05 | 59.80 |
| 2018 | SC | Construction and Mining | 12 | Cranes | 1000 | 400365.3261 | 12.27704416 | 0.572926304 | 0.866221861 | 400365.3261 | 12.51557717 | 0.612965761 | 0.918434227 | 4063.027839 | 4063.027839 | 8.637669201 | | 6.04 | 0.28 | 0.43 | 0.26 | 98.54 |
| 2018 | SC | Construction and Mining | 12 | Cranes | 9999 | 30839.85178 | 0.216331654 | 0.005416246 | 0.012424387 | 30839.85178 | 0.216331654 | 0.005416246 | 0.012424387 | 283.1820588 | 283.1820588 | 0.575844613 | | 1.53 | 0.04 | 0.09 | 0.04 | 108.90 |
| 2018 | SC | Construction and Mining | 13 | Crawler Tractors | 50 | 121488.2664 | 2.078296349 | 0.240046528 | 0.691066225 | 121488.2664 | 2.057136301 | 0.23489513 | 0.674582965 | 16611.34113 | 16611.34113 | 51.10920065 | | 0.25 | 0.03 | 0.08 | 0.03 | 7.31 |
| 2018 | SC | Construction and Mining | 13 | Crawler Tractors | 120 | 5382678.089 | 113.3030306 | 9.62158451 | 11.21655048 | 5374915.153 | 107.5399518 | 9.05023821 | 10.54918966 | 389646.1717 | 389646.1717 | 879.5893433 | | 0.58 | 0.05 | 0.06 | 0.05 | 13.79 |
| 2018 | SC | Construction and Mining | 13 | Crawler Tractors | 175 | 5856055.353 | 112.3894401 | 6.292793291 | 8.828995216 | 5851640.842 | 103.0598589 | 5.725090412 | 8.067396983 | 248860.9811 | 248860.9811 | 575.4895994 | | 0.90 | 0.05 | 0.07 | 0.05 | 23.51 |
| 2018 | SC | Construction and Mining | 13 | Crawler Tractors | 250 | 5903700.73 | 102.2089086 | 4.000871217 | 6.459512985 | 5904262.437 | 93.57716355 | 3.540275013 | 5.823088123 | 184511.3585 | 184511.3585 | 420.6287214 | | 1.11 | 0.04 | 0.07 | 0.04 | 32.00 |
| 2018 | SC | Construction and Mining | 13 | Crawler Tractors | 500 | 15829714 | 233.1998132 | 9.294929508 | 15.25676367 | 15813307.62 | 206.4094073 | 7.996638695 | 13.41710805 | 293092.3284 | 293092.3284 | 676.1747246 | | 1.59 | 0.06 | 0.10 | 0.06 | 53.95 |
| 2018 | SC | Construction and Mining | 13 | Crawler Tractors | 750 | 6163060.418 | 75.83516733 | 2.852619916 | 4.857001541 | 6157913.396 | 70.782122 | 2.611839691 | 4.511732676 | 68516.53193 | 68516.53193 | 138.5059338 | | 2.21 | 0.08 | 0.14 | 0.08 | 89.87 |
| 2018 | SC | Construction and Mining | 13 | Crawler Tractors | 1000 | 816161.6192 | 18.40297966 | 0.54709843 | 0.983076997 | 816161.6192 | 18.40297966 | 0.54709843 | 0.983076997 | 6215.547677 | 6215.547677 | 12.26620816 | | 5.92 | 0.18 | 0.32 | 0.16 | 131.31 |
| 2018 | SC | Construction and Mining | 13 | Crawler Tractors | 9999 | 430948.3703 | 8.26933048 | 0.223105631 | 0.39442961 | 430948.3703 | 8.26933048 | 0.223105631 | 0.39442961 | 1866.857606 | 1866.857606 | 3.066552039 | | 8.86 | 0.24 | 0.42 | 0.22 | 230.84 |
| 2018 | SC | Construction and Mining | 14 | Excavators | 50 | 4854358.811 | 57.89949854 | 3.779659535 | 7.620947802 | 4855153.547 | 57.63765564 | 3.725932575 | 7.450212209 | 871656.1638 | 871656.1638 | 1251.783634 | | 0.13 | 0.01 | 0.02 | 0.01 | 5.57 |
| 2018 | SC | Construction and Mining | 14 | Excavators | 120 | 6322131.629 | 77.23073363 | 5.289650496 | 6.419914615 | 6323193.052 | 72.12074915 | 4.799547991 | 5.829291472 | 556627.1282 | 556627.1282 | 905.4038808 | | 0.28 | 0.02 | 0.02 | 0.02 | 11.36 |
| 2018 | SC | Construction and Mining | 14 | Excavators | 175 | 13300297.8 | 131.8866997 | 6.514905857 | 10.1990831 | 13299210.88 | 116.7220627 | 5.660853833 | 9.009466591 | 649393.0205 | 649393.0205 | 1150.329209 | | 0.41 | 0.02 | 0.03 | 0.02 | 20.48 |
| 2018 | SC | Construction and Mining | 14 | Excavators | 250 | 16889553.63 | 143.3019916 | 4.757058318 | 9.527329375 | 16890977 | 131.6321414 | 4.000465365 | 8.469810063 | 551798.7971 | 551798.7971 | 988.9244425 | | 0.52 | 0.02 | 0.03 | 0.02 | 30.61 |
| 2018 | SC | Construction and Mining | 14 | Excavators | 500 | 28065603.91 | 185.2818722 | 6.286756159 | 13.19802984 | 28073084.76 | 173.3561157 | 5.615091064 | 12.20171525 | 611099.93 | 611099.93 | 1005.833513 | | 0.61 | 0.02 | 0.04 | 0.02 | 45.94 |
| 2018 | SC | Construction and Mining | 14 | Excavators | 750 | 2545092.833 | 17.68026695 | 0.614955176 | 1.247795307 | 2548088.994 | 17.43814095 | 0.58435848 | 1.201322 | 31634.91509 | 31634.91509 | 51.23960842 | | 1.12 | 0.04 | 0.08 | 0.04 | 80.55 |
| 2018 | SC | Construction and Mining | 14 | Excavators | 1000 | 282727.8912 | 3.239972272 | 0.068847175 | 0.126750715 | 282639.3253 | 3.227077667 | 0.066272787 | 0.122733294 | 2419.454525 | 2419.454525 | 4.099168673 | | 2.68 | 0.06 | 0.10 | 0.05 | 116.82 |
| 2018 | SC | Construction and Mining | 14 | Excavators | 9999 | 555316.3676 | 5.180500104 | 0.096879022 | 0.200334531 | 555316.3676 | 5.180500104 | 0.096879022 | 0.200334531 | 2549.397954 | 2549.397954 | 3.586772589 | | 4.06 | 0.08 | 0.16 | 0.07 | 217.82 |
| 2018 | SC | Construction and Mining | 15 | Graders | 50 | 32118.9634 | 0.593737516 | 0.077828394 | 0.226220938 | 32118.9634 | 0.571122986 | 0.072967542 | 0.214528889 | 5238.436538 | 5238.436538 | 15.96520848 | | 0.23 | 0.03 | 0.09 | 0.03 | 6.13 |
| 2018 | SC | Construction and Mining | 15 | Graders | 120 | 866148.7469 | 24.52884788 | 2.03687852 | 2.583016402 | 864299.2069 | 22.23969534 | 1.819621144 | 2.319587256 | 63676.15765 | 63676.15765 | 169.9522193 | | 0.77 | 0.06 | 0.08 | 0.06 | 13.57 |
| 2018 | SC | Construction and Mining | 15 | Graders | 175 | 8013488.802 | 182.6323042 | 10.30893966 | 14.98606938 | 7995705.436 | 156.3941934 | 8.791959076 | 12.94276362 | 355268.0098 | 355268.0098 | 795.1703837 | | 1.03 | 0.06 | 0.08 | 0.05 | 22.51 |
| 2018 | SC | Construction and Mining | 15 | Graders | 250 | 13980956.98 | 227.945266 | 7.553748478 | 13.81627797 | 13976057.24 | 219.0227618 | 7.120005714 | 13.19812041 | 451347.121 | 451347.121 | 631.3982451 | | 1.01 | 0.03 | 0.06 | 0.03 | 30.97 |
| 2018 | SC | Construction and Mining | 15 | Graders | 500 | 3985217.741 | 41.48157209 | 1.623349274 | 3.321718179 | 3984221.148 | 40.01176636 | 1.548829384 | 3.205964533 | 90574.90998 | 90574.90998 | 117.9365401 | | 0.92 | 0.04 | 0.07 | 0.03 | 43.99 |
| 2018 | SC | Construction and Mining | 15 | Graders | 1000 | 38566.94042 | 1.076406774 | 0.037461284 | 0.067924062 | 38566.94042 | 1.076406774 | 0.037461284 | 0.067924062 | 323.0214909 | 323.0214909 | 0.515006725 | | 6.66 | 0.23 | 0.42 | 0.21 | 119.39 |
| 2018 | SC | Construction and Mining | 15 | Graders | 9999 | 543295.789 | 10.86228539 | 0.3342058 | 0.630547189 | 543295.789 | 10.86228539 | 0.3342058 | 0.630547189 | 1820.927634 | 1820.927634 | 2.575033626 | | 11.93 | 0.37 | 0.69 | 0.34 | 298.36 |
| 2018 | SC | Construction and Mining | 16 | Off-Highway Tractors | 50 | 2011687.956 | 29.22810738 | 2.7376646 | 6.754894144 | 2013663.978 | 26.93695524 | 2.22990439 | 5.310358704 | 300898.2161 | 300898.2161 | 479.4858673 | | 0.19 | 0.02 | 0.04 | 0.02 | 6.69 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2018 | SC | Construction and Mining | 16 | Off-Highway Tractors | 120 | 2561542.969 | 40.84643749 | 3.270382995 | 3.774387574 | 2561019.485 | 36.64132946 | 2.853356965 | 3.301017413 | 213924.9982 | 213924.9982 | 348.6251301 | 0.38 | 0.03 | 0.04 | 0.03 | 11.97 |
| 2018 | SC | Construction and Mining | 16 | Off-Highway Tractors | 175 | 2188267.387 | 24.22097585 | 1.225819044 | 1.807456427 | 2188744.708 | 22.95154579 | 1.152535537 | 1.707697969 | 86472.34184 | 86472.34184 | 132.3764987 | 0.56 | 0.03 | 0.04 | 0.03 | 25.31 |
| 2018 | SC | Construction and Mining | 16 | Off-Highway Tractors | 250 | 1834131.132 | 23.01470058 | 0.862149321 | 1.528827199 | 1834943.408 | 19.10512017 | 0.655874187 | 1.241692785 | 53878.44233 | 53878.44233 | 86.3984018 | 0.85 | 0.03 | 0.06 | 0.03 | 34.06 |
| 2018 | SC | Construction and Mining | 16 | Off-Highway Tractors | 500 | 5162533.72 | 41.45644106 | 1.543969447 | 2.942067712 | 5160217.679 | 33.2250892 | 1.135263557 | 2.382189603 | 97003.38705 | 97003.38705 | 148.5446206 | 0.85 | 0.03 | 0.06 | 0.03 | 53.20 |
| 2018 | SC | Construction and Mining | 16 | Off-Highway Tractors | 750 | 1301050.404 | 8.682820634 | 0.325677998 | 0.651448309 | 1300843.78 | 8.465360413 | 0.314880848 | 0.63161684 | 14197.6066 | 14197.6066 | 21.7259139 | 1.22 | 0.05 | 0.09 | 0.04 | 91.62 |
| 2018 | SC | Construction and Mining | 16 | Off-Highway Tractors | 1000 | 36907.35464 | 1.36043054 | 0.069215424 | 0.095107356 | 36907.35464 | 0.261475468 | 0.006675246 | 0.011824871 | 230.9184822 | 230.9184822 | 0.505253812 | 11.78 | 0.60 | 0.82 | 0.55 | 159.83 |
| 2018 | SC | Construction and Mining | 16 | Off-Highway Tractors | 9999 | 288859.2973 | 6.954664728 | 0.251607064 | 0.44319992 | 303107.6916 | 3.366991053 | 0.087241077 | 0.172548847 | 1072.187766 | 1072.187766 | 2.021015247 | 12.97 | 0.47 | 0.83 | 0.43 | 282.70 |
| 2018 | SC | Construction and Mining | 17 | Off-Highway Trucks | 50 | 193161.0231 | 2.780211006 | 0.235319987 | 0.505513615 | 194700.7219 | 2.743306698 | 0.227651938 | 0.492876697 | 43713.64549 | 43713.64549 | 28.53607973 | 0.13 | 0.01 | 0.02 | 0.01 | 4.45 |
| 2018 | SC | Construction and Mining | 17 | Off-Highway Trucks | 120 | 235978.3206 | 3.710540497 | 0.302667008 | 0.380955329 | 235851.8822 | 3.348543008 | 0.263015627 | 0.339593268 | 19619.90168 | 19619.90168 | 16.02025529 | 0.38 | 0.03 | 0.04 | 0.03 | 12.02 |
| 2018 | SC | Construction and Mining | 17 | Off-Highway Trucks | 175 | 4561904.39 | 51.70572637 | 2.827020162 | 4.603864365 | 4564441.964 | 48.80526944 | 2.648093196 | 4.365448601 | 205959.0243 | 205959.0243 | 153.1936912 | 0.50 | 0.03 | 0.04 | 0.03 | 22.16 |
| 2018 | SC | Construction and Mining | 17 | Off-Highway Trucks | 250 | 9370992.394 | 120.2302522 | 5.208473705 | 9.615997046 | 9375211.315 | 97.72224543 | 4.000576637 | 7.973672934 | 318799.4955 | 318799.4955 | 262.3316804 | 0.75 | 0.03 | 0.06 | 0.03 | 29.41 |
| 2018 | SC | Construction and Mining | 17 | Off-Highway Trucks | 500 | 39779030.76 | 421.4932279 | 16.17066664 | 32.03802536 | 39736550.84 | 366.4783295 | 13.37630173 | 28.1344031 | 756507.5101 | 756507.5101 | 582.7367861 | 1.11 | 0.04 | 0.08 | 0.04 | 52.53 |
| 2018 | SC | Construction and Mining | 17 | Off-Highway Trucks | 750 | 14193065.64 | 187.8414671 | 7.751684313 | 14.4397828 | 14194283.79 | 156.7968486 | 6.078072922 | 12.21318185 | 153866.6939 | 153866.6939 | 133.1683721 | 2.44 | 0.10 | 0.19 | 0.09 | 92.25 |
| 2018 | SC | Construction and Mining | 17 | Off-Highway Trucks | 1000 | 9826443.777 | 154.649342 | 4.157651604 | 8.114241652 | 9820219.846 | 144.0467232 | 3.749902689 | 7.26937722 | 78510.93883 | 78510.93883 | 61.07722329 | 3.94 | 0.11 | 0.21 | 0.10 | 125.08 |
| 2018 | SC | Construction and Mining | 17 | Off-Highway Trucks | 9999 | 14250855.12 | 194.4409201 | 5.366058243 | 11.4694303 | 14252066.73 | 186.6207422 | 5.075067765 | 10.87558909 | 57032.79167 | 57032.79167 | 39.55000525 | 6.82 | 0.19 | 0.40 | 0.17 | 249.89 |
| 2018 | SC | Construction and Mining | 18 | Other Construction Equipment | 50 | 1088351.197 | 15.54863157 | 1.339539083 | 2.892401967 | 1087645.544 | 15.38532223 | 1.310971748 | 2.818561918 | 167699.4622 | 167699.4622 | 370.2788092 | 0.19 | 0.02 | 0.03 | 0.01 | 6.49 |
| 2018 | SC | Construction and Mining | 18 | Other Construction Equipment | 120 | 3412675.622 | 59.20303542 | 4.570488747 | 5.439715937 | 3409220.607 | 55.76213669 | 4.269828047 | 5.062225844 | 274399.3216 | 274399.3216 | 653.3452475 | 0.43 | 0.03 | 0.04 | 0.03 | 12.42 |
| 2018 | SC | Construction and Mining | 18 | Other Construction Equipment | 175 | 1854016.144 | 29.95642609 | 1.601430203 | 2.277170557 | 1854037.035 | 26.61094022 | 1.400172271 | 2.018590998 | 80148.97493 | 80148.97493 | 203.3294134 | 0.75 | 0.04 | 0.06 | 0.04 | 23.13 |
| 2018 | SC | Construction and Mining | 18 | Other Construction Equipment | 250 | 2379471.265 | 33.1632502 | 1.280927727 | 2.100125541 | 2379138.579 | 29.35046235 | 1.062415879 | 1.806632067 | 71477.8966 | 71477.8966 | 182.3984444 | 0.93 | 0.04 | 0.06 | 0.03 | 33.28 |
| 2018 | SC | Construction and Mining | 18 | Other Construction Equipment | 500 | 8117000.003 | 87.53643325 | 3.30824805 | 5.769867822 | 8111477.512 | 76.6962537 | 2.77554335 | 5.021815413 | 148205.4755 | 148205.4755 | 354.3314042 | 1.18 | 0.04 | 0.08 | 0.04 | 54.73 |
| 2018 | SC | Construction and Mining | 18 | Other Construction Equipment | 750 | 3166224.02 | 34.84725835 | 1.212871576 | 2.110575822 | 3170135.516 | 28.56147978 | 0.939223396 | 1.714378932 | 34700.02446 | 34700.02446 | 73.25839159 | 2.01 | 0.07 | 0.12 | 0.06 | 91.36 |
| 2018 | SC | Construction and Mining | 18 | Other Construction Equipment | 1000 | 368807.4351 | 4.26974793 | 0.101954869 | 0.171940411 | 368788.2737 | 4.26008469 | 0.101571148 | 0.170407184 | 2923.742064 | 2923.742064 | 6.47863327 | 2.92 | 0.07 | 0.12 | 0.06 | 126.14 |
| 2018 | SC | Construction and Mining | 18 | Other Construction Equipment | 9999 | 229740.5561 | 3.453323433 | 0.093542547 | 0.165579156 | 229925.627 | 3.176087618 | 0.085421115 | 0.157828106 | 1369.989059 | 1369.989059 | 2.990138432 | 5.04 | 0.14 | 0.24 | 0.13 | 167.83 |
| 2018 | SC | Construction and Mining | 19 | Pavers | 50 | 133211.0452 | 1.949019695 | 0.192824309 | 0.515068976 | 133193.3323 | 1.836493548 | 0.171481217 | 0.456001709 | 20276.50339 | 20276.50339 | 60.01610489 | 0.19 | 0.02 | 0.05 | 0.02 | 6.57 |
| 2018 | SC | Construction and Mining | 19 | Pavers | 120 | 1289929.069 | 20.71963004 | 1.57305836 | 1.852911859 | 1290460.455 | 19.54390752 | 1.46087889 | 1.723630869 | 106849.1412 | 106849.1412 | 291.5782429 | 0.39 | 0.03 | 0.03 | 0.03 | 12.08 |
| 2018 | SC | Construction and Mining | 19 | Pavers | 175 | 1754116.982 | 21.20678448 | 1.052355326 | 1.590658839 | 1754570.709 | 19.71111183 | 0.963122935 | 1.472494226 | 72645.1594 | 72645.1594 | 197.0528777 | 0.58 | 0.03 | 0.04 | 0.03 | 24.15 |
| 2018 | SC | Construction and Mining | 19 | Pavers | 250 | 1180499.63 | 11.96949485 | 0.318943703 | 0.567150208 | 1181181.13 | 12.29792645 | 0.326407258 | 0.579690479 | 36255.38593 | 36255.38593 | 85.02281526 | 0.66 | 0.02 | 0.03 | 0.02 | 32.58 |
| 2018 | SC | Construction and Mining | 19 | Pavers | 500 | 444771.8434 | 3.138582014 | 0.111739783 | 0.183709684 | 444771.8434 | 3.138582014 | 0.111739783 | 0.183709684 | 9024.401536 | 9024.401536 | 21.00563671 | 0.70 | 0.02 | 0.04 | 0.02 | 49.29 |
| 2018 | SC | Construction and Mining | 19 | Pavers | 750 | 51543.55058 | 0.383061346 | 0.017083112 | 0.025171294 | 51543.55058 | 0.383061346 | 0.017083112 | 0.025171294 | 450.7964754 | 450.7964754 | 1.000268415 | 1.70 | 0.08 | 0.11 | 0.07 | 114.34 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2018 | SC | Construction and Mining | 20 | Paving Equipment | 50 | 165798.9106 | 1.989621955 | 0.139130269 | 0.308901054 | 165835.2654 | 1.948559557 | 0.129244586 | 0.275366383 | 33154.13572 | 33154.13572 | 73.90082722 | 0.12 | 0.01 | 0.02 | 0.01 | 5.00 |
| 2018 | SC | Construction and Mining | 20 | Paving Equipment | 120 | 754177.9276 | 10.6246972 | 0.769027153 | 0.947349311 | 753927.1924 | 9.63654136 | 0.68179218 | 0.838180936 | 65068.95474 | 65068.95474 | 150.7976339 | 0.33 | 0.02 | 0.03 | 0.02 | 11.59 |
| 2018 | SC | Construction and Mining | 20 | Paving Equipment | 175 | 710460.1091 | 7.736481306 | 0.387158927 | 0.573929065 | 710306.022 | 6.784219094 | 0.332161024 | 0.50143633 | 36817.11871 | 36817.11871 | 82.38943575 | 0.42 | 0.02 | 0.03 | 0.02 | 19.29 |
| 2018 | SC | Construction and Mining | 20 | Paving Equipment | 250 | 372268.8074 | 4.277002539 | 0.160443814 | 0.266587902 | 372397.0944 | 4.009434422 | 0.13743033 | 0.238621046 | 13242.39334 | 13242.39334 | 29.95979482 | 0.65 | 0.02 | 0.04 | 0.02 | 28.12 |
| 2018 | SC | Construction and Mining | 20 | Paving Equipment | 500 | 524816.377 | 4.935009679 | 0.17677857 | 0.303071071 | 524760.3563 | 5.069511284 | 0.184033089 | 0.314270351 | 11971.28474 | 11971.28474 | 26.96381534 | 0.82 | 0.03 | 0.05 | 0.03 | 43.83 |
| 2018 | SC | Construction and Mining | 20 | Paving Equipment | 750 | 249020.2343 | 2.525062414 | 0.061423522 | 0.132567945 | 249020.2343 | 2.520924674 | 0.061311677 | 0.132143317 | 3157.135169 | 3157.135169 | 6.491288877 | 1.60 | 0.04 | 0.08 | 0.04 | 78.88 |
| 2018 | SC | Construction and Mining | 20 | Paving Equipment | 1000 | 48694.74834 | 0.334861604 | 0.00526403 | 0.00940999 | 48694.74834 | 0.334861604 | 0.00526403 | 0.00940999 | 443.2285814 | 443.2285814 | 0.998659827 | 1.51 | 0.02 | 0.04 | 0.02 | 109.86 |
| 2018 | SC | Construction and Mining | 21 | Rollers | 50 | 2734546.175 | 36.53732216 | 3.00731169 | 6.917496472 | 2735184.016 | 35.70679979 | 2.851763501 | 6.487341299 | 499789.285 | 499789.285 | 1516.256743 | 0.15 | 0.01 | 0.03 | 0.01 | 5.47 |
| 2018 | SC | Construction and Mining | 21 | Rollers | 120 | 4272923.215 | 64.27534159 | 4.518833104 | 5.596519742 | 4273173.086 | 59.46986687 | 4.092521641 | 5.08377043 | 355960.5924 | 355960.5924 | 1130.76774 | 0.36 | 0.03 | 0.03 | 0.02 | 12.00 |
| 2018 | SC | Construction and Mining | 21 | Rollers | 175 | 4418404.777 | 45.34743147 | 2.117539081 | 3.138654525 | 4418371.651 | 42.23819566 | 1.95485706 | 2.910209747 | 223276.4126 | 223276.4126 | 653.7893481 | 0.41 | 0.02 | 0.03 | 0.02 | 19.79 |
| 2018 | SC | Construction and Mining | 21 | Rollers | 250 | 697931.9093 | 7.26513998 | 0.249915044 | 0.440632252 | 697783.0921 | 6.260905735 | 0.196026293 | 0.364994567 | 23702.55422 | 23702.55422 | 80.18171251 | 0.61 | 0.02 | 0.04 | 0.02 | 29.44 |
| 2018 | SC | Construction and Mining | 21 | Rollers | 500 | 441663.007 | 4.957649723 | 0.201573681 | 0.326934272 | 441663.007 | 4.047303126 | 0.155545518 | 0.264279113 | 9432.23512 | 9432.23512 | 32.89506154 | 1.05 | 0.04 | 0.07 | 0.04 | 46.82 |
| 2018 | SC | Construction and Mining | 21 | Rollers | 750 | 21473.65244 | 0.073744169 | 0.003031969 | 0.005324648 | 21473.65244 | 0.044950377 | 0.000589501 | 0.00402416 | 299.1611106 | 299.1611106 | 1.027970673 | 0.49 | 0.02 | 0.04 | 0.02 | 71.78 |
| 2018 | SC | Construction and Mining | 22 | Rough Terrain | 50 | 139309.7152 | 1.781139084 | 0.134970644 | 0.332977742 | 139310.5907 | 1.779863691 | 0.13477576 | 0.332353715 | 17940.97157 | 17940.97157 | 68.86768545 | 0.20 | 0.02 | 0.04 | 0.01 | 7.76 |
| 2018 | SC | Construction and Mining | 22 | Rough Terrain | 120 | 11213670.22 | 98.96368059 | 4.855392628 | 6.532805563 | 11213911.71 | 95.6676155 | 4.573040388 | 6.174653603 | 787786.8977 | 787786.8977 | 2950.624109 | 0.25 | 0.01 | 0.02 | 0.01 | 14.23 |
| 2018 | SC | Construction and Mining | 22 | Rough Terrain | 175 | 2061540.714 | 15.47273249 | 0.599888826 | 0.921198698 | 2061540.714 | 14.51224581 | 0.542890027 | 0.838303574 | 107919.9864 | 107919.9864 | 394.8018174 | 0.29 | 0.01 | 0.02 | 0.01 | 19.10 |
| 2018 | SC | Construction and Mining | 22 | Rough Terrain | 250 | 169487.4786 | 2.915140679 | 0.137762889 | 0.211453351 | 169398.1493 | 1.263855243 | 0.030376642 | 0.06386469 | 5504.309313 | 5504.309313 | 23.1537908 | 1.06 | 0.05 | 0.08 | 0.05 | 30.78 |
| 2018 | SC | Construction and Mining | 22 | Rough Terrain | 500 | 71607.02733 | 0.538331105 | 0.02083029 | 0.036305726 | 71874.09964 | 0.588358883 | 0.013051791 | 0.026138688 | 1314.932765 | 1314.932765 | 5.343182491 | 0.82 | 0.03 | 0.06 | 0.03 | 54.66 |
| 2018 | SC | Construction and Mining | 22 | Rough Terrain | 750 | 11240.21985 | 0.514610901 | 0.027787357 | 0.041574435 | 11240.21985 | 0.044710419 | 0.00031043 | 0.002641312 | 121.8997096 | 121.8997096 | 0.593686943 | 8.44 | 0.46 | 0.68 | 0.42 | 92.21 |
| 2018 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 50 | 119921.6824 | 2.201852697 | 0.291975795 | 0.811223269 | 121351.8447 | 1.462262792 | 0.122828354 | 0.326012645 | 18145.87746 | 18145.87746 | 20.06747017 | 0.24 | 0.03 | 0.09 | 0.03 | 6.69 |
| 2018 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 120 | 572742.4373 | 15.89041914 | 1.416318454 | 1.696717947 | 574821.337 | 13.53553244 | 1.175229655 | 1.422676505 | 47951.1254 | 47951.1254 | 59.71296001 | 0.66 | 0.06 | 0.07 | 0.05 | 11.99 |
| 2018 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 175 | 479279.8471 | 13.31826588 | 0.76629989 | 1.091189254 | 478876.7181 | 11.51129082 | 0.660874584 | 0.951555963 | 22004.14086 | 22004.14086 | 30.83538099 | 1.21 | 0.07 | 0.10 | 0.06 | 21.76 |
| 2018 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 250 | 500107.4198 | 11.8108467 | 0.585553813 | 0.909159493 | 500107.4198 | 10.75634643 | 0.52289181 | 0.825326654 | 16232.53911 | 16232.53911 | 23.9830741 | 1.46 | 0.07 | 0.11 | 0.07 | 30.81 |
| 2018 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 500 | 5735357.46 | 123.7825239 | 5.783230441 | 9.330591899 | 5728453.163 | 110.1238355 | 5.08474357 | 8.371627996 | 109786.0124 | 109786.0124 | 160.0503108 | 2.25 | 0.11 | 0.17 | 0.10 | 52.18 |
| 2018 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 750 | 673385.8352 | 13.57546269 | 0.500574202 | 0.84469865 | 673385.8352 | 13.57546269 | 0.500574202 | 0.84469865 | 7929.500918 | 7929.500918 | 9.789009837 | 3.42 | 0.13 | 0.21 | 0.12 | 84.92 |
| 2018 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 50 | 380152.2433 | 6.103252632 | 0.64798966 | 1.663231114 | 380142.6192 | 5.834426784 | 0.591493983 | 1.498564583 | 61778.97746 | 61778.97746 | 75.50304528 | 0.20 | 0.02 | 0.05 | 0.02 | 6.15 |
| 2018 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 120 | 9238551.606 | 170.852882 | 14.4072032 | 17.17571942 | 9245471.823 | 153.8908448 | 12.70877519 | 15.23532667 | 818813.9988 | 818813.9988 | 938.6865089 | 0.42 | 0.04 | 0.04 | 0.03 | 11.29 |
| 2018 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 175 | 21951916.74 | 330.936248 | 18.54546363 | 27.77919453 | 21954898.64 | 288.5788046 | 16.00761008 | 24.46210163 | 1104364.571 | 1104364.571 | 1229.98542 | 0.60 | 0.03 | 0.05 | 0.03 | 19.88 |
| 2018 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 250 | 30248042.18 | 394.8760582 | 13.6569472 | 26.46082261 | 30245260.83 | 377.2367136 | 12.79408321 | 25.1651909 | 1111945.816 | 1111945.816 | 1093.263689 | 0.71 | 0.02 | 0.05 | 0.02 | 27.20 |
| 2018 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 500 | 39431757.65 | 523.1642881 | 20.32568478 | 38.22247002 | 39314470.39 | 445.2929366 | 16.67157149 | 32.97344204 | 937331.6158 | 937331.6158 | 1015.720021 | 1.12 | 0.04 | 0.08 | 0.04 | 41.94 |
| 2018 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 750 | 7001085.356 | 84.28114338 | 3.35053946 | 6.414055449 | 6994728.415 | 76.61334154 | 3.025890325 | 5.907769852 | 90277.10629 | 90277.10629 | 89.7874052 | 1.87 | 0.07 | 0.14 | 0.07 | 77.48 |
| 2018 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 1000 | 2029298.548 | 37.61805592 | 1.066436939 | 1.911508264 | 2026784.163 | 34.6778924 | 0.942113612 | 1.696725042 | 18315.8494 | 18315.8494 | 16.32498276 | 4.11 | 0.12 | 0.21 | 0.11 | 110.66 |
| 2018 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 9999 | 807134.046 | 11.21688478 | 0.266917981 | 0.510097621 | 807134.046 | 9.95811312 | 0.216508839 | 0.415183853 | 4023.17257 | 4023.17257 | 3.57108998 | 5.58 | 0.13 | 0.25 | 0.12 | 200.62 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2018 | SC | Construction and Mining | 25 | Scrapers | 50 | 8706.118171 | 0.160845914 | 0.021984351 | 0.065200308 | 8706.118171 | 0.160845914 | 0.021984351 | 0.065200308 | 1229.083966 | 1229.083966 | 3.529471046 | | 0.26 | 0.04 | 0.11 | 0.03 | 7.08 |
| 2018 | SC | Construction and Mining | 25 | Scrapers | 120 | 397423.9154 | 8.300457138 | 0.640562829 | 0.72484945 | 397423.9154 | 8.191147203 | 0.63160717 | 0.712288729 | 25963.09643 | 25963.09643 | 50.92522509 | | 0.64 | 0.05 | 0.06 | 0.05 | 15.31 |
| 2018 | SC | Construction and Mining | 25 | Scrapers | 175 | 4194509.63 | 81.26426846 | 4.417331073 | 6.412598336 | 4194121.609 | 70.0724484 | 3.762819409 | 5.52830945 | 140584.2609 | 140584.2609 | 327.232387 | | 1.16 | 0.06 | 0.09 | 0.06 | 29.83 |
| 2018 | SC | Construction and Mining | 25 | Scrapers | 250 | 4822452.769 | 114.4368347 | 5.219801749 | 8.107311924 | 4820657.348 | 95.69520973 | 4.229344889 | 6.707258873 | 121882.9569 | 121882.9569 | 317.6523941 | | 1.88 | 0.09 | 0.13 | 0.08 | 39.55 |
| 2018 | SC | Construction and Mining | 25 | Scrapers | 500 | 42216124.09 | 690.2117649 | 28.3451412 | 46.49379483 | 42200630.12 | 578.5432294 | 22.80038753 | 38.64148322 | 624601.4276 | 624601.4276 | 1396.157904 | | 2.21 | 0.09 | 0.15 | 0.08 | 67.56 |
| 2018 | SC | Construction and Mining | 25 | Scrapers | 750 | 19310519.48 | 258.3886008 | 9.974908678 | 17.0358857 | 19307505.61 | 217.1523209 | 7.826055971 | 14.07501396 | 192972.7565 | 192972.7565 | 397.8218079 | | 2.68 | 0.10 | 0.18 | 0.10 | 100.05 |
| 2018 | SC | Construction and Mining | 25 | Scrapers | 1000 | 302209.2789 | 12.15602081 | 0.566758131 | 0.880461894 | 302209.2789 | 12.15602081 | 0.566758131 | 0.880461894 | 1796.845871 | 1796.845871 | 6.554731942 | | 13.53 | 0.63 | 0.98 | 0.58 | 168.19 |
| 2018 | SC | Construction and Mining | 25 | Scrapers | 9999 | 1098460.82 | 24.53891652 | 0.952119417 | 1.484513737 | 1098460.82 | 24.53891652 | 0.952119417 | 1.484513737 | 3156.958048 | 3156.958048 | 6.554731942 | | 15.55 | 0.60 | 0.94 | 0.55 | 347.95 |
| 2018 | SC | Construction and Mining | 26 | Skid Steer Loaders | 50 | 2067581.178 | 21.67200143 | 0.993265173 | 2.276389936 | 2067471.169 | 21.6330083 | 0.99167014 | 2.238727388 | 314983.4239 | 314983.4239 | 1050.433677 | | 0.14 | 0.01 | 0.01 | 0.01 | 6.56 |
| 2018 | SC | Construction and Mining | 26 | Skid Steer Loaders | 120 | 10978565.8 | 95.53234223 | 4.693426809 | 6.01023813 | 10975470.71 | 94.34297227 | 4.610990088 | 5.883908929 | 1151316.588 | 1151316.588 | 3389.822907 | | 0.17 | 0.01 | 0.01 | 0.01 | 9.53 |
| 2018 | SC | Construction and Mining | 26 | Skid Steer Loaders | 175 | 74230.81936 | 0.629476983 | 0.027400242 | 0.038286402 | 74038.26828 | 0.570418832 | 0.026299687 | 0.035623533 | 3618.449102 | 3618.449102 | 14.06133331 | | 0.35 | 0.02 | 0.02 | 0.01 | 20.46 |
| 2018 | SC | Construction and Mining | 26 | Skid Steer Loaders | 250 | 57034.32699 | 0.560632891 | 0.020683352 | 0.033992966 | 56652.83806 | 0.299075324 | 0.008409252 | 0.016332268 | 2139.270497 | 2139.270497 | 7.811851837 | | 0.52 | 0.02 | 0.03 | 0.02 | 26.48 |
| 2018 | SC | Construction and Mining | 26 | Skid Steer Loaders | 500 | 15680.30579 | 0.029526003 | 0.000423599 | 0.002690714 | 15680.30579 | 0.028986428 | 0.00042063 | 0.002600496 | 430.3488755 | 430.3488755 | 1.562370367 | | 0.14 | 0.00 | 0.01 | 0.00 | 36.44 |
| 2018 | SC | Construction and Mining | 26 | Skid Steer Loaders | 750 | 16540.65608 | 0.120649812 | 0.005146716 | 0.006718046 | 16540.65608 | 0.120649812 | 0.005146716 | 0.006718046 | 230.7667883 | 230.7667883 | 0.520790122 | | 1.05 | 0.04 | 0.06 | 0.04 | 71.68 |
| 2018 | SC | Construction and Mining | 26 | Skid Steer Loaders | 1000 | 26991.38168 | 0.324568444 | 0.008214811 | 0.014987055 | 26991.38168 | 0.338909244 | 0.010955082 | 0.017748406 | 199.5820872 | 199.5820872 | 1.041580245 | | 3.25 | 0.08 | 0.15 | 0.08 | 135.24 |
| 2018 | SC | Construction and Mining | 27 | Surfacing Equipment | 50 | 19137.82131 | 0.267326227 | 0.020604971 | 0.045137542 | 19137.82131 | 0.244485899 | 0.016222616 | 0.03265604 | 4279.264354 | 4279.264354 | 18.42610757 | | 0.12 | 0.01 | 0.02 | 0.01 | 4.47 |
| 2018 | SC | Construction and Mining | 27 | Surfacing Equipment | 120 | 150066.7978 | 2.02758459 | 0.130057125 | 0.165308459 | 150081.9933 | 1.927539805 | 0.12079315 | 0.153980527 | 15266.82878 | 15266.82878 | 59.05803709 | | 0.27 | 0.02 | 0.02 | 0.02 | 9.83 |
| 2018 | SC | Construction and Mining | 27 | Surfacing Equipment | 175 | 77244.88404 | 1.079287972 | 0.051639771 | 0.074507561 | 77372.61406 | 1.044224955 | 0.050193523 | 0.072320058 | 4650.235071 | 4650.235071 | 19.84350046 | | 0.46 | 0.02 | 0.03 | 0.02 | 16.64 |
| 2018 | SC | Construction and Mining | 27 | Surfacing Equipment | 250 | 164139.4546 | 2.120314876 | 0.062661337 | 0.107681162 | 164219.8644 | 1.952553584 | 0.055164304 | 0.097483194 | 6817.156467 | 6817.156467 | 29.7652507 | | 0.62 | 0.02 | 0.03 | 0.02 | 24.09 |
| 2018 | SC | Construction and Mining | 27 | Surfacing Equipment | 500 | 520569.1819 | 3.640084446 | 0.130457605 | 0.219824662 | 520544.0945 | 3.46370393 | 0.119524808 | 0.204448834 | 13050.41048 | 13050.41048 | 49.13628686 | | 0.56 | 0.02 | 0.03 | 0.02 | 39.89 |
| 2018 | SC | Construction and Mining | 27 | Surfacing Equipment | 750 | 480486.3216 | 3.284429537 | 0.113305325 | 0.170469058 | 480486.3216 | 3.284429537 | 0.113305325 | 0.170469058 | 7082.310499 | 7082.310499 | 24.56814343 | | 0.93 | 0.03 | 0.05 | 0.03 | 67.84 |
| 2018 | SC | Construction and Mining | 27 | Surfacing Equipment | 1000 | 78489.61988 | 1.362656084 | 0.033855492 | 0.059726753 | 78489.61988 | 1.362656084 | 0.033855492 | 0.059726753 | 867.9245828 | 867.9245828 | 3.307250077 | | 3.14 | 0.08 | 0.14 | 0.07 | 90.43 |
| 2018 | SC | Construction and Mining | 27 | Surfacing Equipment | 9999 | 27508.20225 | 0.325617069 | 0.007549168 | 0.012540998 | 27508.20225 | 0.325617069 | 0.007549168 | 0.012540998 | 221.3663571 | 221.3663571 | 0.944928594 | | 2.94 | 0.07 | 0.11 | 0.06 | 124.27 |
| 2018 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 50 | 4095567.881 | 55.5298531 | 4.455641831 | 10.22752379 | 4097313.29 | 53.63553243 | 4.081264013 | 9.230281104 | 723508.6541 | 723508.6541 | 1470.002474 | | 0.15 | 0.01 | 0.03 | 0.01 | 5.66 |
| 2018 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 120 | 65869149.58 | 862.8524285 | 62.5787054 | 73.56380739 | 65802979.27 | 814.9333079 | 57.73322062 | 68.15187688 | 5842812.443 | 5842812.443 | 9981.163139 | | 0.30 | 0.02 | 0.03 | 0.02 | 11.26 |
| 2018 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 175 | 11382737.28 | 122.80103 | 6.281441341 | 9.513974808 | 11378471.57 | 109.3054362 | 5.503248583 | 8.46946548 | 590121.6377 | 590121.6377 | 1116.587245 | | 0.42 | 0.02 | 0.03 | 0.02 | 19.28 |
| 2018 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 250 | 6622603.283 | 76.53203917 | 2.594960916 | 4.78860571 | 6626569.873 | 68.99324835 | 2.226249762 | 4.26647817 | 240402.4661 | 240402.4661 | 446.634898 | | 0.64 | 0.02 | 0.04 | 0.02 | 27.56 |
| 2018 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 500 | 8825554.74 | 82.2175571 | 2.93075776 | 5.63988906 | 8827579.967 | 71.3597005 | 2.464753716 | 4.910542971 | 205617.891 | 205617.891 | 403.0982393 | | 0.80 | 0.03 | 0.05 | 0.03 | 42.93 |
| 2018 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 750 | 1260121.485 | 13.6711661 | 0.508708307 | 0.908137332 | 1260055.194 | 13.02019995 | 0.475517 | 0.857715124 | 16395.22387 | 16395.22387 | 28.17077912 | | 1.67 | 0.06 | 0.11 | 0.06 | 76.86 |
| 2018 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 1000 | 212811.4813 | 2.447887415 | 0.051505635 | 0.094428303 | 212811.4813 | 2.447887415 | 0.051505635 | 0.094428303 | 1788.021433 | 1788.021433 | 2.56097992 | | 2.74 | 0.06 | 0.11 | 0.05 | 119.02 |
| 2018 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 9999 | 2986246.347 | 39.98657065 | 1.089002171 | 1.975994491 | 2986246.347 | 35.42533 | 0.848591428 | 1.600219272 | 10993.17695 | 10993.17695 | 18.95125141 | | 7.27 | 0.20 | 0.36 | 0.18 | 271.65 |
| 2018 | SC | Construction and Mining | 29 | Trenchers | 50 | 1450421.736 | 19.4587456 | 1.621047427 | 3.418638112 | 1450498.29 | 19.32543244 | 1.594835242 | 3.344836062 | 176837.7763 | 176837.7763 | 482.0643709 | | 0.22 | 0.02 | 0.04 | 0.02 | 8.20 |
| 2018 | SC | Construction and Mining | 29 | Trenchers | 120 | 1049402.397 | 19.58842146 | 1.505474802 | 1.81939057 | 1049850.738 | 18.52787473 | 1.409373903 | 1.703465868 | 68912.5087 | 68912.5087 | 223.5025719 | | 0.57 | 0.04 | 0.05 | 0.04 | 15.23 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2018 | SC | Construction and Mining | 29 | Trenchers | 175 | 214333.6415 | 4.13813485 | 0.21849379 | 0.318495003 | 214325.0309 | 3.33120842 | 0.169764981 | 0.252558962 | 8152.504524 | 8152.504524 | 29.58122276 | | 1.02 | 0.05 | 0.08 | 0.05 | 26.29 |
| 2018 | SC | Construction and Mining | 29 | Trenchers | 250 | 420766.4139 | 7.269799592 | 0.30586284 | 0.489139779 | 420146.0517 | 6.666974797 | 0.266736526 | 0.435923936 | 10405.96671 | 10405.96671 | 35.05922697 | | 1.40 | 0.06 | 0.09 | 0.05 | 40.38 |
| 2018 | SC | Construction and Mining | 29 | Trenchers | 500 | 708760.1554 | 6.864175496 | 0.258472926 | 0.452020132 | 708760.1554 | 6.846861573 | 0.258455217 | 0.451083225 | 10736.97764 | 10736.97764 | 31.77242444 | | 1.28 | 0.05 | 0.08 | 0.04 | 66.01 |
| 2018 | SC | Construction and Mining | 29 | Trenchers | 750 | 320882.4604 | 0.979661916 | 0.027364748 | 0.074220585 | 320882.4604 | 0.979661916 | 0.027364748 | 0.074220585 | 2785.78514 | 2785.78514 | 6.573605057 | | 0.70 | 0.02 | 0.05 | 0.02 | 115.19 |
| 2018 | SC | Construction and Mining | 29 | Trenchers | 1000 | 18899.34617 | 0.751241169 | 0.034468536 | 0.053913232 | 18899.34617 | 0.751241169 | 0.034468536 | 0.053913232 | 119.1643088 | 119.1643088 | 0.547800421 | | 12.61 | 0.58 | 0.90 | 0.53 | 158.60 |
| 2018 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 50 | 1261211.331 | 18.76638316 | 1.883949598 | 4.575555751 | 1261211.331 | 18.37693859 | 1.806510139 | 4.346240632 | 190468.0614 | 190468.0614 | 282.9563095 | | 0.20 | 0.02 | 0.05 | 0.02 | 6.62 |
| 2018 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 120 | 1949243.937 | 31.85212723 | 2.669544853 | 3.101498187 | 1949243.937 | 29.9387264 | 2.496807426 | 2.887948194 | 149718.8049 | 149718.8049 | 230.3715086 | | 0.43 | 0.04 | 0.04 | 0.03 | 13.02 |
| 2018 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 175 | 486219.3003 | 11.34006985 | 0.614967593 | 0.908269127 | 486219.3003 | 8.846062683 | 0.465881681 | 0.709215009 | 18193.56315 | 18193.56315 | 26.54280425 | | 1.25 | 0.07 | 0.10 | 0.06 | 26.72 |
| 2018 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 250 | 259135.2898 | 4.232152557 | 0.17031107 | 0.282490999 | 259135.2898 | 3.361786022 | 0.132162795 | 0.225728086 | 7612.971639 | 7612.971639 | 11.0177678 | | 1.11 | 0.04 | 0.07 | 0.04 | 34.04 |
| 2018 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 500 | 72295.35661 | 1.323912394 | 0.058272298 | 0.087925809 | 72295.35661 | 1.323912394 | 0.058272298 | 0.087925809 | 1429.339006 | 1429.339006 | 2.003230509 | | 1.85 | 0.08 | 0.12 | 0.08 | 50.58 |
| 2018 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 1000 | 50666.49785 | 0.633753542 | 0.017381171 | 0.027129774 | 50666.49785 | 0.633753542 | 0.017381171 | 0.027129774 | 357.3347516 | 357.3347516 | 0.500807627 | | 3.55 | 0.10 | 0.15 | 0.09 | 141.79 |
| 2019 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 50 | 126066.8383 | 1.604473504 | 0.105787089 | 0.21050113 | 125764.5523 | 1.577094266 | 0.101125608 | 0.199338587 | 15366.04325 | 15366.04325 | 44.7742872 | | 0.21 | 0.01 | 0.03 | 0.01 | 8.18 |
| 2019 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 120 | 783040.8475 | 7.993996227 | 0.434643706 | 0.533229749 | 784576.9364 | 7.993271664 | 0.433682461 | 0.531407286 | 52778.2521 | 52778.2521 | 137.1507113 | | 0.30 | 0.02 | 0.02 | 0.02 | 14.87 |
| 2019 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 175 | 907451.0347 | 6.224287853 | 0.281389536 | 0.46551237 | 908481.8197 | 5.451481307 | 0.236660659 | 0.404858026 | 32838.02159 | 32838.02159 | 107.4582893 | | 0.38 | 0.02 | 0.03 | 0.02 | 27.67 |
| 2019 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 250 | 1280108.53 | 7.906031644 | 0.240625356 | 0.505684854 | 1279712.051 | 7.384529941 | 0.20942589 | 0.461874906 | 33875.42162 | 33875.42162 | 106.986981 | | 0.47 | 0.01 | 0.03 | 0.01 | 37.78 |
| 2019 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 500 | 1448949.121 | 8.871536549 | 0.293077485 | 0.592386819 | 1449327.15 | 6.829500379 | 0.210898867 | 0.470091645 | 22766.12207 | 22766.12207 | 74.93801752 | | 0.78 | 0.03 | 0.05 | 0.02 | 63.66 |
| 2019 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 750 | 1940348.535 | 8.648491895 | 0.284523361 | 0.573178891 | 1941261.395 | 8.459077961 | 0.2792522 | 0.562101203 | 17226.43285 | 17226.43285 | 37.23335462 | | 1.00 | 0.03 | 0.07 | 0.03 | 112.69 |
| 2019 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 1000 | 155451.8991 | 1.420604334 | 0.028425511 | 0.049934701 | 155451.8991 | 1.420604334 | 0.028425511 | 0.049934701 | 917.5826681 | 917.5826681 | 1.413924859 | | 3.10 | 0.06 | 0.11 | 0.06 | 169.41 |
| 2019 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 9999 | 526863.4689 | 6.811297923 | 0.170836903 | 0.252570916 | 526863.4689 | 6.811297923 | 0.170836903 | 0.252570916 | 1071.339764 | 1071.339764 | 1.413924859 | | 12.72 | 0.32 | 0.47 | 0.29 | 491.78 |
| 2019 | SC | Construction and Mining | 12 | Cranes | 50 | 41521.81846 | 0.686284666 | 0.072010829 | 0.198518537 | 41521.81846 | 0.676515356 | 0.069884788 | 0.192132636 | 8809.224767 | 8809.224767 | 20.73963683 | | 0.16 | 0.02 | 0.05 | 0.02 | 4.71 |
| 2019 | SC | Construction and Mining | 12 | Cranes | 120 | 990738.1344 | 25.87327251 | 1.917586258 | 2.55681682 | 991010.7797 | 20.80628527 | 1.496616254 | 1.985053357 | 105863.7571 | 105863.7571 | 250.060764 | | 0.49 | 0.04 | 0.05 | 0.03 | 9.36 |
| 2019 | SC | Construction and Mining | 12 | Cranes | 175 | 2614264.031 | 57.32194949 | 3.130495915 | 4.537028498 | 2614158.223 | 46.45318478 | 2.481163336 | 3.663535929 | 166277.1083 | 166277.1083 | 375.091146 | | 0.69 | 0.04 | 0.05 | 0.03 | 15.72 |
| 2019 | SC | Construction and Mining | 12 | Cranes | 250 | 4416225.859 | 90.66818511 | 4.199490339 | 6.52221817 | 4415659.655 | 67.30263422 | 2.85292049 | 4.667082138 | 192088.7844 | 192088.7844 | 421.3109081 | | 0.94 | 0.04 | 0.07 | 0.04 | 22.99 |
| 2019 | SC | Construction and Mining | 12 | Cranes | 500 | 6771136.007 | 102.5963521 | 4.277554082 | 6.913252818 | 6773551.889 | 87.30444268 | 3.516148592 | 5.862103359 | 190367.1703 | 190367.1703 | 404.1266376 | | 1.08 | 0.04 | 0.07 | 0.04 | 35.58 |
| 2019 | SC | Construction and Mining | 12 | Cranes | 750 | 1781685.237 | 20.22872073 | 0.750289238 | 1.236695665 | 1781230.185 | 18.39448251 | 0.664140501 | 1.117683202 | 29789.75651 | 29789.75651 | 59.25610522 | | 1.36 | 0.05 | 0.08 | 0.05 | 59.79 |
| 2019 | SC | Construction and Mining | 12 | Cranes | 1000 | 417265.251 | 12.53550908 | 0.589979577 | 0.890642632 | 417265.251 | 11.53344656 | 0.554657536 | 0.832528381 | 4234.783613 | 4234.783613 | 8.888415783 | | 5.92 | 0.28 | 0.42 | 0.26 | 98.53 |
| 2019 | SC | Construction and Mining | 12 | Cranes | 9999 | 32143.54027 | 0.226740549 | 0.005739869 | 0.013749563 | 32143.54027 | 0.226740549 | 0.005739869 | 0.013749563 | 295.1529721 | 295.1529721 | 0.592561052 | | 1.54 | 0.04 | 0.09 | 0.04 | 108.90 |
| 2019 | SC | Construction and Mining | 13 | Crawler Tractors | 50 | 126248.7511 | 2.15149142 | 0.248183027 | 0.716792522 | 126248.7511 | 2.036785208 | 0.222786862 | 0.639835985 | 17313.54989 | 17313.54989 | 52.59287143 | | 0.25 | 0.03 | 0.08 | 0.03 | 7.29 |
| 2019 | SC | Construction and Mining | 13 | Crawler Tractors | 120 | 5607293.469 | 114.5687974 | 9.741655276 | 11.36737835 | 5602232.54 | 106.5988686 | 8.914323578 | 10.43418903 | 406117.6267 | 406117.6267 | 905.1233173 | | 0.56 | 0.05 | 0.06 | 0.04 | 13.79 |
| 2019 | SC | Construction and Mining | 13 | Crawler Tractors | 175 | 6099327.547 | 109.8960576 | 6.173125246 | 8.731267641 | 6092465.451 | 98.6730083 | 5.492960291 | 7.832441103 | 259381.0445 | 259381.0445 | 592.1957323 | | 0.85 | 0.05 | 0.07 | 0.04 | 23.49 |
| 2019 | SC | Construction and Mining | 13 | Crawler Tractors | 250 | 6151255.377 | 100.5874834 | 3.944593869 | 6.453563965 | 6150412.423 | 91.6787998 | 3.457212309 | 5.784493357 | 192311.1799 | 192311.1799 | 432.8393319 | | 1.05 | 0.04 | 0.07 | 0.04 | 31.98 |
| 2019 | SC | Construction and Mining | 13 | Crawler Tractors | 500 | 16503167.99 | 226.4288635 | 9.118257343 | 15.20924379 | 16490991.45 | 193.5327079 | 7.518691749 | 12.95872658 | 305482.177 | 305482.177 | 695.803689 | | 1.48 | 0.06 | 0.10 | 0.05 | 53.98 |
| 2019 | SC | Construction and Mining | 13 | Crawler Tractors | 750 | 6432954.019 | 73.08108449 | 2.792359595 | 4.854016 | 6418268.841 | 64.32406458 | 2.367414021 | 4.23529541 | 71412.92114 | 71412.92114 | 142.5266816 | | 2.05 | 0.08 | 0.14 | 0.07 | 89.88 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2019 | SC | Construction and Mining | 13 | Crawler Tractors | 1000 | 850796.2629 | 18.2895267 | 0.534158754 | 0.963730296 | 850796.2629 | 18.2895267 | 0.534158754 | 0.963730296 | 6478.296604 | 6478.296604 | 12.62228914 | 5.65 | 0.16 | 0.30 | 0.15 | 131.33 |
| 2019 | SC | Construction and Mining | 13 | Crawler Tractors | 9999 | 449165.787 | 8.237981983 | 0.215476283 | 0.38497422 | 449165.787 | 8.237981983 | 0.215476283 | 0.38497422 | 1945.775001 | 1945.775001 | 3.155572286 | 8.47 | 0.22 | 0.40 | 0.20 | 230.84 |
| 2019 | SC | Construction and Mining | 14 | Excavators | 50 | 5063140.957 | 57.71840077 | 3.488288339 | 7.405781418 | 5063368.418 | 57.38817312 | 3.421546231 | 7.200006334 | 908503.5557 | 908503.5557 | 1288.122194 | 0.13 | 0.01 | 0.02 | 0.01 | 5.57 |
| 2019 | SC | Construction and Mining | 14 | Excavators | 120 | 6589782.202 | 73.39722165 | 4.832885907 | 6.089605207 | 6590310.797 | 67.2820033 | 4.2082567 | 5.362016204 | 580157.3444 | 580157.3444 | 931.687236 | 0.25 | 0.02 | 0.02 | 0.02 | 11.36 |
| 2019 | SC | Construction and Mining | 14 | Excavators | 175 | 13858930.79 | 121.5237568 | 5.978439372 | 9.725114436 | 13858047.44 | 105.3873254 | 5.08237258 | 8.467422305 | 676844.7155 | 676844.7155 | 1183.722606 | 0.36 | 0.02 | 0.03 | 0.02 | 20.47 |
| 2019 | SC | Construction and Mining | 14 | Excavators | 250 | 17599986.28 | 129.1106794 | 4.241412768 | 9.052017576 | 17599841.87 | 118.5827742 | 3.594968139 | 8.114808833 | 575124.906 | 575124.906 | 1017.632352 | 0.45 | 0.01 | 0.03 | 0.01 | 30.60 |
| 2019 | SC | Construction and Mining | 14 | Excavators | 500 | 29259205.24 | 164.8899508 | 5.613544887 | 12.61273028 | 29258605.76 | 156.8402885 | 5.092826905 | 11.8041808 | 636932.8668 | 636932.8668 | 1035.032283 | 0.52 | 0.02 | 0.04 | 0.02 | 45.94 |
| 2019 | SC | Construction and Mining | 14 | Excavators | 750 | 2649937.108 | 16.52949795 | 0.588602023 | 1.240829739 | 2652804.932 | 15.93663678 | 0.53845719 | 1.168082958 | 32972.21318 | 32972.21318 | 52.72706486 | 1.00 | 0.04 | 0.08 | 0.03 | 80.46 |
| 2019 | SC | Construction and Mining | 14 | Excavators | 1000 | 295670.4652 | 3.135984732 | 0.060357013 | 0.11759594 | 295662.7492 | 3.126868925 | 0.057847674 | 0.112947599 | 2521.731768 | 2521.731768 | 4.218165189 | 2.49 | 0.05 | 0.09 | 0.04 | 117.25 |
| 2019 | SC | Construction and Mining | 14 | Excavators | 9999 | 578791.1742 | 5.416508096 | 0.101458191 | 0.212882083 | 578791.1742 | 5.416508096 | 0.101458191 | 0.212882083 | 2657.168276 | 2657.168276 | 3.69089454 | 4.08 | 0.08 | 0.16 | 0.07 | 217.82 |
| 2019 | SC | Construction and Mining | 15 | Graders | 50 | 33480.28431 | 0.619891995 | 0.081357326 | 0.236405587 | 33480.28431 | 0.57263006 | 0.070964284 | 0.208292918 | 5459.88019 | 5459.88019 | 16.42866932 | 0.23 | 0.03 | 0.09 | 0.03 | 6.13 |
| 2019 | SC | Construction and Mining | 15 | Graders | 120 | 902244.0179 | 25.07997899 | 2.083446679 | 2.646714133 | 900886.6929 | 22.19941543 | 1.810044422 | 2.32069398 | 66367.93043 | 66367.93043 | 174.8858347 | 0.76 | 0.06 | 0.08 | 0.06 | 13.57 |
| 2019 | SC | Construction and Mining | 15 | Graders | 175 | 8341126.095 | 182.0979002 | 10.25880228 | 15.02675678 | 8327653.995 | 148.416579 | 8.305149297 | 12.41802662 | 370286.2018 | 370286.2018 | 818.2537238 | 0.98 | 0.06 | 0.08 | 0.05 | 22.49 |
| 2019 | SC | Construction and Mining | 15 | Graders | 250 | 14570248.39 | 233.0130862 | 7.779132117 | 14.390971 | 14532379.61 | 210.7326284 | 6.763264589 | 12.88327579 | 470426.851 | 470426.851 | 649.7273739 | 0.99 | 0.03 | 0.06 | 0.03 | 30.89 |
| 2019 | SC | Construction and Mining | 15 | Graders | 500 | 4152676.619 | 42.30922306 | 1.658315239 | 3.489072525 | 4151632.726 | 40.12324815 | 1.551229956 | 3.325475333 | 94403.76974 | 94403.76974 | 121.3601702 | 0.90 | 0.04 | 0.07 | 0.03 | 43.98 |
| 2019 | SC | Construction and Mining | 15 | Graders | 1000 | 40197.27499 | 1.121909558 | 0.039044879 | 0.070795406 | 40197.27499 | 1.121909558 | 0.039044879 | 0.070795406 | 336.6765305 | 336.6765305 | 0.529957075 | 6.66 | 0.23 | 0.42 | 0.21 | 119.39 |
| 2019 | SC | Construction and Mining | 15 | Graders | 9999 | 566262.4515 | 11.37211174 | 0.35140696 | 0.667956078 | 566262.4515 | 11.37211174 | 0.35140696 | 0.667956078 | 1897.903438 | 1897.903438 | 2.649785375 | 11.98 | 0.37 | 0.70 | 0.34 | 298.36 |
| 2019 | SC | Construction and Mining | 16 | Off-Highway Tractors | 50 | 2097705.399 | 29.46722712 | 2.63871466 | 6.53515408 | 2099878.701 | 26.88540306 | 2.064956499 | 4.90927552 | 313618.0418 | 313618.0418 | 493.405067 | 0.19 | 0.02 | 0.04 | 0.02 | 6.70 |
| 2019 | SC | Construction and Mining | 16 | Off-Highway Tractors | 120 | 2668611.363 | 40.17673279 | 3.163733482 | 3.69301977 | 2665458.058 | 35.27163766 | 2.641150738 | 3.118793608 | 222968.218 | 222968.218 | 358.7455176 | 0.36 | 0.03 | 0.03 | 0.03 | 11.95 |
| 2019 | SC | Construction and Mining | 16 | Off-Highway Tractors | 175 | 2280783.191 | 22.72428038 | 1.134314572 | 1.725253726 | 2281268.233 | 21.93773956 | 1.084574134 | 1.662582638 | 90127.77434 | 90127.77434 | 136.2193125 | 0.50 | 0.03 | 0.04 | 0.02 | 25.31 |
| 2019 | SC | Construction and Mining | 16 | Off-Highway Tractors | 250 | 1912534.314 | 21.51616738 | 0.807511517 | 1.483747732 | 1914255.183 | 16.79971542 | 0.562609693 | 1.136049563 | 56156.03774 | 56156.03774 | 88.90649784 | 0.77 | 0.03 | 0.05 | 0.03 | 34.09 |
| 2019 | SC | Construction and Mining | 16 | Off-Highway Tractors | 500 | 5376059.292 | 37.95033363 | 1.408568388 | 2.841180499 | 5374733.94 | 29.53174433 | 1.015361501 | 2.298826198 | 101103.9969 | 101103.9969 | 152.8567858 | 0.75 | 0.03 | 0.06 | 0.03 | 53.16 |
| 2019 | SC | Construction and Mining | 16 | Off-Highway Tractors | 750 | 1356029.648 | 9.097604635 | 0.345410822 | 0.71208173 | 1355809.344 | 8.868912741 | 0.333903459 | 0.691063147 | 14797.77992 | 14797.77992 | 22.35660472 | 1.23 | 0.05 | 0.10 | 0.04 | 91.62 |
| 2019 | SC | Construction and Mining | 16 | Off-Highway Tractors | 1000 | 38467.53378 | 1.417939819 | 0.072141357 | 0.099127815 | 38467.53378 | 0.274704089 | 0.007120346 | 0.013332543 | 240.680065 | 240.680065 | 0.51992104 | 11.78 | 0.60 | 0.82 | 0.55 | 159.83 |
| 2019 | SC | Construction and Mining | 16 | Off-Highway Tractors | 9999 | 310742.0058 | 4.3231213 | 0.121828478 | 0.262400739 | 316122.3834 | 3.524984933 | 0.092068428 | 0.187514138 | 1117.5122 | 1117.5122 | 2.07968416 | 7.74 | 0.22 | 0.47 | 0.20 | 282.88 |
| 2019 | SC | Construction and Mining | 17 | Off-Highway Trucks | 50 | 200400.1501 | 2.795925834 | 0.221623618 | 0.470348659 | 201954.0141 | 2.756343506 | 0.213123206 | 0.456411725 | 45561.54595 | 45561.54595 | 29.36446576 | 0.12 | 0.01 | 0.02 | 0.01 | 4.43 |
| 2019 | SC | Construction and Mining | 17 | Off-Highway Trucks | 120 | 245871.0558 | 3.880149721 | 0.316865603 | 0.402864564 | 245805.1294 | 3.245041187 | 0.237681906 | 0.322939265 | 20449.29088 | 20449.29088 | 16.48531411 | 0.38 | 0.03 | 0.04 | 0.03 | 12.02 |
| 2019 | SC | Construction and Mining | 17 | Off-Highway Trucks | 175 | 4758234.472 | 46.65090216 | 2.503010623 | 4.314607068 | 4758860.21 | 40.55753953 | 2.145446961 | 3.827139139 | 214665.4996 | 214665.4996 | 157.6408162 | 0.43 | 0.02 | 0.04 | 0.02 | 22.17 |
| 2019 | SC | Construction and Mining | 17 | Off-Highway Trucks | 250 | 9774443.803 | 114.7033618 | 4.960603652 | 9.431164179 | 9778819.547 | 88.10163333 | 3.511579723 | 7.489061485 | 332276.0594 | 332276.0594 | 269.9470186 | 0.69 | 0.03 | 0.06 | 0.03 | 29.43 |
| 2019 | SC | Construction and Mining | 17 | Off-Highway Trucks | 500 | 41443237.82 | 402.55301 | 15.38764138 | 31.65072313 | 41398795.63 | 329.8739998 | 11.99575178 | 26.91893028 | 788487.2401 | 788487.2401 | 599.6533008 | 1.02 | 0.04 | 0.08 | 0.04 | 52.50 |
| 2019 | SC | Construction and Mining | 17 | Off-Highway Trucks | 750 | 14761546.72 | 171.5345179 | 7.017201617 | 13.70914946 | 14763748.92 | 147.0364733 | 5.69543705 | 11.96346374 | 160371.0779 | 160371.0779 | 137.0341735 | 2.14 | 0.09 | 0.17 | 0.08 | 92.06 |
| 2019 | SC | Construction and Mining | 17 | Off-Highway Trucks | 1000 | 10238889.12 | 159.0682869 | 4.258544667 | 8.426017386 | 10243522.16 | 147.2744713 | 3.837313115 | 7.540317648 | 81829.82012 | 81829.82012 | 62.85026004 | 3.89 | 0.10 | 0.21 | 0.10 | 125.18 |
| 2019 | SC | Construction and Mining | 17 | Off-Highway Trucks | 9999 | 14863421.64 | 199.628793 | 5.408148932 | 11.806124 | 14869249.63 | 181.1191335 | 4.648566192 | 10.40378341 | 59443.73043 | 59443.73043 | 40.69811921 | 6.72 | 0.18 | 0.40 | 0.17 | 250.14 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2019 | SC | Construction and Mining | 18 | Other Construction Equipment | 50 | 1133467.703 | 15.98245426 | 1.356336658 | 2.961546807 | 1132789.318 | 15.82815417 | 1.330412797 | 2.895786846 | 174788.5968 | 174788.5968 | 381.0277906 | | 0.18 | 0.02 | 0.03 | 0.01 | 6.48 |
| 2019 | SC | Construction and Mining | 18 | Other Construction Equipment | 120 | 3556639.768 | 58.89576226 | 4.500181286 | 5.412225297 | 3553787.127 | 53.92250376 | 4.047028798 | 4.85853487 | 285998.9634 | 285998.9634 | 672.3114852 | | 0.41 | 0.03 | 0.04 | 0.03 | 12.43 |
| 2019 | SC | Construction and Mining | 18 | Other Construction Equipment | 175 | 1933719.056 | 29.3876128 | 1.579303587 | 2.266862289 | 1933597.915 | 25.85826355 | 1.361773241 | 1.986386417 | 83537.10068 | 83537.10068 | 209.2319496 | | 0.70 | 0.04 | 0.05 | 0.03 | 23.15 |
| 2019 | SC | Construction and Mining | 18 | Other Construction Equipment | 250 | 2480169.803 | 31.79293256 | 1.225758141 | 2.051187503 | 2479373.501 | 28.39282982 | 1.052830867 | 1.81588143 | 74499.47114 | 74499.47114 | 187.6933666 | | 0.85 | 0.03 | 0.06 | 0.03 | 33.28 |
| 2019 | SC | Construction and Mining | 18 | Other Construction Equipment | 500 | 8459264.61 | 82.57023856 | 3.101302273 | 5.579954224 | 8453807.293 | 72.0767047 | 2.589139227 | 4.870974158 | 154470.5436 | 154470.5436 | 364.6174416 | | 1.07 | 0.04 | 0.07 | 0.04 | 54.73 |
| 2019 | SC | Construction and Mining | 18 | Other Construction Equipment | 750 | 3300037.482 | 34.86229446 | 1.213641303 | 2.155867887 | 3308920.427 | 27.11660738 | 0.89562744 | 1.696138421 | 36166.89346 | 36166.89346 | 75.38504067 | | 1.93 | 0.07 | 0.12 | 0.06 | 91.49 |
| 2019 | SC | Construction and Mining | 18 | Other Construction Equipment | 1000 | 384411.0492 | 4.468067567 | 0.107659654 | 0.185049176 | 384389.5667 | 4.45779573 | 0.107251872 | 0.183485709 | 3047.336979 | 3047.336979 | 6.666704277 | | 2.93 | 0.07 | 0.12 | 0.07 | 126.14 |
| 2019 | SC | Construction and Mining | 18 | Other Construction Equipment | 9999 | 239395.2686 | 3.626038304 | 0.098820734 | 0.176898221 | 238814.6988 | 2.909030038 | 0.069592087 | 0.132643008 | 1427.902404 | 1427.902404 | 3.076940436 | | 5.08 | 0.14 | 0.25 | 0.13 | 167.25 |
| 2019 | SC | Construction and Mining | 19 | Pavers | 50 | 138746.4303 | 1.941124953 | 0.182232439 | 0.493652929 | 138829.6538 | 1.837618427 | 0.163005403 | 0.437896241 | 21133.64902 | 21133.64902 | 61.75833798 | | 0.18 | 0.02 | 0.05 | 0.02 | 6.57 |
| 2019 | SC | Construction and Mining | 19 | Pavers | 120 | 1344692.891 | 20.3785947 | 1.53775826 | 1.819353545 | 1344736.094 | 18.95423456 | 1.401948996 | 1.662505496 | 111365.9591 | 111365.9591 | 300.042592 | | 0.37 | 0.03 | 0.03 | 0.03 | 12.07 |
| 2019 | SC | Construction and Mining | 19 | Pavers | 175 | 1828470.174 | 20.48449145 | 1.024196047 | 1.560658602 | 1828567.356 | 17.78950254 | 0.871183761 | 1.353848961 | 75716.07747 | 75716.07747 | 202.7732097 | | 0.54 | 0.03 | 0.04 | 0.02 | 24.15 |
| 2019 | SC | Construction and Mining | 19 | Pavers | 250 | 1229639.749 | 11.20457691 | 0.304144312 | 0.560524822 | 1230901.833 | 11.47662114 | 0.310567736 | 0.569507943 | 37788.00449 | 37788.00449 | 87.49097881 | | 0.59 | 0.02 | 0.03 | 0.01 | 32.57 |
| 2019 | SC | Construction and Mining | 19 | Pavers | 500 | 464023.579 | 3.200628702 | 0.114265026 | 0.193997215 | 464023.579 | 3.200628702 | 0.114265026 | 0.193997215 | 9405.888726 | 9405.888726 | 21.61541829 | | 0.68 | 0.02 | 0.04 | 0.02 | 49.33 |
| 2019 | SC | Construction and Mining | 19 | Pavers | 750 | 53722.44346 | 0.193504048 | 0.008434993 | 0.01519188 | 53722.44346 | 0.193504048 | 0.008434993 | 0.01519188 | 469.852928 | 469.852928 | 1.029305633 | | 0.82 | 0.04 | 0.06 | 0.03 | 114.34 |
| 2019 | SC | Construction and Mining | 20 | Paving Equipment | 50 | 172786.1559 | 2.048847164 | 0.139704428 | 0.315390602 | 172820.4477 | 1.995777722 | 0.127020925 | 0.274242847 | 34555.65559 | 34555.65559 | 76.04612584 | | 0.12 | 0.01 | 0.02 | 0.01 | 5.00 |
| 2019 | SC | Construction and Mining | 20 | Paving Equipment | 120 | 785312.5302 | 10.50381349 | 0.755015367 | 0.936956626 | 786063.1839 | 9.505734386 | 0.660498633 | 0.826375525 | 67819.60503 | 67819.60503 | 155.1752027 | | 0.31 | 0.02 | 0.03 | 0.02 | 11.59 |
| 2019 | SC | Construction and Mining | 20 | Paving Equipment | 175 | 740130.1557 | 6.953418183 | 0.351695492 | 0.541125933 | 740134.1011 | 6.001743601 | 0.297758852 | 0.468077736 | 38373.48331 | 38373.48331 | 84.7811538 | | 0.36 | 0.02 | 0.03 | 0.02 | 19.29 |
| 2019 | SC | Construction and Mining | 20 | Paving Equipment | 250 | 387994.6318 | 4.390733164 | 0.166753829 | 0.280147028 | 388004.8898 | 3.788004478 | 0.130063469 | 0.231839458 | 13802.18708 | 13802.18708 | 30.82951047 | | 0.64 | 0.02 | 0.04 | 0.02 | 28.11 |
| 2019 | SC | Construction and Mining | 20 | Paving Equipment | 500 | 546972.3785 | 4.753356158 | 0.167317035 | 0.298373304 | 546927.754 | 4.926789295 | 0.176127863 | 0.311389697 | 12477.34509 | 12477.34509 | 27.74655943 | | 0.76 | 0.03 | 0.05 | 0.02 | 43.83 |
| 2019 | SC | Construction and Mining | 20 | Paving Equipment | 750 | 259550.5137 | 2.267133376 | 0.055371396 | 0.127488805 | 259550.5137 | 2.638528768 | 0.064791348 | 0.141838891 | 3290.596276 | 3290.596276 | 6.679727269 | | 1.38 | 0.03 | 0.08 | 0.03 | 78.88 |
| 2019 | SC | Construction and Mining | 20 | Paving Equipment | 1000 | 50753.21423 | 0.351025247 | 0.005586825 | 0.010551723 | 50753.21423 | 0.351025247 | 0.005586825 | 0.010551723 | 461.9651176 | 461.9651176 | 1.027650349 | | 1.52 | 0.02 | 0.05 | 0.02 | 109.86 |
| 2019 | SC | Construction and Mining | 21 | Rollers | 50 | 2850620.015 | 36.85674449 | 2.904194722 | 6.769336745 | 2850911.661 | 35.70433124 | 2.684685922 | 6.174002566 | 520916.8034 | 520916.8034 | 1560.272806 | | 0.14 | 0.01 | 0.03 | 0.01 | 5.47 |
| 2019 | SC | Construction and Mining | 21 | Rollers | 120 | 4454117.187 | 62.26482428 | 4.277424888 | 5.368538091 | 4454004.219 | 55.70605046 | 3.66230058 | 4.654182401 | 371008.0618 | 371008.0618 | 1163.593279 | | 0.34 | 0.02 | 0.03 | 0.02 | 12.01 |
| 2019 | SC | Construction and Mining | 21 | Rollers | 175 | 4606348.255 | 41.7818365 | 1.957091051 | 2.974742631 | 4606451.866 | 37.35561109 | 1.715042044 | 2.640358001 | 232714.9433 | 232714.9433 | 672.7684779 | | 0.36 | 0.02 | 0.03 | 0.02 | 19.79 |
| 2019 | SC | Construction and Mining | 21 | Rollers | 250 | 727430.5401 | 6.795872015 | 0.226292916 | 0.418074736 | 727280.861 | 6.282300635 | 0.1999711 | 0.378998942 | 24704.52879 | 24704.52879 | 82.50934162 | | 0.55 | 0.02 | 0.03 | 0.02 | 29.44 |
| 2019 | SC | Construction and Mining | 21 | Rollers | 500 | 460305.5987 | 4.06546534 | 0.155564042 | 0.266801606 | 460305.5987 | 3.960035233 | 0.151021105 | 0.263461338 | 9830.962598 | 9830.962598 | 33.84998631 | | 0.83 | 0.03 | 0.05 | 0.03 | 46.82 |
| 2019 | SC | Construction and Mining | 21 | Rollers | 750 | 22381.40497 | 0.077163045 | 0.00320181 | 0.005814175 | 22381.40497 | 0.047048486 | 0.000621595 | 0.004426499 | 311.8075039 | 311.8075039 | 1.057812072 | | 0.49 | 0.02 | 0.04 | 0.02 | 71.78 |
| 2019 | SC | Construction and Mining | 22 | Rough Terrain | 50 | 145199.1662 | 1.792591595 | 0.129556131 | 0.329471114 | 145258.2102 | 1.785657908 | 0.128390617 | 0.326721028 | 18699.3876 | 18699.3876 | 70.86687485 | | 0.19 | 0.01 | 0.04 | 0.01 | 7.77 |
| 2019 | SC | Construction and Mining | 22 | Rough Terrain | 120 | 11688263.92 | 95.54133027 | 4.416167096 | 6.244692231 | 11687474.6 | 91.90416942 | 4.094686689 | 5.8481747 | 821088.8966 | 821088.8966 | 3036.279034 | | 0.23 | 0.01 | 0.02 | 0.01 | 14.23 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2019 | SC | Construction and Mining | 22 | Rough Terrain | 175 | 2148663.743 | 14.47394014 | 0.556548946 | 0.897307289 | 2148655.391 | 13.29025423 | 0.48659078 | 0.797051938 | 112482.072 | 112482.072 | 406.2626877 | 0.26 | 0.01 | 0.02 | 0.01 | 19.10 |
| 2019 | SC | Construction and Mining | 22 | Rough Terrain | 250 | 176626.8804 | 2.973384949 | 0.143313033 | 0.22013472 | 176510.5298 | 0.86798592 | 0.019260498 | 0.047864431 | 5736.992165 | 5736.992165 | 23.82593206 | 1.04 | 0.05 | 0.08 | 0.05 | 30.77 |
| 2019 | SC | Construction and Mining | 22 | Rough Terrain | 500 | 74630.90907 | 0.561977609 | 0.021851079 | 0.038501974 | 74770.72918 | 0.445303278 | 0.009744173 | 0.021808387 | 1370.518723 | 1370.518723 | 5.498292014 | 0.82 | 0.03 | 0.06 | 0.03 | 54.56 |
| 2019 | SC | Construction and Mining | 22 | Rough Terrain | 750 | 11715.376 | 0.537804382 | 0.02914997 | 0.043541868 | 11715.376 | 0.046738792 | 0.000326217 | 0.002862836 | 127.052758 | 127.052758 | 0.610921335 | 8.47 | 0.46 | 0.69 | 0.42 | 92.21 |
| 2019 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 50 | 125018.6334 | 2.295443826 | 0.304358927 | 0.845464954 | 126491.705 | 1.533454821 | 0.127821342 | 0.344305498 | 18912.95545 | 18912.95545 | 20.65001731 | 0.24 | 0.03 | 0.09 | 0.03 | 6.69 |
| 2019 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 120 | 597034.9743 | 16.57502078 | 1.477171517 | 1.771018534 | 599612.8954 | 13.44549856 | 1.154609364 | 1.411362236 | 49978.15622 | 49978.15622 | 61.44639298 | 0.66 | 0.06 | 0.07 | 0.05 | 12.00 |
| 2019 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 175 | 499517.9325 | 13.35707435 | 0.772247542 | 1.09997751 | 499069.899 | 11.24934722 | 0.647091622 | 0.938147608 | 22934.31865 | 22934.31865 | 31.73051441 | 1.16 | 0.07 | 0.10 | 0.06 | 21.76 |
| 2019 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 250 | 521254.4183 | 12.31550821 | 0.611073674 | 0.951923024 | 520666.2193 | 10.77765872 | 0.525504277 | 0.836974572 | 16918.73483 | 16918.73483 | 24.67928898 | 1.46 | 0.07 | 0.11 | 0.07 | 30.77 |
| 2019 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 500 | 5976934.098 | 124.3923826 | 5.796546097 | 9.428924138 | 5972913.905 | 108.4505376 | 4.992511516 | 8.346687278 | 114426.9802 | 114426.9802 | 164.6964795 | 2.17 | 0.10 | 0.16 | 0.09 | 52.20 |
| 2019 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 750 | 701838.0548 | 14.14904833 | 0.521771419 | 0.882303561 | 701838.0548 | 12.87875301 | 0.458786561 | 0.790435088 | 8264.703536 | 8264.703536 | 10.07317918 | 3.42 | 0.13 | 0.21 | 0.12 | 84.92 |
| 2019 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 50 | 396183.9966 | 6.073497304 | 0.6017052 | 1.546096191 | 396150.7455 | 5.81624509 | 0.554208962 | 1.417404186 | 64390.55103 | 64390.55103 | 77.69485537 | 0.19 | 0.02 | 0.05 | 0.02 | 6.15 |
| 2019 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 120 | 9626948.207 | 166.4450733 | 13.78517122 | 16.66315421 | 9626932.566 | 146.7848133 | 11.78655114 | 14.41015471 | 853427.6017 | 853427.6017 | 965.9360398 | 0.39 | 0.03 | 0.04 | 0.03 | 11.28 |
| 2019 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 175 | 22881756 | 318.1155756 | 17.79029057 | 27.14125888 | 22886707 | 265.7325155 | 14.68774775 | 23.05471313 | 1151049.211 | 1151049.211 | 1265.691191 | 0.55 | 0.03 | 0.05 | 0.03 | 19.88 |
| 2019 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 250 | 31516671.34 | 381.1085204 | 13.14566972 | 26.10185909 | 31525434.08 | 356.3704225 | 11.94854863 | 24.33434782 | 1158950.937 | 1158950.937 | 1125.000507 | 0.66 | 0.02 | 0.05 | 0.02 | 27.20 |
| 2019 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 500 | 41059687.93 | 498.6688165 | 19.37917058 | 37.38595233 | 40997418.04 | 409.4944052 | 15.2858093 | 31.47226528 | 976955.2964 | 976955.2964 | 1045.205791 | 1.02 | 0.04 | 0.08 | 0.04 | 41.96 |
| 2019 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 750 | 7305193.209 | 76.46385232 | 2.990458789 | 5.989370313 | 7325654.507 | 68.02293844 | 2.668878487 | 5.460576768 | 94093.37704 | 94093.37704 | 92.39388207 | 1.63 | 0.06 | 0.13 | 0.06 | 77.86 |
| 2019 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 1000 | 2114638.758 | 37.96811486 | 1.065526724 | 1.929164098 | 2112262.871 | 34.78108433 | 0.931284921 | 1.702864697 | 19090.11259 | 19090.11259 | 16.79888765 | 3.98 | 0.11 | 0.20 | 0.10 | 110.65 |
| 2019 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 9999 | 841190.4835 | 11.71288707 | 0.278894983 | 0.539668982 | 841190.4835 | 10.4072956 | 0.226546395 | 0.442636285 | 4193.243548 | 4193.243548 | 3.674756673 | 5.59 | 0.13 | 0.26 | 0.12 | 200.61 |
| 2019 | SC | Construction and Mining | 25 | Scrapers | 50 | 9074.150615 | 0.168135818 | 0.023100556 | 0.068625604 | 9074.150615 | 0.168135818 | 0.023100556 | 0.068625604 | 1281.04085 | 1281.04085 | 3.631929566 | 0.26 | 0.04 | 0.11 | 0.03 | 7.08 |
| 2019 | SC | Construction and Mining | 25 | Scrapers | 120 | 413669.8993 | 8.54650506 | 0.660251629 | 0.748038205 | 413669.8993 | 8.301506051 | 0.637635363 | 0.720050688 | 27060.63056 | 27060.63056 | 52.40355516 | 0.63 | 0.05 | 0.06 | 0.04 | 15.29 |
| 2019 | SC | Construction and Mining | 25 | Scrapers | 175 | 4370978.286 | 80.88693119 | 4.410862985 | 6.454657207 | 4370469.639 | 68.14721621 | 3.668035766 | 5.457421084 | 146527.1585 | 146527.1585 | 336.7317554 | 1.10 | 0.06 | 0.09 | 0.06 | 29.83 |
| 2019 | SC | Construction and Mining | 25 | Scrapers | 250 | 5022731.21 | 110.6324587 | 5.032750381 | 7.902790786 | 5022905.444 | 88.61580467 | 3.900646641 | 6.296577267 | 127035.2971 | 127035.2971 | 326.8736609 | 1.74 | 0.08 | 0.12 | 0.07 | 39.54 |
| 2019 | SC | Construction and Mining | 25 | Scrapers | 500 | 43980880.21 | 675.4941208 | 27.68742421 | 46.18283208 | 43969257.62 | 548.7099023 | 21.49990424 | 37.40755056 | 651005.1113 | 651005.1113 | 1436.687567 | 2.08 | 0.09 | 0.14 | 0.08 | 67.54 |
| 2019 | SC | Construction and Mining | 25 | Scrapers | 750 | 20106646.95 | 246.7069549 | 9.572936381 | 16.71235937 | 20119061.34 | 207.3115122 | 7.44286906 | 13.82100851 | 201130.2653 | 201130.2653 | 409.3703467 | 2.45 | 0.10 | 0.17 | 0.09 | 100.03 |
| 2019 | SC | Construction and Mining | 25 | Scrapers | 1000 | 314984.527 | 12.66989048 | 0.590716614 | 0.917681529 | 314984.527 | 12.66989048 | 0.590716614 | 0.917681529 | 1872.80367 | 1872.80367 | 6.74501205 | 13.53 | 0.63 | 0.98 | 0.58 | 168.19 |
| 2019 | SC | Construction and Mining | 25 | Scrapers | 9999 | 1144895.891 | 25.82501743 | 1.010250345 | 1.579775727 | 1144895.891 | 25.82501743 | 1.010250345 | 1.579775727 | 3290.411668 | 3290.411668 | 6.74501205 | 15.70 | 0.61 | 0.96 | 0.56 | 347.95 |
| 2019 | SC | Construction and Mining | 26 | Skid Steer Loaders | 50 | 2157025.185 | 21.75307607 | 0.885356164 | 2.151861911 | 2156843.392 | 21.73864201 | 0.890308962 | 2.138717107 | 328298.6716 | 328298.6716 | 1080.927164 | 0.13 | 0.01 | 0.01 | 0.00 | 6.57 |
| 2019 | SC | Construction and Mining | 26 | Skid Steer Loaders | 120 | 11446165.18 | 92.14139262 | 4.251257987 | 5.788184686 | 11443073.1 | 91.31259628 | 4.183593096 | 5.665781396 | 1199986.023 | 1199986.023 | 3488.227522 | 0.15 | 0.01 | 0.01 | 0.01 | 9.54 |
| 2019 | SC | Construction and Mining | 26 | Skid Steer Loaders | 175 | 77374.82313 | 0.528106448 | 0.021670541 | 0.033976206 | 77341.66856 | 0.492280327 | 0.021499011 | 0.032748112 | 3771.411265 | 3771.411265 | 14.46952575 | 0.28 | 0.01 | 0.02 | 0.01 | 20.51 |
| 2019 | SC | Construction and Mining | 26 | Skid Steer Loaders | 250 | 59057.72588 | 0.30636969 | 0.008933483 | 0.017976699 | 59020.21652 | 0.235689288 | 0.007088277 | 0.014980924 | 2229.703562 | 2229.703562 | 8.038625415 | 0.27 | 0.01 | 0.02 | 0.01 | 26.47 |
| 2019 | SC | Construction and Mining | 26 | Skid Steer Loaders | 500 | 16343.15704 | 0.030738882 | 0.000446861 | 0.002965543 | 16343.15704 | 0.03014798 | 0.000443903 | 0.002873705 | 448.5409498 | 448.5409498 | 1.607725083 | 0.14 | 0.00 | 0.01 | 0.00 | 36.44 |
| 2019 | SC | Construction and Mining | 26 | Skid Steer Loaders | 750 | 17239.87679 | 0.126042218 | 0.005407317 | 0.007176502 | 17239.87679 | 0.126042218 | 0.005407317 | 0.007176502 | 240.5219586 | 240.5219586 | 0.535908361 | 1.05 | 0.04 | 0.06 | 0.04 | 71.68 |
| 2019 | SC | Construction and Mining | 26 | Skid Steer Loaders | 1000 | 28132.38437 | 0.345938134 | 0.008903712 | 0.016341054 | 28132.38437 | 0.36216459 | 0.011795373 | 0.019340756 | 208.0189912 | 208.0189912 | 1.071816722 | 3.33 | 0.09 | 0.16 | 0.08 | 135.24 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2019 | SC | Construction and Mining | 27 | Surfacing Equipment | 50 | 19977.13803 | 0.265694689 | 0.019292033 | 0.044799408 | 19955.05721 | 0.233682339 | 0.013234752 | 0.028100955 | 4460.161063 | 4460.161063 | 18.96100691 | | 0.12 | 0.01 | 0.02 | 0.01 | 4.47 |
| 2019 | SC | Construction and Mining | 27 | Surfacing Equipment | 120 | 156618.3897 | 1.906983672 | 0.116780776 | 0.150254881 | 156633.6527 | 1.792912722 | 0.105823241 | 0.137688981 | 15912.20117 | 15912.20117 | 60.77245803 | | 0.24 | 0.01 | 0.02 | 0.01 | 9.84 |
| 2019 | SC | Construction and Mining | 27 | Surfacing Equipment | 175 | 80505.00289 | 1.127625986 | 0.054262419 | 0.078378175 | 80486.82721 | 1.030826032 | 0.049514056 | 0.07178233 | 4846.81377 | 4846.81377 | 20.4195459 | | 0.47 | 0.02 | 0.03 | 0.02 | 16.61 |
| 2019 | SC | Construction and Mining | 27 | Surfacing Equipment | 250 | 171387.812 | 1.87408059 | 0.05653589 | 0.098596758 | 171383.7844 | 1.734715142 | 0.051392091 | 0.091306197 | 7105.337113 | 7105.337113 | 30.62931885 | | 0.53 | 0.02 | 0.03 | 0.01 | 24.12 |
| 2019 | SC | Construction and Mining | 27 | Surfacing Equipment | 500 | 544667.6678 | 3.525037547 | 0.130370744 | 0.224837439 | 544641.1337 | 3.111415535 | 0.111518085 | 0.196949038 | 13602.08855 | 13602.08855 | 50.56268508 | | 0.52 | 0.02 | 0.03 | 0.02 | 40.04 |
| 2019 | SC | Construction and Mining | 27 | Surfacing Equipment | 750 | 499911.48 | 3.287710695 | 0.115125951 | 0.176905189 | 499911.48 | 3.287710695 | 0.115125951 | 0.176905189 | 7381.699962 | 7381.699962 | 25.28134254 | | 0.89 | 0.03 | 0.05 | 0.03 | 67.72 |
| 2019 | SC | Construction and Mining | 27 | Surfacing Equipment | 1000 | 81810.31071 | 1.423897112 | 0.035512273 | 0.062716314 | 81810.31071 | 1.423897112 | 0.035512273 | 0.062716314 | 904.6142301 | 904.6142301 | 3.40325765 | | 3.15 | 0.08 | 0.14 | 0.07 | 90.44 |
| 2019 | SC | Construction and Mining | 27 | Surfacing Equipment | 9999 | 28671.05241 | 0.340371887 | 0.007942406 | 0.013374731 | 28671.05241 | 0.340371887 | 0.007942406 | 0.013374731 | 230.7241444 | 230.7241444 | 0.972359329 | | 2.95 | 0.07 | 0.12 | 0.06 | 124.27 |
| 2019 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 50 | 4271349.902 | 55.63299818 | 4.167749144 | 9.716143853 | 4271923.039 | 54.08264799 | 3.872612705 | 8.922966261 | 754093.4283 | 754093.4283 | 1512.675802 | | 0.15 | 0.01 | 0.03 | 0.01 | 5.66 |
| 2019 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 120 | 68575564.67 | 814.0206093 | 56.60194023 | 68.9403915 | 68536455.69 | 754.9532708 | 50.40003305 | 62.14490329 | 6089804.788 | 6089804.788 | 10270.91058 | | 0.27 | 0.02 | 0.02 | 0.02 | 11.25 |
| 2019 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 175 | 11860663.14 | 114.3348424 | 5.827839238 | 9.117919584 | 11857807.41 | 100.1193572 | 5.037940999 | 8.037633205 | 615067.7623 | 615067.7623 | 1149.001132 | | 0.37 | 0.02 | 0.03 | 0.02 | 19.28 |
| 2019 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 250 | 6905250.329 | 71.74777035 | 2.439290238 | 4.664881435 | 6904065.368 | 65.40775784 | 2.119583411 | 4.206966511 | 250564.9639 | 250564.9639 | 459.6004529 | | 0.57 | 0.02 | 0.04 | 0.02 | 27.55 |
| 2019 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 500 | 9220724.995 | 76.92924789 | 2.763789951 | 5.528894637 | 9212095.838 | 65.34131838 | 2.274239632 | 4.745035969 | 214309.9457 | 214309.9457 | 414.79995 | | 0.72 | 0.03 | 0.05 | 0.02 | 42.98 |
| 2019 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 750 | 1312656.688 | 12.98693376 | 0.471160174 | 0.880990685 | 1317979.396 | 12.44624407 | 0.465789219 | 0.863843721 | 17088.29674 | 17088.29674 | 28.98856067 | | 1.52 | 0.06 | 0.10 | 0.05 | 77.13 |
| 2019 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 1000 | 221773.594 | 2.563813945 | 0.054479911 | 0.101475121 | 221773.594 | 2.563813945 | 0.054479911 | 0.101475121 | 1863.606199 | 1863.606199 | 2.635323698 | | 2.75 | 0.06 | 0.11 | 0.05 | 119.00 |
| 2019 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 9999 | 3112483.497 | 35.60528093 | 0.825149827 | 1.630436739 | 3112483.497 | 34.42766193 | 0.768273132 | 1.521693202 | 11457.88989 | 11457.88989 | 19.50139536 | | 6.21 | 0.14 | 0.28 | 0.13 | 271.65 |
| 2019 | SC | Construction and Mining | 29 | Trenchers | 50 | 1511062.024 | 19.64378301 | 1.569158857 | 3.311434948 | 1510526.844 | 19.43038555 | 1.529924086 | 3.20561068 | 184313.2134 | 184313.2134 | 496.058423 | | 0.21 | 0.02 | 0.04 | 0.02 | 8.20 |
| 2019 | SC | Construction and Mining | 29 | Trenchers | 120 | 1093913.742 | 19.45358633 | 1.483914576 | 1.797472748 | 1093260.332 | 18.59226442 | 1.40564959 | 1.703612717 | 71825.63697 | 71825.63697 | 229.9907234 | | 0.54 | 0.04 | 0.05 | 0.04 | 15.22 |
| 2019 | SC | Construction and Mining | 29 | Trenchers | 175 | 223410.5421 | 3.706002565 | 0.191948581 | 0.282014388 | 223384.9424 | 3.358493754 | 0.172443608 | 0.257339234 | 8497.13414 | 8497.13414 | 30.43994868 | | 0.87 | 0.05 | 0.07 | 0.04 | 26.29 |
| 2019 | SC | Construction and Mining | 29 | Trenchers | 250 | 438025.3782 | 6.858477347 | 0.278292455 | 0.45649906 | 438303.2787 | 6.622061638 | 0.266660486 | 0.439025666 | 10845.8566 | 10845.8566 | 36.07697622 | | 1.26 | 0.05 | 0.08 | 0.05 | 40.41 |
| 2019 | SC | Construction and Mining | 29 | Trenchers | 500 | 739322.0126 | 6.970185182 | 0.262450048 | 0.468310467 | 739322.0126 | 6.952067387 | 0.262432027 | 0.467317462 | 11190.86031 | 11190.86031 | 32.6947597 | | 1.25 | 0.05 | 0.08 | 0.04 | 66.06 |
| 2019 | SC | Construction and Mining | 29 | Trenchers | 750 | 332959.4431 | 0.703752219 | 0.015177119 | 0.064293544 | 332959.4431 | 0.703752219 | 0.015177119 | 0.064293544 | 2903.548222 | 2903.548222 | 6.764433041 | | 0.48 | 0.01 | 0.04 | 0.01 | 114.67 |
| 2019 | SC | Construction and Mining | 29 | Trenchers | 1000 | 19698.27543 | 0.784829468 | 0.036124805 | 0.056426927 | 19698.27543 | 0.784829468 | 0.036124805 | 0.056426927 | 124.201724 | 124.201724 | 0.563702753 | | 12.64 | 0.58 | 0.91 | 0.54 | 158.60 |
| 2019 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 50 | 1314526.331 | 18.86605723 | 1.794819484 | 4.325290754 | 1314526.331 | 18.53721476 | 1.742604688 | 4.195987397 | 198519.6896 | 198519.6896 | 291.1703688 | | 0.19 | 0.02 | 0.04 | 0.02 | 6.62 |
| 2019 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 120 | 2031644.038 | 31.87252261 | 2.65570376 | 3.110729233 | 2031644.038 | 28.99662365 | 2.352770752 | 2.759626619 | 156047.8458 | 156047.8458 | 237.0590613 | | 0.41 | 0.03 | 0.04 | 0.03 | 13.02 |
| 2019 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 175 | 506773.1768 | 11.47996212 | 0.617044621 | 0.919247265 | 506773.1768 | 8.050331209 | 0.420986181 | 0.656804048 | 18962.65695 | 18962.65695 | 27.31332663 | | 1.21 | 0.07 | 0.10 | 0.06 | 26.72 |
| 2019 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 250 | 270089.6775 | 3.298309373 | 0.132021762 | 0.231730885 | 270089.6775 | 2.334512821 | 0.080571112 | 0.157967485 | 7934.793662 | 7934.793662 | 11.33760728 | | 0.83 | 0.03 | 0.06 | 0.03 | 34.04 |
| 2019 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 500 | 75351.48751 | 1.230203352 | 0.053405631 | 0.080969901 | 75351.48751 | 1.230203352 | 0.053405631 | 0.080969901 | 1489.761242 | 1489.761242 | 2.061383142 | | 1.65 | 0.07 | 0.11 | 0.07 | 50.58 |
| 2019 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 1000 | 52808.31522 | 0.665772107 | 0.018577914 | 0.030149566 | 52808.31522 | 0.665772107 | 0.018577914 | 0.030149566 | 372.4403106 | 372.4403106 | 0.515345785 | | 3.58 | 0.10 | 0.16 | 0.09 | 141.79 |
| 2020 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 50 | 131362.8974 | 1.625856839 | 0.104176969 | 0.211138165 | 131366.254 | 1.616279954 | 0.102335118 | 0.20583021 | 15994.81507 | 15994.81507 | 46.03100712 | | 0.20 | 0.01 | 0.03 | 0.01 | 8.21 |
| 2020 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 120 | 817934.0995 | 7.747352518 | 0.403875477 | 0.520084257 | 819156.651 | 7.681458245 | 0.397370781 | 0.509682836 | 54937.9153 | 54937.9153 | 141.0002429 | | 0.28 | 0.01 | 0.02 | 0.01 | 14.91 |
| 2020 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 175 | 945645.3259 | 5.814548933 | 0.262930715 | 0.447659747 | 947563.6465 | 5.26320129 | 0.231294321 | 0.405101656 | 34181.73919 | 34181.73919 | 110.4744171 | | 0.34 | 0.02 | 0.03 | 0.01 | 27.72 |
| 2020 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 250 | 1337431.805 | 7.515256285 | 0.233946528 | 0.507137749 | 1336049.245 | 7.333722926 | 0.211299753 | 0.477529582 | 35261.58919 | 35261.58919 | 109.9898802 | | 0.43 | 0.01 | 0.03 | 0.01 | 37.89 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2020 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 500 | 1510671.462 | 7.793304076 | 0.253956802 | 0.548639805 | 1509106.067 | 6.45991813 | 0.20427778 | 0.471682825 | 23697.70191 | 23697.70191 | 77.04136981 | | 0.66 | 0.02 | 0.05 | 0.02 | 63.68 |
| 2020 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 750 | 2031414.318 | 7.184629646 | 0.239321334 | 0.539561565 | 2030583.711 | 7.48137915 | 0.248836118 | 0.545744795 | 17931.33101 | 17931.33101 | 38.27841645 | | 0.80 | 0.03 | 0.06 | 0.02 | 113.24 |
| 2020 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 1000 | 161804.6855 | 1.4829617 | 0.029753881 | 0.053402397 | 161804.6855 | 1.4829617 | 0.029753881 | 0.053402397 | 955.129753 | 955.129753 | 1.453610751 | | 3.11 | 0.06 | 0.11 | 0.06 | 169.41 |
| 2020 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 9999 | 548422.4936 | 7.098680083 | 0.178556333 | 0.265579747 | 548422.4936 | 7.098680083 | 0.178556333 | 0.265579747 | 1115.178522 | 1115.178522 | 1.453610751 | | 12.73 | 0.32 | 0.48 | 0.29 | 491.78 |
| 2020 | SC | Construction and Mining | 12 | Cranes | 50 | 43218.68385 | 0.718264205 | 0.076044487 | 0.210487257 | 43218.68385 | 0.708071378 | 0.073795392 | 0.203725838 | 9169.694425 | 9169.694425 | 21.32175474 | | 0.16 | 0.02 | 0.05 | 0.02 | 4.71 |
| 2020 | SC | Construction and Mining | 12 | Cranes | 120 | 1031295.545 | 25.73919009 | 1.897988749 | 2.538017862 | 1031560.104 | 19.86261121 | 1.40974633 | 1.882779571 | 110195.6561 | 110195.6561 | 257.0794429 | | 0.47 | 0.03 | 0.05 | 0.03 | 9.36 |
| 2020 | SC | Construction and Mining | 12 | Cranes | 175 | 2721328.704 | 57.51654875 | 3.152645952 | 4.585725856 | 2720897.173 | 45.27432999 | 2.420912592 | 3.606773979 | 173081.0955 | 173081.0955 | 385.6191644 | | 0.66 | 0.04 | 0.05 | 0.03 | 15.72 |
| 2020 | SC | Construction and Mining | 12 | Cranes | 250 | 4596991.23 | 90.50147649 | 4.180066783 | 6.548627163 | 4596319.143 | 62.8787764 | 2.592236421 | 4.370043345 | 199948.9741 | 199948.9741 | 433.1362178 | | 0.91 | 0.04 | 0.07 | 0.04 | 22.99 |
| 2020 | SC | Construction and Mining | 12 | Cranes | 500 | 7046921.666 | 102.7028503 | 4.305196026 | 7.043069366 | 7049511.207 | 81.69491531 | 3.27454838 | 5.604280442 | 198156.9124 | 198156.9124 | 415.469621 | | 1.04 | 0.04 | 0.07 | 0.04 | 35.58 |
| 2020 | SC | Construction and Mining | 12 | Cranes | 750 | 1853893.465 | 19.98830328 | 0.757332932 | 1.267288266 | 1853192.623 | 17.34127643 | 0.647926927 | 1.116023551 | 31008.74043 | 31008.74043 | 60.91929927 | | 1.29 | 0.05 | 0.08 | 0.04 | 59.76 |
| 2020 | SC | Construction and Mining | 12 | Cranes | 1000 | 434313.3741 | 11.14061227 | 0.482971179 | 0.739506952 | 434313.3741 | 12.05560394 | 0.580507741 | 0.873021762 | 4408.069123 | 4408.069123 | 9.13789489 | | 5.05 | 0.22 | 0.34 | 0.20 | 98.53 |
| 2020 | SC | Construction and Mining | 12 | Cranes | 9999 | 33458.84 | 0.23731092 | 0.006071524 | 0.015130066 | 33458.84 | 0.23731092 | 0.006071524 | 0.015130066 | 307.2305037 | 307.2305037 | 0.609192993 | | 1.54 | 0.04 | 0.10 | 0.04 | 108.90 |
| 2020 | SC | Construction and Mining | 13 | Crawler Tractors | 50 | 131396.965 | 2.245982016 | 0.259882721 | 0.751609579 | 131705.0652 | 2.043361488 | 0.214073925 | 0.614362068 | 18022.01285 | 18022.01285 | 54.06904254 | | 0.25 | 0.03 | 0.08 | 0.03 | 7.31 |
| 2020 | SC | Construction and Mining | 13 | Crawler Tractors | 120 | 5829980.546 | 113.1901109 | 9.621331278 | 11.2947742 | 5830546.687 | 104.2940251 | 8.686159383 | 10.2530165 | 422735.7839 | 422735.7839 | 930.5282221 | | 0.54 | 0.05 | 0.05 | 0.04 | 13.79 |
| 2020 | SC | Construction and Mining | 13 | Crawler Tractors | 175 | 6347670.579 | 107.3191464 | 6.059213475 | 8.636036227 | 6339920.041 | 92.98429573 | 5.194660337 | 7.508876052 | 269994.8044 | 269994.8044 | 608.817419 | | 0.79 | 0.04 | 0.06 | 0.04 | 23.48 |
| 2020 | SC | Construction and Mining | 13 | Crawler Tractors | 250 | 6397634.437 | 97.90022983 | 3.814414726 | 6.342277795 | 6402109.134 | 88.90749003 | 3.350264933 | 5.710911177 | 200180.47 | 200180.47 | 444.9882201 | | 0.98 | 0.04 | 0.06 | 0.04 | 31.98 |
| 2020 | SC | Construction and Mining | 13 | Crawler Tractors | 500 | 17152753.01 | 220.354063 | 8.948514047 | 15.16467191 | 17163324.21 | 185.456882 | 7.213134306 | 12.75159112 | 317982.3753 | 317982.3753 | 715.3334328 | | 1.39 | 0.06 | 0.10 | 0.05 | 53.98 |
| 2020 | SC | Construction and Mining | 13 | Crawler Tractors | 750 | 6692929.39 | 73.74614714 | 2.831591854 | 4.996276536 | 6687010.975 | 62.84216982 | 2.305653373 | 4.241020608 | 74335.10691 | 74335.10691 | 146.5271053 | | 1.98 | 0.08 | 0.13 | 0.07 | 89.96 |
| 2020 | SC | Construction and Mining | 13 | Crawler Tractors | 1000 | 883341.354 | 17.74755226 | 0.510217136 | 0.927796199 | 885552.2871 | 19.10304251 | 0.559540678 | 1.010117317 | 6743.385692 | 6743.385692 | 12.97657021 | | 5.26 | 0.15 | 0.28 | 0.14 | 131.32 |
| 2020 | SC | Construction and Mining | 13 | Crawler Tractors | 9999 | 467545.4562 | 8.59764153 | 0.225873752 | 0.402934218 | 467545.4562 | 8.59764153 | 0.225873752 | 0.402934218 | 2025.39527 | 2025.39527 | 3.244142552 | | 8.49 | 0.22 | 0.40 | 0.21 | 230.84 |
| 2020 | SC | Construction and Mining | 14 | Excavators | 50 | 5269650.111 | 57.42915016 | 3.174036986 | 7.035877855 | 5271826.332 | 57.35536848 | 3.160872759 | 6.97506401 | 945679.1273 | 945679.1273 | 1324.277071 | | 0.12 | 0.01 | 0.01 | 0.01 | 5.57 |
| 2020 | SC | Construction and Mining | 14 | Excavators | 120 | 6864183.736 | 69.85261216 | 4.418359619 | 5.821221467 | 6863004.843 | 64.23268563 | 3.842415042 | 5.140603235 | 603897.1314 | 603897.1314 | 957.837734 | | 0.23 | 0.01 | 0.02 | 0.01 | 11.36 |
| 2020 | SC | Construction and Mining | 14 | Excavators | 175 | 14427783.8 | 112.871596 | 5.548905789 | 9.386843022 | 14428120.88 | 98.68673285 | 4.78027779 | 8.281686292 | 704540.9078 | 704540.9078 | 1216.947206 | | 0.32 | 0.02 | 0.03 | 0.01 | 20.48 |
| 2020 | SC | Construction and Mining | 14 | Excavators | 250 | 18323062.58 | 118.1347267 | 3.861793974 | 8.782804296 | 18324532.26 | 111.6258413 | 3.378385011 | 8.070602488 | 598658.7678 | 598658.7678 | 1046.195148 | | 0.39 | 0.01 | 0.03 | 0.01 | 30.61 |
| 2020 | SC | Construction and Mining | 14 | Excavators | 500 | 30421939.49 | 148.0767722 | 5.04133736 | 12.14418632 | 30424876.34 | 144.1913402 | 4.750599121 | 11.6275866 | 662995.8836 | 662995.8836 | 1064.083459 | | 0.45 | 0.02 | 0.04 | 0.01 | 45.89 |
| 2020 | SC | Construction and Mining | 14 | Excavators | 750 | 2758042.531 | 15.80704111 | 0.565825701 | 1.250332059 | 2761369.732 | 15.00697715 | 0.511189379 | 1.171423613 | 34321.42184 | 34321.42184 | 54.20700249 | | 0.92 | 0.03 | 0.07 | 0.03 | 80.46 |
| 2020 | SC | Construction and Mining | 14 | Excavators | 1000 | 307777.8958 | 3.283780803 | 0.063734109 | 0.12705802 | 307769.1724 | 3.274687526 | 0.061088391 | 0.122168187 | 2624.919939 | 2624.919939 | 4.336560199 | | 2.50 | 0.05 | 0.10 | 0.04 | 117.25 |
| 2020 | SC | Construction and Mining | 14 | Excavators | 9999 | 602475.0581 | 5.677906208 | 0.106768303 | 0.232327256 | 602475.0581 | 5.677906208 | 0.106768303 | 0.232327256 | 2765.89845 | 2765.89845 | 3.794490174 | | 4.11 | 0.08 | 0.17 | 0.07 | 217.82 |
| 2020 | SC | Construction and Mining | 15 | Graders | 50 | 34854.64757 | 0.634231482 | 0.08218569 | 0.238469506 | 34854.64757 | 0.584115279 | 0.071046839 | 0.208527052 | 5683.29612 | 5683.29612 | 16.88978746 | | 0.22 | 0.03 | 0.08 | 0.03 | 6.13 |
| 2020 | SC | Construction and Mining | 15 | Graders | 120 | 939165.3318 | 24.79040249 | 2.042421107 | 2.610944474 | 937488.1597 | 21.87848703 | 1.761559179 | 2.284523659 | 69083.67737 | 69083.67737 | 179.7945117 | | 0.72 | 0.06 | 0.08 | 0.05 | 13.57 |
| 2020 | SC | Construction and Mining | 15 | Graders | 175 | 8668886.512 | 176.7071195 | 9.945173548 | 14.69664579 | 8661708.361 | 142.0789186 | 7.925930328 | 12.03211845 | 385438.1526 | 385438.1526 | 841.2203821 | | 0.92 | 0.05 | 0.08 | 0.05 | 22.47 |
| 2020 | SC | Construction and Mining | 15 | Graders | 250 | 15145967.77 | 235.0235095 | 7.839033094 | 14.71686359 | 15112642.54 | 210.8860937 | 6.741883363 | 13.11031533 | 489676.5138 | 489676.5138 | 667.9638526 | | 0.96 | 0.03 | 0.06 | 0.03 | 30.86 |
| 2020 | SC | Construction and Mining | 15 | Graders | 500 | 4320258.466 | 41.85798256 | 1.641624254 | 3.565612361 | 4320441.564 | 40.32918587 | 1.565244604 | 3.453792942 | 98266.73107 | 98266.73107 | 124.7664945 | | 0.85 | 0.03 | 0.07 | 0.03 | 43.97 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2020 | SC | Construction and Mining | 15 | Graders | 1000 | 41842.13005 | 1.16781761 | 0.040642579 | 0.073692323 | 41842.13005 | 1.16781761 | 0.040642579 | 0.073692323 | 350.4531882 | 350.4531882 | 0.544831854 | 6.66 | 0.23 | 0.42 | 0.21 | 119.39 |
| 2020 | SC | Construction and Mining | 15 | Graders | 9999 | 589433.6655 | 11.88915252 | 0.368798209 | 0.706014586 | 589433.6655 | 11.88915252 | 0.368798209 | 0.706014586 | 1975.564824 | 1975.564824 | 2.724159268 | 12.04 | 0.37 | 0.71 | 0.34 | 298.36 |
| 2020 | SC | Construction and Mining | 16 | Off-Highway Tractors | 50 | 2184399.311 | 30.02434069 | 2.599653642 | 6.47349275 | 2186046.665 | 27.58960963 | 2.055028916 | 4.945042102 | 326451.1561 | 326451.1561 | 507.2539078 | 0.18 | 0.02 | 0.04 | 0.01 | 6.70 |
| 2020 | SC | Construction and Mining | 16 | Off-Highway Tractors | 120 | 2779029.496 | 39.08427329 | 3.01984043 | 3.58297517 | 2776907.483 | 34.73628942 | 2.549380634 | 3.073985165 | 232091.9808 | 232091.9808 | 368.8147486 | 0.34 | 0.03 | 0.03 | 0.02 | 11.96 |
| 2020 | SC | Construction and Mining | 16 | Off-Highway Tractors | 175 | 2374997.506 | 21.43349203 | 1.051037946 | 1.663557105 | 2374595.302 | 20.57695612 | 0.998299359 | 1.594453457 | 93815.76379 | 93815.76379 | 140.0427016 | 0.46 | 0.02 | 0.04 | 0.02 | 25.31 |
| 2020 | SC | Construction and Mining | 16 | Off-Highway Tractors | 250 | 1989931.855 | 19.80796673 | 0.745394437 | 1.421191411 | 1993137.243 | 15.45454644 | 0.516972768 | 1.097840499 | 58453.91846 | 58453.91846 | 91.40191595 | 0.68 | 0.03 | 0.05 | 0.02 | 34.10 |
| 2020 | SC | Construction and Mining | 16 | Off-Highway Tractors | 500 | 5594834.406 | 33.83472508 | 1.252301533 | 2.716646735 | 5595799.817 | 27.8083681 | 0.936259194 | 2.286663021 | 105241.1286 | 105241.1286 | 157.1471537 | 0.64 | 0.02 | 0.05 | 0.02 | 53.17 |
| 2020 | SC | Construction and Mining | 16 | Off-Highway Tractors | 750 | 1411496.058 | 8.315324465 | 0.317893548 | 0.698774427 | 1411261.351 | 8.679705744 | 0.323153019 | 0.705883485 | 15403.29866 | 15403.29866 | 22.98410752 | 1.08 | 0.04 | 0.09 | 0.04 | 91.62 |
| 2020 | SC | Construction and Mining | 16 | Off-Highway Tractors | 1000 | 40041.60858 | 1.475961302 | 0.07509335 | 0.103184082 | 40041.60858 | 0.28816053 | 0.007577649 | 0.014904604 | 250.528589 | 250.528589 | 0.534514128 | 11.78 | 0.60 | 0.82 | 0.55 | 159.83 |
| 2020 | SC | Construction and Mining | 16 | Off-Highway Tractors | 9999 | 323548.1661 | 4.493306206 | 0.126808223 | 0.277706088 | 329278.6603 | 3.684969062 | 0.096989067 | 0.203011725 | 1163.240315 | 1163.240315 | 2.138056513 | 7.73 | 0.22 | 0.48 | 0.20 | 283.07 |
| 2020 | SC | Construction and Mining | 17 | Off-Highway Trucks | 50 | 208633.8761 | 2.788052669 | 0.211710221 | 0.455301001 | 210194.2853 | 2.702617378 | 0.192580777 | 0.410620526 | 47425.90466 | 47425.90466 | 30.18866445 | 0.12 | 0.01 | 0.02 | 0.01 | 4.43 |
| 2020 | SC | Construction and Mining | 17 | Off-Highway Trucks | 120 | 255839.43 | 4.050792832 | 0.33117569 | 0.424568479 | 255774.5153 | 3.091153149 | 0.218003175 | 0.309945181 | 21286.067 | 21286.067 | 16.94802215 | 0.38 | 0.03 | 0.04 | 0.03 | 12.02 |
| 2020 | SC | Construction and Mining | 17 | Off-Highway Trucks | 175 | 4955800.23 | 43.55794139 | 2.305058691 | 4.163617282 | 4955456.528 | 39.27361379 | 2.047019319 | 3.82774966 | 223449.5188 | 223449.5188 | 162.0654618 | 0.39 | 0.02 | 0.04 | 0.02 | 22.18 |
| 2020 | SC | Construction and Mining | 17 | Off-Highway Trucks | 250 | 10185519.29 | 108.6185194 | 4.593270018 | 9.13493386 | 10188406.98 | 77.03413656 | 3.001396438 | 6.977078741 | 345872.6517 | 345872.6517 | 277.5238627 | 0.63 | 0.03 | 0.05 | 0.02 | 29.46 |
| 2020 | SC | Construction and Mining | 17 | Off-Highway Trucks | 500 | 43066323.5 | 367.7034415 | 13.96671282 | 30.37685617 | 43069891.1 | 301.9721174 | 11.00192336 | 26.17346775 | 820751.7961 | 820751.7961 | 616.4843057 | 0.90 | 0.03 | 0.07 | 0.03 | 52.48 |
| 2020 | SC | Construction and Mining | 17 | Off-Highway Trucks | 750 | 15371643.61 | 163.2728208 | 6.660454716 | 13.39213667 | 15369058.2 | 140.9634188 | 5.513648351 | 11.89694265 | 166933.3929 | 166933.3929 | 140.8804341 | 1.96 | 0.08 | 0.16 | 0.07 | 92.07 |
| 2020 | SC | Construction and Mining | 17 | Off-Highway Trucks | 1000 | 10659642.84 | 160.2451136 | 4.22863644 | 8.529286892 | 10662311.27 | 154.2242078 | 4.028466691 | 8.056666216 | 85178.26088 | 85178.26088 | 64.61433444 | 3.76 | 0.10 | 0.20 | 0.09 | 125.18 |
| 2020 | SC | Construction and Mining | 17 | Off-Highway Trucks | 9999 | 15486586.76 | 197.9883112 | 5.09011151 | 11.30699102 | 15486959.05 | 183.2884778 | 4.502320263 | 10.25842918 | 61876.1421 | 61876.1421 | 41.84042968 | 6.40 | 0.16 | 0.37 | 0.15 | 250.29 |
| 2020 | SC | Construction and Mining | 18 | Other Construction Equipment | 50 | 1180303.251 | 16.2668863 | 1.341979116 | 2.964527987 | 1179062.394 | 15.94666513 | 1.283043108 | 2.80581909 | 181940.8704 | 181940.8704 | 391.722438 | 0.18 | 0.01 | 0.03 | 0.01 | 6.48 |
| 2020 | SC | Construction and Mining | 18 | Other Construction Equipment | 120 | 3702373.888 | 58.48642986 | 4.431087262 | 5.374780308 | 3702982.609 | 53.04795166 | 3.932753451 | 4.769912226 | 297701.917 | 297701.917 | 691.1818523 | 0.39 | 0.03 | 0.04 | 0.03 | 12.44 |
| 2020 | SC | Construction and Mining | 18 | Other Construction Equipment | 175 | 2012615.067 | 28.97187495 | 1.568248252 | 2.260284346 | 2012619.373 | 24.96694618 | 1.317382362 | 1.945640666 | 86955.40263 | 86955.40263 | 215.1046497 | 0.67 | 0.04 | 0.05 | 0.03 | 23.15 |
| 2020 | SC | Construction and Mining | 18 | Other Construction Equipment | 250 | 2580854.952 | 31.2965437 | 1.193532459 | 2.04106657 | 2580587.934 | 27.74647223 | 1.020604278 | 1.804637681 | 77547.9572 | 77547.9572 | 192.961524 | 0.81 | 0.03 | 0.05 | 0.03 | 33.28 |
| 2020 | SC | Construction and Mining | 18 | Other Construction Equipment | 500 | 8805828.582 | 78.05045768 | 2.932693792 | 5.443264769 | 8806634.692 | 69.2784793 | 2.521520486 | 4.867857069 | 160791.4112 | 160791.4112 | 374.8514851 | 0.97 | 0.04 | 0.07 | 0.03 | 54.77 |
| 2020 | SC | Construction and Mining | 18 | Other Construction Equipment | 750 | 3433589.063 | 33.73790348 | 1.140133132 | 2.108614906 | 3442618.317 | 27.05961114 | 0.894880365 | 1.747906175 | 37646.82706 | 37646.82706 | 77.50093996 | 1.79 | 0.06 | 0.11 | 0.06 | 91.45 |
| 2020 | SC | Construction and Mining | 18 | Other Construction Equipment | 1000 | 400043.2419 | 4.063598578 | 0.08988934 | 0.160002498 | 398986.0533 | 4.320015086 | 0.099327762 | 0.174212475 | 3172.032687 | 3172.032687 | 6.853824622 | 2.56 | 0.06 | 0.10 | 0.05 | 125.78 |
| 2020 | SC | Construction and Mining | 18 | Other Construction Equipment | 9999 | 249127.2788 | 3.802508627 | 0.104226226 | 0.188497823 | 248576.3871 | 3.041824167 | 0.073130134 | 0.141658356 | 1486.331551 | 1486.331551 | 3.163303672 | 5.12 | 0.14 | 0.25 | 0.13 | 167.24 |
| 2020 | SC | Construction and Mining | 19 | Pavers | 50 | 144427.9773 | 1.992440125 | 0.1834778 | 0.49969081 | 144397.423 | 1.853545912 | 0.156467464 | 0.423851025 | 21998.42877 | 21998.42877 | 63.49176443 | 0.18 | 0.02 | 0.05 | 0.02 | 6.56 |
| 2020 | SC | Construction and Mining | 19 | Pavers | 120 | 1399361.071 | 20.4274533 | 1.53803049 | 1.830652646 | 1399973.065 | 18.70202186 | 1.37237733 | 1.63972779 | 115923.0058 | 115923.0058 | 308.4641555 | 0.35 | 0.03 | 0.03 | 0.02 | 12.08 |
| 2020 | SC | Construction and Mining | 19 | Pavers | 175 | 1902205.161 | 19.25494824 | 0.956345292 | 1.485025391 | 1902946.083 | 16.65471967 | 0.809612265 | 1.286497464 | 78814.34653 | 78814.34653 | 208.4646266 | 0.49 | 0.02 | 0.04 | 0.02 | 24.14 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2020 | SC | Construction and Mining | 19 | Pavers | 250 | 1279917.262 | 10.1251854 | 0.278808681 | 0.538324518 | 1280651.858 | 10.66417551 | 0.291822115 | 0.557458516 | 39334.27325 | 39334.27325 | 89.94666628 | | 0.51 | 0.01 | 0.03 | 0.01 | 32.56 |
| 2020 | SC | Construction and Mining | 19 | Pavers | 500 | 482601.3427 | 3.132015871 | 0.113237853 | 0.199720127 | 482601.3427 | 3.132015871 | 0.113237853 | 0.199720127 | 9790.773615 | 9790.773615 | 22.22211755 | | 0.64 | 0.02 | 0.04 | 0.02 | 49.29 |
| 2020 | SC | Construction and Mining | 19 | Pavers | 750 | 55920.74255 | 0.199495364 | 0.008757811 | 0.016059485 | 55920.74255 | 0.199495364 | 0.008757811 | 0.016059485 | 489.0791061 | 489.0791061 | 1.058196074 | | 0.82 | 0.04 | 0.07 | 0.03 | 114.34 |
| 2020 | SC | Construction and Mining | 20 | Paving Equipment | 50 | 179796.7902 | 1.961136861 | 0.112176948 | 0.270997357 | 179831.5112 | 1.937295763 | 0.106331574 | 0.251750912 | 35969.65804 | 35969.65804 | 78.18058039 | | 0.11 | 0.01 | 0.02 | 0.01 | 5.00 |
| 2020 | SC | Construction and Mining | 20 | Paving Equipment | 120 | 817900.4203 | 10.03194403 | 0.699048544 | 0.888722615 | 817310.0843 | 9.255995598 | 0.626145641 | 0.804028337 | 70594.75386 | 70594.75386 | 159.5306438 | | 0.28 | 0.02 | 0.03 | 0.02 | 11.58 |
| 2020 | SC | Construction and Mining | 20 | Paving Equipment | 175 | 770248.5108 | 6.503576297 | 0.327938417 | 0.51709609 | 770374.5934 | 5.928470664 | 0.296525672 | 0.47468419 | 39943.70961 | 39943.70961 | 87.16078219 | | 0.33 | 0.02 | 0.03 | 0.02 | 19.29 |
| 2020 | SC | Construction and Mining | 20 | Paving Equipment | 250 | 403870.6091 | 4.164726929 | 0.15161076 | 0.265671886 | 403881.5098 | 3.905581661 | 0.134253375 | 0.244070531 | 14366.96659 | 14366.96659 | 31.69482989 | | 0.58 | 0.02 | 0.04 | 0.02 | 28.11 |
| 2020 | SC | Construction and Mining | 20 | Paving Equipment | 500 | 569452.9775 | 4.778223012 | 0.171607394 | 0.311886615 | 569283.6308 | 4.692633019 | 0.167861774 | 0.306425717 | 12987.91264 | 12987.91264 | 28.5253469 | | 0.74 | 0.03 | 0.05 | 0.02 | 43.83 |
| 2020 | SC | Construction and Mining | 20 | Paving Equipment | 750 | 270175.001 | 2.226306406 | 0.05162498 | 0.127086981 | 270175.001 | 2.218938526 | 0.051412433 | 0.125980462 | 3425.246049 | 3425.246049 | 6.867213142 | | 1.30 | 0.03 | 0.07 | 0.03 | 78.88 |
| 2020 | SC | Construction and Mining | 20 | Paving Equipment | 1000 | 52830.01375 | 0.367444539 | 0.005918045 | 0.011744906 | 52830.01375 | 0.367444539 | 0.005918045 | 0.011744906 | 480.8685299 | 480.8685299 | 1.05649433 | | 1.53 | 0.02 | 0.05 | 0.02 | 109.86 |
| 2020 | SC | Construction and Mining | 21 | Rollers | 50 | 2968038.051 | 37.40309076 | 2.838221877 | 6.683114148 | 2967680.089 | 36.2800397 | 2.631309533 | 6.123751731 | 542232.4931 | 542232.4931 | 1604.066377 | | 0.14 | 0.01 | 0.02 | 0.01 | 5.47 |
| 2020 | SC | Construction and Mining | 21 | Rollers | 120 | 4636085.899 | 60.35039284 | 4.047870447 | 5.158548224 | 4636770.685 | 53.85166092 | 3.433195584 | 4.451224341 | 386189.5508 | 386189.5508 | 1196.252891 | | 0.31 | 0.02 | 0.03 | 0.02 | 12.01 |
| 2020 | SC | Construction and Mining | 21 | Rollers | 175 | 4794060.364 | 38.5221038 | 1.785953959 | 2.796926196 | 4794464.686 | 35.31688597 | 1.622296933 | 2.562119237 | 242237.5379 | 242237.5379 | 691.6516718 | | 0.32 | 0.01 | 0.02 | 0.01 | 19.79 |
| 2020 | SC | Construction and Mining | 21 | Rollers | 250 | 757202.2483 | 6.817370584 | 0.22617291 | 0.428535232 | 757211.8751 | 6.23926004 | 0.202249983 | 0.390822865 | 25715.4274 | 25715.4274 | 84.82520503 | | 0.53 | 0.02 | 0.03 | 0.02 | 29.45 |
| 2020 | SC | Construction and Mining | 21 | Rollers | 500 | 479140.781 | 4.118456712 | 0.159858865 | 0.278899056 | 479140.781 | 4.008465141 | 0.15507667 | 0.275283114 | 10233.24133 | 10233.24133 | 34.80008411 | | 0.80 | 0.03 | 0.05 | 0.03 | 46.82 |
| 2020 | SC | Construction and Mining | 21 | Rollers | 750 | 23297.24236 | 0.080626544 | 0.003375117 | 0.006320665 | 23297.24236 | 0.049174904 | 0.000654326 | 0.004843744 | 324.5665318 | 324.5665318 | 1.087502629 | | 0.50 | 0.02 | 0.04 | 0.02 | 71.78 |
| 2020 | SC | Construction and Mining | 22 | Rough Terrain | 50 | 151194.2775 | 1.805160684 | 0.123636133 | 0.321813201 | 151194.8049 | 1.833091278 | 0.129050989 | 0.336639263 | 19464.55844 | 19464.55844 | 72.85595874 | | 0.19 | 0.01 | 0.03 | 0.01 | 7.77 |
| 2020 | SC | Construction and Mining | 22 | Rough Terrain | 120 | 12170649.29 | 92.9025547 | 4.058324173 | 6.089496673 | 12170364.26 | 89.46215831 | 3.741529252 | 5.705196665 | 854687.4982 | 854687.4982 | 3121.500991 | | 0.22 | 0.01 | 0.01 | 0.01 | 14.24 |
| 2020 | SC | Construction and Mining | 22 | Rough Terrain | 175 | 2236950.779 | 13.18633097 | 0.498663512 | 0.852387895 | 2236943.916 | 12.565683 | 0.459838824 | 0.794192807 | 117084.7897 | 117084.7897 | 417.6656255 | | 0.23 | 0.01 | 0.01 | 0.01 | 19.11 |
| 2020 | SC | Construction and Mining | 22 | Rough Terrain | 250 | 183837.8139 | 2.990207909 | 0.146020994 | 0.224238461 | 183725.7984 | 0.886970254 | 0.020178896 | 0.050808384 | 5971.747398 | 5971.747398 | 24.49467578 | | 1.00 | 0.05 | 0.08 | 0.04 | 30.77 |
| 2020 | SC | Construction and Mining | 22 | Rough Terrain | 500 | 77585.23313 | 0.48999579 | 0.020408101 | 0.038082261 | 77645.63178 | 0.307738355 | 0.006639096 | 0.017314137 | 1426.599755 | 1426.599755 | 5.652617488 | | 0.69 | 0.03 | 0.05 | 0.03 | 54.43 |
| 2020 | SC | Construction and Mining | 22 | Rough Terrain | 750 | 12194.7641 | 0.561309414 | 0.030538428 | 0.045542137 | 12194.7641 | 0.048791659 | 0.000342269 | 0.003091439 | 132.2517017 | 132.2517017 | 0.62806861 | | 8.49 | 0.46 | 0.69 | 0.42 | 92.21 |
| 2020 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 50 | 130164.5869 | 2.389739849 | 0.316811925 | 0.879922456 | 131678.5459 | 1.605549716 | 0.132777455 | 0.36288533 | 19686.86539 | 19686.86539 | 21.2296198 | | 0.24 | 0.03 | 0.09 | 0.03 | 6.69 |
| 2020 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 120 | 622274.2599 | 16.78964344 | 1.491480782 | 1.794579406 | 624020.4247 | 13.67270969 | 1.167031975 | 1.437654464 | 52023.2407 | 52023.2407 | 63.17106379 | | 0.65 | 0.06 | 0.07 | 0.05 | 12.00 |
| 2020 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 175 | 519934.9197 | 13.60879109 | 0.786163486 | 1.122256549 | 519453.4887 | 11.18786648 | 0.639411307 | 0.934695452 | 23872.78103 | 23872.78103 | 32.6211231 | | 1.14 | 0.07 | 0.09 | 0.06 | 21.76 |
| 2020 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 250 | 542793.4054 | 12.50035645 | 0.625807548 | 0.973657561 | 542163.5985 | 10.52910462 | 0.515644976 | 0.828910125 | 17611.04213 | 17611.04213 | 25.37198464 | | 1.42 | 0.07 | 0.11 | 0.07 | 30.79 |
| 2020 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 500 | 6216124.888 | 124.353443 | 5.805035253 | 9.518464758 | 6217768.457 | 103.6552255 | 4.761278428 | 8.123855264 | 119109.2826 | 119109.2826 | 169.3191628 | | 2.09 | 0.10 | 0.16 | 0.09 | 52.20 |
| 2020 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 750 | 730541.894 | 14.72759028 | 0.543157265 | 0.92033904 | 730541.894 | 13.40587171 | 0.477645125 | 0.826030483 | 8602.891622 | 8602.891622 | 10.3559121 | | 3.42 | 0.13 | 0.21 | 0.12 | 84.92 |
| 2020 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 50 | 412494.4465 | 6.184239706 | 0.592332442 | 1.538830201 | 412461.9697 | 5.855586186 | 0.528461009 | 1.363728729 | 67025.38446 | 67025.38446 | 79.87558629 | | 0.18 | 0.02 | 0.05 | 0.02 | 6.15 |
| 2020 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 120 | 10027414.85 | 161.8807829 | 13.13861605 | 16.15120048 | 10024193.56 | 143.0347359 | 11.20097338 | 14.01235605 | 888349.4891 | 888349.4891 | 993.0478296 | | 0.36 | 0.03 | 0.04 | 0.03 | 11.28 |
| 2020 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 175 | 23813104.46 | 304.3808086 | 17.03244929 | 26.47716887 | 23820677.83 | 252.1053826 | 13.87530333 | 22.43304024 | 1198149.645 | 1198149.645 | 1301.216477 | | 0.51 | 0.03 | 0.04 | 0.03 | 19.88 |
| 2020 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 250 | 32796167.61 | 366.2999739 | 12.57700899 | 25.70756544 | 32804960.35 | 338.9190433 | 11.25099633 | 23.76189754 | 1206374.706 | 1206374.706 | 1156.576902 | | 0.61 | 0.02 | 0.04 | 0.02 | 27.19 |
| 2020 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 500 | 42705315.11 | 473.3143812 | 18.29132034 | 36.45477472 | 42685261.29 | 391.1287262 | 14.54412431 | 30.96973868 | 1016931.884 | 1016931.884 | 1074.542516 | | 0.93 | 0.04 | 0.07 | 0.03 | 41.97 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2020 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 750 | 7610482.739 | 77.11414826 | 3.011921345 | 6.132661756 | 7646076.095 | 64.90661742 | 2.52040798 | 5.366466326 | 97943.63723 | 97943.63723 | 94.9871837 | 1.57 | 0.06 | 0.13 | 0.06 | 78.07 |
| 2020 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 1000 | 2200911.816 | 39.48631569 | 1.107483072 | 2.014769617 | 2198033.228 | 34.8370565 | 0.918617015 | 1.707098779 | 19871.27172 | 19871.27172 | 17.27039704 | 3.97 | 0.11 | 0.20 | 0.10 | 110.61 |
| 2020 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 9999 | 875609.3605 | 12.23085254 | 0.291501899 | 0.574896687 | 875609.3605 | 10.87823982 | 0.237203049 | 0.475790033 | 4364.829256 | 4364.829256 | 3.777899352 | 5.60 | 0.13 | 0.26 | 0.12 | 200.61 |
| 2020 | SC | Construction and Mining | 25 | Scrapers | 50 | 9445.460924 | 0.175504682 | 0.024232049 | 0.072100552 | 9445.460924 | 0.175504682 | 0.024232049 | 0.072100552 | 1333.460486 | 1333.460486 | 3.733870177 | 0.26 | 0.04 | 0.11 | 0.03 | 7.08 |
| 2020 | SC | Construction and Mining | 25 | Scrapers | 120 | 430941.1795 | 8.663105359 | 0.668584357 | 0.757883229 | 430941.1795 | 8.433226014 | 0.644357334 | 0.731660663 | 28167.93983 | 28167.93983 | 53.87441256 | 0.62 | 0.05 | 0.05 | 0.04 | 15.30 |
| 2020 | SC | Construction and Mining | 25 | Scrapers | 175 | 4549395.386 | 80.11254192 | 4.374687845 | 6.448620878 | 4549203.487 | 65.61176087 | 3.530497312 | 5.320080369 | 152522.9863 | 152522.9863 | 346.1831065 | 1.05 | 0.06 | 0.08 | 0.05 | 29.83 |
| 2020 | SC | Construction and Mining | 25 | Scrapers | 250 | 5230347.988 | 109.6979113 | 5.012226401 | 7.936324045 | 5232571.894 | 80.50376642 | 3.531150851 | 5.833674193 | 132233.5264 | 132233.5264 | 336.048316 | 1.66 | 0.08 | 0.12 | 0.07 | 39.57 |
| 2020 | SC | Construction and Mining | 25 | Scrapers | 500 | 45805595.67 | 656.951868 | 26.96442665 | 45.77839071 | 45762386.61 | 519.7795068 | 20.27290229 | 36.29351844 | 677643.9582 | 677643.9582 | 1477.01236 | 1.94 | 0.08 | 0.14 | 0.07 | 67.53 |
| 2020 | SC | Construction and Mining | 25 | Scrapers | 750 | 20917826.66 | 239.2463183 | 9.412512565 | 16.73004327 | 20927800.28 | 196.6051604 | 7.120411044 | 13.62687254 | 209360.4286 | 209360.4286 | 420.86051 | 2.29 | 0.09 | 0.16 | 0.08 | 99.96 |
| 2020 | SC | Construction and Mining | 25 | Scrapers | 1000 | 327873.5573 | 13.1883369 | 0.614888482 | 0.95523266 | 327873.5573 | 13.1883369 | 0.614888482 | 0.95523266 | 1949.437984 | 1949.437984 | 6.93433033 | 13.53 | 0.63 | 0.98 | 0.58 | 168.19 |
| 2020 | SC | Construction and Mining | 25 | Scrapers | 9999 | 1191744.535 | 23.38440528 | 0.843219083 | 1.352332366 | 1191744.535 | 27.14518214 | 1.07050272 | 1.678291853 | 3425.053887 | 3425.053887 | 6.93433033 | 13.65 | 0.49 | 0.79 | 0.45 | 347.95 |
| 2020 | SC | Construction and Mining | 26 | Skid Steer Loaders | 50 | 2244123.422 | 21.99940497 | 0.817309737 | 2.11681229 | 2246011.894 | 22.27239669 | 0.87313746 | 2.190567327 | 341732.5109 | 341732.5109 | 1111.266513 | 0.13 | 0.00 | 0.01 | 0.00 | 6.57 |
| 2020 | SC | Construction and Mining | 26 | Skid Steer Loaders | 120 | 11917952.63 | 88.22202523 | 3.743605247 | 5.499215387 | 11911565.78 | 89.63556023 | 3.88018511 | 5.571625044 | 1249088.931 | 1249088.931 | 3586.13472 | 0.14 | 0.01 | 0.01 | 0.01 | 9.54 |
| 2020 | SC | Construction and Mining | 26 | Skid Steer Loaders | 175 | 80548.03988 | 0.45150541 | 0.017618254 | 0.032263196 | 80510.83296 | 0.414162549 | 0.01741991 | 0.030946498 | 3925.735778 | 3925.735778 | 14.87565485 | 0.23 | 0.01 | 0.02 | 0.01 | 20.51 |
| 2020 | SC | Construction and Mining | 26 | Skid Steer Loaders | 250 | 61499.31632 | 0.258708541 | 0.007947963 | 0.016710151 | 61456.34107 | 0.246990408 | 0.007443672 | 0.015483576 | 2320.942065 | 2320.942065 | 8.264252696 | 0.22 | 0.01 | 0.01 | 0.01 | 26.48 |
| 2020 | SC | Construction and Mining | 26 | Skid Steer Loaders | 500 | 17011.91194 | 0.031926728 | 0.000470361 | 0.003242249 | 17011.91194 | 0.031278772 | 0.000467425 | 0.003148838 | 466.895051 | 466.895051 | 1.652850539 | 0.14 | 0.00 | 0.01 | 0.00 | 36.44 |
| 2020 | SC | Construction and Mining | 26 | Skid Steer Loaders | 750 | 17945.32507 | 0.131468179 | 0.005668108 | 0.0076304 | 17945.32507 | 0.131468179 | 0.005668108 | 0.0076304 | 250.3640128 | 250.3640128 | 0.55095018 | 1.05 | 0.05 | 0.06 | 0.04 | 71.68 |
| 2020 | SC | Construction and Mining | 26 | Skid Steer Loaders | 1000 | 29283.54934 | 0.368694992 | 0.009653957 | 0.017795727 | 29283.54934 | 0.387142052 | 0.012703409 | 0.021047914 | 216.5310382 | 216.5310382 | 1.101900359 | 3.41 | 0.09 | 0.16 | 0.08 | 135.24 |
| 2020 | SC | Construction and Mining | 27 | Surfacing Equipment | 50 | 20786.10849 | 0.2439721 | 0.0139922 | 0.03021922 | 20786.10849 | 0.233287445 | 0.01191004 | 0.024359892 | 4642.66892 | 4642.66892 | 19.49320243 | 0.11 | 0.01 | 0.01 | 0.01 | 4.48 |
| 2020 | SC | Construction and Mining | 27 | Surfacing Equipment | 120 | 163020.4348 | 1.833748118 | 0.108397235 | 0.140560664 | 163134.7909 | 1.763322219 | 0.100689084 | 0.133005876 | 16563.32155 | 16563.32155 | 62.47821291 | 0.22 | 0.01 | 0.02 | 0.01 | 9.85 |
| 2020 | SC | Construction and Mining | 27 | Surfacing Equipment | 175 | 83793.31823 | 1.089470878 | 0.05245775 | 0.075924841 | 83773.85327 | 0.92963932 | 0.044178086 | 0.06432882 | 5045.143288 | 5045.143288 | 20.99267954 | 0.43 | 0.02 | 0.03 | 0.02 | 16.60 |
| 2020 | SC | Construction and Mining | 27 | Surfacing Equipment | 250 | 178463.937 | 1.857030748 | 0.057013036 | 0.100590071 | 178459.6443 | 1.71142723 | 0.051623316 | 0.092989304 | 7396.084427 | 7396.084427 | 31.4890193 | 0.50 | 0.02 | 0.03 | 0.01 | 24.13 |
| 2020 | SC | Construction and Mining | 27 | Surfacing Equipment | 500 | 567212.1053 | 3.186255682 | 0.116517573 | 0.208786314 | 567183.3377 | 3.13319948 | 0.114001442 | 0.205089551 | 14158.68011 | 14158.68011 | 51.98187314 | 0.45 | 0.02 | 0.03 | 0.02 | 40.06 |
| 2020 | SC | Construction and Mining | 27 | Surfacing Equipment | 750 | 520254.2091 | 3.288651499 | 0.116808514 | 0.184199357 | 520254.2091 | 3.288651499 | 0.116808514 | 0.184199357 | 7683.755924 | 7683.755924 | 25.99093657 | 0.86 | 0.03 | 0.05 | 0.03 | 67.71 |
| 2020 | SC | Construction and Mining | 27 | Surfacing Equipment | 1000 | 84720.71073 | 1.294170859 | 0.031038461 | 0.055383148 | 84720.71073 | 1.294170859 | 0.031038461 | 0.055383148 | 941.6306522 | 941.6306522 | 3.498779923 | 2.75 | 0.07 | 0.12 | 0.06 | 89.97 |
| 2020 | SC | Construction and Mining | 27 | Surfacing Equipment | 9999 | 29844.25944 | 0.355290452 | 0.008341567 | 0.014226639 | 29844.25944 | 0.355290452 | 0.008341567 | 0.014226639 | 240.1652763 | 240.1652763 | 0.999651406 | 2.96 | 0.07 | 0.12 | 0.06 | 124.27 |
| 2020 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 50 | 4437741.83 | 55.0797713 | 3.793812546 | 9.137661607 | 4443808.675 | 53.7132237 | 3.515643835 | 8.373538126 | 784950.6044 | 784950.6044 | 1555.133426 | 0.14 | 0.01 | 0.02 | 0.01 | 5.66 |
| 2020 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 120 | 71356231.72 | 767.1548941 | 51.06140477 | 65.08963444 | 71320151.46 | 707.7706845 | 44.75612684 | 58.21205478 | 6338996.96 | 6338996.96 | 10559.1934 | 0.24 | 0.02 | 0.02 | 0.01 | 11.25 |
| 2020 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 175 | 12343623.56 | 105.3596486 | 5.380988335 | 8.72815601 | 12342695.15 | 90.38667243 | 4.554023401 | 7.594864448 | 640236.0685 | 640236.0685 | 1181.251173 | 0.33 | 0.02 | 0.03 | 0.02 | 19.28 |
| 2020 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 250 | 7183849.535 | 65.80678128 | 2.278880938 | 4.507429217 | 7179630.809 | 59.23762597 | 1.942936342 | 4.027204218 | 260817.9736 | 260817.9736 | 472.5004694 | 0.50 | 0.02 | 0.03 | 0.02 | 27.53 |
| 2020 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 500 | 9594065.626 | 69.89447126 | 2.528358834 | 5.321452037 | 9580394.651 | 60.33286719 | 2.118684198 | 4.643755845 | 223079.4157 | 223079.4157 | 426.4425108 | 0.63 | 0.02 | 0.05 | 0.02 | 42.95 |
| 2020 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 750 | 1361219.128 | 12.54371589 | 0.45862047 | 0.883859515 | 1372349.571 | 12.95054491 | 0.487249605 | 0.918901704 | 17787.54243 | 17787.54243 | 29.8022085 | 1.41 | 0.05 | 0.10 | 0.05 | 77.15 |
| 2020 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 1000 | 230806.799 | 2.015507479 | 0.034068735 | 0.072204154 | 230806.799 | 2.012080252 | 0.033966063 | 0.071189 | 1939.864156 | 1939.864156 | 2.709291682 | 2.08 | 0.04 | 0.07 | 0.03 | 118.98 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2020 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 9999 | 3239844.972 | 34.6643787 | 0.74377372 | 1.559343305 | 3239844.972 | 33.44890168 | 0.685764181 | 1.442237002 | 11926.74178 | 11926.74178 | 20.04875845 | 5.81 | 0.12 | 0.26 | 0.11 | 271.65 |
| 2020 | SC | Construction and Mining | 29 | Trenchers | 50 | 1572223.534 | 19.99086664 | 1.546307539 | 3.279042186 | 1571478.606 | 19.7683694 | 1.505171146 | 3.161310932 | 191855.2302 | 191855.2302 | 509.9817379 | 0.21 | 0.02 | 0.03 | 0.01 | 8.19 |
| 2020 | SC | Construction and Mining | 29 | Trenchers | 120 | 1139733.061 | 19.26129646 | 1.448811778 | 1.766669244 | 1138749.441 | 18.75646558 | 1.404281745 | 1.713801284 | 74764.7109 | 74764.7109 | 236.4460785 | 0.52 | 0.04 | 0.05 | 0.04 | 15.23 |
| 2020 | SC | Construction and Mining | 29 | Trenchers | 175 | 232551.9076 | 3.507992713 | 0.181298152 | 0.270990925 | 232525.5183 | 3.143962212 | 0.160752015 | 0.245089408 | 8844.833185 | 8844.833185 | 31.29433392 | 0.79 | 0.04 | 0.06 | 0.04 | 26.29 |
| 2020 | SC | Construction and Mining | 29 | Trenchers | 250 | 455967.378 | 6.812795384 | 0.279230319 | 0.4612691 | 456241.011 | 6.568726604 | 0.266175586 | 0.44249255 | 11289.66435 | 11289.66435 | 37.08958094 | 1.21 | 0.05 | 0.08 | 0.05 | 40.41 |
| 2020 | SC | Construction and Mining | 29 | Trenchers | 500 | 767867.8379 | 6.925518208 | 0.266253753 | 0.479674486 | 767867.8379 | 6.419393709 | 0.243454234 | 0.444509399 | 11648.78546 | 11648.78546 | 33.61243273 | 1.19 | 0.05 | 0.08 | 0.04 | 65.92 |
| 2020 | SC | Construction and Mining | 29 | Trenchers | 750 | 345594.6074 | 0.580609763 | 0.009369229 | 0.060081277 | 345594.6074 | 0.580609763 | 0.009369229 | 0.060081277 | 3022.360157 | 3022.360157 | 6.954296426 | 0.38 | 0.01 | 0.04 | 0.01 | 114.35 |
| 2020 | SC | Construction and Mining | 29 | Trenchers | 1000 | 20504.32032 | 0.818850473 | 0.037810354 | 0.058980122 | 20504.32032 | 0.818850473 | 0.037810354 | 0.058980122 | 129.2840047 | 129.2840047 | 0.579524702 | 12.67 | 0.58 | 0.91 | 0.54 | 158.60 |
| 2020 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 50 | 1368316.178 | 19.14403861 | 1.759199873 | 4.223491596 | 1368316.178 | 18.81668988 | 1.709690784 | 4.101351706 | 206643.0292 | 206643.0292 | 299.3429077 | 0.19 | 0.02 | 0.04 | 0.02 | 6.62 |
| 2020 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 120 | 2114778.031 | 30.61358074 | 2.510956096 | 2.987693076 | 2114778.031 | 28.34600706 | 2.277179486 | 2.717513132 | 162433.256 | 162433.256 | 243.7128098 | 0.38 | 0.03 | 0.04 | 0.03 | 13.02 |
| 2020 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 175 | 527510.1154 | 10.22821307 | 0.530163692 | 0.818840193 | 527510.1154 | 7.284659361 | 0.374775419 | 0.603010727 | 19738.60065 | 19738.60065 | 28.07995417 | 1.04 | 0.05 | 0.08 | 0.05 | 26.72 |
| 2020 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 250 | 281141.63 | 2.535430663 | 0.087638346 | 0.177331553 | 281141.63 | 2.107524445 | 0.067014268 | 0.145141359 | 8259.481978 | 8259.481978 | 11.65583003 | 0.61 | 0.02 | 0.04 | 0.02 | 34.04 |
| 2020 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 500 | 78434.83771 | 1.281586202 | 0.055744649 | 0.084906192 | 78434.83771 | 1.281586202 | 0.055744649 | 0.084906192 | 1550.721627 | 1550.721627 | 2.119241824 | 1.65 | 0.07 | 0.11 | 0.07 | 50.58 |
| 2020 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 1000 | 54969.20858 | 0.698457136 | 0.019819011 | 0.033332851 | 54969.20858 | 0.698457136 | 0.019819011 | 0.033332851 | 387.6804066 | 387.6804066 | 0.529810456 | 3.60 | 0.10 | 0.17 | 0.09 | 141.79 |
| 2021 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 50 | 133823.9277 | 1.652100285 | 0.104987041 | 0.213477764 | 133826.5756 | 1.642474181 | 0.103117313 | 0.208130036 | 16291.83841 | 16291.83841 | 46.32283827 | 0.20 | 0.01 | 0.03 | 0.01 | 8.21 |
| 2021 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 120 | 837110.5338 | 7.181191111 | 0.352154424 | 0.481301868 | 836869.6081 | 6.98386735 | 0.334211793 | 0.457499419 | 55958.11108 | 55958.11108 | 141.8941678 | 0.26 | 0.01 | 0.02 | 0.01 | 14.96 |
| 2021 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 175 | 964674.785 | 5.378337121 | 0.245767226 | 0.427204349 | 963798.7008 | 4.578389248 | 0.199698827 | 0.364937177 | 34816.49328 | 34816.49328 | 111.1748118 | 0.31 | 0.01 | 0.02 | 0.01 | 27.68 |
| 2021 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 250 | 1365564.145 | 7.037909485 | 0.227853641 | 0.501240813 | 1364233.4 | 6.410612448 | 0.194333543 | 0.452483875 | 35916.39606 | 35916.39606 | 110.687203 | 0.39 | 0.01 | 0.03 | 0.01 | 37.98 |
| 2021 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 500 | 1549557.367 | 6.458059453 | 0.209844316 | 0.492467756 | 1546988.169 | 5.698943 | 0.190725915 | 0.451523006 | 24137.76767 | 24137.76767 | 77.529803 | 0.54 | 0.02 | 0.04 | 0.02 | 64.09 |
| 2021 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 750 | 2069071.973 | 6.688650087 | 0.226863934 | 0.533258467 | 2070086.528 | 5.913553156 | 0.206577948 | 0.49930196 | 18264.3154 | 18264.3154 | 38.52109709 | 0.73 | 0.02 | 0.06 | 0.02 | 113.34 |
| 2021 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 1000 | 164797.7215 | 1.514218777 | 0.030414818 | 0.055603362 | 164797.7215 | 1.514218777 | 0.030414818 | 0.055603362 | 972.8664898 | 972.8664898 | 1.462826472 | 3.11 | 0.06 | 0.11 | 0.06 | 169.39 |
| 2021 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 9999 | 558606.6863 | 7.239330147 | 0.182614512 | 0.273234946 | 558606.6863 | 7.239330147 | 0.182614512 | 0.273234946 | 1135.887361 | 1135.887361 | 1.462826472 | 12.75 | 0.32 | 0.48 | 0.30 | 491.78 |
| 2021 | SC | Construction and Mining | 12 | Cranes | 50 | 44018.97883 | 0.735095888 | 0.078367724 | 0.217548839 | 44018.97883 | 0.724719314 | 0.076053608 | 0.210597689 | 9339.975433 | 9339.975433 | 21.45693215 | 0.16 | 0.02 | 0.05 | 0.02 | 4.71 |
| 2021 | SC | Construction and Mining | 12 | Cranes | 120 | 1050570.607 | 24.82774343 | 1.830426621 | 2.443619218 | 1050726.276 | 18.16962224 | 1.262659196 | 1.706827301 | 112241.9868 | 112241.9868 | 258.7092962 | 0.44 | 0.03 | 0.04 | 0.03 | 9.36 |
| 2021 | SC | Construction and Mining | 12 | Cranes | 175 | 2771723.242 | 56.57981364 | 3.107822452 | 4.542280266 | 2771143.312 | 42.32961962 | 2.258764509 | 3.410598215 | 176295.2073 | 176295.2073 | 388.0639443 | 0.64 | 0.04 | 0.05 | 0.03 | 15.72 |
| 2021 | SC | Construction and Mining | 12 | Cranes | 250 | 4681278.133 | 90.85568462 | 4.20601755 | 6.623405218 | 4681246.502 | 57.60571843 | 2.338793414 | 4.053675955 | 203662.0218 | 203662.0218 | 435.8822503 | 0.89 | 0.04 | 0.07 | 0.04 | 22.99 |
| 2021 | SC | Construction and Mining | 12 | Cranes | 500 | 7177144.162 | 99.55302293 | 4.193250112 | 6.957856502 | 7178861.713 | 74.16577686 | 2.983995344 | 5.258780808 | 201836.6815 | 201836.6815 | 418.1036493 | 0.99 | 0.04 | 0.07 | 0.04 | 35.57 |
| 2021 | SC | Construction and Mining | 12 | Cranes | 750 | 1888170.559 | 18.48317749 | 0.727218034 | 1.239163321 | 1888104.407 | 15.51667014 | 0.607377753 | 1.071233681 | 31584.572 | 31584.572 | 61.30552043 | 1.17 | 0.05 | 0.08 | 0.04 | 59.78 |
| 2021 | SC | Construction and Mining | 12 | Cranes | 1000 | 442378.5631 | 11.39626346 | 0.495174816 | 0.759702239 | 442378.5631 | 12.33100847 | 0.594516424 | 0.896054556 | 4489.926861 | 4489.926861 | 9.195828065 | 5.08 | 0.22 | 0.34 | 0.20 | 98.53 |
| 2021 | SC | Construction and Mining | 12 | Cranes | 9999 | 34080.16986 | 0.243010174 | 0.006281065 | 0.016229003 | 34080.16986 | 0.243010174 | 0.006281065 | 0.016229003 | 312.9357668 | 312.9357668 | 0.613055204 | 1.55 | 0.04 | 0.10 | 0.04 | 108.90 |
| 2021 | SC | Construction and Mining | 13 | Crawler Tractors | 50 | 133953.557 | 2.267853038 | 0.262767686 | 0.763356826 | 134262.3689 | 2.071108829 | 0.217824742 | 0.629185426 | 18356.6812 | 18356.6812 | 54.41183389 | 0.25 | 0.03 | 0.08 | 0.03 | 7.31 |
| 2021 | SC | Construction and Mining | 13 | Crawler Tractors | 120 | 5942455.396 | 111.6886269 | 9.492834625 | 11.21764696 | 5940174.369 | 100.0105158 | 8.233158574 | 9.829777287 | 430585.9773 | 430585.9773 | 936.4276612 | 0.52 | 0.04 | 0.05 | 0.04 | 13.80 |
| 2021 | SC | Construction and Mining | 13 | Crawler Tractors | 175 | 6470687.119 | 102.7375304 | 5.815637141 | 8.364360185 | 6463219.399 | 85.42786705 | 4.753651758 | 6.997539379 | 275008.6015 | 275008.6015 | 612.6772495 | 0.75 | 0.04 | 0.06 | 0.04 | 23.50 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2021 | SC | Construction and Mining | 13 | Crawler Tractors | 250 | 6514813.011 | 93.96858812 | 3.667326484 | 6.190828003 | 6520769.952 | 84.72674828 | 3.187666075 | 5.536251992 | 203897.8165 | 203897.8165 | 447.8093929 | | 0.92 | 0.04 | 0.06 | 0.03 | 31.98 |
| 2021 | SC | Construction and Mining | 13 | Crawler Tractors | 500 | 17445750.45 | 206.8512791 | 8.491076038 | 14.66682867 | 17454476.88 | 170.8846985 | 6.727399432 | 12.20864576 | 323887.3004 | 323887.3004 | 719.8685623 | | 1.28 | 0.05 | 0.09 | 0.05 | 53.89 |
| 2021 | SC | Construction and Mining | 13 | Crawler Tractors | 750 | 6817437.013 | 70.99503531 | 2.754511102 | 4.950142846 | 6808054.639 | 57.63549617 | 2.117591034 | 4.035780439 | 75715.50808 | 75715.50808 | 147.4560698 | | 1.88 | 0.07 | 0.13 | 0.07 | 89.92 |
| 2021 | SC | Construction and Mining | 13 | Crawler Tractors | 1000 | 899726.0522 | 18.12603445 | 0.522307865 | 0.951533209 | 894733.8214 | 17.20565875 | 0.488340107 | 0.887382249 | 6868.610204 | 6868.610204 | 13.05884013 | | 5.28 | 0.15 | 0.28 | 0.14 | 130.26 |
| 2021 | SC | Construction and Mining | 13 | Crawler Tractors | 9999 | 476227.7642 | 8.779845225 | 0.231586736 | 0.413293581 | 476227.7642 | 8.779845225 | 0.231586736 | 0.413293581 | 2063.006812 | 2063.006812 | 3.264710033 | | 8.51 | 0.22 | 0.40 | 0.21 | 230.84 |
| 2021 | SC | Construction and Mining | 14 | Excavators | 50 | 5370455.159 | 56.8370589 | 2.925993998 | 6.783363861 | 5369825.614 | 56.78805737 | 2.922227554 | 6.735769235 | 963240.3662 | 963240.3662 | 1332.672831 | | 0.12 | 0.01 | 0.01 | 0.01 | 5.57 |
| 2021 | SC | Construction and Mining | 14 | Excavators | 120 | 6986508.527 | 65.72970818 | 3.986132665 | 5.486867649 | 6986508.001 | 60.32792784 | 3.401736257 | 4.813287088 | 615111.4868 | 615111.4868 | 963.9103122 | | 0.21 | 0.01 | 0.02 | 0.01 | 11.36 |
| 2021 | SC | Construction and Mining | 14 | Excavators | 175 | 14695383.35 | 101.7453821 | 5.000233626 | 8.845340051 | 14698212.02 | 89.71868296 | 4.351328426 | 7.891569311 | 717624.2157 | 717624.2157 | 1224.662508 | | 0.28 | 0.01 | 0.02 | 0.01 | 20.48 |
| 2021 | SC | Construction and Mining | 14 | Excavators | 250 | 18659544.81 | 103.3138224 | 3.383251277 | 8.266915943 | 18661268.74 | 95.65917017 | 2.930808138 | 7.545237095 | 609775.8468 | 609775.8468 | 1052.827902 | | 0.34 | 0.01 | 0.03 | 0.01 | 30.60 |
| 2021 | SC | Construction and Mining | 14 | Excavators | 500 | 30943795.4 | 131.8348129 | 4.532543914 | 11.69207252 | 30945059.43 | 124.4228046 | 4.164328125 | 11.0379768 | 675307.7014 | 675307.7014 | 1070.829622 | | 0.39 | 0.01 | 0.03 | 0.01 | 45.82 |
| 2021 | SC | Construction and Mining | 14 | Excavators | 750 | 2813497.923 | 14.19694241 | 0.505817641 | 1.207144778 | 2816706.049 | 13.76646002 | 0.478345465 | 1.161709797 | 34958.76983 | 34958.76983 | 54.55066849 | | 0.81 | 0.03 | 0.07 | 0.03 | 80.57 |
| 2021 | SC | Construction and Mining | 14 | Excavators | 1000 | 313503.009 | 3.364013322 | 0.06581922 | 0.133961363 | 313493.324 | 3.355153344 | 0.063092338 | 0.128937001 | 2673.66464 | 2673.66464 | 4.364053479 | | 2.52 | 0.05 | 0.10 | 0.05 | 117.25 |
| 2021 | SC | Construction and Mining | 14 | Excavators | 9999 | 613663.0055 | 5.822456865 | 0.109883831 | 0.247122477 | 613663.0055 | 5.822456865 | 0.109883831 | 0.247122477 | 2817.261118 | 2817.261118 | 3.818546794 | | 4.13 | 0.08 | 0.18 | 0.07 | 217.82 |
| 2021 | SC | Construction and Mining | 15 | Graders | 50 | 35507.2094 | 0.637113177 | 0.081627982 | 0.236635235 | 35507.2094 | 0.560154978 | 0.064473239 | 0.188673002 | 5788.834794 | 5788.834794 | 16.99686672 | | 0.22 | 0.03 | 0.08 | 0.03 | 6.13 |
| 2021 | SC | Construction and Mining | 15 | Graders | 120 | 956448.7942 | 24.81699857 | 2.037309547 | 2.617862278 | 954354.0393 | 20.55457719 | 1.643775057 | 2.147795026 | 70366.55962 | 70366.55962 | 180.9343877 | | 0.71 | 0.06 | 0.07 | 0.05 | 13.56 |
| 2021 | SC | Construction and Mining | 15 | Graders | 175 | 8825257.785 | 168.8330384 | 9.494700277 | 14.16895134 | 8831574.026 | 126.63636 | 7.064580485 | 10.92801535 | 392595.73 | 392595.73 | 846.55362 | | 0.86 | 0.05 | 0.07 | 0.04 | 22.50 |
| 2021 | SC | Construction and Mining | 15 | Graders | 250 | 15400485.31 | 223.9883878 | 7.393381657 | 14.21894175 | 15368506.05 | 201.1859645 | 6.373713775 | 12.71240188 | 498769.795 | 498769.795 | 672.1986646 | | 0.90 | 0.03 | 0.06 | 0.03 | 30.81 |
| 2021 | SC | Construction and Mining | 15 | Graders | 500 | 4399968.943 | 42.0457675 | 1.65025823 | 3.674926102 | 4399913.225 | 39.82563724 | 1.547307089 | 3.517892352 | 100091.5419 | 100091.5419 | 125.5574993 | | 0.84 | 0.03 | 0.07 | 0.03 | 43.96 |
| 2021 | SC | Construction and Mining | 15 | Graders | 1000 | 42619.13741 | 1.189503956 | 0.041397311 | 0.075060788 | 42619.13741 | 1.189503956 | 0.041397311 | 0.075060788 | 356.9610956 | 356.9610956 | 0.548286023 | | 6.66 | 0.23 | 0.42 | 0.21 | 119.39 |
| 2021 | SC | Construction and Mining | 15 | Graders | 9999 | 600379.4346 | 12.16180381 | 0.378524226 | 0.729595877 | 600379.4346 | 12.16180381 | 0.378524226 | 0.729595877 | 2012.251016 | 2012.251016 | 2.741430117 | | 12.09 | 0.38 | 0.73 | 0.35 | 298.36 |
| 2021 | SC | Construction and Mining | 16 | Off-Highway Tractors | 50 | 2227303.247 | 29.69774509 | 2.449319776 | 6.150574939 | 2229114.531 | 27.07240251 | 1.85338259 | 4.499428041 | 332513.3463 | 332513.3463 | 510.4698377 | | 0.18 | 0.01 | 0.04 | 0.01 | 6.70 |
| 2021 | SC | Construction and Mining | 16 | Off-Highway Tractors | 120 | 2830525.555 | 37.2683766 | 2.821904366 | 3.41672597 | 2830666.391 | 31.91264104 | 2.20758304 | 2.759979694 | 236401.9234 | 236401.9234 | 371.1529905 | | 0.32 | 0.02 | 0.03 | 0.02 | 11.97 |
| 2021 | SC | Construction and Mining | 16 | Off-Highway Tractors | 175 | 2419033.82 | 20.4301627 | 1.003333682 | 1.645556735 | 2418725.391 | 19.28614453 | 0.93245512 | 1.550513571 | 95557.92029 | 95557.92029 | 140.9305558 | | 0.43 | 0.02 | 0.03 | 0.02 | 25.31 |
| 2021 | SC | Construction and Mining | 16 | Off-Highway Tractors | 250 | 2028650.848 | 17.00764079 | 0.650359361 | 1.304687516 | 2030407.704 | 12.91733688 | 0.441838751 | 1.008772173 | 59539.40633 | 59539.40633 | 91.9813933 | | 0.57 | 0.02 | 0.04 | 0.02 | 34.10 |
| 2021 | SC | Construction and Mining | 16 | Off-Highway Tractors | 500 | 5698810.084 | 29.87819124 | 1.10086725 | 2.587185385 | 5696457.018 | 21.64837975 | 0.745640212 | 2.077357836 | 107195.4538 | 107195.4538 | 158.1434481 | | 0.56 | 0.02 | 0.05 | 0.02 | 53.14 |
| 2021 | SC | Construction and Mining | 16 | Off-Highway Tractors | 750 | 1438072.467 | 7.195272824 | 0.273362474 | 0.652854961 | 1437439.392 | 7.408569396 | 0.272320825 | 0.64704059 | 15689.33755 | 15689.33755 | 23.12982405 | | 0.92 | 0.03 | 0.08 | 0.03 | 91.62 |
| 2021 | SC | Construction and Mining | 16 | Off-Highway Tractors | 1000 | 40785.1803 | 1.503369868 | 0.076487832 | 0.105100208 | 40785.1803 | 0.295718924 | 0.007883678 | 0.016203986 | 255.1808989 | 255.1808989 | 0.537902885 | | 11.78 | 0.60 | 0.82 | 0.55 | 159.83 |
| 2021 | SC | Construction and Mining | 16 | Off-Highway Tractors | 9999 | 330001.6258 | 4.60451559 | 0.130261512 | 0.289527333 | 335630.2237 | 3.768852432 | 0.09993096 | 0.214588618 | 1184.84166 | 1184.84166 | 2.151611539 | | 7.77 | 0.22 | 0.49 | 0.20 | 283.27 |
| 2021 | SC | Construction and Mining | 17 | Off-Highway Trucks | 50 | 213145.2551 | 2.738296643 | 0.199434716 | 0.448928561 | 214671.9737 | 2.651218814 | 0.17941685 | 0.402949449 | 48306.60258 | 48306.60258 | 30.38005702 | | 0.11 | 0.01 | 0.02 | 0.01 | 4.44 |
| 2021 | SC | Construction and Mining | 17 | Off-Highway Trucks | 120 | 260099.0289 | 3.669569305 | 0.287460751 | 0.380341385 | 260036.8364 | 2.93402963 | 0.191577816 | 0.291255345 | 21681.34875 | 21681.34875 | 17.05547061 | | 0.34 | 0.03 | 0.04 | 0.02 | 11.99 |
| 2021 | SC | Construction and Mining | 17 | Off-Highway Trucks | 175 | 5050396.802 | 40.53646911 | 2.102438393 | 4.005311771 | 5049553.154 | 34.19625448 | 1.721850846 | 3.502924716 | 227598.9711 | 227598.9711 | 163.0929377 | | 0.36 | 0.02 | 0.04 | 0.02 | 22.19 |
| 2021 | SC | Construction and Mining | 17 | Off-Highway Trucks | 250 | 10376198.12 | 97.52223899 | 4.083548503 | 8.516427999 | 10378170.91 | 65.99159873 | 2.569852245 | 6.449161892 | 352295.4986 | 352295.4986 | 279.2833312 | | 0.55 | 0.02 | 0.05 | 0.02 | 29.46 |
| 2021 | SC | Construction and Mining | 17 | Off-Highway Trucks | 500 | 43865388.14 | 329.9915294 | 12.58310574 | 28.90129902 | 43866301.34 | 256.0451104 | 9.391637046 | 24.35948865 | 835993.1374 | 835993.1374 | 620.3927434 | | 0.79 | 0.03 | 0.07 | 0.03 | 52.47 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2021 | SC | Construction and Mining | 17 | Off-Highway Trucks | 750 | 15655070.39 | 143.8096071 | 5.746087542 | 12.4403814 | 15662446.68 | 125.2619024 | 4.997600987 | 11.37809086 | 170033.342 | 170033.342 | 141.7735994 | | 1.69 | 0.07 | 0.15 | 0.06 | 92.11 |
| 2021 | SC | Construction and Mining | 17 | Off-Highway Trucks | 1000 | 10883689.16 | 154.048701 | 3.912884511 | 8.132032361 | 10887258.88 | 136.2635213 | 3.237980842 | 6.927045847 | 86760.01915 | 86760.01915 | 65.0239817 | | 3.55 | 0.09 | 0.19 | 0.08 | 125.49 |
| 2021 | SC | Construction and Mining | 17 | Off-Highway Trucks | 9999 | 15778194.06 | 194.185652 | 4.722032973 | 10.52724671 | 15783206.41 | 172.8039221 | 3.849914303 | 8.998153237 | 63025.18059 | 63025.18059 | 42.10569307 | | 6.16 | 0.15 | 0.33 | 0.14 | 250.43 |
| 2021 | SC | Construction and Mining | 18 | Other Construction Equipment | 50 | 1201595.902 | 16.24463304 | 1.313895635 | 2.913711324 | 1200543.066 | 15.81085807 | 1.230566241 | 2.690826851 | 185319.508 | 185319.508 | 394.205912 | | 0.18 | 0.01 | 0.03 | 0.01 | 6.48 |
| 2021 | SC | Construction and Mining | 18 | Other Construction Equipment | 120 | 3770706.234 | 57.40998437 | 4.336099054 | 5.298462384 | 3772216.663 | 50.46118396 | 3.662676608 | 4.508009946 | 303230.2345 | 303230.2345 | 695.5638637 | | 0.38 | 0.03 | 0.03 | 0.03 | 12.44 |
| 2021 | SC | Construction and Mining | 18 | Other Construction Equipment | 175 | 2049858.095 | 27.53218597 | 1.484422651 | 2.167379275 | 2049036.335 | 21.26499075 | 1.112024562 | 1.684334728 | 88570.16238 | 88570.16238 | 216.4683878 | | 0.62 | 0.03 | 0.05 | 0.03 | 23.13 |
| 2021 | SC | Construction and Mining | 18 | Other Construction Equipment | 250 | 2628771.27 | 29.60482935 | 1.125779224 | 1.971207059 | 2628576.496 | 25.13842271 | 0.916182741 | 1.678096813 | 78988.02091 | 78988.02091 | 194.1848773 | | 0.75 | 0.03 | 0.05 | 0.03 | 33.28 |
| 2021 | SC | Construction and Mining | 18 | Other Construction Equipment | 500 | 8971903.403 | 75.12987881 | 2.832482091 | 5.393087887 | 8969791.386 | 64.98504838 | 2.399809203 | 4.757868729 | 163777.3039 | 163777.3039 | 377.2279993 | | 0.92 | 0.03 | 0.07 | 0.03 | 54.77 |
| 2021 | SC | Construction and Mining | 18 | Other Construction Equipment | 750 | 3499845.175 | 30.81545921 | 0.992794275 | 1.940939342 | 3501818.239 | 24.68771719 | 0.819989367 | 1.674368396 | 38345.92774 | 38345.92774 | 77.99228677 | | 1.61 | 0.05 | 0.10 | 0.05 | 91.32 |
| 2021 | SC | Construction and Mining | 18 | Other Construction Equipment | 1000 | 407341.784 | 4.146685804 | 0.092211783 | 0.167457167 | 407414.3602 | 4.135596318 | 0.091730264 | 0.16507428 | 3230.937259 | 3230.937259 | 6.897277061 | | 2.57 | 0.06 | 0.10 | 0.05 | 126.10 |
| 2021 | SC | Construction and Mining | 18 | Other Construction Equipment | 9999 | 253683.2774 | 3.902134462 | 0.107537204 | 0.19631224 | 253180.706 | 2.517291866 | 0.050701143 | 0.100744447 | 1513.932692 | 1513.932692 | 3.183358644 | | 5.15 | 0.14 | 0.26 | 0.13 | 167.23 |
| 2021 | SC | Construction and Mining | 19 | Pavers | 50 | 147196.2692 | 1.965868169 | 0.175181695 | 0.476816648 | 147164.2667 | 1.823695156 | 0.146607929 | 0.395494352 | 22406.93907 | 22406.93907 | 63.89429472 | | 0.18 | 0.02 | 0.04 | 0.01 | 6.57 |
| 2021 | SC | Construction and Mining | 19 | Pavers | 120 | 1425696.323 | 19.81788472 | 1.474812847 | 1.77388911 | 1425643.135 | 17.32407661 | 1.227652814 | 1.492106707 | 118075.6933 | 118075.6933 | 310.4197819 | | 0.34 | 0.02 | 0.03 | 0.02 | 12.07 |
| 2021 | SC | Construction and Mining | 19 | Pavers | 175 | 1937699.82 | 17.97921336 | 0.886638805 | 1.406690545 | 1937384.354 | 15.6646405 | 0.757028271 | 1.228442425 | 80277.92707 | 80277.92707 | 209.7862677 | | 0.45 | 0.02 | 0.04 | 0.02 | 24.13 |
| 2021 | SC | Construction and Mining | 19 | Pavers | 250 | 1303867.989 | 9.30342411 | 0.263257855 | 0.522492878 | 1303448.08 | 9.717728125 | 0.272798553 | 0.534842575 | 40064.70977 | 40064.70977 | 90.51691753 | | 0.46 | 0.01 | 0.03 | 0.01 | 32.53 |
| 2021 | SC | Construction and Mining | 19 | Pavers | 500 | 490914.7587 | 3.06914219 | 0.110563726 | 0.202552307 | 490914.7587 | 3.06914219 | 0.110563726 | 0.202552307 | 9972.588048 | 9972.588048 | 22.36300315 | | 0.62 | 0.02 | 0.04 | 0.02 | 49.23 |
| 2021 | SC | Construction and Mining | 19 | Pavers | 750 | 56959.18941 | 0.203216354 | 0.008993427 | 0.017064944 | 56959.18941 | 0.203216354 | 0.008993427 | 0.017064944 | 498.1612935 | 498.1612935 | 1.064904912 | | 0.82 | 0.04 | 0.07 | 0.03 | 114.34 |
| 2021 | SC | Construction and Mining | 20 | Paving Equipment | 50 | 183240.9642 | 1.938174306 | 0.100337529 | 0.245781909 | 183267.1261 | 1.93849512 | 0.100042916 | 0.242040012 | 36637.61373 | 36637.61373 | 78.67623604 | | 0.11 | 0.01 | 0.01 | 0.01 | 5.00 |
| 2021 | SC | Construction and Mining | 20 | Paving Equipment | 120 | 832717.4422 | 9.295298832 | 0.614128739 | 0.807387533 | 832303.8629 | 8.60497335 | 0.546133255 | 0.731791126 | 71905.69676 | 71905.69676 | 160.5420492 | | 0.26 | 0.02 | 0.02 | 0.02 | 11.57 |
| 2021 | SC | Construction and Mining | 20 | Paving Equipment | 175 | 784546.3351 | 6.093551212 | 0.304103533 | 0.493684727 | 784536.278 | 5.471508068 | 0.270199914 | 0.447556282 | 40685.46335 | 40685.46335 | 87.71337126 | | 0.30 | 0.01 | 0.02 | 0.01 | 19.28 |
| 2021 | SC | Construction and Mining | 20 | Paving Equipment | 250 | 411369.8526 | 3.540457447 | 0.129577449 | 0.236501544 | 411381.1922 | 3.189728812 | 0.1138236 | 0.214993549 | 14633.76081 | 14633.76081 | 31.89577137 | | 0.48 | 0.02 | 0.03 | 0.02 | 28.11 |
| 2021 | SC | Construction and Mining | 20 | Paving Equipment | 500 | 580180.5067 | 4.426687743 | 0.162169097 | 0.305359622 | 580004.8652 | 4.337447121 | 0.158227696 | 0.299235101 | 13229.09787 | 13229.09787 | 28.70619423 | | 0.67 | 0.02 | 0.05 | 0.02 | 43.84 |
| 2021 | SC | Construction and Mining | 20 | Paving Equipment | 750 | 275676.8785 | 1.970646652 | 0.044940348 | 0.120549434 | 275705.9243 | 1.961675838 | 0.044668448 | 0.119025013 | 3488.852787 | 3488.852787 | 6.910750463 | | 1.13 | 0.03 | 0.07 | 0.02 | 79.02 |
| 2021 | SC | Construction and Mining | 20 | Paving Equipment | 1000 | 53811.06585 | 0.376326224 | 0.006130664 | 0.012725341 | 53811.06585 | 0.376326224 | 0.006130664 | 0.012725341 | 489.7982471 | 489.7982471 | 1.063192379 | | 1.54 | 0.03 | 0.05 | 0.02 | 109.86 |
| 2021 | SC | Construction and Mining | 21 | Rollers | 50 | 3022301.592 | 36.70651042 | 2.630939601 | 6.348517722 | 3022278.385 | 35.45994551 | 2.394709995 | 5.708088573 | 552301.7376 | 552301.7376 | 1614.235969 | | 0.13 | 0.01 | 0.02 | 0.01 | 5.47 |
| 2021 | SC | Construction and Mining | 21 | Rollers | 120 | 4723704.335 | 57.86356185 | 3.790902095 | 4.914130162 | 4723292.664 | 50.71645103 | 3.100444948 | 4.127666738 | 393361.0816 | 393361.0816 | 1203.836994 | | 0.29 | 0.02 | 0.02 | 0.02 | 12.01 |
| 2021 | SC | Construction and Mining | 21 | Rollers | 175 | 4882474.781 | 35.27234913 | 1.654669462 | 2.655981749 | 4884141.447 | 31.05967683 | 1.427455094 | 2.339101087 | 246735.8832 | 246735.8832 | 696.0366617 | | 0.29 | 0.01 | 0.02 | 0.01 | 19.80 |
| 2021 | SC | Construction and Mining | 21 | Rollers | 250 | 771431.8098 | 6.491131094 | 0.221122442 | 0.427282668 | 771441.9209 | 5.759955722 | 0.187230752 | 0.37514375 | 26192.96227 | 26192.96227 | 85.36298682 | | 0.50 | 0.02 | 0.03 | 0.02 | 29.45 |
| 2021 | SC | Construction and Mining | 21 | Rollers | 500 | 488042.4503 | 4.100511768 | 0.161154703 | 0.284908983 | 488042.4503 | 3.738066751 | 0.143989496 | 0.263120386 | 10423.27237 | 10423.27237 | 35.02071254 | | 0.79 | 0.03 | 0.05 | 0.03 | 46.82 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2021 | SC | Construction and Mining | 21 | Rollers | 750 | 23729.87159 | 0.08242752 | 0.003479763 | 0.006704796 | 23729.87159 | 0.050288129 | 0.000673732 | 0.005168472 | 330.5937245 | 330.5937245 | 1.094397267 | 0.50 | 0.02 | 0.04 | 0.02 | 71.78 |
| 2021 | SC | Construction and Mining | 22 | Rough Terrain | 50 | 153926.8887 | 1.824142556 | 0.12439485 | 0.327371901 | 153932.8031 | 1.832592497 | 0.126193646 | 0.332488936 | 19826.01482 | 19826.01482 | 73.31785691 | 0.18 | 0.01 | 0.03 | 0.01 | 7.76 |
| 2021 | SC | Construction and Mining | 22 | Rough Terrain | 120 | 12398817.46 | 89.43990252 | 3.727975717 | 5.894677004 | 12399665.24 | 84.92360853 | 3.290380621 | 5.363348928 | 870559.0247 | 870559.0247 | 3141.290938 | 0.21 | 0.01 | 0.01 | 0.01 | 14.24 |
| 2021 | SC | Construction and Mining | 22 | Rough Terrain | 175 | 2278693.538 | 11.12171662 | 0.416524923 | 0.752458844 | 2278687.825 | 11.07138452 | 0.407863376 | 0.737034939 | 119259.0514 | 119259.0514 | 420.3135763 | 0.19 | 0.01 | 0.01 | 0.01 | 19.11 |
| 2021 | SC | Construction and Mining | 22 | Rough Terrain | 250 | 187633.1726 | 1.78236142 | 0.078847863 | 0.131413846 | 187129.5782 | 0.905012575 | 0.020688178 | 0.053349046 | 6082.642605 | 6082.642605 | 24.64996913 | 0.59 | 0.03 | 0.04 | 0.02 | 30.76 |
| 2021 | SC | Construction and Mining | 22 | Rough Terrain | 500 | 79259.31829 | 0.114478834 | 0.002147556 | 0.013068522 | 79082.9715 | 0.313452985 | 0.006799164 | 0.018251552 | 1453.091678 | 1453.091678 | 5.688454416 | 0.16 | 0.00 | 0.02 | 0.00 | 54.42 |
| 2021 | SC | Construction and Mining | 22 | Rough Terrain | 750 | 12421.22058 | 0.009764309 | 0.000337182 | 0.001852422 | 12421.22058 | 0.049836932 | 0.000351305 | 0.003259412 | 134.7076127 | 134.7076127 | 0.632050491 | 0.14 | 0.01 | 0.03 | 0.00 | 92.21 |
| 2021 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 50 | 132614.3166 | 2.434513042 | 0.322693782 | 0.896113358 | 134135.3884 | 1.644648048 | 0.134938381 | 0.374067052 | 20052.45001 | 20052.45001 | 21.36421308 | 0.24 | 0.03 | 0.09 | 0.03 | 6.69 |
| 2021 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 120 | 633914.4178 | 16.88122992 | 1.496855069 | 1.807006856 | 636452.5571 | 13.4365095 | 1.143390485 | 1.418945868 | 52989.31105 | 52989.31105 | 63.57156088 | 0.64 | 0.06 | 0.07 | 0.05 | 12.01 |
| 2021 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 175 | 529565.4967 | 13.86550932 | 0.801002407 | 1.144747536 | 529058.8507 | 10.76935796 | 0.612773757 | 0.90594082 | 24316.098 | 24316.098 | 32.82793717 | 1.14 | 0.07 | 0.09 | 0.06 | 21.76 |
| 2021 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 250 | 552898.4609 | 12.39757185 | 0.618291402 | 0.967977303 | 552238.0287 | 10.3830258 | 0.503904794 | 0.818394705 | 17938.07876 | 17938.07876 | 25.53284002 | 1.38 | 0.07 | 0.11 | 0.06 | 30.79 |
| 2021 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 500 | 6326833.686 | 123.8965082 | 5.789813663 | 9.554889178 | 6323066.622 | 95.10075429 | 4.343559232 | 7.614376245 | 121321.1392 | 121321.1392 | 170.3926263 | 2.04 | 0.10 | 0.16 | 0.09 | 52.12 |
| 2021 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 750 | 744091.8188 | 15.00049992 | 0.553276512 | 0.939353948 | 744091.8188 | 13.65479324 | 0.486597798 | 0.844611991 | 8762.647114 | 8762.647114 | 10.42156736 | 3.42 | 0.13 | 0.21 | 0.12 | 84.92 |
| 2021 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 50 | 420035.0806 | 6.034284017 | 0.543687377 | 1.448945578 | 420004.3182 | 5.647022657 | 0.464538219 | 1.243602195 | 68270.04425 | 68270.04425 | 80.38198808 | 0.18 | 0.02 | 0.04 | 0.01 | 6.15 |
| 2021 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 120 | 10219707.79 | 152.8988893 | 12.15156895 | 15.31148053 | 10226737.81 | 131.0321596 | 9.832220093 | 12.79258016 | 904846.118 | 904846.118 | 999.3436356 | 0.34 | 0.03 | 0.03 | 0.02 | 11.30 |
| 2021 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 175 | 24267282.43 | 285.7086211 | 15.9396209 | 25.39732357 | 24256173.28 | 227.6946616 | 12.45175723 | 20.88252369 | 1220399.256 | 1220399.256 | 1309.466036 | 0.47 | 0.03 | 0.04 | 0.02 | 19.88 |
| 2021 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 250 | 33405582.91 | 339.7923622 | 11.64991389 | 24.59113214 | 33417808.52 | 302.4830618 | 10.08678665 | 22.1923211 | 1228777.056 | 1228777.056 | 1163.909463 | 0.55 | 0.02 | 0.04 | 0.02 | 27.20 |
| 2021 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 500 | 43503494.61 | 446.3357972 | 17.09280356 | 35.22441652 | 43584536.17 | 344.7352866 | 12.86798425 | 28.84204807 | 1035816.284 | 1035816.284 | 1081.354988 | 0.86 | 0.03 | 0.07 | 0.03 | 42.08 |
| 2021 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 750 | 7769653.989 | 72.29896251 | 2.798850917 | 5.907866738 | 7785735.129 | 63.09456397 | 2.445184873 | 5.358281666 | 99762.44824 | 99762.44824 | 95.58939123 | 1.45 | 0.06 | 0.12 | 0.05 | 78.04 |
| 2021 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 1000 | 2241265.661 | 40.25817915 | 1.130672833 | 2.067397853 | 2245151.164 | 33.60476824 | 0.863785184 | 1.642303558 | 20240.28076 | 20240.28076 | 17.37988931 | 3.98 | 0.11 | 0.20 | 0.10 | 110.92 |
| 2021 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 9999 | 891866.9254 | 12.49485975 | 0.298061895 | 0.598469267 | 891866.9254 | 11.12339562 | 0.242942449 | 0.49937838 | 4445.884031 | 4445.884031 | 3.801850788 | 5.62 | 0.13 | 0.27 | 0.12 | 200.61 |
| 2021 | SC | Construction and Mining | 25 | Scrapers | 50 | 9620.862908 | 0.179239555 | 0.024863289 | 0.074088454 | 9620.862908 | 0.165338813 | 0.021825932 | 0.064826516 | 1358.222816 | 1358.222816 | 3.757542474 | 0.26 | 0.04 | 0.11 | 0.03 | 7.08 |
| 2021 | SC | Construction and Mining | 25 | Scrapers | 120 | 438914.5609 | 8.788590081 | 0.681296699 | 0.773510727 | 438914.5609 | 8.566826198 | 0.659173378 | 0.748624158 | 28691.0178 | 28691.0178 | 54.21596998 | 0.61 | 0.05 | 0.05 | 0.04 | 15.30 |
| 2021 | SC | Construction and Mining | 25 | Scrapers | 175 | 4634193.874 | 75.77865355 | 4.123664763 | 6.154539568 | 4634130.928 | 59.59359932 | 3.182565601 | 4.899923156 | 155355.3345 | 155355.3345 | 348.3778665 | 0.98 | 0.05 | 0.08 | 0.05 | 29.83 |
| 2021 | SC | Construction and Mining | 25 | Scrapers | 250 | 5328183.138 | 104.0083751 | 4.757612321 | 7.613946802 | 5331303.181 | 70.36609341 | 3.047429741 | 5.201491506 | 134689.0998 | 134689.0998 | 338.1788226 | 1.54 | 0.07 | 0.11 | 0.06 | 39.58 |
| 2021 | SC | Construction and Mining | 25 | Scrapers | 500 | 46685158.74 | 628.3006512 | 25.80105861 | 44.61419888 | 46640674.89 | 482.160831 | 18.75792149 | 34.60509712 | 690227.7903 | 690227.7903 | 1486.376444 | 1.82 | 0.07 | 0.13 | 0.07 | 67.57 |
| 2021 | SC | Construction and Mining | 25 | Scrapers | 750 | 21307821.06 | 229.149353 | 9.083496448 | 16.45818352 | 21316801.61 | 184.9511216 | 6.743630013 | 13.25861635 | 213248.2467 | 213248.2467 | 423.528716 | 2.15 | 0.09 | 0.15 | 0.08 | 99.96 |
| 2021 | SC | Construction and Mining | 25 | Scrapers | 1000 | 333962.1615 | 13.433244 | 0.626306946 | 0.972971308 | 333962.1615 | 13.433244 | 0.626306946 | 0.972971308 | 1985.639001 | 1985.639001 | 6.978293165 | 13.53 | 0.63 | 0.98 | 0.58 | 168.19 |
| 2021 | SC | Construction and Mining | 25 | Scrapers | 9999 | 1213875.203 | 24.03952485 | 0.874422048 | 1.407568925 | 1213875.203 | 23.81011131 | 0.863325528 | 1.383540534 | 3488.657056 | 3488.657056 | 6.978293165 | 13.78 | 0.50 | 0.81 | 0.46 | 347.95 |
| 2021 | SC | Construction and Mining | 26 | Skid Steer Loaders | 50 | 2285887.683 | 21.62870857 | 0.702332924 | 1.956579919 | 2286386.832 | 21.96023017 | 0.776148398 | 2.076504016 | 348078.4755 | 348078.4755 | 1118.311811 | 0.12 | 0.00 | 0.01 | 0.00 | 6.57 |
| 2021 | SC | Construction and Mining | 26 | Skid Steer Loaders | 120 | 12146573.49 | 84.68455761 | 3.374655457 | 5.30246225 | 12134560.07 | 86.2432822 | 3.509124463 | 5.362055401 | 1272284.483 | 1272284.483 | 3608.870391 | 0.13 | 0.01 | 0.01 | 0.00 | 9.54 |
| 2021 | SC | Construction and Mining | 26 | Skid Steer Loaders | 175 | 82051.95568 | 0.451581294 | 0.017497727 | 0.033338278 | 82010.88187 | 0.413494705 | 0.017271554 | 0.031957938 | 3998.636598 | 3998.636598 | 14.96996475 | 0.23 | 0.01 | 0.02 | 0.01 | 20.51 |
| 2021 | SC | Construction and Mining | 26 | Skid Steer Loaders | 250 | 62669.47203 | 0.209643451 | 0.00690637 | 0.015313829 | 62621.05155 | 0.253610131 | 0.007672491 | 0.016237683 | 2364.041904 | 2364.041904 | 8.316647083 | 0.18 | 0.01 | 0.01 | 0.01 | 26.49 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2021 | SC | Construction and Mining | 26 | Skid Steer Loaders | 500 | 17327.82274 | 0.032409128 | 0.000484042 | 0.003447981 | 17327.82274 | 0.031711897 | 0.000481196 | 0.003354949 | 475.565281 | 475.565281 | 1.663329417 | 0.14 | 0.00 | 0.01 | 0.00 | 36.44 |
| 2021 | SC | Construction and Mining | 26 | Skid Steer Loaders | 750 | 18278.56933 | 0.134146445 | 0.005808256 | 0.007913549 | 18278.56933 | 0.134146445 | 0.005808256 | 0.007913549 | 255.0132666 | 255.0132666 | 0.554443139 | 1.05 | 0.05 | 0.06 | 0.04 | 71.68 |
| 2021 | SC | Construction and Mining | 26 | Skid Steer Loaders | 1000 | 29827.34415 | 0.385059457 | 0.010262042 | 0.018971537 | 29827.34415 | 0.405713579 | 0.013412206 | 0.022422448 | 220.5520144 | 220.5520144 | 1.108886278 | 3.49 | 0.09 | 0.17 | 0.09 | 135.24 |
| 2021 | SC | Construction and Mining | 27 | Surfacing Equipment | 50 | 21181.87143 | 0.241008365 | 0.012619422 | 0.026699048 | 21182.24752 | 0.234799589 | 0.011433008 | 0.023478409 | 4728.883171 | 4728.883171 | 19.61678703 | 0.10 | 0.01 | 0.01 | 0.00 | 4.48 |
| 2021 | SC | Construction and Mining | 27 | Surfacing Equipment | 120 | 166324.3398 | 1.751964217 | 0.09984881 | 0.132031498 | 166259.539 | 1.720964491 | 0.094738695 | 0.128073229 | 16870.90203 | 16870.90203 | 62.8743174 | 0.21 | 0.01 | 0.02 | 0.01 | 9.85 |
| 2021 | SC | Construction and Mining | 27 | Surfacing Equipment | 175 | 85342.80605 | 1.028655292 | 0.049443183 | 0.071808093 | 85322.39515 | 0.798965006 | 0.037478304 | 0.054991813 | 5138.831479 | 5138.831479 | 21.12577065 | 0.40 | 0.02 | 0.03 | 0.02 | 16.60 |
| 2021 | SC | Construction and Mining | 27 | Surfacing Equipment | 250 | 181921.6421 | 1.700606812 | 0.051193577 | 0.094248308 | 181917.1658 | 1.619439563 | 0.049906479 | 0.092408711 | 7533.429538 | 7533.429538 | 31.68865597 | 0.45 | 0.01 | 0.03 | 0.01 | 24.15 |
| 2021 | SC | Construction and Mining | 27 | Surfacing Equipment | 500 | 577890.1955 | 3.088069115 | 0.11103943 | 0.203892373 | 577857.1597 | 3.044227616 | 0.11030437 | 0.202124767 | 14421.60646 | 14421.60646 | 52.31143208 | 0.43 | 0.02 | 0.03 | 0.01 | 40.07 |
| 2021 | SC | Construction and Mining | 27 | Surfacing Equipment | 750 | 530799.3934 | 2.716418792 | 0.102135474 | 0.171379399 | 530799.3934 | 2.555192356 | 0.098407634 | 0.165388556 | 7826.443089 | 7826.443089 | 26.15571604 | 0.69 | 0.03 | 0.04 | 0.02 | 67.82 |
| 2021 | SC | Construction and Mining | 27 | Surfacing Equipment | 1000 | 86258.67893 | 1.154943048 | 0.026510272 | 0.047627737 | 86258.67893 | 0.952572183 | 0.020036789 | 0.036510011 | 959.116711 | 959.116711 | 3.520961774 | 2.41 | 0.06 | 0.10 | 0.05 | 89.94 |
| 2021 | SC | Construction and Mining | 27 | Surfacing Equipment | 9999 | 30398.46663 | 0.362856665 | 0.008568968 | 0.0147895 | 30398.46663 | 0.362856665 | 0.008568968 | 0.0147895 | 244.6251398 | 244.6251398 | 1.005989078 | 2.97 | 0.07 | 0.12 | 0.06 | 124.27 |
| 2021 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 50 | 4517904.243 | 54.41347763 | 3.528925053 | 8.734023934 | 4519725.977 | 52.57829331 | 3.165660316 | 7.772392631 | 799527.1184 | 799527.1184 | 1564.992788 | 0.14 | 0.01 | 0.02 | 0.01 | 5.65 |
| 2021 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 120 | 72666348.87 | 715.6321419 | 45.53365593 | 60.89366512 | 72676342.09 | 649.224938 | 38.27758456 | 53.00179677 | 6456711.982 | 6456711.982 | 10626.13744 | 0.22 | 0.01 | 0.02 | 0.01 | 11.26 |
| 2021 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 175 | 12571463.16 | 93.42739698 | 4.764100192 | 8.072724179 | 12572311.42 | 78.62677787 | 3.969075233 | 6.963983391 | 652125.237 | 652125.237 | 1188.740166 | 0.29 | 0.01 | 0.02 | 0.01 | 19.28 |
| 2021 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 250 | 7315958.994 | 60.03474509 | 2.115975631 | 4.333948687 | 7314072.977 | 52.21196488 | 1.762771412 | 3.814315357 | 265661.3571 | 265661.3571 | 475.4960666 | 0.45 | 0.02 | 0.03 | 0.01 | 27.53 |
| 2021 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 500 | 9789266.129 | 62.75065017 | 2.300156474 | 5.086234838 | 9780346.309 | 52.47770432 | 1.891549281 | 4.380498924 | 227221.9952 | 227221.9952 | 429.146106 | 0.55 | 0.02 | 0.04 | 0.02 | 43.04 |
| 2021 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 750 | 1386717.533 | 12.3186878 | 0.454357628 | 0.897251423 | 1391261.109 | 11.64713693 | 0.440252756 | 0.864801946 | 18117.85667 | 18117.85667 | 29.99115099 | 1.36 | 0.05 | 0.10 | 0.05 | 76.79 |
| 2021 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 1000 | 235042.2206 | 2.066514883 | 0.035349204 | 0.077948081 | 235042.2206 | 2.063187562 | 0.035249524 | 0.076962521 | 1975.887388 | 1975.887388 | 2.726468272 | 2.09 | 0.04 | 0.08 | 0.03 | 118.96 |
| 2021 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 9999 | 3300008.816 | 35.11330235 | 0.753495112 | 1.612702062 | 3300008.816 | 33.84326258 | 0.692541956 | 1.491931517 | 12148.22109 | 12148.22109 | 20.17586521 | 5.78 | 0.12 | 0.27 | 0.11 | 271.65 |
| 2021 | SC | Construction and Mining | 29 | Trenchers | 50 | 1601058.827 | 19.54163723 | 1.414635056 | 3.065080347 | 1600419.084 | 19.1985592 | 1.348882186 | 2.878899503 | 195417.9772 | 195417.9772 | 513.2149619 | 0.20 | 0.01 | 0.03 | 0.01 | 8.19 |
| 2021 | SC | Construction and Mining | 29 | Trenchers | 120 | 1161554.244 | 18.72554845 | 1.39304329 | 1.713108018 | 1160287.903 | 17.67321376 | 1.28324364 | 1.590613565 | 76153.0898 | 76153.0898 | 237.9451187 | 0.49 | 0.04 | 0.04 | 0.03 | 15.24 |
| 2021 | SC | Construction and Mining | 29 | Trenchers | 175 | 236869.8619 | 3.454804012 | 0.179760027 | 0.269534307 | 236843.2557 | 3.067336134 | 0.15705419 | 0.241229023 | 9009.081527 | 9009.081527 | 31.4927363 | 0.77 | 0.04 | 0.06 | 0.04 | 26.29 |
| 2021 | SC | Construction and Mining | 29 | Trenchers | 250 | 464790.9859 | 6.129018798 | 0.24470315 | 0.418003005 | 464967.2837 | 6.066400316 | 0.23906135 | 0.409725841 | 11499.31315 | 11499.31315 | 37.32472451 | 1.07 | 0.04 | 0.07 | 0.04 | 40.43 |
| 2021 | SC | Construction and Mining | 29 | Trenchers | 500 | 782028.8205 | 6.185003525 | 0.24218861 | 0.44282721 | 782233.8483 | 5.869550491 | 0.236199411 | 0.430876404 | 11865.10313 | 11865.10313 | 33.82553158 | 1.04 | 0.04 | 0.07 | 0.04 | 65.93 |
| 2021 | SC | Construction and Mining | 29 | Trenchers | 750 | 351917.9541 | 0.50171123 | 0.009484828 | 0.057459864 | 351917.9541 | 0.50171123 | 0.009484828 | 0.057459864 | 3078.485313 | 3078.485313 | 6.998385845 | 0.33 | 0.01 | 0.04 | 0.01 | 114.32 |
| 2021 | SC | Construction and Mining | 29 | Trenchers | 1000 | 20885.08506 | 0.835998027 | 0.038723679 | 0.060324147 | 20885.08506 | 0.835998027 | 0.038723679 | 0.060324147 | 131.6848055 | 131.6848055 | 0.58319882 | 12.70 | 0.59 | 0.92 | 0.54 | 158.60 |
| 2021 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 50 | 1393725.777 | 18.65501684 | 1.616976986 | 3.966831516 | 1393725.777 | 18.2418902 | 1.548642583 | 3.789957419 | 210480.3854 | 210480.3854 | 301.2407064 | 0.18 | 0.02 | 0.04 | 0.01 | 6.62 |
| 2021 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 120 | 2154049.409 | 29.47279962 | 2.344333877 | 2.85386774 | 2154049.409 | 25.52167914 | 1.877090696 | 2.343522962 | 165449.6376 | 165449.6376 | 245.2579202 | 0.36 | 0.03 | 0.03 | 0.03 | 13.02 |
| 2021 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 175 | 537305.9657 | 9.091578977 | 0.450088881 | 0.728341073 | 537305.9657 | 5.969366638 | 0.301450356 | 0.512090309 | 20105.14599 | 20105.14599 | 28.25797777 | 0.90 | 0.04 | 0.07 | 0.04 | 26.72 |
| 2021 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 250 | 286362.4234 | 1.954712299 | 0.068503869 | 0.150307452 | 286362.4234 | 1.518459049 | 0.047489736 | 0.11721572 | 8412.860362 | 8412.860362 | 11.72972662 | 0.46 | 0.02 | 0.04 | 0.01 | 34.04 |
| 2021 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 500 | 79891.37078 | 1.306609939 | 0.05695091 | 0.087501079 | 79891.37078 | 1.306609939 | 0.05695091 | 0.087501079 | 1579.51849 | 1579.51849 | 2.132677567 | 1.65 | 0.07 | 0.11 | 0.07 | 50.58 |
| 2021 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 1000 | 55989.98547 | 0.716970447 | 0.020676875 | 0.035937623 | 55989.98547 | 0.716970447 | 0.020676875 | 0.035937623 | 394.8796226 | 394.8796226 | 0.533169392 | 3.63 | 0.10 | 0.18 | 0.10 | 141.79 |
| 2022 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 50 | 134780.9637 | 1.566771769 | 0.09066836 | 0.195679676 | 134727.0233 | 1.544684334 | 0.086725207 | 0.188126531 | 16571.94812 | 16571.94812 | 46.56861691 | 0.19 | 0.01 | 0.02 | 0.01 | 8.13 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2022 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 120 | 847200.2077 | 6.905334058 | 0.329957274 | 0.469658341 | 846305.7304 | 6.293659627 | 0.277932427 | 0.409958409 | 56920.21309 | 56920.21309 | 142.6470265 | | 0.24 | 0.01 | 0.02 | 0.01 | 14.87 |
| 2022 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 175 | 981460.66 | 4.229461599 | 0.193350977 | 0.368457026 | 981034.7003 | 3.753857453 | 0.165333566 | 0.329434047 | 35415.10209 | 35415.10209 | 111.7646806 | | 0.24 | 0.01 | 0.02 | 0.01 | 27.70 |
| 2022 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 250 | 1390436.7 | 5.924499414 | 0.19454432 | 0.459365097 | 1389968.828 | 4.889208071 | 0.156942734 | 0.39953986 | 36533.91578 | 36533.91578 | 111.2744846 | | 0.32 | 0.01 | 0.03 | 0.01 | 38.05 |
| 2022 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 500 | 1564252.508 | 5.886523323 | 0.190012966 | 0.467207621 | 1564798.88 | 4.916313919 | 0.167025708 | 0.422156926 | 24552.77444 | 24552.77444 | 77.94115883 | | 0.48 | 0.02 | 0.04 | 0.01 | 63.73 |
| 2022 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 750 | 2122771.781 | 5.118525206 | 0.182524122 | 0.487800775 | 2119278.347 | 4.86854539 | 0.176635228 | 0.472710978 | 18578.33841 | 18578.33841 | 38.72548143 | | 0.55 | 0.02 | 0.05 | 0.02 | 114.07 |
| 2022 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 1000 | 168023.9188 | 1.150516005 | 0.009241404 | 0.024513795 | 168023.9188 | 1.147602273 | 0.009154115 | 0.02365074 | 989.5932305 | 989.5932305 | 1.470587902 | | 2.33 | 0.02 | 0.05 | 0.02 | 169.79 |
| 2022 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 9999 | 568210.9529 | 7.37277731 | 0.186509407 | 0.280702957 | 568210.9529 | 7.37277731 | 0.186509407 | 0.280702957 | 1155.416961 | 1155.416961 | 1.470587902 | | 12.76 | 0.32 | 0.49 | 0.30 | 491.78 |
| 2022 | SC | Construction and Mining | 12 | Cranes | 50 | 44773.4472 | 0.750731256 | 0.080409774 | 0.223589984 | 44773.4472 | 0.723125662 | 0.073932907 | 0.205460979 | 9500.560003 | 9500.560003 | 21.57077784 | | 0.16 | 0.02 | 0.05 | 0.02 | 4.71 |
| 2022 | SC | Construction and Mining | 12 | Cranes | 120 | 1069145.933 | 22.52969781 | 1.652631169 | 2.191890592 | 1069033.329 | 16.60531585 | 1.115516797 | 1.540053947 | 114171.7918 | 114171.7918 | 260.08195 | | 0.39 | 0.03 | 0.04 | 0.03 | 9.36 |
| 2022 | SC | Construction and Mining | 12 | Cranes | 175 | 2819104.461 | 51.4502792 | 2.825615953 | 4.169699395 | 2819042.883 | 38.88350219 | 2.073584193 | 3.178875407 | 179326.2956 | 179326.2956 | 390.122925 | | 0.57 | 0.03 | 0.05 | 0.03 | 15.72 |
| 2022 | SC | Construction and Mining | 12 | Cranes | 250 | 4761754.732 | 83.70037882 | 3.880575013 | 6.171176521 | 4762512.89 | 50.55995776 | 2.099260698 | 3.724682017 | 207163.6347 | 207163.6347 | 438.1949442 | | 0.81 | 0.04 | 0.06 | 0.03 | 22.99 |
| 2022 | SC | Construction and Mining | 12 | Cranes | 500 | 7298502.175 | 91.20830397 | 3.873709538 | 6.561755646 | 7298044.46 | 63.41343134 | 2.57044783 | 4.725431385 | 205306.9109 | 205306.9109 | 420.322014 | | 0.89 | 0.04 | 0.06 | 0.03 | 35.55 |
| 2022 | SC | Construction and Mining | 12 | Cranes | 750 | 1920675.041 | 17.14948886 | 0.696216738 | 1.213015789 | 1920265.116 | 13.02579605 | 0.514052688 | 0.95786309 | 32127.61357 | 32127.61357 | 61.63079384 | | 1.07 | 0.04 | 0.08 | 0.04 | 59.77 |
| 2022 | SC | Construction and Mining | 12 | Cranes | 1000 | 449984.4901 | 11.61792515 | 0.505410106 | 0.777051279 | 449984.4901 | 11.28982173 | 0.524149485 | 0.797857075 | 4567.123314 | 4567.123314 | 9.244619076 | | 5.09 | 0.22 | 0.34 | 0.20 | 98.53 |
| 2022 | SC | Construction and Mining | 12 | Cranes | 9999 | 34666.11888 | 0.248478668 | 0.006485698 | 0.017324715 | 34666.11888 | 0.248478668 | 0.006485698 | 0.017324715 | 318.316151 | 318.316151 | 0.616307938 | | 1.56 | 0.04 | 0.11 | 0.04 | 108.90 |
| 2022 | SC | Construction and Mining | 13 | Crawler Tractors | 50 | 136272.7086 | 2.257494466 | 0.256808985 | 0.751600409 | 136581.33 | 2.018364822 | 0.202159664 | 0.588689282 | 18672.29228 | 18672.29228 | 54.70053093 | | 0.24 | 0.03 | 0.08 | 0.03 | 7.31 |
| 2022 | SC | Construction and Mining | 13 | Crawler Tractors | 120 | 6047452.519 | 106.6668937 | 8.977000061 | 10.72386125 | 6037039.96 | 91.72443774 | 7.334602442 | 8.918900797 | 437989.1514 | 437989.1514 | 941.3961373 | | 0.49 | 0.04 | 0.05 | 0.04 | 13.78 |
| 2022 | SC | Construction and Mining | 13 | Crawler Tractors | 175 | 6579463.978 | 93.40837796 | 5.322515491 | 7.755850454 | 6576385.014 | 75.66336292 | 4.224586943 | 6.358879616 | 279736.8943 | 279736.8943 | 615.9279783 | | 0.67 | 0.04 | 0.06 | 0.04 | 23.51 |
| 2022 | SC | Construction and Mining | 13 | Crawler Tractors | 250 | 6620214.074 | 84.97347568 | 3.309665959 | 5.746999678 | 6621283.96 | 74.30726137 | 2.804061141 | 5.028283144 | 207403.4835 | 207403.4835 | 450.1853695 | | 0.82 | 0.03 | 0.06 | 0.03 | 31.92 |
| 2022 | SC | Construction and Mining | 13 | Crawler Tractors | 500 | 17735985.21 | 176.7359927 | 7.321654627 | 13.21062956 | 17751852.26 | 145.5989016 | 5.892871657 | 11.14799637 | 329455.977 | 329455.977 | 723.6880242 | | 1.07 | 0.04 | 0.08 | 0.04 | 53.88 |
| 2022 | SC | Construction and Mining | 13 | Crawler Tractors | 750 | 6934900.437 | 60.25364904 | 2.324500178 | 4.404967742 | 6921914.44 | 44.11384418 | 1.647368493 | 3.393702608 | 77017.30404 | 77017.30404 | 148.2384388 | | 1.56 | 0.06 | 0.11 | 0.06 | 89.87 |
| 2022 | SC | Construction and Mining | 13 | Crawler Tractors | 1000 | 912311.5762 | 16.37865312 | 0.447686468 | 0.813837916 | 907953.5147 | 16.1990636 | 0.444250123 | 0.806044021 | 6986.703964 | 6986.703964 | 13.12812742 | | 4.69 | 0.13 | 0.23 | 0.12 | 129.95 |
| 2022 | SC | Construction and Mining | 13 | Crawler Tractors | 9999 | 484415.6691 | 8.948874385 | 0.236883512 | 0.422761409 | 484415.6691 | 8.948874385 | 0.236883512 | 0.422761409 | 2098.476612 | 2098.476612 | 3.282031856 | | 8.53 | 0.23 | 0.40 | 0.21 | 230.84 |
| 2022 | SC | Construction and Mining | 14 | Excavators | 50 | 5460858.609 | 55.05680911 | 2.46493337 | 6.116787862 | 5462871.724 | 54.54688609 | 2.353448195 | 5.822421892 | 979801.6025 | 979801.6025 | 1339.743696 | | 0.11 | 0.01 | 0.01 | 0.00 | 5.58 |
| 2022 | SC | Construction and Mining | 14 | Excavators | 120 | 7101835.463 | 59.49620184 | 3.309415829 | 4.89545666 | 7104122.436 | 56.1433851 | 2.962274697 | 4.480028149 | 625687.2548 | 625687.2548 | 969.0246051 | | 0.19 | 0.01 | 0.02 | 0.01 | 11.35 |
| 2022 | SC | Construction and Mining | 14 | Excavators | 175 | 14947640.79 | 84.05155864 | 4.080303642 | 7.777567054 | 14945640.58 | 75.30835107 | 3.641117443 | 7.089675354 | 729962.5111 | 729962.5111 | 1231.160293 | | 0.23 | 0.01 | 0.02 | 0.01 | 20.47 |
| 2022 | SC | Construction and Mining | 14 | Excavators | 250 | 18999325.63 | 82.89307361 | 2.725197279 | 7.442442139 | 18992100.34 | 79.07454558 | 2.482563669 | 6.996272355 | 620259.8779 | 620259.8779 | 1058.413972 | | 0.27 | 0.01 | 0.02 | 0.01 | 30.62 |
| 2022 | SC | Construction and Mining | 14 | Excavators | 500 | 31484384.35 | 105.2059963 | 3.626833724 | 10.65499269 | 31483469.21 | 98.8251892 | 3.318524029 | 10.0488088 | 686918.4382 | 686918.4382 | 1076.511205 | | 0.31 | 0.01 | 0.03 | 0.01 | 45.83 |
| 2022 | SC | Construction and Mining | 14 | Excavators | 750 | 2860567.71 | 12.52754654 | 0.457201571 | 1.149727184 | 2863561.467 | 11.13024622 | 0.408506072 | 1.072050661 | 35559.82484 | 35559.82484 | 54.84010216 | | 0.70 | 0.03 | 0.06 | 0.02 | 80.53 |
| 2022 | SC | Construction and Mining | 14 | Excavators | 1000 | 318903.9258 | 2.258550772 | 0.025509298 | 0.074963767 | 318893.1459 | 3.432240467 | 0.065040946 | 0.135544181 | 2719.633635 | 2719.633635 | 4.387208173 | | 1.66 | 0.02 | 0.06 | 0.02 | 117.26 |
| 2022 | SC | Construction and Mining | 14 | Excavators | 9999 | 624213.8695 | 4.340056218 | 0.042837823 | 0.126219705 | 624213.8695 | 4.335409781 | 0.042698626 | 0.124843418 | 2865.699004 | 2865.699004 | 3.838807151 | | 3.03 | 0.03 | 0.09 | 0.03 | 217.82 |
| 2022 | SC | Construction and Mining | 15 | Graders | 50 | 36124.26357 | 0.632607801 | 0.078432893 | 0.225452605 | 36124.26357 | 0.553911759 | 0.061767601 | 0.180819031 | 5888.363701 | 5888.363701 | 17.0870483 | | 0.21 | 0.03 | 0.08 | 0.02 | 6.13 |
| 2022 | SC | Construction and Mining | 15 | Graders | 120 | 971660.5195 | 23.5746734 | 1.909464705 | 2.475237102 | 971921.5055 | 18.66230373 | 1.446220695 | 1.931375935 | 71576.38975 | 71576.38975 | 181.8943852 | | 0.66 | 0.05 | 0.07 | 0.05 | 13.58 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2022 | SC | Construction and Mining | 15 | Graders | 175 | 8962677.809 | 150.5328469 | 8.413889859 | 12.80928085 | 8984121.316 | 109.7930606 | 6.10284847 | 9.686030583 | 399345.7281 | 399345.7281 | 851.0452445 | | 0.75 | 0.04 | 0.06 | 0.04 | 22.50 |
| 2022 | SC | Construction and Mining | 15 | Graders | 250 | 15649204.39 | 203.5514075 | 6.700880539 | 13.22057076 | 15622869.72 | 181.6063562 | 5.775584508 | 11.84668422 | 507345.2707 | 507345.2707 | 675.7652006 | | 0.80 | 0.03 | 0.05 | 0.02 | 30.79 |
| 2022 | SC | Construction and Mining | 15 | Graders | 500 | 4475899.735 | 40.33847207 | 1.577056271 | 3.637676367 | 4475843.455 | 37.67762912 | 1.455097928 | 3.456503252 | 101812.4412 | 101812.4412 | 126.2236794 | | 0.79 | 0.03 | 0.07 | 0.03 | 43.96 |
| 2022 | SC | Construction and Mining | 15 | Graders | 1000 | 43351.89906 | 0.311181407 | 0.002813866 | 0.010571303 | 43351.89906 | 0.311181407 | 0.002813866 | 0.010571303 | 363.0984184 | 363.0984184 | 0.551195107 | | 1.71 | 0.02 | 0.06 | 0.01 | 119.39 |
| 2022 | SC | Construction and Mining | 15 | Graders | 9999 | 610701.9107 | 12.42040628 | 0.387558404 | 0.751796083 | 610701.9107 | 12.42040628 | 0.387558404 | 0.751796083 | 2046.848159 | 2046.848159 | 2.755975533 | | 12.14 | 0.38 | 0.73 | 0.35 | 298.36 |
| 2022 | SC | Construction and Mining | 16 | Off-Highway Tractors | 50 | 2269236.131 | 28.39943683 | 2.099267832 | 5.310507718 | 2264974.002 | 26.16012832 | 1.58249108 | 3.92164196 | 338230.3327 | 338230.3327 | 513.1782767 | | 0.17 | 0.01 | 0.03 | 0.01 | 6.70 |
| 2022 | SC | Construction and Mining | 16 | Off-Highway Tractors | 120 | 2883921.167 | 35.01422964 | 2.550828036 | 3.181004776 | 2883693.077 | 29.25052265 | 1.887495815 | 2.475542781 | 240466.4417 | 240466.4417 | 373.1222454 | | 0.29 | 0.02 | 0.03 | 0.02 | 11.99 |
| 2022 | SC | Construction and Mining | 16 | Off-Highway Tractors | 175 | 2459942.119 | 17.36597665 | 0.847570674 | 1.491139946 | 2459726.174 | 16.51345833 | 0.791315841 | 1.409431779 | 97200.87189 | 97200.87189 | 141.6783019 | | 0.36 | 0.02 | 0.03 | 0.02 | 25.31 |
| 2022 | SC | Construction and Mining | 16 | Off-Highway Tractors | 250 | 2064968.62 | 13.05242233 | 0.494337511 | 1.099812457 | 2065880.679 | 10.77077914 | 0.373407571 | 0.922396317 | 60563.08247 | 60563.08247 | 92.46942604 | | 0.43 | 0.02 | 0.04 | 0.02 | 34.11 |
| 2022 | SC | Construction and Mining | 16 | Off-Highway Tractors | 500 | 5796355.93 | 25.1431428 | 0.954108509 | 2.396992469 | 5796191.397 | 17.4978664 | 0.618688849 | 1.907694061 | 109038.4925 | 109038.4925 | 158.982522 | | 0.46 | 0.02 | 0.04 | 0.02 | 53.16 |
| 2022 | SC | Construction and Mining | 16 | Off-Highway Tractors | 750 | 1462782.737 | 7.131343639 | 0.270740059 | 0.673790138 | 1462567.287 | 6.297003078 | 0.239495327 | 0.620804795 | 15959.08832 | 15959.08832 | 23.25254573 | | 0.89 | 0.03 | 0.08 | 0.03 | 91.64 |
| 2022 | SC | Construction and Mining | 16 | Off-Highway Tractors | 1000 | 41486.41026 | 1.529217688 | 0.077802907 | 0.106907223 | 41486.41026 | 0.302998098 | 0.008183602 | 0.017499418 | 259.5682889 | 259.5682889 | 0.540756877 | | 11.78 | 0.60 | 0.82 | 0.55 | 159.83 |
| 2022 | SC | Construction and Mining | 16 | Off-Highway Tractors | 9999 | 336148.4693 | 4.712351989 | 0.13362277 | 0.301185066 | 341655.0465 | 3.84876437 | 0.102774607 | 0.226054163 | 1205.212944 | 1205.212944 | 2.16302751 | | 7.82 | 0.22 | 0.50 | 0.20 | 283.48 |
| 2022 | SC | Construction and Mining | 17 | Off-Highway Trucks | 50 | 216966.7059 | 2.678162138 | 0.182896697 | 0.43737948 | 218450.7428 | 2.589189713 | 0.161933309 | 0.389916957 | 49137.15027 | 49137.15027 | 30.54124682 | | 0.11 | 0.01 | 0.02 | 0.01 | 4.45 |
| 2022 | SC | Construction and Mining | 17 | Off-Highway Trucks | 120 | 265202.0087 | 3.204177854 | 0.234946712 | 0.329724374 | 265142.9035 | 2.732053418 | 0.165333228 | 0.272154312 | 22054.12169 | 22054.12169 | 17.14596313 | | 0.29 | 0.02 | 0.03 | 0.02 | 12.02 |
| 2022 | SC | Construction and Mining | 17 | Off-Highway Trucks | 175 | 5139187.004 | 32.86190393 | 1.637619269 | 3.454209362 | 5135186.13 | 28.04262489 | 1.358107139 | 3.081546386 | 231512.138 | 231512.138 | 163.9582724 | | 0.28 | 0.01 | 0.03 | 0.01 | 22.18 |
| 2022 | SC | Construction and Mining | 17 | Off-Highway Trucks | 250 | 10541317.41 | 77.34907329 | 3.17684438 | 7.310533526 | 10543626.46 | 51.50385021 | 2.027666872 | 5.643944279 | 358352.6046 | 358352.6046 | 280.7651462 | | 0.43 | 0.02 | 0.04 | 0.02 | 29.42 |
| 2022 | SC | Construction and Mining | 17 | Off-Highway Trucks | 500 | 44645394.61 | 270.262385 | 10.02164232 | 25.75336236 | 44636639.99 | 198.6106227 | 7.222215911 | 21.60949237 | 850366.5798 | 850366.5798 | 623.6844088 | | 0.64 | 0.02 | 0.06 | 0.02 | 52.49 |
| 2022 | SC | Construction and Mining | 17 | Off-Highway Trucks | 750 | 15952235.07 | 127.90117 | 4.932111006 | 11.46818533 | 15964954.96 | 108.313306 | 4.18650617 | 10.39376225 | 172956.7684 | 172956.7684 | 142.5258185 | | 1.48 | 0.06 | 0.13 | 0.05 | 92.31 |
| 2022 | SC | Construction and Mining | 17 | Off-Highway Trucks | 1000 | 11082881.5 | 136.8407989 | 3.154652561 | 6.971159519 | 1104737.63 | 128.0800982 | 2.863251709 | 6.442855007 | 88251.7062 | 88251.7062 | 65.36898443 | | 3.10 | 0.07 | 0.16 | 0.07 | 125.83 |
| 2022 | SC | Construction and Mining | 17 | Off-Highway Trucks | 9999 | 16077967.8 | 169.0039262 | 3.477436046 | 8.260265905 | 16067747.88 | 158.9299434 | 3.102873766 | 7.628123214 | 64108.78853 | 64108.78853 | 42.32909647 | | 5.27 | 0.11 | 0.26 | 0.10 | 250.63 |
| 2022 | SC | Construction and Mining | 18 | Other Construction Equipment | 50 | 1222587.019 | 16.0720546 | 1.249610657 | 2.780786015 | 1224421.483 | 15.55396416 | 1.140971431 | 2.493421256 | 188505.7534 | 188505.7534 | 396.2974806 | | 0.17 | 0.01 | 0.03 | 0.01 | 6.50 |
| 2022 | SC | Construction and Mining | 18 | Other Construction Equipment | 120 | 3833426.227 | 52.64177817 | 3.871753909 | 4.823058906 | 3837420.381 | 47.21238052 | 3.322261156 | 4.189136672 | 308443.749 | 308443.749 | 699.2543702 | | 0.34 | 0.03 | 0.03 | 0.02 | 12.44 |
| 2022 | SC | Construction and Mining | 18 | Other Construction Equipment | 175 | 2084745.336 | 23.97681945 | 1.283940707 | 1.926293491 | 2083593.145 | 18.83686857 | 0.982851042 | 1.534193289 | 90092.97168 | 90092.97168 | 217.6169207 | | 0.53 | 0.03 | 0.04 | 0.03 | 23.13 |
| 2022 | SC | Construction and Mining | 18 | Other Construction Equipment | 250 | 2676514.062 | 25.08558505 | 0.96659594 | 1.749714341 | 2675612.86 | 20.28810521 | 0.764168546 | 1.456272445 | 80346.08202 | 80346.08202 | 195.2151789 | | 0.62 | 0.02 | 0.04 | 0.02 | 33.30 |
| 2022 | SC | Construction and Mining | 18 | Other Construction Equipment | 500 | 9133922.636 | 64.84861763 | 2.419062362 | 4.874268095 | 9139100.247 | 53.77646565 | 2.020933138 | 4.230763161 | 166593.1687 | 166593.1687 | 379.2294868 | | 0.78 | 0.03 | 0.06 | 0.03 | 54.86 |
| 2022 | SC | Construction and Mining | 18 | Other Construction Equipment | 750 | 3570191.313 | 25.95665868 | 0.817747153 | 1.734798561 | 3564825.015 | 21.7073946 | 0.729274908 | 1.577068884 | 39005.21901 | 39005.21901 | 78.40609643 | | 1.33 | 0.04 | 0.09 | 0.04 | 91.39 |
| 2022 | SC | Construction and Mining | 18 | Other Construction Equipment | 1000 | 417759.4706 | 3.736609231 | 0.070261511 | 0.13628889 | 417835.8922 | 3.272959402 | 0.054105907 | 0.108905484 | 3286.487584 | 3286.487584 | 6.933872474 | | 2.27 | 0.04 | 0.08 | 0.04 | 127.14 |
| 2022 | SC | Construction and Mining | 18 | Other Construction Equipment | 9999 | 257967.5211 | 3.999288962 | 0.110779392 | 0.203957178 | 257520.5485 | 2.571990288 | 0.052202351 | 0.106003408 | 1539.962122 | 1539.962122 | 3.200248834 | | 5.19 | 0.14 | 0.26 | 0.13 | 167.23 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2022 | SC | Construction and Mining | 19 | Pavers | 50 | 149671.6748 | 1.918133188 | 0.160401491 | 0.441352339 | 149802.8378 | 1.782123139 | 0.132895055 | 0.36365464 | 22792.18727 | 22792.18727 | 64.23330359 | 0.17 | 0.01 | 0.04 | 0.01 | 6.57 |
| 2022 | SC | Construction and Mining | 19 | Pavers | 120 | 1451270.748 | 17.83522479 | 1.273363042 | 1.560527308 | 1451425.703 | 16.01607164 | 1.085191929 | 1.349362287 | 120105.7987 | 120105.7987 | 312.0667999 | 0.30 | 0.02 | 0.03 | 0.02 | 12.08 |
| 2022 | SC | Construction and Mining | 19 | Pavers | 175 | 1971699.346 | 14.08171214 | 0.67695874 | 1.139596406 | 1971547.819 | 12.88752192 | 0.612304887 | 1.049893879 | 81658.16586 | 81658.16586 | 210.8993468 | 0.34 | 0.02 | 0.03 | 0.02 | 24.14 |
| 2022 | SC | Construction and Mining | 19 | Pavers | 250 | 1326660.981 | 7.472203087 | 0.21685691 | 0.464203443 | 1325564.867 | 7.559051018 | 0.217676432 | 0.461764801 | 40753.5525 | 40753.5525 | 90.99718008 | 0.37 | 0.01 | 0.02 | 0.01 | 32.53 |
| 2022 | SC | Construction and Mining | 19 | Pavers | 500 | 499766.8265 | 2.753363714 | 0.095969741 | 0.189223585 | 499798.5728 | 2.752834559 | 0.095945109 | 0.188547809 | 10144.04929 | 10144.04929 | 22.48165626 | 0.54 | 0.02 | 0.04 | 0.02 | 49.27 |
| 2022 | SC | Construction and Mining | 19 | Pavers | 750 | 57938.50322 | 0.045075188 | 0.001530519 | 0.007526353 | 57938.50322 | 0.045075188 | 0.001530519 | 0.007526353 | 506.7263071 | 506.7263071 | 1.07055506 | 0.18 | 0.01 | 0.03 | 0.01 | 114.34 |
| 2022 | SC | Construction and Mining | 20 | Paving Equipment | 50 | 186472.7367 | 1.952442087 | 0.096970295 | 0.246718039 | 186512.259 | 1.94838845 | 0.095619898 | 0.239890777 | 37267.53353 | 37267.53353 | 79.09367459 | 0.10 | 0.01 | 0.01 | 0.00 | 5.00 |
| 2022 | SC | Construction and Mining | 20 | Paving Equipment | 120 | 847115.8695 | 8.275517867 | 0.511614792 | 0.705810248 | 847019.8966 | 7.608993675 | 0.433836277 | 0.619560932 | 73141.98967 | 73141.98967 | 161.3938495 | 0.23 | 0.01 | 0.02 | 0.01 | 11.58 |
| 2022 | SC | Construction and Mining | 20 | Paving Equipment | 175 | 798060.023 | 5.696259378 | 0.281955668 | 0.47475507 | 798050.6772 | 4.984403395 | 0.243149048 | 0.422512909 | 41384.97886 | 41384.97886 | 88.17875883 | 0.28 | 0.01 | 0.02 | 0.01 | 19.28 |
| 2022 | SC | Construction and Mining | 20 | Paving Equipment | 250 | 418549.5633 | 3.170607372 | 0.115621474 | 0.2194576 | 418470.1814 | 2.799868655 | 0.104302066 | 0.203022116 | 14885.36278 | 14885.36278 | 32.06500321 | 0.43 | 0.02 | 0.03 | 0.01 | 28.11 |
| 2022 | SC | Construction and Mining | 20 | Paving Equipment | 500 | 590295.6747 | 3.173393833 | 0.111295687 | 0.23742674 | 590173.5809 | 3.335571016 | 0.128618326 | 0.260692144 | 13456.54911 | 13456.54911 | 28.85850289 | 0.47 | 0.02 | 0.04 | 0.02 | 43.86 |
| 2022 | SC | Construction and Mining | 20 | Paving Equipment | 750 | 280430.1862 | 1.483742144 | 0.032370631 | 0.103652088 | 280460.2326 | 1.481859944 | 0.032272422 | 0.102037714 | 3548.837519 | 3548.837519 | 6.947417362 | 0.84 | 0.02 | 0.06 | 0.02 | 79.03 |
| 2022 | SC | Construction and Mining | 20 | Paving Equipment | 1000 | 54736.25317 | 0.384854112 | 0.006338731 | 0.013706127 | 54736.25317 | 0.384854112 | 0.006338731 | 0.013706127 | 498.2194727 | 498.2194727 | 1.06883344 | 1.54 | 0.03 | 0.06 | 0.02 | 109.86 |
| 2022 | SC | Construction and Mining | 21 | Rollers | 50 | 3073536.744 | 35.37068608 | 2.295177565 | 5.676467507 | 3073657.322 | 34.21891139 | 2.073288206 | 5.057872973 | 561797.6017 | 561797.6017 | 1622.800744 | 0.13 | 0.01 | 0.02 | 0.01 | 5.47 |
| 2022 | SC | Construction and Mining | 21 | Rollers | 120 | 4807202.816 | 52.10335395 | 3.222767292 | 4.316685316 | 4804783.876 | 46.27076481 | 2.666607501 | 3.684336845 | 400124.2386 | 400124.2386 | 1210.224284 | 0.26 | 0.02 | 0.02 | 0.01 | 12.01 |
| 2022 | SC | Construction and Mining | 21 | Rollers | 175 | 4966383.249 | 28.82746736 | 1.346743992 | 2.274978893 | 4967774.56 | 25.58167567 | 1.174428609 | 2.026689003 | 250978.0759 | 250978.0759 | 699.7296769 | 0.23 | 0.01 | 0.02 | 0.01 | 19.79 |
| 2022 | SC | Construction and Mining | 21 | Rollers | 250 | 784904.1137 | 5.628888173 | 0.190791235 | 0.383634987 | 784776.9595 | 5.196982116 | 0.180565322 | 0.362205229 | 26643.30452 | 26643.30452 | 85.81590377 | 0.42 | 0.01 | 0.03 | 0.01 | 29.45 |
| 2022 | SC | Construction and Mining | 21 | Rollers | 500 | 496903.0198 | 3.602904417 | 0.15020473 | 0.273226263 | 496073.3733 | 3.6173756 | 0.142670983 | 0.2643413 | 10602.48234 | 10602.48234 | 35.20652462 | 0.68 | 0.03 | 0.05 | 0.03 | 46.79 |
| 2022 | SC | Construction and Mining | 21 | Rollers | 750 | 24137.8653 | 0.084145585 | 0.003581157 | 0.007084492 | 24137.8653 | 0.051351248 | 0.000692516 | 0.005490334 | 336.2777064 | 336.2777064 | 1.100203894 | 0.50 | 0.02 | 0.04 | 0.02 | 71.78 |
| 2022 | SC | Construction and Mining | 22 | Rough Terrain | 50 | 156498.4394 | 1.64972673 | 0.089151413 | 0.245903384 | 156469.335 | 1.707694469 | 0.100366743 | 0.275479586 | 20166.88853 | 20166.88853 | 73.7068651 | 0.16 | 0.01 | 0.02 | 0.01 | 7.76 |
| 2022 | SC | Construction and Mining | 22 | Rough Terrain | 120 | 12610824.75 | 83.05518179 | 3.111762606 | 5.380372994 | 12612296.52 | 79.3139056 | 2.766058279 | 4.953529952 | 885526.7672 | 885526.7672 | 3157.957927 | 0.19 | 0.01 | 0.01 | 0.01 | 14.24 |
| 2022 | SC | Construction and Mining | 22 | Rough Terrain | 175 | 2317517.976 | 9.493473415 | 0.346987022 | 0.682154985 | 2317472.035 | 9.785849854 | 0.356340832 | 0.68846935 | 121309.5026 | 121309.5026 | 422.5436663 | 0.16 | 0.01 | 0.01 | 0.01 | 19.10 |
| 2022 | SC | Construction and Mining | 22 | Rough Terrain | 250 | 190758.516 | 0.423805036 | 0.010767094 | 0.036329065 | 190344.5157 | 0.923442513 | 0.021204849 | 0.055920146 | 6187.223024 | 6187.223024 | 24.78075637 | 0.14 | 0.00 | 0.01 | 0.00 | 30.76 |
| 2022 | SC | Construction and Mining | 22 | Rough Terrain | 500 | 80621.95668 | 0.116728672 | 0.002203749 | 0.013850958 | 80583.53549 | 0.136642825 | 0.002181665 | 0.01381207 | 1478.075052 | 1478.075052 | 5.718636085 | 0.16 | 0.00 | 0.02 | 0.00 | 54.52 |
| 2022 | SC | Construction and Mining | 22 | Rough Terrain | 750 | 12634.78178 | 0.009965785 | 0.000345999 | 0.001963879 | 12634.78178 | 0.050831606 | 0.00036 | 0.003424906 | 137.0236749 | 137.0236749 | 0.635404009 | 0.15 | 0.01 | 0.03 | 0.00 | 92.21 |
| 2022 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 50 | 134949.4997 | 2.477443335 | 0.328343419 | 0.911768198 | 136453.9513 | 1.682123678 | 0.136921011 | 0.384881633 | 20397.21688 | 20397.21688 | 21.47756683 | 0.24 | 0.03 | 0.09 | 0.03 | 6.69 |
| 2022 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 120 | 647820.4859 | 16.61400043 | 1.464333642 | 1.771307495 | 646049.854 | 11.87922103 | 0.958171712 | 1.223301275 | 53900.36973 | 53900.36973 | 63.90885739 | 0.62 | 0.05 | 0.07 | 0.05 | 11.99 |
| 2022 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 175 | 538655.3799 | 13.77725339 | 0.792080384 | 1.14066605 | 539221.3957 | 9.369403379 | 0.526587022 | 0.800248747 | 24734.17085 | 24734.17085 | 33.00211488 | 1.11 | 0.06 | 0.09 | 0.06 | 21.80 |
| 2022 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 250 | 562209.9054 | 11.05804069 | 0.537765807 | 0.848226445 | 561517.6784 | 8.465237497 | 0.401778762 | 0.665982423 | 18246.49271 | 18246.49271 | 25.66831157 | 1.21 | 0.06 | 0.09 | 0.05 | 30.77 |
| 2022 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 500 | 6438104.215 | 117.524382 | 5.471860727 | 9.187596856 | 6436129.462 | 91.53340094 | 4.186919015 | 7.47049245 | 123407.0443 | 123407.0443 | 171.2966915 | 1.90 | 0.09 | 0.15 | 0.08 | 52.15 |
| 2022 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 750 | 756867.7149 | 15.25766131 | 0.562819322 | 0.957417276 | 756867.7149 | 13.88937224 | 0.495044035 | 0.8623608 | 8913.305532 | 8913.305532 | 10.47686187 | 3.42 | 0.13 | 0.21 | 0.12 | 84.91 |
| 2022 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 50 | 427239.2835 | 5.905856841 | 0.50014641 | 1.357173956 | 427421.7427 | 5.483107546 | 0.40917081 | 1.124825152 | 69443.82846 | 69443.82846 | 80.80847697 | 0.17 | 0.01 | 0.04 | 0.01 | 6.15 |
| 2022 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 120 | 10402896.05 | 140.5052041 | 10.79465525 | 13.99150259 | 10404181.76 | 119.1653175 | 8.428158627 | 11.50202201 | 920403.3671 | 920403.3671 | 1004.64593 | 0.31 | 0.02 | 0.03 | 0.02 | 11.30 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2022 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 175 | 24668037.09 | 242.1713912 | 13.35686495 | 22.36332686 | 24665199.66 | 186.9965092 | 10.08489596 | 18.09981716 | 1241381.89 | 1241381.89 | 1316.41377 | 0.39 | 0.02 | 0.04 | 0.02 | 19.87 |
| 2022 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 250 | 33998675.72 | 291.0211655 | 10.01101933 | 22.22818968 | 34016974.18 | 240.8888225 | 8.079987696 | 19.17620191 | 1249903.732 | 1249903.732 | 1170.084906 | 0.47 | 0.02 | 0.04 | 0.01 | 27.22 |
| 2022 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 500 | 44239991.96 | 376.7779009 | 14.25603487 | 31.49379397 | 44352948.3 | 292.2111195 | 10.91056444 | 26.27676145 | 1053625.337 | 1053625.337 | 1087.092416 | 0.72 | 0.03 | 0.06 | 0.02 | 42.10 |
| 2022 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 750 | 7926936.565 | 66.08219547 | 2.494242409 | 5.530296274 | 7949842.33 | 50.96350291 | 1.943970628 | 4.676937434 | 101477.6894 | 101477.6894 | 96.0965672 | 1.30 | 0.05 | 0.11 | 0.05 | 78.34 |
| 2022 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 1000 | 2279978.136 | 35.86193196 | 0.937692931 | 1.755830672 | 2291506.499 | 24.84935928 | 0.511693592 | 1.093178031 | 20588.27705 | 20588.27705 | 17.47210313 | 3.48 | 0.09 | 0.17 | 0.08 | 111.30 |
| 2022 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 9999 | 907198.3106 | 12.74442324 | 0.304276612 | 0.621373891 | 907198.3106 | 11.3554938 | 0.248392664 | 0.522390477 | 4522.323245 | 4522.323245 | 3.822022559 | 5.64 | 0.13 | 0.27 | 0.12 | 200.60 |
| 2022 | SC | Construction and Mining | 25 | Scrapers | 50 | 9786.276848 | 0.168854547 | 0.022380781 | 0.066677669 | 9786.276848 | 0.168750038 | 0.022378903 | 0.066624753 | 1381.575086 | 1381.575086 | 3.777479155 | 0.24 | 0.03 | 0.10 | 0.03 | 7.08 |
| 2022 | SC | Construction and Mining | 25 | Scrapers | 120 | 446216.5986 | 8.622182403 | 0.665263524 | 0.755092801 | 446216.5986 | 8.448012697 | 0.646234478 | 0.736116186 | 29184.30976 | 29184.30976 | 54.50362781 | 0.59 | 0.05 | 0.05 | 0.04 | 15.29 |
| 2022 | SC | Construction and Mining | 25 | Scrapers | 175 | 4713157.661 | 69.2961825 | 3.779171186 | 5.718920963 | 4714663.893 | 53.51987063 | 2.842942385 | 4.497399364 | 158026.3983 | 158026.3983 | 350.2262817 | 0.88 | 0.05 | 0.07 | 0.04 | 29.83 |
| 2022 | SC | Construction and Mining | 25 | Scrapers | 250 | 5418369.506 | 93.55032943 | 4.30477519 | 6.976011819 | 5424616.965 | 60.13551768 | 2.622412148 | 4.624689184 | 137004.8437 | 137004.8437 | 339.973124 | 1.37 | 0.06 | 0.10 | 0.06 | 39.59 |
| 2022 | SC | Construction and Mining | 25 | Scrapers | 500 | 47491504.65 | 530.6544477 | 21.66211941 | 39.08450711 | 47519578.04 | 409.8323467 | 15.9984284 | 31.02585279 | 702095.0521 | 702095.0521 | 1494.262826 | 1.51 | 0.06 | 0.11 | 0.06 | 67.68 |
| 2022 | SC | Construction and Mining | 25 | Scrapers | 750 | 21680124.9 | 196.3598949 | 7.713845088 | 14.58949 | 21660001.45 | 161.3059075 | 5.861123558 | 12.06569534 | 216914.678 | 216914.678 | 425.7758648 | 1.81 | 0.07 | 0.13 | 0.07 | 99.85 |
| 2022 | SC | Construction and Mining | 25 | Scrapers | 1000 | 339704.0577 | 13.66420518 | 0.637075201 | 0.98969985 | 339704.0577 | 13.66420518 | 0.637075201 | 0.98969985 | 2019.778597 | 2019.778597 | 7.015318431 | 13.53 | 0.63 | 0.98 | 0.58 | 168.19 |
| 2022 | SC | Construction and Mining | 25 | Scrapers | 9999 | 1234745.667 | 19.14814115 | 0.587008173 | 1.00775659 | 1234745.667 | 18.79000031 | 0.571025033 | 0.966473828 | 3548.638423 | 3548.638423 | 7.015318431 | 10.79 | 0.33 | 0.57 | 0.30 | 347.95 |
| 2022 | SC | Construction and Mining | 26 | Skid Steer Loaders | 50 | 2324492.64 | 21.19409702 | 0.582857372 | 1.779366001 | 2324914.431 | 21.45951333 | 0.64385207 | 1.885592882 | 354063.0771 | 354063.0771 | 1124.245324 | 0.12 | 0.00 | 0.01 | 0.00 | 6.57 |
| 2022 | SC | Construction and Mining | 26 | Skid Steer Loaders | 120 | 12360995.45 | 78.83336148 | 2.804389218 | 4.893137314 | 12355084.85 | 81.17565299 | 3.016687863 | 5.029212263 | 1294159.193 | 1294159.193 | 3628.018251 | 0.12 | 0.00 | 0.01 | 0.00 | 9.55 |
| 2022 | SC | Construction and Mining | 26 | Skid Steer Loaders | 175 | 83567.57199 | 0.389599865 | 0.016103898 | 0.03075117 | 83426.57426 | 0.395261114 | 0.017920081 | 0.032400621 | 4067.386173 | 4067.386173 | 15.04939204 | 0.19 | 0.01 | 0.02 | 0.01 | 20.51 |
| 2022 | SC | Construction and Mining | 26 | Skid Steer Loaders | 250 | 63778.76379 | 0.176285207 | 0.005352311 | 0.014255397 | 63723.97075 | 0.260203464 | 0.00790352 | 0.017105574 | 2404.687477 | 2404.687477 | 8.360773355 | 0.15 | 0.00 | 0.01 | 0.00 | 26.50 |
| 2022 | SC | Construction and Mining | 26 | Skid Steer Loaders | 500 | 17625.7444 | 0.013843084 | 0.000477339 | 0.002598979 | 17625.7444 | 0.032055411 | 0.000494276 | 0.003549512 | 483.7417956 | 483.7417956 | 1.672154671 | 0.06 | 0.00 | 0.01 | 0.00 | 36.44 |
| 2022 | SC | Construction and Mining | 26 | Skid Steer Loaders | 750 | 18592.83742 | 0.136693837 | 0.005943611 | 0.008193493 | 18592.83742 | 0.136693837 | 0.005943611 | 0.008193493 | 259.3977744 | 259.3977744 | 0.55738489 | 1.05 | 0.05 | 0.06 | 0.04 | 71.68 |
| 2022 | SC | Construction and Mining | 26 | Skid Steer Loaders | 1000 | 30340.17325 | 0.208120898 | 0.001679857 | 0.004536532 | 30340.17325 | 0.425516773 | 0.014171999 | 0.023874161 | 224.3440212 | 224.3440212 | 1.114769781 | 1.86 | 0.01 | 0.04 | 0.01 | 135.24 |
| 2022 | SC | Construction and Mining | 27 | Surfacing Equipment | 50 | 21547.86164 | 0.229329723 | 0.010012937 | 0.023461799 | 21548.54748 | 0.22302218 | 0.008805832 | 0.020160931 | 4810.18806 | 4810.18806 | 19.72086932 | 0.10 | 0.00 | 0.01 | 0.00 | 4.48 |
| 2022 | SC | Construction and Mining | 27 | Surfacing Equipment | 120 | 169146.3798 | 1.665580372 | 0.092619282 | 0.125754228 | 168955.9752 | 1.643642711 | 0.088372411 | 0.122517419 | 17160.96774 | 17160.96774 | 63.20791449 | 0.19 | 0.01 | 0.01 | 0.01 | 9.85 |
| 2022 | SC | Construction and Mining | 27 | Surfacing Equipment | 175 | 86802.84988 | 0.942899046 | 0.046400422 | 0.068906044 | 86781.46272 | 0.708520871 | 0.034141837 | 0.051712866 | 5227.184713 | 5227.184713 | 21.23785927 | 0.36 | 0.02 | 0.03 | 0.02 | 16.60 |
| 2022 | SC | Construction and Mining | 27 | Surfacing Equipment | 250 | 185107.4818 | 1.510054868 | 0.04534884 | 0.087486038 | 185102.6416 | 1.467594849 | 0.046892654 | 0.089087141 | 7662.953706 | 7662.953706 | 31.8567889 | 0.39 | 0.01 | 0.02 | 0.01 | 24.16 |
| 2022 | SC | Construction and Mining | 27 | Surfacing Equipment | 500 | 586326.8207 | 2.894058484 | 0.106952891 | 0.201839196 | 586267.7988 | 2.751160525 | 0.10148029 | 0.19312233 | 14669.56081 | 14669.56081 | 52.58898486 | 0.39 | 0.01 | 0.03 | 0.01 | 39.96 |
| 2022 | SC | Construction and Mining | 27 | Surfacing Equipment | 750 | 539915.9928 | 2.369444352 | 0.08893645 | 0.160662339 | 539915.9928 | 2.205143651 | 0.085125688 | 0.154606551 | 7961.005113 | 7961.005113 | 26.29449243 | 0.60 | 0.02 | 0.04 | 0.02 | 67.82 |
| 2022 | SC | Construction and Mining | 27 | Surfacing Equipment | 1000 | 87727.57709 | 1.176371732 | 0.027061477 | 0.048833154 | 87727.57709 | 0.866322695 | 0.017118157 | 0.031852777 | 975.6070482 | 975.6070482 | 3.539643212 | 2.41 | 0.06 | 0.10 | 0.05 | 89.92 |
| 2022 | SC | Construction and Mining | 27 | Surfacing Equipment | 9999 | 30921.11519 | 0.211195009 | 0.002969426 | 0.006407658 | 30921.11519 | 0.210701574 | 0.002954643 | 0.006261501 | 248.831042 | 248.831042 | 1.011326632 | 1.70 | 0.02 | 0.05 | 0.02 | 124.27 |
| 2022 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 50 | 4593410.579 | 52.29569146 | 3.005896356 | 7.864930375 | 4591544.096 | 50.99967287 | 2.755213816 | 7.194245343 | 813273.5913 | 813273.5913 | 1573.29629 | 0.13 | 0.01 | 0.02 | 0.01 | 5.65 |
| 2022 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 120 | 74009176.57 | 638.7858651 | 37.5214911 | 54.12059334 | 74009140.14 | 583.6938276 | 31.39216571 | 47.4173811 | 6567723.871 | 6567723.871 | 10682.51735 | 0.19 | 0.01 | 0.02 | 0.01 | 11.27 |
| 2022 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 175 | 12807831.22 | 78.20885141 | 3.995054258 | 7.185071271 | 12795907.46 | 67.97635545 | 3.458228816 | 6.408467978 | 663337.3919 | 663337.3919 | 1195.047356 | 0.24 | 0.01 | 0.02 | 0.01 | 19.29 |
| 2022 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 250 | 7434054.334 | 48.42407692 | 1.759173949 | 3.818136867 | 7432741.684 | 43.54427423 | 1.502448249 | 3.463989953 | 270228.9403 | 270228.9403 | 478.0189426 | 0.36 | 0.01 | 0.03 | 0.01 | 27.51 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2022 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 500 | 9967727.278 | 53.79949881 | 1.990736412 | 4.690411038 | 9947522.025 | 43.18915812 | 1.591475327 | 3.981859111 | 231128.6807 | 231128.6807 | 431.4230594 | 0.47 | 0.02 | 0.04 | 0.02 | 43.04 |
| 2022 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 750 | 1416188.212 | 10.08063226 | 0.385740427 | 0.809000572 | 1415716.257 | 10.5527134 | 0.405850512 | 0.825785573 | 18429.36158 | 18429.36158 | 30.15027734 | 1.09 | 0.04 | 0.09 | 0.04 | 76.82 |
| 2022 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 1000 | 239020.8069 | 2.085573112 | 0.035686233 | 0.074831104 | 239020.8069 | 2.082354946 | 0.035589824 | 0.073877875 | 2009.859321 | 2009.859321 | 2.740934304 | 2.08 | 0.04 | 0.07 | 0.03 | 118.92 |
| 2022 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 9999 | 3356746.706 | 34.16497314 | 0.703636763 | 1.563586949 | 3356746.706 | 32.23424431 | 0.615034547 | 1.387067446 | 12357.08854 | 12357.08854 | 20.28291385 | 5.53 | 0.11 | 0.25 | 0.10 | 271.65 |
| 2022 | SC | Construction and Mining | 29 | Trenchers | 50 | 1628577.211 | 19.11900836 | 1.290375954 | 2.844218877 | 1627964.164 | 18.69570686 | 1.206152682 | 2.614534145 | 198777.8481 | 198777.8481 | 515.937966 | 0.19 | 0.01 | 0.03 | 0.01 | 8.19 |
| 2022 | SC | Construction and Mining | 29 | Trenchers | 120 | 1181764.996 | 18.53041005 | 1.358821334 | 1.685745045 | 1180334.239 | 17.29935813 | 1.225742003 | 1.539204641 | 77462.40921 | 77462.40921 | 239.2076024 | 0.48 | 0.04 | 0.04 | 0.03 | 15.24 |
| 2022 | SC | Construction and Mining | 29 | Trenchers | 175 | 240923.4783 | 3.236118576 | 0.166823331 | 0.253923234 | 240915.0878 | 2.996619857 | 0.154430807 | 0.238685973 | 9163.976954 | 9163.976954 | 31.65982973 | 0.71 | 0.04 | 0.06 | 0.03 | 26.29 |
| 2022 | SC | Construction and Mining | 29 | Trenchers | 250 | 472787.4892 | 5.527179395 | 0.22796736 | 0.395140212 | 472958.9896 | 5.452579024 | 0.227067395 | 0.391692044 | 11697.02376 | 11697.02376 | 37.52276116 | 0.95 | 0.04 | 0.07 | 0.04 | 40.43 |
| 2022 | SC | Construction and Mining | 29 | Trenchers | 500 | 795492.9239 | 5.621652896 | 0.230541345 | 0.432180358 | 795486.1659 | 5.302259731 | 0.224512636 | 0.419713816 | 12069.10286 | 12069.10286 | 34.0050023 | 0.93 | 0.04 | 0.07 | 0.04 | 65.91 |
| 2022 | SC | Construction and Mining | 29 | Trenchers | 750 | 359301.7148 | 0.323715426 | 0.009582003 | 0.050485113 | 359301.7148 | 0.323715426 | 0.009582003 | 0.050485113 | 3131.414493 | 3131.414493 | 7.035517718 | 0.21 | 0.01 | 0.03 | 0.01 | 114.74 |
| 2022 | SC | Construction and Mining | 29 | Trenchers | 1000 | 21244.16763 | 0.852346455 | 0.039604283 | 0.061614358 | 21244.16763 | 0.852346455 | 0.039604283 | 0.061614358 | 133.9488959 | 133.9488959 | 0.586293143 | 12.73 | 0.59 | 0.92 | 0.54 | 158.60 |
| 2022 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 50 | 1417688.458 | 17.66626229 | 1.358464568 | 3.392993855 | 1417688.458 | 17.18202052 | 1.280110126 | 3.188075583 | 214099.2281 | 214099.2281 | 302.8390223 | 0.17 | 0.01 | 0.03 | 0.01 | 6.62 |
| 2022 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 120 | 2191084.527 | 26.33331291 | 1.953179009 | 2.487688299 | 2191084.527 | 22.75134403 | 1.52060885 | 2.016780117 | 168294.2553 | 168294.2553 | 246.559204 | 0.31 | 0.02 | 0.03 | 0.02 | 13.02 |
| 2022 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 175 | 546544.0037 | 7.88559453 | 0.377623423 | 0.638717383 | 546544.0037 | 4.917615713 | 0.236859334 | 0.435000495 | 20450.81887 | 20450.81887 | 28.40790829 | 0.77 | 0.04 | 0.06 | 0.03 | 26.72 |
| 2022 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 250 | 291285.9253 | 1.454226757 | 0.043931489 | 0.115316195 | 291285.9253 | 1.409832051 | 0.043824985 | 0.110641892 | 8557.504807 | 8557.504807 | 11.79196193 | 0.34 | 0.01 | 0.03 | 0.01 | 34.04 |
| 2022 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 500 | 81264.96341 | 1.330320584 | 0.058104107 | 0.090041195 | 81264.96341 | 1.330320584 | 0.058104107 | 0.090041195 | 1606.675553 | 1606.675553 | 2.143993078 | 1.66 | 0.07 | 0.11 | 0.07 | 50.58 |
| 2022 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 1000 | 56952.63552 | 0.385903732 | 0.003010496 | 0.007103535 | 56952.63552 | 0.385903732 | 0.003010496 | 0.007103535 | 401.6688882 | 401.6688882 | 0.53599827 | 1.92 | 0.01 | 0.04 | 0.01 | 141.79 |
| 2023 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 50 | 137463.7195 | 1.56427951 | 0.086764161 | 0.191318119 | 137413.152 | 1.541226394 | 0.082716678 | 0.183397975 | 16835.14422 | 16835.14422 | 46.76970201 | 0.19 | 0.01 | 0.02 | 0.01 | 8.16 |
| 2023 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 120 | 859374.5497 | 6.597407464 | 0.301978605 | 0.452155827 | 857787.6699 | 6.214211778 | 0.267673002 | 0.408051581 | 57824.22135 | 57824.22135 | 143.262982 | 0.23 | 0.01 | 0.02 | 0.01 | 14.83 |
| 2023 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 175 | 1000971.607 | 4.077054246 | 0.187893718 | 0.367383665 | 1001364.151 | 3.190163452 | 0.141444719 | 0.306445037 | 35977.56563 | 35977.56563 | 112.2472848 | 0.23 | 0.01 | 0.02 | 0.01 | 27.83 |
| 2023 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 250 | 1416866.538 | 5.284187096 | 0.171414222 | 0.432367961 | 1414892.099 | 4.469705779 | 0.14471083 | 0.389629671 | 37114.14835 | 37114.14835 | 111.7549722 | 0.28 | 0.01 | 0.02 | 0.01 | 38.12 |
| 2023 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 500 | 1591184.965 | 5.432319272 | 0.173231806 | 0.453322114 | 1578927.441 | 4.330484889 | 0.145802986 | 0.402902149 | 24942.72222 | 24942.72222 | 78.27771179 | 0.44 | 0.01 | 0.04 | 0.01 | 63.30 |
| 2023 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 750 | 2160781.103 | 4.978687633 | 0.178048181 | 0.499517396 | 2162317.437 | 4.584775272 | 0.168717511 | 0.479988721 | 18873.40005 | 18873.40005 | 38.89269957 | 0.53 | 0.02 | 0.05 | 0.02 | 114.57 |
| 2023 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 1000 | 170367.1888 | 1.160489705 | 0.009188398 | 0.023057286 | 170367.1888 | 1.157808603 | 0.009108078 | 0.022263136 | 1005.309975 | 1005.309975 | 1.476937958 | 2.31 | 0.02 | 0.05 | 0.02 | 169.47 |
| 2023 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 9999 | 577235.2936 | 7.49899408 | 0.190238705 | 0.287975298 | 577235.2936 | 7.49899408 | 0.190238705 | 0.287975298 | 1173.767322 | 1173.767322 | 1.476937958 | 12.78 | 0.32 | 0.49 | 0.30 | 491.78 |
| 2023 | SC | Construction and Mining | 12 | Cranes | 50 | 45484.54022 | 0.765560759 | 0.082319277 | 0.229210544 | 45484.54022 | 0.737524585 | 0.075666507 | 0.210624661 | 9651.448136 | 9651.448136 | 21.6639213 | 0.16 | 0.02 | 0.05 | 0.02 | 4.71 |
| 2023 | SC | Construction and Mining | 12 | Cranes | 120 | 1085975.068 | 21.29579147 | 1.550939616 | 2.073623644 | 1085771.742 | 15.97030993 | 1.057182799 | 1.49385657 | 115985.0711 | 115985.0711 | 261.204994 | 0.37 | 0.03 | 0.04 | 0.02 | 9.36 |
| 2023 | SC | Construction and Mining | 12 | Cranes | 175 | 2863715.76 | 47.73456566 | 2.623274723 | 3.908460861 | 2863853.311 | 36.12098378 | 1.913507963 | 2.992508601 | 182174.3603 | 182174.3603 | 391.807491 | 0.52 | 0.03 | 0.04 | 0.03 | 15.72 |
| 2023 | SC | Construction and Mining | 12 | Cranes | 250 | 4837995.278 | 79.31103783 | 3.669827146 | 5.911808595 | 4838055.08 | 46.83640991 | 1.955905774 | 3.56502509 | 210453.8128 | 210453.8128 | 440.087087 | 0.75 | 0.03 | 0.06 | 0.03 | 22.99 |
| 2023 | SC | Construction and Mining | 12 | Cranes | 500 | 7412491.723 | 85.73594897 | 3.653848127 | 6.313249866 | 7415731.383 | 55.88969716 | 2.260576324 | 4.347386737 | 208567.6004 | 208567.6004 | 422.1369808 | 0.82 | 0.04 | 0.06 | 0.03 | 35.56 |
| 2023 | SC | Construction and Mining | 12 | Cranes | 750 | 1950493.609 | 16.13509396 | 0.66404605 | 1.18510529 | 1949831.024 | 12.18447491 | 0.494380507 | 0.947445206 | 32637.86514 | 32637.86514 | 61.89691801 | 0.99 | 0.04 | 0.07 | 0.04 | 59.74 |
| 2023 | SC | Construction and Mining | 12 | Cranes | 1000 | 457131.1551 | 10.77195728 | 0.44537985 | 0.692303444 | 457131.1551 | 10.24777754 | 0.453899559 | 0.700095322 | 4639.658482 | 4639.658482 | 9.284537701 | 4.64 | 0.19 | 0.30 | 0.18 | 98.53 |
| 2023 | SC | Construction and Mining | 12 | Cranes | 9999 | 35216.68705 | 0.253711222 | 0.006685034 | 0.018413924 | 35216.68705 | 0.253711222 | 0.006685034 | 0.018413924 | 323.3716561 | 323.3716561 | 0.61896918 | 1.57 | 0.04 | 0.11 | 0.04 | 108.90 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2023 | SC | Construction and Mining | 13 | Crawler Tractors | 50 | 138721.8362 | 2.252568188 | 0.248494966 | 0.727963643 | 138753.4929 | 2.029652576 | 0.200561008 | 0.589898366 | 18968.8461 | 18968.8461 | 54.93672995 | | 0.24 | 0.03 | 0.08 | 0.02 | 7.31 |
| 2023 | SC | Construction and Mining | 13 | Crawler Tractors | 120 | 6144573.916 | 103.2019222 | 8.608300746 | 10.38549464 | 6134667.727 | 86.98958893 | 6.810175809 | 8.422578303 | 444945.3061 | 444945.3061 | 945.4611225 | | 0.46 | 0.04 | 0.05 | 0.04 | 13.79 |
| 2023 | SC | Construction and Mining | 13 | Crawler Tractors | 175 | 6685184.78 | 88.08935211 | 5.028051711 | 7.436220907 | 6683849.697 | 66.8907889 | 3.720205484 | 5.762348528 | 284179.6827 | 284179.6827 | 618.5875793 | | 0.62 | 0.04 | 0.05 | 0.03 | 23.52 |
| 2023 | SC | Construction and Mining | 13 | Crawler Tractors | 250 | 6723642.584 | 77.3250444 | 3.082212545 | 5.456413873 | 6719702.858 | 64.38929617 | 2.4970757 | 4.612224545 | 210697.4708 | 210697.4708 | 452.1292875 | | 0.73 | 0.03 | 0.05 | 0.03 | 31.89 |
| 2023 | SC | Construction and Mining | 13 | Crawler Tractors | 500 | 18006518.42 | 163.7542376 | 6.755782863 | 12.61800064 | 18041439.21 | 133.4671118 | 5.480407739 | 10.71481275 | 334688.4051 | 334688.4051 | 726.8129373 | | 0.98 | 0.04 | 0.08 | 0.04 | 53.91 |
| 2023 | SC | Construction and Mining | 13 | Crawler Tractors | 750 | 7036848.051 | 55.09033335 | 2.086805128 | 4.146119764 | 7026699.388 | 39.35676471 | 1.46379795 | 3.199269005 | 78240.4948 | 78240.4948 | 148.8785382 | | 1.41 | 0.05 | 0.11 | 0.05 | 89.81 |
| 2023 | SC | Construction and Mining | 13 | Crawler Tractors | 1000 | 928590.1109 | 15.87141782 | 0.422803765 | 0.77329242 | 928183.2938 | 13.25201013 | 0.328900813 | 0.616005722 | 7097.666972 | 7097.666972 | 13.18481519 | | 4.47 | 0.12 | 0.22 | 0.11 | 130.77 |
| 2023 | SC | Construction and Mining | 13 | Crawler Tractors | 9999 | 492109.171 | 8.678316299 | 0.221324823 | 0.39776967 | 492109.171 | 8.678316299 | 0.221324823 | 0.39776967 | 2131.804671 | 2131.804671 | 3.296203797 | | 8.14 | 0.21 | 0.37 | 0.19 | 230.84 |
| 2023 | SC | Construction and Mining | 14 | Excavators | 50 | 5550955.929 | 53.95567615 | 2.10389303 | 5.621638702 | 5549440.656 | 53.81344638 | 2.087799134 | 5.571149798 | 995362.8362 | 995362.8362 | 1345.528761 | | 0.11 | 0.00 | 0.01 | 0.00 | 5.58 |
| 2023 | SC | Construction and Mining | 14 | Excavators | 120 | 7211447.156 | 54.78179995 | 2.820550121 | 4.491584525 | 7209722.306 | 52.09342888 | 2.543540317 | 4.160959508 | 635624.4355 | 635624.4355 | 973.2088912 | | 0.17 | 0.01 | 0.01 | 0.01 | 11.34 |
| 2023 | SC | Construction and Mining | 14 | Excavators | 175 | 15188843.54 | 73.83386521 | 3.607776607 | 7.277353532 | 15185751.49 | 66.67309744 | 3.263599501 | 6.713319181 | 741555.7941 | 741555.7941 | 1236.476492 | | 0.20 | 0.01 | 0.02 | 0.01 | 20.48 |
| 2023 | SC | Construction and Mining | 14 | Excavators | 250 | 19313936.14 | 71.91770368 | 2.366954797 | 7.093481833 | 19300756.68 | 70.08850714 | 2.244499887 | 6.799834169 | 630110.8609 | 630110.8609 | 1062.984244 | | 0.23 | 0.01 | 0.02 | 0.01 | 30.63 |
| 2023 | SC | Construction and Mining | 14 | Excavators | 500 | 31995517.86 | 91.59332325 | 3.169411328 | 10.29402789 | 31995656.58 | 86.22428943 | 2.916627838 | 9.732930052 | 697828.0942 | 697828.0942 | 1081.159623 | | 0.26 | 0.01 | 0.03 | 0.01 | 45.85 |
| 2023 | SC | Construction and Mining | 14 | Excavators | 750 | 2906278.965 | 11.47334737 | 0.423902518 | 1.121389628 | 2905280.217 | 10.18337802 | 0.380024196 | 1.045203424 | 36124.58687 | 36124.58687 | 55.07690386 | | 0.64 | 0.02 | 0.06 | 0.02 | 80.42 |
| 2023 | SC | Construction and Mining | 14 | Excavators | 1000 | 323980.8001 | 2.311176709 | 0.026495856 | 0.081396905 | 323968.766 | 2.292332998 | 0.023303881 | 0.073025954 | 2762.826925 | 2762.826925 | 4.406152309 | | 1.67 | 0.02 | 0.06 | 0.02 | 117.26 |
| 2023 | SC | Construction and Mining | 14 | Excavators | 9999 | 634127.6499 | 4.436390084 | 0.044429148 | 0.137015974 | 634127.6499 | 4.431864712 | 0.044293577 | 0.135675548 | 2911.212108 | 2911.212108 | 3.85538327 | | 3.05 | 0.03 | 0.09 | 0.03 | 217.82 |
| 2023 | SC | Construction and Mining | 15 | Graders | 50 | 36706.27932 | 0.615676757 | 0.073293549 | 0.210307124 | 36772.07292 | 0.543302094 | 0.057951876 | 0.16980143 | 5981.882841 | 5981.882841 | 17.16083084 | | 0.21 | 0.02 | 0.07 | 0.02 | 6.15 |
| 2023 | SC | Construction and Mining | 15 | Graders | 120 | 984172.1923 | 22.73699077 | 1.824846035 | 2.3878434 | 986633.9028 | 17.11061197 | 1.298865795 | 1.771332969 | 72713.16777 | 72713.16777 | 182.6798122 | | 0.63 | 0.05 | 0.07 | 0.05 | 13.57 |
| 2023 | SC | Construction and Mining | 15 | Graders | 175 | 9102721.615 | 142.7789224 | 7.979799439 | 12.31227563 | 9124833.744 | 95.93403834 | 5.281731689 | 8.711784772 | 405688.147 | 405688.147 | 854.7200911 | | 0.70 | 0.04 | 0.06 | 0.04 | 22.49 |
| 2023 | SC | Construction and Mining | 15 | Graders | 250 | 15877015.74 | 193.0247292 | 6.347193603 | 12.8180015 | 15860504.52 | 163.2765032 | 5.290038297 | 11.12039436 | 515402.9411 | 515402.9411 | 678.6831811 | | 0.75 | 0.02 | 0.05 | 0.02 | 30.77 |
| 2023 | SC | Construction and Mining | 15 | Graders | 500 | 4538341.548 | 38.67216246 | 1.5075319 | 3.601546514 | 4538285.104 | 36.94555371 | 1.435274837 | 3.484133782 | 103429.429 | 103429.429 | 126.7687182 | | 0.75 | 0.03 | 0.07 | 0.03 | 43.88 |
| 2023 | SC | Construction and Mining | 15 | Graders | 1000 | 44040.41502 | 0.319046997 | 0.002946134 | 0.011605115 | 44040.41502 | 0.319046997 | 0.002946134 | 0.011605115 | 368.8651566 | 368.8651566 | 0.553575189 | | 1.73 | 0.02 | 0.06 | 0.01 | 119.39 |
| 2023 | SC | Construction and Mining | 15 | Graders | 9999 | 620401.0938 | 12.72340299 | 0.398565175 | 0.775480983 | 620401.0938 | 12.72340299 | 0.398565175 | 0.775480983 | 2079.356253 | 2079.356253 | 2.767875943 | | 12.24 | 0.38 | 0.75 | 0.35 | 298.36 |
| 2023 | SC | Construction and Mining | 16 | Off-Highway Tractors | 50 | 2302639.836 | 27.56137195 | 1.876460873 | 4.890808589 | 2297632.946 | 24.83447052 | 1.264492505 | 3.378492763 | 343602.1154 | 343602.1154 | 515.3942005 | | 0.16 | 0.01 | 0.03 | 0.01 | 6.69 |
| 2023 | SC | Construction and Mining | 16 | Off-Highway Tractors | 120 | 2932017.716 | 32.7194799 | 2.282440784 | 2.959634569 | 2934752.113 | 27.05290029 | 1.635431686 | 2.284681892 | 244285.5358 | 244285.5358 | 374.7334018 | | 0.27 | 0.02 | 0.02 | 0.02 | 12.01 |
| 2023 | SC | Construction and Mining | 16 | Off-Highway Tractors | 175 | 2499413.895 | 15.46405196 | 0.765517583 | 1.418393201 | 2499769.628 | 13.37371226 | 0.639739519 | 1.244716113 | 98744.61858 | 98744.61858 | 142.2900743 | | 0.31 | 0.02 | 0.03 | 0.01 | 25.32 |
| 2023 | SC | Construction and Mining | 16 | Off-Highway Tractors | 250 | 2098269.64 | 11.51658111 | 0.437745451 | 1.047851058 | 2097415.602 | 9.420056861 | 0.334639826 | 0.89282413 | 61524.94687 | 61524.94687 | 92.86871263 | | 0.37 | 0.01 | 0.03 | 0.01 | 34.09 |
| 2023 | SC | Construction and Mining | 16 | Off-Highway Tractors | 500 | 5892657.249 | 21.56422338 | 0.812167047 | 2.25494322 | 5889857.857 | 16.39514711 | 0.568839599 | 1.916042474 | 110770.2446 | 110770.2446 | 159.6690147 | | 0.39 | 0.01 | 0.04 | 0.01 | 53.17 |
| 2023 | SC | Construction and Mining | 16 | Off-Highway Tractors | 750 | 1485998.717 | 6.951015427 | 0.264486572 | 0.683143474 | 1485773.902 | 5.752396518 | 0.226765464 | 0.619467889 | 16212.55096 | 16212.55096 | 23.35295113 | | 0.86 | 0.03 | 0.08 | 0.03 | 91.64 |
| 2023 | SC | Construction and Mining | 16 | Off-Highway Tractors | 1000 | 42145.29847 | 1.553504762 | 0.079038575 | 0.108605126 | 42145.29847 | 0.309988776 | 0.008476729 | 0.018786603 | 263.690759 | 263.690759 | 0.543091887 | | 11.78 | 0.60 | 0.82 | 0.55 | 159.83 |
| 2023 | SC | Construction and Mining | 16 | Off-Highway Tractors | 9999 | 341989.6785 | 4.8167984 | 0.136890179 | 0.312656585 | 347354.1772 | 3.924611884 | 0.105514244 | 0.237376851 | 1224.354166 | 1224.354166 | 2.172367547 | | 7.87 | 0.22 | 0.51 | 0.21 | 283.70 |
| 2023 | SC | Construction and Mining | 17 | Off-Highway Trucks | 50 | 220559.0624 | 2.632060976 | 0.166920329 | 0.431855853 | 221990.7511 | 2.540889271 | 0.144944208 | 0.382691013 | 49917.54773 | 49917.54773 | 30.67312512 | | 0.11 | 0.01 | 0.02 | 0.01 | 4.45 |
| 2023 | SC | Construction and Mining | 17 | Off-Highway Trucks | 120 | 269508.6015 | 3.14113981 | 0.224828063 | 0.3239201 | 269452.9534 | 2.658362194 | 0.155720451 | 0.266527985 | 22404.38581 | 22404.38581 | 17.22000007 | | 0.28 | 0.02 | 0.03 | 0.02 | 12.03 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2023 | SC | Construction and Mining | 17 | Off-Highway Trucks | 175 | 5223226.955 | 29.11972521 | 1.410553224 | 3.271090827 | 5217968.452 | 26.47215944 | 1.269437568 | 3.065226552 | 235189.0196 | 235189.0196 | 164.6662506 | 0.25 | 0.01 | 0.03 | 0.01 | 22.19 |
| 2023 | SC | Construction and Mining | 17 | Off-Highway Trucks | 250 | 10706461.15 | 68.45350228 | 2.813062727 | 6.85061042 | 10707234.1 | 47.07592706 | 1.907570999 | 5.529678996 | 364043.9697 | 364043.9697 | 281.9775011 | 0.38 | 0.02 | 0.04 | 0.01 | 29.41 |
| 2023 | SC | Construction and Mining | 17 | Off-Highway Trucks | 500 | 45411406.99 | 242.4335479 | 8.885772899 | 24.49414802 | 45377582.86 | 179.3543747 | 6.485275362 | 20.93295313 | 863872.1232 | 863872.1232 | 626.3775024 | 0.56 | 0.02 | 0.06 | 0.02 | 52.53 |
| 2023 | SC | Construction and Mining | 17 | Off-Highway Trucks | 750 | 16211502.61 | 119.4492076 | 4.516882523 | 11.17906286 | 16211300.71 | 105.8379849 | 4.094348515 | 10.53608962 | 175703.6722 | 175703.6722 | 143.1412506 | 1.36 | 0.05 | 0.13 | 0.05 | 92.27 |
| 2023 | SC | Construction and Mining | 17 | Off-Highway Trucks | 1000 | 11267422.37 | 130.9396573 | 2.915606561 | 6.647405656 | 11293372.55 | 120.001352 | 2.502414897 | 5.97970584 | 89653.32202 | 89653.32202 | 65.65125025 | 2.92 | 0.07 | 0.15 | 0.06 | 125.97 |
| 2023 | SC | Construction and Mining | 17 | Off-Highway Trucks | 9999 | 16343708.03 | 159.8216746 | 2.997371637 | 7.513108704 | 16333101.63 | 152.4806068 | 2.743631016 | 7.085600359 | 65126.96592 | 65126.96592 | 42.51187516 | 4.91 | 0.09 | 0.23 | 0.08 | 250.79 |
| 2023 | SC | Construction and Mining | 18 | Other Construction Equipment | 50 | 1242272.24 | 15.85129777 | 1.186535112 | 2.6908618 | 1244235.502 | 15.3120463 | 1.071492826 | 2.385205385 | 191499.6065 | 191499.6065 | 398.0087086 | 0.17 | 0.01 | 0.03 | 0.01 | 6.50 |
| 2023 | SC | Construction and Mining | 18 | Other Construction Equipment | 120 | 3892650.554 | 49.65385526 | 3.558387793 | 4.524142191 | 3895660.641 | 44.3539553 | 3.029158508 | 3.923944663 | 313342.4604 | 313342.4604 | 702.2737779 | 0.32 | 0.02 | 0.03 | 0.02 | 12.43 |
| 2023 | SC | Construction and Mining | 18 | Other Construction Equipment | 175 | 2117470.587 | 23.01665968 | 1.23454711 | 1.882924384 | 2116438.653 | 17.24338185 | 0.897666214 | 1.444358074 | 91523.83053 | 91523.83053 | 218.5565991 | 0.50 | 0.03 | 0.04 | 0.02 | 23.12 |
| 2023 | SC | Construction and Mining | 18 | Other Construction Equipment | 250 | 2719226.459 | 23.90593188 | 0.937205108 | 1.725234587 | 2717903.931 | 18.28087307 | 0.685192202 | 1.363623627 | 81622.14052 | 81622.14052 | 196.0581256 | 0.59 | 0.02 | 0.04 | 0.02 | 33.30 |
| 2023 | SC | Construction and Mining | 18 | Other Construction Equipment | 500 | 9286652.469 | 58.68244418 | 2.183773658 | 4.597711816 | 9287884.38 | 50.11772754 | 1.902668913 | 4.122627399 | 169239.0056 | 169239.0056 | 380.8670145 | 0.69 | 0.03 | 0.05 | 0.02 | 54.88 |
| 2023 | SC | Construction and Mining | 18 | Other Construction Equipment | 750 | 3631960.7 | 24.24699317 | 0.774768942 | 1.699521308 | 3625121.827 | 19.60582484 | 0.646172569 | 1.485548706 | 39624.70088 | 39624.70088 | 78.74465702 | 1.22 | 0.04 | 0.09 | 0.04 | 91.49 |
| 2023 | SC | Construction and Mining | 18 | Other Construction Equipment | 1000 | 424689.8502 | 3.809417966 | 0.071908773 | 0.142224524 | 424770.2867 | 3.337557688 | 0.055379594 | 0.114739581 | 3338.683662 | 3338.683662 | 6.963813206 | 2.28 | 0.04 | 0.09 | 0.04 | 127.23 |
| 2023 | SC | Construction and Mining | 18 | Other Construction Equipment | 9999 | 261979.174 | 4.09408416 | 0.113955253 | 0.211427459 | 261595.6938 | 2.623693025 | 0.053620317 | 0.111034392 | 1564.419839 | 1564.419839 | 3.214067633 | 5.23 | 0.15 | 0.27 | 0.13 | 167.22 |
| 2023 | SC | Construction and Mining | 19 | Pavers | 50 | 152044.0488 | 1.860821222 | 0.143445018 | 0.399110713 | 152171.3667 | 1.754700992 | 0.12224703 | 0.340783185 | 23154.17336 | 23154.17336 | 64.5106655 | 0.16 | 0.01 | 0.03 | 0.01 | 6.57 |
| 2023 | SC | Construction and Mining | 19 | Pavers | 120 | 1475122.321 | 16.90503145 | 1.181829886 | 1.478271519 | 1474158.975 | 15.23577512 | 1.005621185 | 1.283274629 | 122013.322 | 122013.322 | 313.4143165 | 0.28 | 0.02 | 0.02 | 0.02 | 12.08 |
| 2023 | SC | Construction and Mining | 19 | Pavers | 175 | 2002181.676 | 12.72152066 | 0.602957103 | 1.060997361 | 2002681.441 | 11.74425408 | 0.552428632 | 0.989441954 | 82955.06291 | 82955.06291 | 211.8100184 | 0.31 | 0.01 | 0.03 | 0.01 | 24.14 |
| 2023 | SC | Construction and Mining | 19 | Pavers | 250 | 1348733.025 | 6.284398782 | 0.185879852 | 0.4309901 | 1347282.677 | 6.509948156 | 0.190052398 | 0.433072322 | 41400.80145 | 41400.80145 | 91.39010946 | 0.30 | 0.01 | 0.02 | 0.01 | 32.54 |
| 2023 | SC | Construction and Mining | 19 | Pavers | 500 | 507702.9409 | 2.736440521 | 0.095248084 | 0.194430303 | 507735.946 | 2.735902203 | 0.095223607 | 0.193757143 | 10305.15733 | 10305.15733 | 22.57873292 | 0.53 | 0.02 | 0.04 | 0.02 | 49.27 |
| 2023 | SC | Construction and Mining | 19 | Pavers | 750 | 58858.68399 | 0.045914227 | 0.001565895 | 0.007937716 | 58858.68399 | 0.045914227 | 0.001565895 | 0.007937716 | 514.7741471 | 514.7741471 | 1.075177758 | 0.18 | 0.01 | 0.03 | 0.01 | 114.34 |
| 2023 | SC | Construction and Mining | 20 | Paving Equipment | 50 | 189630.7383 | 1.903070959 | 0.081845698 | 0.215547535 | 189639.784 | 1.947520315 | 0.089298528 | 0.230781121 | 37859.41744 | 37859.41744 | 79.43520416 | 0.10 | 0.00 | 0.01 | 0.00 | 5.01 |
| 2023 | SC | Construction and Mining | 20 | Paving Equipment | 120 | 860016.5911 | 7.572790908 | 0.431247151 | 0.630457925 | 860435.0366 | 7.311065277 | 0.392918641 | 0.592867113 | 74303.63259 | 74303.63259 | 162.0907544 | 0.20 | 0.01 | 0.02 | 0.01 | 11.58 |
| 2023 | SC | Construction and Mining | 20 | Paving Equipment | 175 | 810732.3045 | 5.387505135 | 0.266012986 | 0.46386437 | 810722.5836 | 4.670944028 | 0.227146217 | 0.41113846 | 42042.25613 | 42042.25613 | 88.55951815 | 0.26 | 0.01 | 0.02 | 0.01 | 19.28 |
| 2023 | SC | Construction and Mining | 20 | Paving Equipment | 250 | 424924.1755 | 2.834392428 | 0.107217734 | 0.209520852 | 425116.3177 | 2.406243097 | 0.089521425 | 0.184593744 | 15121.77249 | 15121.77249 | 32.20346115 | 0.37 | 0.01 | 0.03 | 0.01 | 28.11 |
| 2023 | SC | Construction and Mining | 20 | Paving Equipment | 500 | 599669.3019 | 3.236229028 | 0.114433124 | 0.249888988 | 599622.9944 | 2.831955415 | 0.104256811 | 0.232532203 | 13670.26636 | 13670.26636 | 28.98311503 | 0.47 | 0.02 | 0.04 | 0.02 | 43.86 |
| 2023 | SC | Construction and Mining | 20 | Paving Equipment | 750 | 283916.316 | 1.102452027 | 0.032123272 | 0.09225307 | 283868.4685 | 1.097436662 | 0.031989136 | 0.089885633 | 3605.200246 | 3605.200246 | 6.977416581 | 0.61 | 0.02 | 0.05 | 0.02 | 78.74 |
| 2023 | SC | Construction and Mining | 20 | Paving Equipment | 1000 | 55605.57572 | 0.393020076 | 0.006541841 | 0.014684248 | 55605.57572 | 0.393020076 | 0.006541841 | 0.014684248 | 506.132207 | 506.132207 | 1.073448705 | 1.55 | 0.03 | 0.06 | 0.02 | 109.86 |
| 2023 | SC | Construction and Mining | 21 | Rollers | 50 | 3123127.701 | 34.33786234 | 2.041644777 | 5.294961473 | 3123486.903 | 33.02221194 | 1.781408401 | 4.598066778 | 570720.0853 | 570720.0853 | 1629.808061 | 0.12 | 0.01 | 0.02 | 0.01 | 5.47 |
| 2023 | SC | Construction and Mining | 21 | Rollers | 120 | 4883685.722 | 49.09283651 | 2.925608963 | 4.02922617 | 4881167.512 | 43.85228145 | 2.412704502 | 3.459928952 | 406479.0218 | 406479.0218 | 1215.45008 | 0.24 | 0.01 | 0.02 | 0.01 | 12.01 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2023 | SC | Construction and Mining | 21 | Rollers | 175 | 5046285.095 | 25.30119615 | 1.168767602 | 2.08996555 | 5046541.122 | 22.4890774 | 1.025794691 | 1.87833758 | 254964.116 | 254964.116 | 702.7511369 | | 0.20 | 0.01 | 0.02 | 0.01 | 19.79 |
| 2023 | SC | Construction and Mining | 21 | Rollers | 250 | 797311.5299 | 5.271517972 | 0.177289439 | 0.37354861 | 797245.6771 | 5.186707384 | 0.182195423 | 0.371115536 | 27066.45416 | 27066.45416 | 86.18646019 | | 0.39 | 0.01 | 0.03 | 0.01 | 29.46 |
| 2023 | SC | Construction and Mining | 21 | Rollers | 500 | 504179.1612 | 3.356456541 | 0.140195763 | 0.262343422 | 503237.7671 | 3.416192681 | 0.138094394 | 0.260634461 | 10770.87123 | 10770.87123 | 35.35854777 | | 0.62 | 0.03 | 0.05 | 0.02 | 46.72 |
| 2023 | SC | Construction and Mining | 21 | Rollers | 750 | 24521.22349 | 0.085779406 | 0.003679117 | 0.007458591 | 24521.22349 | 0.052363398 | 0.000710646 | 0.005808322 | 341.6184774 | 341.6184774 | 1.104954618 | | 0.50 | 0.02 | 0.04 | 0.02 | 71.78 |
| 2023 | SC | Construction and Mining | 22 | Rough Terrain | 50 | 158898.9839 | 1.569483307 | 0.071023075 | 0.201538488 | 158890.0061 | 1.654144211 | 0.087396428 | 0.244916812 | 20487.17956 | 20487.17956 | 74.02513421 | | 0.15 | 0.01 | 0.02 | 0.01 | 7.76 |
| 2023 | SC | Construction and Mining | 22 | Rough Terrain | 120 | 12812430.75 | 79.74081879 | 2.777575049 | 5.157062003 | 12814485.56 | 76.1690926 | 2.446609526 | 4.75768905 | 899590.7256 | 899590.7256 | 3171.594112 | | 0.18 | 0.01 | 0.01 | 0.01 | 14.24 |
| 2023 | SC | Construction and Mining | 22 | Rough Terrain | 175 | 2354082.009 | 8.47910308 | 0.301820097 | 0.645349445 | 2354000.792 | 8.61937408 | 0.307509094 | 0.650766616 | 123236.1431 | 123236.1431 | 424.3682263 | | 0.14 | 0.00 | 0.01 | 0.00 | 19.10 |
| 2023 | SC | Construction and Mining | 22 | Rough Terrain | 250 | 193790.1105 | 0.415051139 | 0.01100349 | 0.03742263 | 193464.8019 | 0.855202915 | 0.019968917 | 0.055404457 | 6285.488656 | 6285.488656 | 24.88776064 | | 0.13 | 0.00 | 0.01 | 0.00 | 30.78 |
| 2023 | SC | Construction and Mining | 22 | Rough Terrain | 500 | 81902.29961 | 0.118676884 | 0.002241837 | 0.014201162 | 81862.34547 | 0.138930374 | 0.002219804 | 0.014191725 | 1501.549878 | 1501.549878 | 5.743329379 | | 0.16 | 0.00 | 0.02 | 0.00 | 54.52 |
| 2023 | SC | Construction and Mining | 22 | Rough Terrain | 750 | 12835.4477 | 0.010157365 | 0.000354487 | 0.002073985 | 12835.4477 | 0.051775065 | 0.000368339 | 0.003587433 | 139.1998883 | 139.1998883 | 0.638147709 | | 0.15 | 0.01 | 0.03 | 0.00 | 92.21 |
| 2023 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 50 | 137193.7136 | 2.519291726 | 0.333881865 | 0.927367221 | 137791.8946 | 1.364799389 | 0.053284488 | 0.164070098 | 20721.16599 | 20721.16599 | 21.5703078 | | 0.24 | 0.03 | 0.09 | 0.03 | 6.65 |
| 2023 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 120 | 658195.5833 | 16.49726318 | 1.44573337 | 1.753720928 | 656259.2321 | 11.53950402 | 0.919089901 | 1.187770685 | 54756.41676 | 54756.41676 | 64.18481833 | | 0.60 | 0.05 | 0.06 | 0.05 | 11.99 |
| 2023 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 175 | 547194.0678 | 13.75249974 | 0.793322506 | 1.143085143 | 547772.2614 | 9.270028613 | 0.517618237 | 0.796752915 | 25126.99958 | 25126.99958 | 33.1446193 | | 1.09 | 0.06 | 0.09 | 0.06 | 21.80 |
| 2023 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 250 | 571137.1229 | 11.23512488 | 0.546387105 | 0.864452221 | 570411.8182 | 6.969937934 | 0.313844404 | 0.553359716 | 18536.28396 | 18536.28396 | 25.77914834 | | 1.21 | 0.06 | 0.09 | 0.05 | 30.77 |
| 2023 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 500 | 6539782.03 | 114.1440287 | 5.3284123 | 9.044821759 | 6540492.001 | 85.26241097 | 3.897234826 | 7.138533991 | 125366.9981 | 125366.9981 | 172.0363573 | | 1.82 | 0.09 | 0.14 | 0.08 | 52.17 |
| 2023 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 750 | 768869.4986 | 14.10781478 | 0.502870238 | 0.876095763 | 768869.4986 | 12.29260756 | 0.45175504 | 0.805017411 | 9054.866875 | 9054.866875 | 10.52210136 | | 3.12 | 0.11 | 0.19 | 0.10 | 84.91 |
| 2023 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 50 | 433564.6637 | 5.618189013 | 0.420278937 | 1.165844991 | 433806.8609 | 5.303845652 | 0.356111144 | 1.017316048 | 70546.7371 | 70546.7371 | 81.15741112 | | 0.16 | 0.01 | 0.03 | 0.01 | 6.15 |
| 2023 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 120 | 10563394.53 | 132.5698771 | 9.872498188 | 13.22082652 | 10570888.24 | 112.8155178 | 7.660825903 | 10.93720126 | 935021.2366 | 935021.2366 | 1008.98403 | | 0.28 | 0.02 | 0.03 | 0.02 | 11.31 |
| 2023 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 175 | 25032922.96 | 216.4781599 | 11.8332626 | 20.6625731 | 25042713.91 | 165.6568455 | 8.868864669 | 16.78605909 | 1261097.548 | 1261097.548 | 1322.098096 | | 0.34 | 0.02 | 0.03 | 0.02 | 19.86 |
| 2023 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 250 | 34537989.35 | 260.5700124 | 8.930350852 | 20.82454098 | 34551346.1 | 214.7574784 | 7.191369883 | 18.08501772 | 1269754.735 | 1269754.735 | 1175.137379 | | 0.41 | 0.01 | 0.03 | 0.01 | 27.21 |
| 2023 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 500 | 44926037.87 | 342.6127026 | 12.84230371 | 29.79400622 | 45089819.02 | 254.6895053 | 9.475307391 | 24.49039366 | 1070359.041 | 1070359.041 | 1091.786524 | | 0.64 | 0.02 | 0.06 | 0.02 | 42.13 |
| 2023 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 750 | 8058429.827 | 65.46214239 | 2.480933962 | 5.59467588 | 8088915.79 | 47.57817488 | 1.839002731 | 4.621026768 | 103089.3606 | 103089.3606 | 96.51151593 | | 1.27 | 0.05 | 0.11 | 0.04 | 78.47 |
| 2023 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 1000 | 2316583.058 | 34.79964319 | 0.883055733 | 1.690162098 | 2325170.488 | 24.62537351 | 0.495796146 | 1.112001234 | 20915.26058 | 20915.26058 | 17.54754835 | | 3.33 | 0.08 | 0.16 | 0.08 | 111.17 |
| 2023 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 9999 | 921603.4933 | 12.97899723 | 0.310131674 | 0.643542256 | 921603.4933 | 11.5739567 | 0.253538363 | 0.544748574 | 4594.146896 | 4594.146896 | 3.838526202 | | 5.65 | 0.14 | 0.28 | 0.12 | 200.60 |
| 2023 | SC | Construction and Mining | 25 | Scrapers | 50 | 9941.702743 | 0.172085695 | 0.022907956 | 0.068397284 | 9941.702743 | 0.171982159 | 0.022906095 | 0.068344861 | 1403.517296 | 1403.517296 | 3.793790457 | | 0.25 | 0.03 | 0.10 | 0.03 | 7.08 |
| 2023 | SC | Construction and Mining | 25 | Scrapers | 120 | 453439.3507 | 8.737637873 | 0.67776018 | 0.771848299 | 452911.0562 | 8.011259495 | 0.608717462 | 0.692048308 | 29647.8157 | 29647.8157 | 54.7389766 | | 0.59 | 0.05 | 0.05 | 0.04 | 15.28 |
| 2023 | SC | Construction and Mining | 25 | Scrapers | 175 | 4788161.553 | 64.86974028 | 3.539018115 | 5.429370551 | 4788944.785 | 49.35080236 | 2.608454909 | 4.235773324 | 160536.1775 | 160536.1775 | 351.7385724 | | 0.81 | 0.04 | 0.07 | 0.04 | 29.83 |
| 2023 | SC | Construction and Mining | 25 | Scrapers | 250 | 5507618.965 | 85.59549629 | 3.926323785 | 6.522393785 | 5514189.021 | 54.67617924 | 2.398545549 | 4.367460507 | 139180.7581 | 139180.7581 | 341.4411412 | | 1.23 | 0.06 | 0.09 | 0.05 | 39.62 |
| 2023 | SC | Construction and Mining | 25 | Scrapers | 500 | 48240003.79 | 483.9985875 | 19.70204576 | 36.9323962 | 48268864.19 | 385.6123384 | 15.11971012 | 30.26924675 | 713245.7434 | 713245.7434 | 1500.715111 | | 1.36 | 0.06 | 0.10 | 0.05 | 67.67 |
| 2023 | SC | Construction and Mining | 25 | Scrapers | 750 | 22027450.67 | 176.517056 | 6.907576889 | 13.66845118 | 22004776.81 | 157.9433807 | 5.770205558 | 12.11861717 | 220359.7224 | 220359.7224 | 427.6143816 | | 1.60 | 0.06 | 0.12 | 0.06 | 99.86 |
| 2023 | SC | Construction and Mining | 25 | Scrapers | 1000 | 345099.2461 | 11.0162745 | 0.501233123 | 0.78990162 | 345099.2461 | 13.88122043 | 0.647193245 | 1.005418288 | 2051.856772 | 2051.856772 | 7.04561085 | | 10.74 | 0.49 | 0.77 | 0.45 | 168.19 |
| 2023 | SC | Construction and Mining | 25 | Scrapers | 9999 | 1254355.929 | 17.21231479 | 0.468969216 | 0.851376118 | 1254355.929 | 16.84455304 | 0.453501265 | 0.806595588 | 3604.997988 | 3604.997988 | 7.04561085 | | 9.55 | 0.26 | 0.47 | 0.24 | 347.95 |
| 2023 | SC | Construction and Mining | 26 | Skid Steer Loaders | 50 | 2362236.294 | 21.07880065 | 0.516731311 | 1.698987149 | 2362512.926 | 21.40663589 | 0.592434659 | 1.854701957 | 359686.3158 | 359686.3158 | 1129.099859 | | 0.12 | 0.00 | 0.01 | 0.00 | 6.57 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2023 | SC | Construction and Mining | 26 | Skid Steer Loaders | 120 | 12558994.43 | 75.37048417 | 2.454630592 | 4.705368831 | 12557257.08 | 76.78899584 | 2.597779356 | 4.776920617 | 1314713.062 | 1314713.062 | 3643.684176 | 0.11 | 0.00 | 0.01 | 0.00 | 9.55 |
| 2023 | SC | Construction and Mining | 26 | Skid Steer Loaders | 175 | 84901.34527 | 0.398717674 | 0.016635242 | 0.032182654 | 84865.59085 | 0.317195167 | 0.013328573 | 0.026958225 | 4131.984503 | 4131.984503 | 15.1143759 | 0.19 | 0.01 | 0.02 | 0.01 | 20.54 |
| 2023 | SC | Construction and Mining | 26 | Skid Steer Loaders | 250 | 64827.87641 | 0.181599092 | 0.005524401 | 0.015061121 | 64765.53835 | 0.266739117 | 0.0081339 | 0.017952764 | 2442.878784 | 2442.878784 | 8.396875501 | 0.15 | 0.00 | 0.01 | 0.00 | 26.51 |
| 2023 | SC | Construction and Mining | 26 | Skid Steer Loaders | 500 | 17905.67691 | 0.014126235 | 0.000490609 | 0.002790242 | 17905.67691 | 0.014073436 | 0.000485864 | 0.002665128 | 491.424595 | 491.424595 | 1.6793751 | 0.06 | 0.00 | 0.01 | 0.00 | 36.44 |
| 2023 | SC | Construction and Mining | 26 | Skid Steer Loaders | 750 | 18888.12933 | 0.139109617 | 0.006074063 | 0.008469793 | 18888.12933 | 0.139109617 | 0.006074063 | 0.008469793 | 263.5175364 | 263.5175364 | 0.5597917 | 1.06 | 0.05 | 0.06 | 0.04 | 71.68 |
| 2023 | SC | Construction and Mining | 26 | Skid Steer Loaders | 1000 | 30822.03665 | 0.212268143 | 0.001731757 | 0.004857943 | 30822.03665 | 0.210908625 | 0.002860695 | 0.005398138 | 227.9070586 | 227.9070586 | 1.1195834 | 1.86 | 0.02 | 0.04 | 0.01 | 135.24 |
| 2023 | SC | Construction and Mining | 27 | Surfacing Equipment | 50 | 21893.87075 | 0.227290997 | 0.00900721 | 0.020892015 | 21894.58647 | 0.227312795 | 0.009006089 | 0.020911802 | 4886.583588 | 4886.583588 | 19.8060248 | 0.09 | 0.00 | 0.01 | 0.00 | 4.48 |
| 2023 | SC | Construction and Mining | 27 | Surfacing Equipment | 120 | 172439.0892 | 1.560037703 | 0.080635764 | 0.113349873 | 171941.4206 | 1.571287739 | 0.080482965 | 0.114635758 | 17433.51866 | 17433.51866 | 63.48084873 | 0.18 | 0.01 | 0.01 | 0.01 | 9.86 |
| 2023 | SC | Construction and Mining | 27 | Surfacing Equipment | 175 | 88270.14222 | 0.733872297 | 0.03612132 | 0.055122258 | 88326.63454 | 0.654169326 | 0.031721002 | 0.04941595 | 5310.202993 | 5310.202993 | 21.32956517 | 0.28 | 0.01 | 0.02 | 0.01 | 16.63 |
| 2023 | SC | Construction and Mining | 27 | Surfacing Equipment | 250 | 188051.4453 | 1.438179273 | 0.044047036 | 0.086768062 | 188046.2104 | 1.398406097 | 0.045690739 | 0.088489132 | 7784.65693 | 7784.65693 | 31.99434776 | 0.37 | 0.01 | 0.02 | 0.01 | 24.16 |
| 2023 | SC | Construction and Mining | 27 | Surfacing Equipment | 500 | 595451.1524 | 2.793759972 | 0.10541189 | 0.203946589 | 595388.7534 | 2.648162898 | 0.099816976 | 0.195012827 | 14902.54314 | 14902.54314 | 52.81606615 | 0.37 | 0.01 | 0.03 | 0.01 | 39.95 |
| 2023 | SC | Construction and Mining | 27 | Surfacing Equipment | 750 | 550858.3735 | 1.729578151 | 0.064082637 | 0.134314027 | 550876.9108 | 1.786520219 | 0.066608112 | 0.137208105 | 8087.441997 | 8087.441997 | 26.40803307 | 0.43 | 0.02 | 0.03 | 0.01 | 68.12 |
| 2023 | SC | Construction and Mining | 27 | Surfacing Equipment | 1000 | 89105.45674 | 1.196829817 | 0.027589311 | 0.050084133 | 89105.45674 | 0.881502618 | 0.01744383 | 0.03293749 | 991.1016639 | 991.1016639 | 3.554927529 | 2.42 | 0.06 | 0.10 | 0.05 | 89.91 |
| 2023 | SC | Construction and Mining | 27 | Surfacing Equipment | 9999 | 31412.20512 | 0.215267823 | 0.003048501 | 0.006800108 | 31412.20512 | 0.214780364 | 0.003033898 | 0.006655722 | 252.7829828 | 252.7829828 | 1.01569358 | 1.70 | 0.02 | 0.05 | 0.02 | 124.27 |
| 2023 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 50 | 4663235.507 | 51.2170792 | 2.688395186 | 7.43197078 | 4658437.411 | 49.5823227 | 2.372217497 | 6.593963215 | 826190.0229 | 826190.0229 | 1580.089845 | 0.12 | 0.01 | 0.02 | 0.01 | 5.64 |
| 2023 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 120 | 75249491.36 | 600.0921447 | 33.19472791 | 51.188315 | 75268801.63 | 543.4364738 | 26.82813043 | 44.26651848 | 6672032.627 | 6672032.627 | 10728.64488 | 0.18 | 0.01 | 0.02 | 0.01 | 11.28 |
| 2023 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 175 | 13031133.42 | 69.76700106 | 3.527363431 | 6.742856943 | 13027491.78 | 59.92371708 | 3.014846641 | 5.99728655 | 673872.533 | 673872.533 | 1200.207617 | 0.21 | 0.01 | 0.02 | 0.01 | 19.33 |
| 2023 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 250 | 7544202.517 | 42.41905264 | 1.566937416 | 3.588910326 | 7544816.954 | 36.15542159 | 1.311734475 | 3.181899439 | 274520.7232 | 274520.7232 | 480.083047 | 0.31 | 0.01 | 0.03 | 0.01 | 27.48 |
| 2023 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 500 | 10128963.94 | 47.454107 | 1.762903321 | 4.443517651 | 10110009.76 | 38.07784385 | 1.442008206 | 3.834050644 | 234799.4722 | 234799.4722 | 433.285961 | 0.40 | 0.02 | 0.04 | 0.01 | 43.06 |
| 2023 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 750 | 1438857.504 | 9.622266206 | 0.379810832 | 0.808926078 | 1438332.884 | 10.56915261 | 0.412972421 | 0.845718243 | 18722.05717 | 18722.05717 | 30.28046741 | 1.03 | 0.04 | 0.09 | 0.04 | 76.83 |
| 2023 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 1000 | 242738.1622 | 2.126968075 | 0.036704695 | 0.078951096 | 242738.1622 | 2.123867802 | 0.036611818 | 0.078032788 | 2041.779958 | 2041.779958 | 2.752769765 | 2.08 | 0.04 | 0.08 | 0.03 | 118.89 |
| 2023 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 9999 | 3410058.642 | 33.65303595 | 0.672702748 | 1.553463955 | 3410058.642 | 32.3883192 | 0.611308537 | 1.431100833 | 12553.34413 | 12553.34413 | 20.37049626 | 5.36 | 0.11 | 0.25 | 0.10 | 271.65 |
| 2023 | SC | Construction and Mining | 29 | Trenchers | 50 | 1654355.332 | 18.05501531 | 1.066448014 | 2.601149025 | 1654037.739 | 17.61334931 | 0.978627724 | 2.359364648 | 201934.8429 | 201934.8429 | 518.1658062 | 0.18 | 0.01 | 0.03 | 0.01 | 8.19 |
| 2023 | SC | Construction and Mining | 29 | Trenchers | 120 | 1198728.74 | 18.04206615 | 1.302413293 | 1.638733004 | 1199998.791 | 16.81226119 | 1.166329878 | 1.489850864 | 78692.66915 | 78692.66915 | 240.2405102 | 0.46 | 0.03 | 0.04 | 0.03 | 15.25 |
| 2023 | SC | Construction and Mining | 29 | Trenchers | 175 | 244749.7635 | 3.202407495 | 0.164405898 | 0.255216182 | 244741.0138 | 2.713270329 | 0.137597582 | 0.220242479 | 9309.519467 | 9309.519467 | 31.79653811 | 0.69 | 0.04 | 0.05 | 0.03 | 26.29 |
| 2023 | SC | Construction and Mining | 29 | Trenchers | 250 | 480301.821 | 5.354749193 | 0.229133036 | 0.395827816 | 480467.7104 | 5.371805524 | 0.222947267 | 0.389642847 | 11882.79619 | 11882.79619 | 37.68478591 | 0.90 | 0.04 | 0.07 | 0.04 | 40.43 |
| 2023 | SC | Construction and Mining | 29 | Trenchers | 500 | 809346.898 | 5.612904763 | 0.230771265 | 0.440261367 | 809885.3674 | 4.881924002 | 0.205812183 | 0.39949418 | 12260.78466 | 12260.78466 | 34.15183723 | 0.92 | 0.04 | 0.07 | 0.03 | 66.05 |
| 2023 | SC | Construction and Mining | 29 | Trenchers | 750 | 365148.0538 | 0.330379078 | 0.009849998 | 0.05432173 | 365148.0538 | 0.330379078 | 0.009849998 | 0.05432173 | 3181.147696 | 3181.147696 | 7.065897358 | 0.21 | 0.01 | 0.03 | 0.01 | 114.79 |
| 2023 | SC | Construction and Mining | 29 | Trenchers | 1000 | 21581.56804 | 0.86788971 | 0.040451509 | 0.062849979 | 21581.56804 | 0.86788971 | 0.040451509 | 0.062849979 | 136.0762756 | 136.0762756 | 0.58882478 | 12.76 | 0.59 | 0.92 | 0.55 | 158.60 |
| 2023 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 50 | 1440204.222 | 16.9002804 | 1.135136146 | 2.853936537 | 1440204.222 | 16.04332876 | 0.965749906 | 2.438809364 | 217499.5574 | 217499.5574 | 304.146693 | 0.16 | 0.01 | 0.03 | 0.01 | 6.62 |
| 2023 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 120 | 2225883.387 | 24.70277364 | 1.753451691 | 2.327100459 | 2225883.387 | 21.86912275 | 1.394831322 | 1.928751569 | 170967.1089 | 170967.1089 | 247.6238563 | 0.29 | 0.02 | 0.03 | 0.02 | 13.02 |
| 2023 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 175 | 555224.2293 | 7.512671075 | 0.358820266 | 0.621659092 | 555224.2293 | 4.340313904 | 0.209432376 | 0.401815614 | 20775.61929 | 20775.61929 | 28.53057474 | 0.72 | 0.03 | 0.06 | 0.03 | 26.72 |
| 2023 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 250 | 295912.1357 | 1.482510226 | 0.044992201 | 0.121768231 | 295912.1357 | 1.437077496 | 0.044884006 | 0.116898312 | 8693.415314 | 8693.415314 | 11.84288008 | 0.34 | 0.01 | 0.03 | 0.01 | 34.04 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2023 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 500 | 82555.61561 | 1.352714323 | 0.059203708 | 0.092523368 | 82555.61561 | 0.589793107 | 0.020119409 | 0.041360088 | 1632.192814 | 1632.192814 | 2.153250924 | 1.66 | 0.07 | 0.11 | 0.07 | 50.58 |
| 2023 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 1000 | 57857.15871 | 0.392032665 | 0.003058309 | 0.007216353 | 57857.15871 | 0.392032665 | 0.003058309 | 0.007216353 | 408.0482036 | 408.0482036 | 0.538312731 | 1.92 | 0.01 | 0.04 | 0.01 | 141.79 |
| 2024 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 50 | 138944.2607 | 1.522224524 | 0.078967349 | 0.186576144 | 138867.9005 | 1.545456497 | 0.081418583 | 0.186963263 | 17081.4267 | 17081.4267 | 46.92736495 | 0.18 | 0.01 | 0.02 | 0.01 | 8.13 |
| 2024 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 120 | 873603.9317 | 5.929927068 | 0.246421961 | 0.40702964 | 870324.236 | 5.929951563 | 0.241990714 | 0.392076665 | 58670.13585 | 58670.13585 | 143.7459284 | 0.20 | 0.01 | 0.01 | 0.01 | 14.83 |
| 2024 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 175 | 1015605.642 | 3.239723373 | 0.14582243 | 0.314845154 | 1014525.479 | 3.089106353 | 0.139241283 | 0.309038267 | 36503.8839 | 36503.8839 | 112.6256759 | 0.18 | 0.01 | 0.02 | 0.01 | 27.79 |
| 2024 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 250 | 1443029.545 | 5.09502069 | 0.16731904 | 0.430732271 | 1438664.568 | 4.226959374 | 0.139292887 | 0.386854676 | 37657.09377 | 37657.09377 | 112.1317036 | 0.27 | 0.01 | 0.02 | 0.01 | 38.20 |
| 2024 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 500 | 1616134.498 | 5.171232785 | 0.176236905 | 0.461886788 | 1603540.952 | 4.212208695 | 0.143179103 | 0.415225517 | 25307.61102 | 25307.61102 | 78.54158976 | 0.41 | 0.01 | 0.04 | 0.01 | 63.36 |
| 2024 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 750 | 2194817.621 | 4.108019492 | 0.152064839 | 0.4687737 | 2198549.828 | 4.358113172 | 0.166716204 | 0.47885678 | 19149.50031 | 19149.50031 | 39.02380875 | 0.43 | 0.02 | 0.05 | 0.01 | 114.81 |
| 2024 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 1000 | 172825.0806 | 1.182687965 | 0.009484404 | 0.025005969 | 172825.0806 | 1.180250627 | 0.009411387 | 0.024284023 | 1020.016724 | 1020.016724 | 1.481916788 | 2.32 | 0.02 | 0.05 | 0.02 | 169.43 |
| 2024 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 9999 | 585679.7083 | 7.617952961 | 0.193800093 | 0.295043488 | 585679.7083 | 7.617952961 | 0.193800093 | 0.295043488 | 1190.938445 | 1190.938445 | 1.481916788 | 12.79 | 0.33 | 0.50 | 0.30 | 491.78 |
| 2024 | SC | Construction and Mining | 12 | Cranes | 50 | 46149.93667 | 0.75975611 | 0.079746979 | 0.221262422 | 46149.93667 | 0.731314258 | 0.072922716 | 0.202231447 | 9792.639832 | 9792.639832 | 21.73695143 | 0.16 | 0.02 | 0.05 | 0.01 | 4.71 |
| 2024 | SC | Construction and Mining | 12 | Cranes | 120 | 1101549.297 | 20.53418182 | 1.485483338 | 1.997891117 | 1101688.645 | 15.35384599 | 1.001954286 | 1.440179434 | 117681.8246 | 117681.8246 | 262.0855287 | 0.35 | 0.03 | 0.03 | 0.02 | 9.36 |
| 2024 | SC | Construction and Mining | 12 | Cranes | 175 | 2905923.641 | 45.49963748 | 2.529240673 | 3.785584683 | 2905998.104 | 32.1445842 | 1.70304252 | 2.735478262 | 184839.4015 | 184839.4015 | 393.1282931 | 0.49 | 0.03 | 0.04 | 0.03 | 15.72 |
| 2024 | SC | Construction and Mining | 12 | Cranes | 250 | 4908569.303 | 75.96483502 | 3.524053777 | 5.729573865 | 4908726.76 | 43.64523432 | 1.815965571 | 3.414770386 | 213532.556 | 213532.556 | 441.570642 | 0.71 | 0.03 | 0.05 | 0.03 | 22.99 |
| 2024 | SC | Construction and Mining | 12 | Cranes | 500 | 7518576.379 | 81.40238273 | 3.488872025 | 6.155387144 | 7520591.001 | 53.8252478 | 2.175604565 | 4.302947754 | 211618.7501 | 211618.7501 | 423.5600251 | 0.77 | 0.03 | 0.06 | 0.03 | 35.54 |
| 2024 | SC | Construction and Mining | 12 | Cranes | 750 | 1978552.892 | 14.42598405 | 0.601468835 | 1.118330114 | 1978691.086 | 11.33212861 | 0.474797192 | 0.940432256 | 33115.32671 | 33115.32671 | 62.10557552 | 0.87 | 0.04 | 0.07 | 0.03 | 59.75 |
| 2024 | SC | Construction and Mining | 12 | Cranes | 1000 | 463818.5581 | 9.73148571 | 0.37891647 | 0.600779453 | 463472.2807 | 10.00581523 | 0.448250399 | 0.692072391 | 4707.532364 | 4707.532364 | 9.315836329 | 4.13 | 0.16 | 0.26 | 0.15 | 98.45 |
| 2024 | SC | Construction and Mining | 12 | Cranes | 9999 | 35731.87438 | 0.258702803 | 0.006878696 | 0.019493443 | 35731.87438 | 0.258702803 | 0.006878696 | 0.019493443 | 328.1022822 | 328.1022822 | 0.621055755 | 1.58 | 0.04 | 0.12 | 0.04 | 108.90 |
| 2024 | SC | Construction and Mining | 13 | Crawler Tractors | 50 | 140561.2271 | 2.181720557 | 0.23626828 | 0.72307448 | 140594.3526 | 1.92402542 | 0.180191749 | 0.561236956 | 19246.34264 | 19246.34264 | 55.12192434 | 0.23 | 0.02 | 0.08 | 0.02 | 7.30 |
| 2024 | SC | Construction and Mining | 13 | Crawler Tractors | 120 | 6231303.308 | 99.96066846 | 8.228379142 | 10.05266736 | 6225414.677 | 81.71655079 | 6.215396438 | 7.862166805 | 451454.4415 | 451454.4415 | 948.6483179 | 0.44 | 0.04 | 0.04 | 0.03 | 13.79 |
| 2024 | SC | Construction and Mining | 13 | Crawler Tractors | 175 | 6779700.128 | 84.29638504 | 4.840635345 | 7.241686648 | 6782327.235 | 61.97987381 | 3.468540385 | 5.485952231 | 288336.9667 | 288336.9667 | 620.6728681 | 0.58 | 0.03 | 0.05 | 0.03 | 23.52 |
| 2024 | SC | Construction and Mining | 13 | Crawler Tractors | 250 | 6823967.213 | 73.74334457 | 2.93807713 | 5.324290466 | 6821415.203 | 60.53171507 | 2.349686166 | 4.46803311 | 213779.7786 | 213779.7786 | 453.6534373 | 0.69 | 0.03 | 0.05 | 0.03 | 31.91 |
| 2024 | SC | Construction and Mining | 13 | Crawler Tractors | 500 | 18258626.31 | 154.4618188 | 6.415039419 | 12.31125328 | 18282696.89 | 122.7187227 | 5.062000922 | 10.29578613 | 339584.5847 | 339584.5847 | 729.263059 | 0.91 | 0.04 | 0.07 | 0.03 | 53.84 |
| 2024 | SC | Construction and Mining | 13 | Crawler Tractors | 750 | 7131670.509 | 51.2556656 | 1.954167921 | 4.016628937 | 7125767.28 | 37.79143548 | 1.411327698 | 3.198212988 | 79385.08036 | 79385.08036 | 149.380415 | 1.29 | 0.05 | 0.10 | 0.05 | 89.76 |
| 2024 | SC | Construction and Mining | 13 | Crawler Tractors | 1000 | 943195.0051 | 15.82851582 | 0.419761526 | 0.773827116 | 943708.9169 | 13.21969882 | 0.323577709 | 0.612905505 | 7201.499229 | 7201.499229 | 13.22926184 | 4.40 | 0.12 | 0.21 | 0.11 | 131.04 |
| 2024 | SC | Construction and Mining | 13 | Crawler Tractors | 9999 | 499308.2698 | 7.987213557 | 0.19634768 | 0.362285198 | 499308.2698 | 8.853905137 | 0.227262727 | 0.40918739 | 2162.990987 | 2162.990987 | 3.30731546 | 7.39 | 0.18 | 0.33 | 0.17 | 230.84 |
| 2024 | SC | Construction and Mining | 14 | Excavators | 50 | 5638165.836 | 53.21048942 | 1.789763825 | 5.243830637 | 5636522.635 | 53.3030528 | 1.8163458 | 5.229636397 | 1009924.067 | 1009924.067 | 1350.064604 | 0.11 | 0.00 | 0.01 | 0.00 | 5.58 |
| 2024 | SC | Construction and Mining | 14 | Excavators | 120 | 7319292.017 | 52.01678222 | 2.500627614 | 4.262134175 | 7318749.697 | 49.90607168 | 2.272243839 | 3.986255609 | 644923.0289 | 644923.0289 | 976.4896256 | 0.16 | 0.01 | 0.01 | 0.01 | 11.35 |
| 2024 | SC | Construction and Mining | 14 | Excavators | 175 | 15414601.05 | 65.24064529 | 3.198237286 | 6.844334846 | 15412826.19 | 61.28065185 | 3.018388949 | 6.507197622 | 752404.0646 | 752404.0646 | 1240.644714 | 0.17 | 0.01 | 0.02 | 0.01 | 20.48 |
| 2024 | SC | Construction and Mining | 14 | Excavators | 250 | 19602326.71 | 65.00700474 | 2.153978126 | 6.927388745 | 19592581.5 | 65.15482256 | 2.103587019 | 6.749569038 | 639328.7958 | 639328.7958 | 1066.567616 | 0.20 | 0.01 | 0.02 | 0.01 | 30.65 |
| 2024 | SC | Construction and Mining | 14 | Excavators | 500 | 32498762.59 | 82.10292039 | 2.904674899 | 10.07269823 | 32451401.44 | 81.43045457 | 2.811869981 | 9.804707606 | 708036.6692 | 708036.6692 | 1084.804264 | 0.23 | 0.01 | 0.03 | 0.01 | 45.83 |
| 2024 | SC | Construction and Mining | 14 | Excavators | 750 | 2946932.468 | 10.17140952 | 0.371142849 | 1.070979782 | 2947589.327 | 9.851007862 | 0.362305407 | 1.04668366 | 36653.05593 | 36653.05593 | 55.26257078 | 0.56 | 0.02 | 0.06 | 0.02 | 80.42 |
| 2024 | SC | Construction and Mining | 14 | Excavators | 1000 | 328733.8179 | 2.361156232 | 0.027443 | 0.087638563 | 328720.3374 | 2.342904978 | 0.024191417 | 0.079259259 | 2803.244509 | 2803.244509 | 4.421005662 | 1.68 | 0.02 | 0.06 | 0.02 | 117.26 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2024 | SC | Construction and Mining | 14 | Excavators | 9999 | 643404.3467 | 4.475267977 | 0.037474532 | 0.11450365 | 643404.3467 | 4.470874114 | 0.037342901 | 0.113202177 | 2953.800429 | 2953.800429 | 3.868379954 | | 3.03 | 0.03 | 0.08 | 0.02 | 217.82 |
| 2024 | SC | Construction and Mining | 15 | Graders | 50 | 37227.54291 | 0.6144222 | 0.071896148 | 0.206573209 | 37292.72554 | 0.538380688 | 0.055721079 | 0.163739372 | 6069.392215 | 6069.392215 | 17.21868084 | | 0.20 | 0.02 | 0.07 | 0.02 | 6.14 |
| 2024 | SC | Construction and Mining | 15 | Graders | 120 | 998236.7141 | 22.84214756 | 1.825777389 | 2.402716482 | 1002208.41 | 16.43491285 | 1.233891921 | 1.706266425 | 73776.89369 | 73776.89369 | 183.2956347 | | 0.62 | 0.05 | 0.07 | 0.05 | 13.58 |
| 2024 | SC | Construction and Mining | 15 | Graders | 175 | 9239123.501 | 134.2839383 | 7.504717811 | 11.78195368 | 9258973.464 | 87.85394542 | 4.849832718 | 8.249822475 | 411622.9867 | 411622.9867 | 857.601394 | | 0.65 | 0.04 | 0.06 | 0.03 | 22.49 |
| 2024 | SC | Construction and Mining | 15 | Graders | 250 | 16094178.57 | 174.0525266 | 5.722670752 | 11.8836855 | 16083798.16 | 147.9582732 | 4.798149471 | 10.4337254 | 522942.806 | 522942.806 | 680.9710551 | | 0.67 | 0.02 | 0.05 | 0.02 | 30.76 |
| 2024 | SC | Construction and Mining | 15 | Graders | 500 | 4597260.817 | 35.80763154 | 1.404448993 | 3.486402971 | 4597204.715 | 33.70483676 | 1.320732237 | 3.351874906 | 104942.5052 | 104942.5052 | 127.1960617 | | 0.68 | 0.03 | 0.07 | 0.02 | 43.81 |
| 2024 | SC | Construction and Mining | 15 | Graders | 1000 | 44684.68527 | 0.326553023 | 0.003074274 | 0.012615706 | 44684.68527 | 0.326553023 | 0.003074274 | 0.012615706 | 374.2613102 | 374.2613102 | 0.555441317 | | 1.75 | 0.02 | 0.07 | 0.02 | 119.39 |
| 2024 | SC | Construction and Mining | 15 | Graders | 9999 | 629476.9839 | 11.65082115 | 0.339862775 | 0.664279264 | 629476.9839 | 11.65082115 | 0.339862775 | 0.664279264 | 2109.775298 | 2109.775298 | 2.777206587 | | 11.04 | 0.32 | 0.63 | 0.30 | 298.36 |
| 2024 | SC | Construction and Mining | 16 | Off-Highway Tractors | 50 | 2335685.507 | 26.9814793 | 1.699735974 | 4.53058113 | 2330655.105 | 24.33395371 | 1.102978929 | 3.108184193 | 348628.6943 | 348628.6943 | 517.1316194 | | 0.15 | 0.01 | 0.03 | 0.01 | 6.69 |
| 2024 | SC | Construction and Mining | 16 | Off-Highway Tractors | 120 | 2979612.1 | 31.33420937 | 2.118828233 | 2.851786505 | 2979461.013 | 26.15442155 | 1.512081069 | 2.212167158 | 247859.2056 | 247859.2056 | 375.9966463 | | 0.25 | 0.02 | 0.02 | 0.02 | 12.02 |
| 2024 | SC | Construction and Mining | 16 | Off-Highway Tractors | 175 | 2536833.381 | 12.45394439 | 0.606069632 | 1.239281382 | 2536879.491 | 11.37235993 | 0.543518194 | 1.147141388 | 100189.1604 | 100189.1604 | 142.7697411 | | 0.25 | 0.01 | 0.02 | 0.01 | 25.32 |
| 2024 | SC | Construction and Mining | 16 | Off-Highway Tractors | 250 | 2128655.154 | 10.42023453 | 0.395942853 | 1.012943579 | 2127395.528 | 8.826318539 | 0.314914751 | 0.894331216 | 62424.99953 | 62424.99953 | 93.18177757 | | 0.33 | 0.01 | 0.03 | 0.01 | 34.08 |
| 2024 | SC | Construction and Mining | 16 | Off-Highway Tractors | 500 | 5978921.492 | 20.77487876 | 0.785646048 | 2.288617566 | 5978109.54 | 15.42982122 | 0.536424355 | 1.950831471 | 112390.7101 | 112390.7101 | 160.2072667 | | 0.37 | 0.01 | 0.04 | 0.01 | 53.19 |
| 2024 | SC | Construction and Mining | 16 | Off-Highway Tractors | 750 | 1507720.339 | 6.451937044 | 0.252560306 | 0.693612054 | 1507485.873 | 5.592364676 | 0.218568241 | 0.631260958 | 16449.72548 | 16449.72548 | 23.43167506 | | 0.78 | 0.03 | 0.08 | 0.03 | 91.64 |
| 2024 | SC | Construction and Mining | 16 | Off-Highway Tractors | 1000 | 42761.84493 | 1.57623109 | 0.080194835 | 0.110193918 | 42761.84493 | 0.31668199 | 0.008762385 | 0.020061386 | 267.5483092 | 267.5483092 | 0.544922676 | | 11.78 | 0.60 | 0.82 | 0.55 | 159.83 |
| 2024 | SC | Construction and Mining | 16 | Off-Highway Tractors | 9999 | 347526.3276 | 4.917842786 | 0.140062106 | 0.323920218 | 352728.7866 | 3.996302863 | 0.108144221 | 0.248526304 | 1242.265327 | 1242.265327 | 2.179690703 | | 7.92 | 0.23 | 0.52 | 0.21 | 283.94 |
| 2024 | SC | Construction and Mining | 17 | Off-Highway Trucks | 50 | 223949.9178 | 2.635437658 | 0.159043048 | 0.437021861 | 225827.3359 | 2.472360659 | 0.118997022 | 0.336115574 | 50647.79495 | 50647.79495 | 30.77652571 | | 0.10 | 0.01 | 0.02 | 0.01 | 4.46 |
| 2024 | SC | Construction and Mining | 17 | Off-Highway Trucks | 120 | 273513.6636 | 3.197952974 | 0.229122009 | 0.332133559 | 273461.8483 | 2.705852081 | 0.158559234 | 0.274933024 | 22732.1411 | 22732.1411 | 17.27804952 | | 0.28 | 0.02 | 0.03 | 0.02 | 12.03 |
| 2024 | SC | Construction and Mining | 17 | Off-Highway Trucks | 175 | 5300900.877 | 25.43954455 | 1.208179958 | 3.086355852 | 5293988.131 | 23.85205256 | 1.116501344 | 2.95315355 | 238629.6159 | 238629.6159 | 165.2213486 | | 0.21 | 0.01 | 0.03 | 0.01 | 22.18 |
| 2024 | SC | Construction and Mining | 17 | Off-Highway Trucks | 250 | 10854349.82 | 64.42729216 | 2.628472242 | 6.681402594 | 10856146.81 | 44.47397469 | 1.778961702 | 5.478333358 | 369369.5939 | 369369.5939 | 282.9280609 | | 0.35 | 0.01 | 0.04 | 0.01 | 29.39 |
| 2024 | SC | Construction and Mining | 17 | Off-Highway Trucks | 500 | 46050877.47 | 216.7297896 | 7.909757544 | 23.61525864 | 46058031.57 | 169.735082 | 6.111287264 | 20.95065931 | 876509.7677 | 876509.7677 | 628.4890514 | | 0.49 | 0.02 | 0.05 | 0.02 | 52.55 |
| 2024 | SC | Construction and Mining | 17 | Off-Highway Trucks | 750 | 16470275.17 | 113.2343983 | 4.290605253 | 11.03792231 | 16450986.37 | 102.6285973 | 3.89811984 | 10.53122722 | 178274.0532 | 178274.0532 | 143.6237867 | | 1.27 | 0.05 | 0.12 | 0.04 | 92.28 |
| 2024 | SC | Construction and Mining | 17 | Off-Highway Trucks | 1000 | 11437950.14 | 126.3906145 | 2.690071416 | 6.425633721 | 1164388.04 | 118.1665 | 2.385261399 | 5.927559669 | 90964.86661 | 90964.86661 | 65.8725638 | | 2.78 | 0.06 | 0.14 | 0.05 | 126.03 |
| 2024 | SC | Construction and Mining | 17 | Off-Highway Trucks | 9999 | 16584157.57 | 162.1646556 | 3.019507235 | 7.918015469 | 16577838.5 | 153.1778531 | 2.694962756 | 7.352594549 | 66079.71277 | 66079.71277 | 42.65518476 | | 4.91 | 0.09 | 0.24 | 0.08 | 250.88 |
| 2024 | SC | Construction and Mining | 18 | Other Construction Equipment | 50 | 1260106.788 | 15.86530239 | 1.164138838 | 2.673633498 | 1262128.542 | 15.25104587 | 1.03083497 | 2.312974406 | 194301.0674 | 194301.0674 | 399.3504153 | | 0.16 | 0.01 | 0.03 | 0.01 | 6.50 |
| 2024 | SC | Construction and Mining | 18 | Other Construction Equipment | 120 | 3951488.445 | 47.58549239 | 3.345725634 | 4.330563686 | 3953784.63 | 42.52840713 | 2.812649001 | 3.74570632 | 317926.3687 | 317926.3687 | 704.6411769 | | 0.30 | 0.02 | 0.03 | 0.02 | 12.44 |
| 2024 | SC | Construction and Mining | 18 | Other Construction Equipment | 175 | 2147961.836 | 21.40187122 | 1.140065565 | 1.780264858 | 2147338.84 | 16.34134317 | 0.843171238 | 1.396090772 | 92862.73891 | 92862.73891 | 219.293364 | | 0.46 | 0.02 | 0.04 | 0.02 | 23.12 |
| 2024 | SC | Construction and Mining | 18 | Other Construction Equipment | 250 | 2760102.772 | 22.20783655 | 0.867629454 | 1.650967185 | 2759941.424 | 17.28971488 | 0.654631742 | 1.344208776 | 82816.19641 | 82816.19641 | 196.7190471 | | 0.54 | 0.02 | 0.04 | 0.02 | 33.33 |
| 2024 | SC | Construction and Mining | 18 | Other Construction Equipment | 500 | 9426088.366 | 55.82282156 | 2.086381741 | 4.5405118 | 9429676.653 | 47.05347854 | 1.806193736 | 4.057789823 | 171714.8146 | 171714.8146 | 382.1509357 | | 0.65 | 0.02 | 0.05 | 0.02 | 54.91 |
| 2024 | SC | Construction and Mining | 18 | Other Construction Equipment | 750 | 3686760.06 | 20.40606823 | 0.680941107 | 1.552234741 | 3679096.524 | 17.22942808 | 0.591543765 | 1.396973204 | 40204.37335 | 40204.37335 | 79.01010908 | | 1.02 | 0.03 | 0.08 | 0.03 | 91.51 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2024 | SC | Construction and Mining | 18 | Other Construction Equipment | 1000 | 431015.865 | 3.881997017 | 0.073656619 | 0.149492224 | 431100.4929 | 3.402303417 | 0.056764826 | 0.121923746 | 3387.525494 | 3387.525494 | 6.987288558 | 2.29 | 0.04 | 0.09 | 0.04 | 127.26 |
| 2024 | SC | Construction and Mining | 18 | Other Construction Equipment | 9999 | 265717.2497 | 4.187120752 | 0.117105183 | 0.21884193 | 265405.8711 | 2.672780194 | 0.054986539 | 0.115934743 | 1587.305844 | 1587.305844 | 3.224902411 | 5.28 | 0.15 | 0.28 | 0.14 | 167.21 |
| 2024 | SC | Construction and Mining | 19 | Pavers | 50 | 154273.6474 | 1.846705672 | 0.135473358 | 0.380099929 | 154396.6114 | 1.746399731 | 0.115966632 | 0.326337792 | 23492.89735 | 23492.89735 | 64.72813408 | 0.16 | 0.01 | 0.03 | 0.01 | 6.57 |
| 2024 | SC | Construction and Mining | 19 | Pavers | 120 | 1497063.26 | 16.16173567 | 1.103962623 | 1.410566757 | 1496177.586 | 14.78413927 | 0.959303723 | 1.257256102 | 123798.2633 | 123798.2633 | 314.4708514 | 0.26 | 0.02 | 0.02 | 0.02 | 12.09 |
| 2024 | SC | Construction and Mining | 19 | Pavers | 175 | 2031677.646 | 11.82492349 | 0.55392668 | 1.017670133 | 2031732.562 | 11.02408049 | 0.514777432 | 0.960396327 | 84168.61821 | 84168.61821 | 212.5240402 | 0.28 | 0.01 | 0.02 | 0.01 | 24.14 |
| 2024 | SC | Construction and Mining | 19 | Pavers | 250 | 1369896.115 | 4.497852108 | 0.143677947 | 0.368428169 | 1368817.489 | 5.508697527 | 0.169078757 | 0.404167767 | 42006.45661 | 42006.45661 | 91.69818995 | 0.21 | 0.01 | 0.02 | 0.01 | 32.59 |
| 2024 | SC | Construction and Mining | 19 | Pavers | 500 | 514719.6882 | 2.244392499 | 0.075419083 | 0.173551 | 516454.088 | 2.42634051 | 0.084145474 | 0.184812838 | 10455.91219 | 10455.91219 | 22.65484693 | 0.43 | 0.01 | 0.03 | 0.01 | 49.39 |
| 2024 | SC | Construction and Mining | 19 | Pavers | 750 | 59719.73171 | 0.046853025 | 0.001612809 | 0.0086868 | 59719.73171 | 0.046853025 | 0.001612809 | 0.0086868 | 522.3048134 | 522.3048134 | 1.078802235 | 0.18 | 0.01 | 0.03 | 0.01 | 114.34 |
| 2024 | SC | Construction and Mining | 20 | Paving Equipment | 50 | 192383.7606 | 1.937668615 | 0.083918328 | 0.226060137 | 192393.265 | 1.95969127 | 0.085881643 | 0.226264552 | 38413.26545 | 38413.26545 | 79.70298409 | 0.10 | 0.00 | 0.01 | 0.00 | 5.01 |
| 2024 | SC | Construction and Mining | 20 | Paving Equipment | 120 | 872446.8465 | 7.369674665 | 0.407947649 | 0.618062565 | 872557.4048 | 6.989015516 | 0.35409702 | 0.566484646 | 75390.62552 | 75390.62552 | 162.6371702 | 0.20 | 0.01 | 0.02 | 0.01 | 11.57 |
| 2024 | SC | Construction and Mining | 20 | Paving Equipment | 175 | 822665.4637 | 5.28655277 | 0.259601904 | 0.466150394 | 822579.8797 | 4.423503505 | 0.213625196 | 0.402584007 | 42657.29518 | 42657.29518 | 88.85805658 | 0.25 | 0.01 | 0.02 | 0.01 | 19.28 |
| 2024 | SC | Construction and Mining | 20 | Paving Equipment | 250 | 431498.2199 | 2.389404337 | 0.092336288 | 0.191501313 | 431374.9648 | 1.678190318 | 0.062108574 | 0.148172357 | 15342.98993 | 15342.98993 | 32.31202058 | 0.31 | 0.01 | 0.02 | 0.01 | 28.12 |
| 2024 | SC | Construction and Mining | 20 | Paving Equipment | 500 | 608670.8782 | 2.848800933 | 0.10135456 | 0.238737886 | 608063.0884 | 2.764020457 | 0.103351886 | 0.238749833 | 13870.24962 | 13870.24962 | 29.08081852 | 0.41 | 0.01 | 0.03 | 0.01 | 43.84 |
| 2024 | SC | Construction and Mining | 20 | Paving Equipment | 750 | 288064.5453 | 0.758854768 | 0.02342883 | 0.082880468 | 288015.2795 | 1.11760426 | 0.032837188 | 0.094255783 | 3657.940967 | 3657.940967 | 7.000937792 | 0.41 | 0.01 | 0.05 | 0.01 | 78.74 |
| 2024 | SC | Construction and Mining | 20 | Paving Equipment | 1000 | 56419.0335 | 0.400816209 | 0.006739596 | 0.015656771 | 56419.0335 | 0.400816209 | 0.006739596 | 0.015656771 | 513.5364497 | 513.5364497 | 1.077067353 | 1.56 | 0.03 | 0.06 | 0.02 | 109.86 |
| 2024 | SC | Construction and Mining | 21 | Rollers | 50 | 3169484.619 | 33.92920258 | 1.886406136 | 5.038273854 | 3169752.48 | 32.67978912 | 1.644720994 | 4.381820032 | 579069.1886 | 579069.1886 | 1635.302223 | 0.12 | 0.01 | 0.02 | 0.01 | 5.47 |
| 2024 | SC | Construction and Mining | 21 | Rollers | 120 | 4954697.821 | 47.29083667 | 2.747950594 | 3.897764969 | 4953315.939 | 42.12289264 | 2.229244678 | 3.327679909 | 412425.4313 | 412425.4313 | 1219.547421 | 0.23 | 0.01 | 0.02 | 0.01 | 12.01 |
| 2024 | SC | Construction and Mining | 21 | Rollers | 175 | 5120582.196 | 22.36819585 | 1.030514965 | 1.953001281 | 5121200.774 | 20.37174394 | 0.930788222 | 1.797230832 | 258694.0035 | 258694.0035 | 705.1201451 | 0.17 | 0.01 | 0.02 | 0.01 | 19.80 |
| 2024 | SC | Construction and Mining | 21 | Rollers | 250 | 808939.5686 | 4.885836142 | 0.168722351 | 0.367184632 | 808901.0173 | 4.787925956 | 0.168618457 | 0.359201507 | 27462.41117 | 27462.41117 | 86.47699893 | 0.36 | 0.01 | 0.03 | 0.01 | 29.45 |
| 2024 | SC | Construction and Mining | 21 | Rollers | 500 | 509951.1635 | 3.259388674 | 0.136907793 | 0.262127382 | 510169.7703 | 3.354296975 | 0.136361494 | 0.262544565 | 10928.43905 | 10928.43905 | 35.47774315 | 0.60 | 0.03 | 0.05 | 0.02 | 46.68 |
| 2024 | SC | Construction and Mining | 21 | Rollers | 750 | 24879.94615 | 0.087327702 | 0.003773465 | 0.007825975 | 24879.94615 | 0.05332375 | 0.000728094 | 0.006121462 | 346.6160375 | 346.6160375 | 1.108679473 | 0.50 | 0.02 | 0.05 | 0.02 | 71.78 |
| 2024 | SC | Construction and Mining | 22 | Rough Terrain | 50 | 161245.4363 | 1.563601635 | 0.065617931 | 0.189646261 | 161251.6075 | 1.591252808 | 0.072097007 | 0.205128788 | 20786.88792 | 20786.88792 | 74.27467653 | 0.15 | 0.01 | 0.02 | 0.01 | 7.76 |
| 2024 | SC | Construction and Mining | 22 | Rough Terrain | 120 | 12996335.07 | 77.96472183 | 2.587934241 | 5.064077446 | 12999330.46 | 74.56876849 | 2.271027581 | 4.673304578 | 912750.9 | 912750.9 | 3182.28571 | 0.17 | 0.01 | 0.01 | 0.01 | 14.24 |
| 2024 | SC | Construction and Mining | 22 | Rough Terrain | 175 | 2388102.871 | 7.421483932 | 0.273675231 | 0.608806727 | 2387996.598 | 7.497276296 | 0.276983941 | 0.610672113 | 125038.9731 | 125038.9731 | 425.7987922 | 0.12 | 0.00 | 0.01 | 0.00 | 19.10 |
| 2024 | SC | Construction and Mining | 22 | Rough Terrain | 250 | 196643.6472 | 0.422736931 | 0.011277266 | 0.039293494 | 196325.8546 | 0.871324274 | 0.020510968 | 0.057857869 | 6377.4395 | 6377.4395 | 24.97165849 | 0.13 | 0.00 | 0.01 | 0.00 | 30.78 |
| 2024 | SC | Construction and Mining | 22 | Rough Terrain | 500 | 83100.34599 | 0.099535669 | 0.002272374 | 0.013800618 | 83058.82604 | 0.120105483 | 0.002250423 | 0.013820871 | 1523.516154 | 1523.516154 | 5.762690421 | 0.13 | 0.00 | 0.02 | 0.00 | 54.52 |
| 2024 | SC | Construction and Mining | 22 | Rough Terrain | 750 | 13023.21835 | 0.01033891 | 0.000362634 | 0.002182411 | 13023.21835 | 0.052666719 | 0.000376313 | 0.003746523 | 141.236253 | 141.236253 | 0.640298936 | 0.15 | 0.01 | 0.03 | 0.00 | 92.21 |
| 2024 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 50 | 139308.9812 | 2.558829322 | 0.33911337 | 0.94213301 | 139801.225 | 1.373583835 | 0.047935627 | 0.156373812 | 21024.29735 | 21024.29735 | 21.64302235 | 0.24 | 0.03 | 0.09 | 0.03 | 6.65 |
| 2024 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 120 | 667869.8824 | 15.8893017 | 1.386360856 | 1.688524275 | 665884.4194 | 11.06783397 | 0.871005571 | 1.148129195 | 55557.45213 | 55557.45213 | 64.40118846 | 0.57 | 0.05 | 0.06 | 0.05 | 11.99 |
| 2024 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 175 | 555181.4787 | 13.7854083 | 0.793069847 | 1.1481906 | 555332.7151 | 8.338146095 | 0.464626346 | 0.731675374 | 25494.58417 | 25494.58417 | 33.25635142 | 1.08 | 0.06 | 0.09 | 0.06 | 21.78 |
| 2024 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 250 | 579502.4134 | 11.40193877 | 0.554566071 | 0.88259468 | 578742.6193 | 7.072413362 | 0.318673002 | 0.569981134 | 18807.45253 | 18807.45253 | 25.8660511 | 1.21 | 0.06 | 0.09 | 0.05 | 30.77 |
| 2024 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 500 | 6632337.815 | 111.7425114 | 5.225195291 | 8.939282917 | 6635148.44 | 79.09391201 | 3.577759836 | 6.755627792 | 127201.0005 | 127201.0005 | 172.6163002 | 1.76 | 0.08 | 0.14 | 0.08 | 52.16 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2024 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 750 | 780097.0756 | 14.31270107 | 0.510283886 | 0.891394572 | 780097.0756 | 12.47204761 | 0.45852055 | 0.821903237 | 9187.331143 | 9187.331143 | 10.55757188 | 3.12 | 0.11 | 0.19 | 0.10 | 84.91 |
| 2024 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 50 | 439831.6379 | 5.614744166 | 0.400950715 | 1.1320515 | 440090.8117 | 5.317604813 | 0.340671122 | 0.992327638 | 71578.77015 | 71578.77015 | 81.43099669 | 0.16 | 0.01 | 0.03 | 0.01 | 6.15 |
| 2024 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 120 | 10721499.27 | 126.6337904 | 9.208009119 | 12.74782355 | 10731278.56 | 108.831217 | 7.186150426 | 10.70328949 | 948699.7263 | 948699.7263 | 1012.385364 | 0.27 | 0.02 | 0.03 | 0.02 | 11.31 |
| 2024 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 175 | 25392465.97 | 198.1908246 | 10.82393774 | 19.65452486 | 25392682.24 | 144.1823123 | 7.690483092 | 15.56062763 | 1279546.231 | 1279546.231 | 1326.554953 | 0.31 | 0.02 | 0.03 | 0.02 | 19.85 |
| 2024 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 250 | 35040085.86 | 234.0732708 | 8.038969023 | 19.83919875 | 35054077.65 | 191.0647674 | 6.392734008 | 17.22929937 | 1288330.064 | 1288330.064 | 1179.098824 | 0.36 | 0.01 | 0.03 | 0.01 | 27.21 |
| 2024 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 500 | 45643972.29 | 307.6920319 | 11.5314394 | 28.26823895 | 45754066.01 | 235.6194852 | 8.741501888 | 23.96155745 | 1086017.397 | 1086017.397 | 1095.466989 | 0.57 | 0.02 | 0.05 | 0.02 | 42.13 |
| 2024 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 750 | 8208925.949 | 56.77897686 | 2.098152352 | 5.124458081 | 8212730.647 | 47.1264232 | 1.80635704 | 4.670046951 | 104597.4619 | 104597.4619 | 96.83686093 | 1.09 | 0.04 | 0.10 | 0.04 | 78.52 |
| 2024 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 1000 | 2351444.899 | 34.16099912 | 0.852388163 | 1.66567941 | 2359396.131 | 25.09653395 | 0.505912675 | 1.174245646 | 21221.23136 | 21221.23136 | 17.60670199 | 3.22 | 0.08 | 0.16 | 0.07 | 111.18 |
| 2024 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 9999 | 935082.4468 | 13.2366891 | 0.316540148 | 0.665444203 | 935082.4468 | 11.81686139 | 0.259291704 | 0.566913536 | 4661.354986 | 4661.354986 | 3.85146606 | 5.68 | 0.14 | 0.29 | 0.12 | 200.60 |
| 2024 | SC | Construction and Mining | 25 | Scrapers | 50 | 10087.14059 | 0.175134695 | 0.023408421 | 0.070035154 | 10087.14059 | 0.175032316 | 0.023406581 | 0.069983317 | 1424.049447 | 1424.049447 | 3.806579509 | 0.25 | 0.03 | 0.10 | 0.03 | 7.08 |
| 2024 | SC | Construction and Mining | 25 | Scrapers | 120 | 459305.9119 | 8.605018127 | 0.665293692 | 0.759376846 | 459223.9643 | 7.597252068 | 0.559022363 | 0.640647661 | 30081.53563 | 30081.53563 | 54.92350435 | 0.57 | 0.04 | 0.05 | 0.04 | 15.27 |
| 2024 | SC | Construction and Mining | 25 | Scrapers | 175 | 4858388.917 | 62.02660988 | 3.383143082 | 5.272750466 | 4860297.427 | 45.42666488 | 2.395915973 | 3.997786007 | 162884.6722 | 162884.6722 | 352.9243002 | 0.76 | 0.04 | 0.06 | 0.04 | 29.84 |
| 2024 | SC | Construction and Mining | 25 | Scrapers | 250 | 5588063.462 | 79.9963604 | 3.64001489 | 6.186104673 | 5592383.006 | 50.91454064 | 2.249431869 | 4.208378644 | 141216.843 | 141216.843 | 342.5921558 | 1.13 | 0.05 | 0.09 | 0.05 | 39.60 |
| 2024 | SC | Construction and Mining | 25 | Scrapers | 500 | 48933083.77 | 446.5469246 | 18.16169295 | 35.34268518 | 48940653.07 | 363.4939532 | 14.36709466 | 29.66990022 | 723679.8642 | 723679.8642 | 1505.774094 | 1.23 | 0.05 | 0.10 | 0.05 | 67.63 |
| 2024 | SC | Construction and Mining | 25 | Scrapers | 750 | 22361633.1 | 164.9767562 | 6.547145336 | 13.38781672 | 22333024.09 | 146.8648808 | 5.423280709 | 11.81302809 | 223583.3799 | 223583.3799 | 429.0558904 | 1.48 | 0.06 | 0.12 | 0.05 | 99.89 |
| 2024 | SC | Construction and Mining | 25 | Scrapers | 1000 | 350147.7266 | 11.2530261 | 0.512496808 | 0.80843755 | 350147.7266 | 14.08428975 | 0.656661079 | 1.020126621 | 2081.873525 | 2081.873525 | 7.069361946 | 10.81 | 0.49 | 0.78 | 0.45 | 168.19 |
| 2024 | SC | Construction and Mining | 25 | Scrapers | 9999 | 1272705.988 | 15.34826642 | 0.355037029 | 0.701130466 | 1272705.988 | 15.00213962 | 0.341810475 | 0.655642797 | 3657.735751 | 3657.735751 | 7.069361946 | 8.39 | 0.19 | 0.38 | 0.18 | 347.95 |
| 2024 | SC | Construction and Mining | 26 | Skid Steer Loaders | 50 | 2398304.203 | 21.09683479 | 0.470979274 | 1.649601038 | 2398789.622 | 21.55840932 | 0.571514243 | 1.861053561 | 364948.1916 | 364948.1916 | 1132.906109 | 0.12 | 0.00 | 0.01 | 0.00 | 6.57 |
| 2024 | SC | Construction and Mining | 26 | Skid Steer Loaders | 120 | 12749092.32 | 72.14676148 | 2.179603739 | 4.505715825 | 12746106.42 | 74.46755693 | 2.393779894 | 4.640528358 | 1333946.089 | 1333946.089 | 3655.967212 | 0.11 | 0.00 | 0.01 | 0.00 | 9.56 |
| 2024 | SC | Construction and Mining | 26 | Skid Steer Loaders | 175 | 86151.19362 | 0.404989627 | 0.017017258 | 0.033356223 | 86110.99984 | 0.322676969 | 0.013658017 | 0.02808055 | 4192.431587 | 4192.431587 | 15.1653272 | 0.19 | 0.01 | 0.02 | 0.01 | 20.54 |
| 2024 | SC | Construction and Mining | 26 | Skid Steer Loaders | 250 | 65802.66656 | 0.143004547 | 0.003752548 | 0.013627801 | 65746.30372 | 0.273233468 | 0.008364337 | 0.018777161 | 2478.615825 | 2478.615825 | 8.425181776 | 0.12 | 0.00 | 0.01 | 0.00 | 26.53 |
| 2024 | SC | Construction and Mining | 26 | Skid Steer Loaders | 500 | 18167.62029 | 0.014392844 | 0.000503174 | 0.002973131 | 18167.62029 | 0.014342613 | 0.00049866 | 0.002854103 | 498.6136791 | 498.6136791 | 1.685036355 | 0.06 | 0.00 | 0.01 | 0.00 | 36.44 |
| 2024 | SC | Construction and Mining | 26 | Skid Steer Loaders | 750 | 19164.44507 | 0.141393048 | 0.006199503 | 0.008742006 | 19164.44507 | 0.141393048 | 0.006199503 | 0.008742006 | 267.3725525 | 267.3725525 | 0.561678785 | 1.06 | 0.05 | 0.07 | 0.04 | 71.68 |
| 2024 | SC | Construction and Mining | 26 | Skid Steer Loaders | 1000 | 31272.93434 | 0.216168953 | 0.001780923 | 0.005164647 | 31272.93434 | 0.214791951 | 0.002887255 | 0.005702462 | 231.2411266 | 231.2411266 | 1.12335757 | 1.87 | 0.02 | 0.04 | 0.01 | 135.24 |
| 2024 | SC | Construction and Mining | 27 | Surfacing Equipment | 50 | 22218.31754 | 0.222438251 | 0.007367973 | 0.017949306 | 22219.06407 | 0.218670724 | 0.006820809 | 0.016180664 | 4958.069754 | 4958.069754 | 19.87279188 | 0.09 | 0.00 | 0.01 | 0.00 | 4.48 |
| 2024 | SC | Construction and Mining | 27 | Surfacing Equipment | 120 | 174684.2092 | 1.556696124 | 0.080043468 | 0.113972888 | 174791.6398 | 1.502881217 | 0.074227521 | 0.108171512 | 17688.5548 | 17688.5548 | 63.69484576 | 0.18 | 0.01 | 0.01 | 0.01 | 9.88 |
| 2024 | SC | Construction and Mining | 27 | Surfacing Equipment | 175 | 89640.82728 | 0.719171292 | 0.035628274 | 0.05515243 | 89630.70893 | 0.666054935 | 0.03247985 | 0.050933315 | 5387.886316 | 5387.886316 | 21.40146817 | 0.27 | 0.01 | 0.02 | 0.01 | 16.64 |
| 2024 | SC | Construction and Mining | 27 | Surfacing Equipment | 250 | 190856.9825 | 1.222937745 | 0.039412234 | 0.080970042 | 190851.3187 | 1.268427758 | 0.040262517 | 0.082384937 | 7898.539209 | 7898.539209 | 32.10220226 | 0.31 | 0.01 | 0.02 | 0.01 | 24.16 |
| 2024 | SC | Construction and Mining | 27 | Surfacing Equipment | 500 | 604535.0047 | 2.669828733 | 0.100669281 | 0.199963959 | 603941.4061 | 2.690784095 | 0.101771167 | 0.201293013 | 15120.55347 | 15120.55347 | 52.99411167 | 0.35 | 0.01 | 0.03 | 0.01 | 39.94 |
| 2024 | SC | Construction and Mining | 27 | Surfacing Equipment | 750 | 559570.6 | 1.58799419 | 0.057827805 | 0.13069087 | 559570.6 | 1.58799419 | 0.057827805 | 0.13069087 | 8205.75374 | 8205.75374 | 26.49705583 | 0.39 | 0.01 | 0.03 | 0.01 | 68.19 |
| 2024 | SC | Construction and Mining | 27 | Surfacing Equipment | 1000 | 90944.55066 | 1.134439483 | 0.024712541 | 0.046406831 | 90944.55066 | 0.81413833 | 0.014374254 | 0.029110264 | 1005.600558 | 1005.600558 | 3.566911362 | 2.26 | 0.05 | 0.09 | 0.05 | 90.44 |
| 2024 | SC | Construction and Mining | 27 | Surfacing Equipment | 9999 | 31871.73642 | 0.219123805 | 0.003124439 | 0.007185125 | 31871.73642 | 0.218643231 | 0.003110042 | 0.007042778 | 256.4809624 | 256.4809624 | 1.019117532 | 1.71 | 0.02 | 0.06 | 0.02 | 124.27 |
| 2024 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 50 | 4733494.538 | 50.68438515 | 2.465329415 | 7.171231363 | 4727096.196 | 49.14859488 | 2.163730073 | 6.355065097 | 838276.4134 | 838276.4134 | 1585.416405 | 0.12 | 0.01 | 0.02 | 0.01 | 5.64 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2024 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 120 | 76395655.88 | 570.3697904 | 29.54104757 | 48.88754475 | 76418090.75 | 519.9943569 | 23.86439444 | 42.7083699 | 6769638.25 | 6769638.25 | 10764.81166 | | 0.17 | 0.01 | 0.01 | 0.01 | 11.29 |
| 2024 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 175 | 13224183.1 | 63.73872249 | 3.198400975 | 6.485573096 | 13234479.16 | 55.02326503 | 2.736782603 | 5.813661767 | 683730.6605 | 683730.6605 | 1204.253576 | | 0.19 | 0.01 | 0.02 | 0.01 | 19.36 |
| 2024 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 250 | 7662929.215 | 39.65702202 | 1.473576364 | 3.536386721 | 7657838.942 | 34.45344826 | 1.25898536 | 3.199981336 | 278536.7056 | 278536.7056 | 481.7014302 | | 0.28 | 0.01 | 0.03 | 0.01 | 27.49 |
| 2024 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 500 | 10279762.29 | 41.72672031 | 1.565403515 | 4.236428093 | 10271430.93 | 36.03669624 | 1.374215125 | 3.849507639 | 238234.3698 | 238234.3698 | 434.746589 | | 0.35 | 0.01 | 0.04 | 0.01 | 43.11 |
| 2024 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 750 | 1460117.963 | 9.253499396 | 0.360494603 | 0.793194822 | 1459256.979 | 9.823143702 | 0.378719001 | 0.80923018 | 18995.94342 | 18995.94342 | 30.38254434 | | 0.97 | 0.04 | 0.08 | 0.03 | 76.82 |
| 2024 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 1000 | 246187.4969 | 2.170303316 | 0.037792524 | 0.084295488 | 246187.4969 | 2.167329165 | 0.037703425 | 0.083414536 | 2071.649297 | 2071.649297 | 2.762049485 | | 2.10 | 0.04 | 0.08 | 0.03 | 118.84 |
| 2024 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 9999 | 3459944.623 | 34.12123595 | 0.678834412 | 1.606915029 | 3459944.623 | 32.80668315 | 0.615335927 | 1.483320903 | 12736.98787 | 12736.98787 | 20.43916619 | | 5.36 | 0.11 | 0.25 | 0.10 | 271.65 |
| 2024 | SC | Construction and Mining | 29 | Trenchers | 50 | 1678628.361 | 17.7314098 | 0.971342937 | 2.470823932 | 1678000.006 | 17.30863362 | 0.887253235 | 2.240812476 | 204888.9616 | 204888.9616 | 519.9125683 | | 0.17 | 0.01 | 0.02 | 0.01 | 8.19 |
| 2024 | SC | Construction and Mining | 29 | Trenchers | 120 | 1215965.971 | 17.91058127 | 1.28558963 | 1.628662516 | 1217405.503 | 16.66896735 | 1.153219604 | 1.482555705 | 79843.8696 | 79843.8696 | 241.0503726 | | 0.45 | 0.03 | 0.04 | 0.03 | 15.25 |
| 2024 | SC | Construction and Mining | 29 | Trenchers | 175 | 248330.1518 | 3.162612097 | 0.161514171 | 0.255916607 | 248321.0325 | 2.760421378 | 0.140528133 | 0.226142673 | 9445.709065 | 9445.709065 | 31.90372578 | | 0.67 | 0.03 | 0.05 | 0.03 | 26.29 |
| 2024 | SC | Construction and Mining | 29 | Trenchers | 250 | 487333.982 | 5.447563133 | 0.233784376 | 0.405221208 | 487493.4247 | 5.080384745 | 0.212173501 | 0.375605714 | 12056.63043 | 12056.63043 | 37.81182315 | | 0.90 | 0.04 | 0.07 | 0.04 | 40.43 |
| 2024 | SC | Construction and Mining | 29 | Trenchers | 500 | 818936.7076 | 5.707358464 | 0.235530084 | 0.45206221 | 818913.5764 | 4.591850648 | 0.19744758 | 0.391220754 | 12440.14852 | 12440.14852 | 34.26696473 | | 0.92 | 0.04 | 0.07 | 0.03 | 65.83 |
| 2024 | SC | Construction and Mining | 29 | Trenchers | 750 | 370495.8818 | 0.33695038 | 0.010135353 | 0.058897042 | 370495.8818 | 0.33695038 | 0.010135353 | 0.058897042 | 3227.684924 | 3227.684924 | 7.089716841 | | 0.21 | 0.01 | 0.04 | 0.01 | 114.79 |
| 2024 | SC | Construction and Mining | 29 | Trenchers | 1000 | 21897.28627 | 0.880793166 | 0.041065798 | 0.063795944 | 21897.28627 | 0.880793166 | 0.041065798 | 0.063795944 | 138.0669448 | 138.0669448 | 0.590809737 | | 12.76 | 0.59 | 0.92 | 0.55 | 158.60 |
| 2024 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 50 | 1461273.069 | 16.75706223 | 1.067320662 | 2.743886724 | 1461273.069 | 16.08655625 | 0.940728892 | 2.431730277 | 220681.3734 | 220681.3734 | 305.1719863 | | 0.15 | 0.01 | 0.02 | 0.01 | 6.62 |
| 2024 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 120 | 2258445.987 | 22.40463597 | 1.469178069 | 2.085164456 | 2258445.987 | 20.92676852 | 1.273077771 | 1.853250115 | 173468.1984 | 173468.1984 | 248.4586083 | | 0.26 | 0.02 | 0.02 | 0.02 | 13.02 |
| 2024 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 175 | 563346.6426 | 6.613999542 | 0.308933798 | 0.565770382 | 563346.6426 | 3.804098224 | 0.180947318 | 0.371434043 | 21079.54725 | 21079.54725 | 28.6267527 | | 0.63 | 0.03 | 0.05 | 0.03 | 26.72 |
| 2024 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 250 | 300241.0546 | 1.507512249 | 0.045870714 | 0.12808029 | 300241.0546 | 1.461077063 | 0.045760936 | 0.123015975 | 8820.591882 | 8820.591882 | 11.88280301 | | 0.34 | 0.01 | 0.03 | 0.01 | 34.04 |
| 2024 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 500 | 83763.32736 | 0.60015626 | 0.020633643 | 0.044101284 | 83763.32736 | 0.599855619 | 0.020606623 | 0.043388878 | 1656.070275 | 1656.070275 | 2.160509637 | | 0.72 | 0.02 | 0.05 | 0.02 | 50.58 |
| 2024 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 1000 | 58703.55504 | 0.401057334 | 0.003201598 | 0.008296309 | 58703.55504 | 0.401057334 | 0.003201598 | 0.008296309 | 414.0175687 | 414.0175687 | 0.540127409 | | 1.94 | 0.02 | 0.04 | 0.01 | 141.79 |
| 2025 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 50 | 139077.6712 | 1.475465061 | 0.071762698 | 0.181709173 | 138975.0274 | 1.471077086 | 0.071428861 | 0.180551264 | 16999.79466 | 16999.79466 | 46.50452068 | | 0.17 | 0.01 | 0.02 | 0.01 | 8.18 |
| 2025 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 120 | 865538.3583 | 5.186394812 | 0.175580547 | 0.340460505 | 863576.053 | 5.228696439 | 0.179364955 | 0.340083844 | 58389.75161 | 58389.75161 | 142.4506896 | | 0.18 | 0.01 | 0.01 | 0.01 | 14.79 |
| 2025 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 175 | 1009213.179 | 2.764284425 | 0.122763299 | 0.289463344 | 1008246.774 | 2.653861558 | 0.115829006 | 0.281096105 | 36329.43205 | 36329.43205 | 111.6108496 | | 0.15 | 0.01 | 0.02 | 0.01 | 27.75 |
| 2025 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 250 | 1434036.96 | 4.348720035 | 0.142613535 | 0.395971597 | 1431612.585 | 4.128027646 | 0.135512875 | 0.382796666 | 37477.13074 | 37477.13074 | 111.1213284 | | 0.23 | 0.01 | 0.02 | 0.01 | 38.20 |
| 2025 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 500 | 1610682.264 | 4.073500541 | 0.139534561 | 0.414110466 | 1605531.068 | 4.009177614 | 0.137090198 | 0.409193398 | 25186.66609 | 25186.66609 | 77.83388197 | | 0.32 | 0.01 | 0.03 | 0.01 | 63.75 |
| 2025 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 750 | 2189172.927 | 3.938704462 | 0.147232035 | 0.457582026 | 2192712.39 | 3.852076694 | 0.146216075 | 0.45095621 | 19057.98496 | 19057.98496 | 38.67218035 | | 0.41 | 0.02 | 0.05 | 0.01 | 115.05 |
| 2025 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 1000 | 171995.7631 | 1.18510732 | 0.009681389 | 0.027283615 | 171995.7631 | 1.182963265 | 0.009617158 | 0.02664854 | 1015.14207 | 1015.14207 | 1.468563811 | | 2.33 | 0.02 | 0.05 | 0.02 | 169.43 |
| 2025 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 9999 | 582880.7483 | 7.590758158 | 0.193648577 | 0.29647521 | 582880.7483 | 7.590758158 | 0.193648577 | 0.29647521 | 1185.246957 | 1185.246957 | 1.468563811 | | 12.81 | 0.33 | 0.50 | 0.30 | 491.78 |
| 2025 | SC | Construction and Mining | 12 | Cranes | 50 | 45929.3864 | 0.684435743 | 0.062958961 | 0.171876491 | 45929.3864 | 0.708663711 | 0.068243256 | 0.188204059 | 9745.840863 | 9745.840863 | 21.5410882 | | 0.14 | 0.01 | 0.04 | 0.01 | 4.71 |
| 2025 | SC | Construction and Mining | 12 | Cranes | 120 | 1095856.029 | 18.68827726 | 1.332737815 | 1.808166139 | 1095560.56 | 13.68074028 | 0.86136314 | 1.266780376 | 117119.4239 | 117119.4239 | 259.7239777 | | 0.32 | 0.02 | 0.03 | 0.02 | 9.35 |
| 2025 | SC | Construction and Mining | 12 | Cranes | 175 | 2892800.062 | 39.99669523 | 2.206720247 | 3.375224935 | 2892792.508 | 27.30384945 | 1.436985265 | 2.386029555 | 183956.0551 | 183956.0551 | 389.5859666 | | 0.43 | 0.02 | 0.04 | 0.02 | 15.73 |
| 2025 | SC | Construction and Mining | 12 | Cranes | 250 | 4885545.326 | 61.21924818 | 2.78247847 | 4.729728079 | 4885433.177 | 39.26751668 | 1.66915156 | 3.204415817 | 212512.0852 | 212512.0852 | 437.5918203 | | 0.58 | 0.03 | 0.04 | 0.02 | 22.99 |
| 2025 | SC | Construction and Mining | 12 | Cranes | 500 | 7482764.944 | 69.12142492 | 2.959311623 | 5.468846285 | 7483075.477 | 48.42768835 | 1.976229442 | 4.05756623 | 210607.4253 | 210607.4253 | 419.7434901 | | 0.66 | 0.03 | 0.05 | 0.03 | 35.53 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2025 | SC | Construction and Mining | 12 | Cranes | 750 | 1968921.896 | 12.93368399 | 0.52956946 | 1.020685984 | 1969004.538 | 9.721643142 | 0.402092806 | 0.842376276 | 32957.06875 | 32957.06875 | 61.54596629 | 0.78 | 0.03 | 0.06 | 0.03 | 59.74 |
| 2025 | SC | Construction and Mining | 12 | Cranes | 1000 | 461601.9719 | 8.496987879 | 0.304650752 | 0.497319291 | 461279.0923 | 8.755943273 | 0.368632066 | 0.580481493 | 4685.035094 | 4685.035094 | 9.231894943 | 3.63 | 0.13 | 0.21 | 0.12 | 98.46 |
| 2025 | SC | Construction and Mining | 12 | Cranes | 9999 | 35561.11196 | 0.258715486 | 0.006939368 | 0.020190804 | 35561.11196 | 0.258715486 | 0.006939368 | 0.020190804 | 326.5342833 | 326.5342833 | 0.615459663 | 1.58 | 0.04 | 0.12 | 0.04 | 108.90 |
| 2025 | SC | Construction and Mining | 13 | Crawler Tractors | 50 | 140068.1532 | 2.162187411 | 0.233121161 | 0.720291668 | 140102.1654 | 1.899606756 | 0.17554799 | 0.554602969 | 19154.36448 | 19154.36448 | 54.62524207 | 0.23 | 0.02 | 0.08 | 0.02 | 7.31 |
| 2025 | SC | Construction and Mining | 13 | Crawler Tractors | 120 | 6194133.234 | 88.46784308 | 6.930128693 | 8.756343404 | 6194354.792 | 73.06864453 | 5.252619816 | 6.921056402 | 449296.9433 | 449296.9433 | 940.1004161 | 0.39 | 0.03 | 0.04 | 0.03 | 13.79 |
| 2025 | SC | Construction and Mining | 13 | Crawler Tractors | 175 | 6743252.519 | 74.33414089 | 4.248123986 | 6.536052928 | 6746526.302 | 54.51563093 | 3.042224918 | 4.991224657 | 286959.006 | 286959.006 | 615.0802257 | 0.52 | 0.03 | 0.05 | 0.03 | 23.51 |
| 2025 | SC | Construction and Mining | 13 | Crawler Tractors | 250 | 6785813.241 | 61.78917543 | 2.485454151 | 4.677173439 | 6785393.028 | 50.21402288 | 1.959833096 | 3.91854814 | 212758.1263 | 212758.1263 | 449.5657423 | 0.58 | 0.02 | 0.04 | 0.02 | 31.89 |
| 2025 | SC | Construction and Mining | 13 | Crawler Tractors | 500 | 18196646.81 | 124.9164681 | 5.233726987 | 10.67292846 | 18194643.51 | 104.4974898 | 4.381163262 | 9.353229971 | 337961.712 | 337961.712 | 722.6919526 | 0.74 | 0.03 | 0.06 | 0.03 | 53.84 |
| 2025 | SC | Construction and Mining | 13 | Crawler Tractors | 750 | 7092458.509 | 41.16617638 | 1.546975677 | 3.454022863 | 7093596.071 | 32.88318986 | 1.207048747 | 2.938100787 | 79005.69953 | 79005.69953 | 148.034406 | 1.04 | 0.04 | 0.09 | 0.04 | 89.79 |
| 2025 | SC | Construction and Mining | 13 | Crawler Tractors | 1000 | 938314.5866 | 14.62363961 | 0.375891682 | 0.703158058 | 940871.5447 | 12.89991897 | 0.312756326 | 0.6017065 | 7167.083306 | 7167.083306 | 13.1100581 | 4.08 | 0.10 | 0.20 | 0.10 | 131.28 |
| 2025 | SC | Construction and Mining | 13 | Crawler Tractors | 9999 | 496922.0785 | 5.370818024 | 0.098091172 | 0.195910563 | 496922.0785 | 5.282744686 | 0.095070617 | 0.184708242 | 2152.654066 | 2152.654066 | 3.277514524 | 4.99 | 0.09 | 0.18 | 0.08 | 230.84 |
| 2025 | SC | Construction and Mining | 14 | Excavators | 50 | 5602300.182 | 51.28328396 | 1.446645634 | 4.805603286 | 5607433.944 | 52.21394077 | 1.624103378 | 5.039846545 | 1005097.646 | 1005097.646 | 1337.899696 | 0.10 | 0.00 | 0.01 | 0.00 | 5.58 |
| 2025 | SC | Construction and Mining | 14 | Excavators | 120 | 7280427.009 | 47.094025 | 1.998153358 | 3.836135899 | 7273694.235 | 46.01391803 | 1.884099812 | 3.663934522 | 641840.9455 | 641840.9455 | 967.6908566 | 0.15 | 0.01 | 0.01 | 0.01 | 11.33 |
| 2025 | SC | Construction and Mining | 14 | Excavators | 175 | 15336573.17 | 52.24773326 | 2.487354182 | 5.97480623 | 15341391.83 | 53.11009908 | 2.603776648 | 6.00420721 | 748808.3299 | 748808.3299 | 1229.465746 | 0.14 | 0.01 | 0.02 | 0.01 | 20.49 |
| 2025 | SC | Construction and Mining | 14 | Excavators | 250 | 19505861.42 | 52.59779257 | 1.78379982 | 6.314822642 | 19503835.76 | 56.30144316 | 1.849435708 | 6.322756505 | 636273.4472 | 636273.4472 | 1056.957189 | 0.17 | 0.01 | 0.02 | 0.01 | 30.65 |
| 2025 | SC | Construction and Mining | 14 | Excavators | 500 | 32342754.26 | 65.76045887 | 2.375288353 | 9.249631641 | 32336238.1 | 70.81616652 | 2.505509682 | 9.27756235 | 704652.966 | 704652.966 | 1075.029514 | 0.19 | 0.01 | 0.03 | 0.01 | 45.89 |
| 2025 | SC | Construction and Mining | 14 | Excavators | 750 | 2931558.772 | 8.388600704 | 0.310338198 | 0.986163504 | 2932915.745 | 9.103146242 | 0.3370979 | 1.018805256 | 36477.89119 | 36477.89119 | 54.7646212 | 0.46 | 0.02 | 0.05 | 0.02 | 80.40 |
| 2025 | SC | Construction and Mining | 14 | Excavators | 1000 | 327177.6893 | 2.338748853 | 0.027047915 | 0.084162911 | 327162.8009 | 2.321447202 | 0.023801402 | 0.075946053 | 2789.84782 | 2789.84782 | 4.381169696 | 1.68 | 0.02 | 0.06 | 0.02 | 117.27 |
| 2025 | SC | Construction and Mining | 14 | Excavators | 9999 | 640329.5211 | 4.451740618 | 0.037231329 | 0.113322541 | 640329.5211 | 4.44756452 | 0.037106222 | 0.11208557 | 2939.684234 | 2939.684234 | 3.833523484 | 3.03 | 0.03 | 0.08 | 0.02 | 217.82 |
| 2025 | SC | Construction and Mining | 15 | Graders | 50 | 37031.83957 | 0.612255744 | 0.071631027 | 0.206335942 | 37095.03496 | 0.537428506 | 0.055576357 | 0.164203468 | 6040.386625 | 6040.386625 | 17.06352999 | 0.20 | 0.02 | 0.07 | 0.02 | 6.14 |
| 2025 | SC | Construction and Mining | 15 | Graders | 120 | 989402.5593 | 20.95366591 | 1.646921484 | 2.198706262 | 994223.2883 | 15.27244237 | 1.117437812 | 1.586646135 | 73424.31434 | 73424.31434 | 181.6440289 | 0.57 | 0.04 | 0.06 | 0.04 | 13.54 |
| 2025 | SC | Construction and Mining | 15 | Graders | 175 | 9205096.991 | 116.0813985 | 6.442635957 | 10.44859431 | 9214951.385 | 75.74164913 | 4.153279071 | 7.419362212 | 409655.8428 | 409655.8428 | 849.8738807 | 0.57 | 0.03 | 0.05 | 0.03 | 22.49 |
| 2025 | SC | Construction and Mining | 15 | Graders | 250 | 16017102.49 | 141.7158382 | 4.727997706 | 10.28784213 | 16000239.69 | 122.4823064 | 3.941985461 | 9.109955524 | 520443.6654 | 520443.6654 | 674.8350892 | 0.54 | 0.02 | 0.04 | 0.02 | 30.74 |
| 2025 | SC | Construction and Mining | 15 | Graders | 500 | 4579849.889 | 31.56018518 | 1.230320879 | 3.219679004 | 4579971.753 | 31.24205902 | 1.213602923 | 3.187220253 | 104440.9856 | 104440.9856 | 126.0499473 | 0.60 | 0.02 | 0.06 | 0.02 | 43.85 |
| 2025 | SC | Construction and Mining | 15 | Graders | 1000 | 44471.13741 | 0.327690634 | 0.003140414 | 0.013354632 | 44471.13741 | 0.327690634 | 0.003140414 | 0.013354632 | 372.4727176 | 372.4727176 | 0.550436451 | 1.76 | 0.02 | 0.07 | 0.02 | 119.39 |
| 2025 | SC | Construction and Mining | 15 | Graders | 9999 | 626468.7171 | 7.732739726 | 0.178675909 | 0.374725262 | 626468.7171 | 7.482737189 | 0.16872477 | 0.344816844 | 2099.692694 | 2099.692694 | 2.752182256 | 7.37 | 0.17 | 0.36 | 0.16 | 298.36 |
| 2025 | SC | Construction and Mining | 16 | Off-Highway Tractors | 50 | 2322470.051 | 24.9334238 | 1.297070826 | 3.578050128 | 2319086.954 | 23.11554918 | 0.878502328 | 2.681862398 | 346962.5997 | 346962.5997 | 512.4719471 | 0.14 | 0.01 | 0.02 | 0.01 | 6.68 |
| 2025 | SC | Construction and Mining | 16 | Off-Highway Tractors | 120 | 2961292.803 | 27.67457731 | 1.727209944 | 2.494653776 | 2968645.531 | 23.89474772 | 1.270299359 | 2.012167922 | 246674.6879 | 246674.6879 | 372.6086865 | 0.22 | 0.01 | 0.02 | 0.01 | 12.03 |
| 2025 | SC | Construction and Mining | 16 | Off-Highway Tractors | 175 | 2526588.528 | 10.34958359 | 0.502167139 | 1.12332501 | 2525850.575 | 10.20412804 | 0.489273383 | 1.095773791 | 99710.35696 | 99710.35696 | 141.4832983 | 0.21 | 0.01 | 0.02 | 0.01 | 25.33 |
| 2025 | SC | Construction and Mining | 16 | Off-Highway Tractors | 250 | 2119837.718 | 8.255997551 | 0.298710019 | 0.883828045 | 2118000.726 | 7.119016503 | 0.255418028 | 0.814317554 | 62126.67082 | 62126.67082 | 92.34215274 | 0.27 | 0.01 | 0.03 | 0.01 | 34.09 |
| 2025 | SC | Construction and Mining | 16 | Off-Highway Tractors | 500 | 5954439.001 | 16.85744229 | 0.627477109 | 2.062327145 | 5954793.734 | 12.90799778 | 0.44103357 | 1.822084963 | 111853.5955 | 111853.5955 | 158.7637012 | 0.30 | 0.01 | 0.04 | 0.01 | 53.24 |
| 2025 | SC | Construction and Mining | 16 | Off-Highway Tractors | 750 | 1500496.85 | 4.709334391 | 0.200791965 | 0.623014765 | 1500256.818 | 5.039524864 | 0.203067641 | 0.623198838 | 16371.11233 | 16371.11233 | 23.22054133 | 0.58 | 0.02 | 0.08 | 0.02 | 91.64 |
| 2025 | SC | Construction and Mining | 16 | Off-Highway Tractors | 1000 | 42557.48632 | 0.296536337 | 0.002494397 | 0.007728721 | 42557.48632 | 0.317264914 | 0.008877515 | 0.020936731 | 266.2696974 | 266.2696974 | 0.540012589 | 2.23 | 0.02 | 0.06 | 0.02 | 159.83 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2025 | SC | Construction and Mining | 16 | Off-Highway Tractors | 9999 | 346422.0132 | 4.92537178 | 0.140565557 | 0.328937632 | 334116.0239 | 2.916673933 | 0.061670535 | 0.165879357 | 1236.328548 | 1236.328548 | 2.160050356 | 7.97 | 0.23 | 0.53 | 0.21 | 270.25 |
| 2025 | SC | Construction and Mining | 17 | Off-Highway Trucks | 50 | 224640.201 | 2.535523489 | 0.131327701 | 0.386788827 | 224611.0395 | 2.453971169 | 0.1132142 | 0.343054399 | 50405.74944 | 50405.74944 | 30.49921038 | 0.10 | 0.01 | 0.02 | 0.00 | 4.46 |
| 2025 | SC | Construction and Mining | 17 | Off-Highway Trucks | 120 | 272273.8283 | 2.742831597 | 0.176219461 | 0.273093984 | 272227.0822 | 2.354151361 | 0.132349069 | 0.234448498 | 22623.50433 | 22623.50433 | 17.12236372 | 0.24 | 0.02 | 0.02 | 0.01 | 12.03 |
| 2025 | SC | Construction and Mining | 17 | Off-Highway Trucks | 175 | 5271161.54 | 20.51117707 | 0.974419716 | 2.748581857 | 5265771.933 | 21.21305735 | 1.028995808 | 2.804882868 | 237489.2063 | 237489.2063 | 163.7326031 | 0.17 | 0.01 | 0.02 | 0.01 | 22.17 |
| 2025 | SC | Construction and Mining | 17 | Off-Highway Trucks | 250 | 10805891.98 | 53.75204997 | 2.189188634 | 6.071217128 | 10804567.16 | 36.86265862 | 1.409482384 | 4.989126682 | 367604.3787 | 367604.3787 | 280.378706 | 0.29 | 0.01 | 0.03 | 0.01 | 29.39 |
| 2025 | SC | Construction and Mining | 17 | Off-Highway Trucks | 500 | 45795941.92 | 174.9079984 | 6.444957342 | 21.99435602 | 45813754.73 | 145.48369 | 5.199590679 | 20.03489548 | 872320.9326 | 872320.9326 | 622.8259805 | 0.40 | 0.01 | 0.05 | 0.01 | 52.52 |
| 2025 | SC | Construction and Mining | 17 | Off-Highway Trucks | 750 | 16455103.38 | 94.34431405 | 3.515028216 | 9.905549781 | 16457869.13 | 85.76026655 | 3.23374736 | 9.526226494 | 177422.0826 | 177422.0826 | 142.3296485 | 1.06 | 0.04 | 0.11 | 0.04 | 92.76 |
| 2025 | SC | Construction and Mining | 17 | Off-Highway Trucks | 1000 | 11391910.08 | 110.9940431 | 2.062744665 | 5.584887722 | 11416169.96 | 107.2056719 | 1.937072992 | 5.288096719 | 90530.14604 | 90530.14604 | 65.2790117 | 2.45 | 0.05 | 0.12 | 0.04 | 126.10 |
| 2025 | SC | Construction and Mining | 17 | Off-Highway Trucks | 9999 | 16518187.44 | 142.3385608 | 2.170639769 | 6.495272597 | 16509788.87 | 141.8760358 | 2.19695837 | 6.503378181 | 65763.9182 | 65763.9182 | 42.27083544 | 4.33 | 0.07 | 0.20 | 0.06 | 251.05 |
| 2025 | SC | Construction and Mining | 18 | Other Construction Equipment | 50 | 1253069.84 | 14.88789297 | 0.993501209 | 2.364347057 | 1255489.565 | 14.49020363 | 0.901333316 | 2.105802244 | 193372.5037 | 193372.5037 | 395.7520237 | 0.15 | 0.01 | 0.02 | 0.01 | 6.49 |
| 2025 | SC | Construction and Mining | 18 | Other Construction Equipment | 120 | 3938041.036 | 42.44343216 | 2.81982221 | 3.791649512 | 3940080.913 | 38.43118851 | 2.398231475 | 3.332708863 | 316407.0004 | 316407.0004 | 698.2919287 | 0.27 | 0.02 | 0.02 | 0.02 | 12.45 |
| 2025 | SC | Construction and Mining | 18 | Other Construction Equipment | 175 | 2138975.452 | 17.8425944 | 0.955030978 | 1.550058653 | 2138435.292 | 13.98672498 | 0.723303913 | 1.2519081 | 92418.94842 | 92418.94842 | 217.3173966 | 0.39 | 0.02 | 0.03 | 0.02 | 23.14 |
| 2025 | SC | Construction and Mining | 18 | Other Construction Equipment | 250 | 2747460.51 | 18.23467906 | 0.733539846 | 1.468586575 | 2748768.016 | 15.74167631 | 0.611689202 | 1.294021293 | 82420.41828 | 82420.41828 | 194.9464881 | 0.44 | 0.02 | 0.04 | 0.02 | 33.35 |
| 2025 | SC | Construction and Mining | 18 | Other Construction Equipment | 500 | 9376353.611 | 48.07948982 | 1.826632154 | 4.171906892 | 9380912.011 | 43.35166643 | 1.659980114 | 3.886877617 | 170894.1905 | 170894.1905 | 378.707522 | 0.56 | 0.02 | 0.05 | 0.02 | 54.89 |
| 2025 | SC | Construction and Mining | 18 | Other Construction Equipment | 750 | 3655447.16 | 16.1266472 | 0.54812876 | 1.345584688 | 3657261.685 | 14.93395889 | 0.523712361 | 1.291007777 | 40012.23688 | 40012.23688 | 78.29817965 | 0.81 | 0.03 | 0.07 | 0.03 | 91.40 |
| 2025 | SC | Construction and Mining | 18 | Other Construction Equipment | 1000 | 429080.7762 | 3.879344453 | 0.073935004 | 0.153660527 | 429168.1773 | 3.400947492 | 0.057001725 | 0.126521369 | 3371.33653 | 3371.33653 | 6.924328813 | 2.30 | 0.04 | 0.09 | 0.04 | 127.30 |
| 2025 | SC | Construction and Mining | 18 | Other Construction Equipment | 9999 | 263769.9306 | 3.019062843 | 0.065839768 | 0.13446957 | 264118.8508 | 2.24931528 | 0.037004931 | 0.087350645 | 1579.720119 | 1579.720119 | 3.195844067 | 3.82 | 0.08 | 0.17 | 0.08 | 167.19 |
| 2025 | SC | Construction and Mining | 19 | Pavers | 50 | 153690.8845 | 1.776218022 | 0.122764692 | 0.352665542 | 153657.831 | 1.708297373 | 0.109414429 | 0.313852978 | 23380.62493 | 23380.62493 | 64.14489399 | 0.15 | 0.01 | 0.03 | 0.01 | 6.57 |
| 2025 | SC | Construction and Mining | 19 | Pavers | 120 | 1488141.054 | 14.40124526 | 0.922835683 | 1.238851011 | 1487990.48 | 13.77414807 | 0.855280404 | 1.164457609 | 123206.6321 | 123206.6321 | 311.6372766 | 0.23 | 0.01 | 0.02 | 0.01 | 12.08 |
| 2025 | SC | Construction and Mining | 19 | Pavers | 175 | 2021880.371 | 9.892584292 | 0.457390699 | 0.896297121 | 2021272.444 | 9.97143959 | 0.466953499 | 0.904765476 | 83766.37687 | 83766.37687 | 210.6090686 | 0.24 | 0.01 | 0.02 | 0.01 | 24.13 |
| 2025 | SC | Construction and Mining | 19 | Pavers | 250 | 1364110.669 | 3.834316734 | 0.123381904 | 0.347344367 | 1362986.832 | 4.224044217 | 0.137726798 | 0.360824082 | 41805.708 | 41805.708 | 90.87193315 | 0.18 | 0.01 | 0.02 | 0.01 | 32.60 |
| 2025 | SC | Construction and Mining | 19 | Pavers | 500 | 512633.0464 | 1.773262878 | 0.061140113 | 0.15001139 | 512568.0331 | 1.768198178 | 0.060882729 | 0.148012194 | 10405.94344 | 10405.94344 | 22.4507129 | 0.34 | 0.01 | 0.03 | 0.01 | 49.26 |
| 2025 | SC | Construction and Mining | 19 | Pavers | 750 | 59434.33146 | 0.046889197 | 0.001628476 | 0.009261581 | 59434.33146 | 0.046889197 | 0.001628476 | 0.009261581 | 519.8087217 | 519.8087217 | 1.069081566 | 0.18 | 0.01 | 0.04 | 0.01 | 114.34 |
| 2025 | SC | Construction and Mining | 20 | Paving Equipment | 50 | 191442.1585 | 1.884956712 | 0.072950431 | 0.205724993 | 191451.7672 | 1.889593581 | 0.073709822 | 0.205040953 | 38229.68868 | 38229.68868 | 78.98481143 | 0.10 | 0.00 | 0.01 | 0.00 | 5.01 |
| 2025 | SC | Construction and Mining | 20 | Paving Equipment | 120 | 868955.7506 | 6.457575168 | 0.323992783 | 0.528036928 | 868844.5844 | 6.495546992 | 0.306638883 | 0.519322285 | 75030.33416 | 75030.33416 | 161.1717098 | 0.17 | 0.01 | 0.01 | 0.01 | 11.58 |
| 2025 | SC | Construction and Mining | 20 | Paving Equipment | 175 | 818423.1341 | 4.047464944 | 0.195501862 | 0.376566289 | 818340.9774 | 3.721414062 | 0.184049454 | 0.357017601 | 42453.43621 | 42453.43621 | 88.05739112 | 0.19 | 0.01 | 0.02 | 0.01 | 19.28 |
| 2025 | SC | Construction and Mining | 20 | Paving Equipment | 250 | 429476.0791 | 1.80639011 | 0.068233859 | 0.160261302 | 429333.1694 | 1.430216702 | 0.055976323 | 0.141934511 | 15269.66587 | 15269.66587 | 32.0208695 | 0.24 | 0.01 | 0.02 | 0.01 | 28.12 |
| 2025 | SC | Construction and Mining | 20 | Paving Equipment | 500 | 605974.9613 | 2.303053187 | 0.086162593 | 0.210683131 | 605220.7611 | 2.07119315 | 0.075912977 | 0.199646849 | 13803.96378 | 13803.96378 | 28.81878255 | 0.33 | 0.01 | 0.03 | 0.01 | 43.84 |
| 2025 | SC | Construction and Mining | 20 | Paving Equipment | 750 | 286658.6229 | 0.451083123 | 0.00868626 | 0.063330409 | 286606.1938 | 0.446528778 | 0.008564506 | 0.060242969 | 3640.459688 | 3640.459688 | 6.937855058 | 0.25 | 0.00 | 0.03 | 0.00 | 78.73 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2025 | SC | Construction and Mining | 20 | Paving Equipment | 1000 | 56149.40727 | 0.400900595 | 0.006807082 | 0.016322241 | 56149.40727 | 0.400900595 | 0.006807082 | 0.016322241 | 511.082262 | 511.082262 | 1.067362317 | 1.57 | 0.03 | 0.06 | 0.02 | 109.86 |
| 2025 | SC | Construction and Mining | 21 | Rollers | 50 | 3154967.356 | 32.13382347 | 1.560795518 | 4.397758606 | 3155708.246 | 31.37084854 | 1.420101298 | 3.998516273 | 576301.8203 | 576301.8203 | 1620.56715 | 0.11 | 0.01 | 0.02 | 0.00 | 5.48 |
| 2025 | SC | Construction and Mining | 21 | Rollers | 120 | 4930426.214 | 42.72002787 | 2.296356806 | 3.441056525 | 4928019.031 | 39.68569605 | 1.996034102 | 3.112821196 | 410454.4525 | 410454.4525 | 1208.558552 | 0.21 | 0.01 | 0.02 | 0.01 | 12.01 |
| 2025 | SC | Construction and Mining | 21 | Rollers | 175 | 5096648.902 | 17.02365894 | 0.757914367 | 1.623773131 | 5096269.645 | 16.85421645 | 0.756494437 | 1.603174769 | 257457.7064 | 257457.7064 | 698.7665812 | 0.13 | 0.01 | 0.01 | 0.01 | 19.79 |
| 2025 | SC | Construction and Mining | 21 | Rollers | 250 | 805225.6859 | 4.110345014 | 0.152525987 | 0.343417844 | 805323.093 | 4.296833076 | 0.158015703 | 0.344452525 | 27331.16847 | 27331.16847 | 85.69778825 | 0.30 | 0.01 | 0.03 | 0.01 | 29.47 |
| 2025 | SC | Construction and Mining | 21 | Rollers | 500 | 507356.4675 | 3.023318743 | 0.130686891 | 0.25461889 | 507384.3582 | 3.313944946 | 0.136289416 | 0.263389033 | 10876.2121 | 10876.2121 | 35.15806698 | 0.56 | 0.02 | 0.05 | 0.02 | 46.65 |
| 2025 | SC | Construction and Mining | 21 | Rollers | 750 | 24761.04503 | 0.087194078 | 0.003794609 | 0.00803851 | 24761.04503 | 0.053257197 | 0.000731449 | 0.006313319 | 344.9595615 | 344.9595615 | 1.098689593 | 0.51 | 0.02 | 0.05 | 0.02 | 71.78 |
| 2025 | SC | Construction and Mining | 22 | Rough Terrain | 50 | 160536.9811 | 1.487193688 | 0.049708702 | 0.151239249 | 160512.6338 | 1.507032633 | 0.055445705 | 0.163258993 | 20687.5475 | 20687.5475 | 73.60541625 | 0.14 | 0.00 | 0.01 | 0.00 | 7.76 |
| 2025 | SC | Construction and Mining | 22 | Rough Terrain | 120 | 12934660.68 | 72.79334367 | 2.190954108 | 4.665365131 | 12936482.12 | 70.59091054 | 1.982652192 | 4.403665442 | 908388.8687 | 908388.8687 | 3153.611369 | 0.16 | 0.00 | 0.01 | 0.00 | 14.24 |
| 2025 | SC | Construction and Mining | 22 | Rough Terrain | 175 | 2376260.463 | 5.276003939 | 0.198945185 | 0.504895432 | 2376281.384 | 5.61883878 | 0.213673315 | 0.51542049 | 124441.4126 | 124441.4126 | 421.9620845 | 0.08 | 0.00 | 0.01 | 0.00 | 19.10 |
| 2025 | SC | Construction and Mining | 22 | Rough Terrain | 250 | 195417.1692 | 0.364496448 | 0.011288034 | 0.036966474 | 195418.1676 | 0.872291512 | 0.020762934 | 0.059293251 | 6346.961754 | 6346.961754 | 24.74664857 | 0.11 | 0.00 | 0.01 | 0.00 | 30.79 |
| 2025 | SC | Construction and Mining | 22 | Rough Terrain | 500 | 82703.0919 | 0.099247201 | 0.002279032 | 0.014223944 | 82660.74556 | 0.119735193 | 0.002257587 | 0.014273106 | 1516.235279 | 1516.235279 | 5.710765054 | 0.13 | 0.00 | 0.02 | 0.00 | 54.52 |
| 2025 | SC | Construction and Mining | 22 | Rough Terrain | 750 | 12960.98046 | 0.010321462 | 0.000363774 | 0.002247717 | 12960.98046 | 0.052544725 | 0.000377012 | 0.003831628 | 140.5612858 | 140.5612858 | 0.63452945 | 0.15 | 0.01 | 0.03 | 0.00 | 92.21 |
| 2025 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 50 | 138757.2731 | 2.549427066 | 0.337858464 | 0.938894059 | 139126.4276 | 1.382859377 | 0.047807796 | 0.163934351 | 20923.82235 | 20923.82235 | 21.44800548 | 0.24 | 0.03 | 0.09 | 0.03 | 6.65 |
| 2025 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 120 | 665322.9814 | 15.34635873 | 1.334039256 | 1.63262988 | 662728.1236 | 10.33032042 | 0.804872001 | 1.079060888 | 55291.94339 | 55291.94339 | 63.82089435 | 0.56 | 0.05 | 0.06 | 0.04 | 11.99 |
| 2025 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 175 | 552840.1431 | 11.67261045 | 0.661176911 | 0.977181304 | 553365.316 | 6.998299877 | 0.381384392 | 0.630509447 | 25372.7457 | 25372.7457 | 32.95669134 | 0.92 | 0.05 | 0.08 | 0.05 | 21.81 |
| 2025 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 250 | 576743.8048 | 10.72319369 | 0.524340117 | 0.840105969 | 575962.2604 | 6.548318559 | 0.286510447 | 0.528901344 | 18717.57182 | 18717.57182 | 25.63298216 | 1.15 | 0.06 | 0.09 | 0.05 | 30.77 |
| 2025 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 500 | 6602015.796 | 103.2759218 | 4.827795353 | 8.420603423 | 6599276.11 | 65.80863052 | 2.941749811 | 5.92095077 | 126593.1077 | 126593.1077 | 171.0609217 | 1.63 | 0.08 | 0.13 | 0.07 | 52.13 |
| 2025 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 750 | 776347.5341 | 14.24262463 | 0.507897652 | 0.889550116 | 776347.5341 | 12.41184823 | 0.456478808 | 0.822951453 | 9143.424941 | 9143.424941 | 10.4624417 | 3.12 | 0.11 | 0.19 | 0.10 | 84.91 |
| 2025 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 50 | 437445.416 | 5.430869236 | 0.367551412 | 1.089852483 | 437718.325 | 5.151167584 | 0.306384452 | 0.940052263 | 71236.69562 | 71236.69562 | 80.69725359 | 0.15 | 0.01 | 0.03 | 0.01 | 6.14 |
| 2025 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 120 | 10675003.77 | 112.1755261 | 7.564932221 | 11.23112167 | 10682047.86 | 96.35135432 | 5.803255537 | 9.433777207 | 944165.8958 | 944165.8958 | 1003.263153 | 0.24 | 0.02 | 0.02 | 0.01 | 11.31 |
| 2025 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 175 | 25281984.15 | 160.7795058 | 8.726181695 | 17.09446446 | 25276849.47 | 121.1409329 | 6.396488693 | 14.08248762 | 1273431.287 | 1273431.287 | 1314.601881 | 0.25 | 0.01 | 0.03 | 0.01 | 19.85 |
| 2025 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 250 | 34879188.88 | 180.2791634 | 6.280598551 | 17.32569061 | 34892760.93 | 151.8352564 | 5.100464814 | 15.43321148 | 1282173.142 | 1282173.142 | 1168.474422 | 0.28 | 0.01 | 0.03 | 0.01 | 27.21 |
| 2025 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 500 | 45515069.49 | 246.6431554 | 9.253332543 | 25.08252729 | 45596649.92 | 197.4210063 | 7.236439003 | 21.99001751 | 1080827.326 | 1080827.326 | 1085.596161 | 0.46 | 0.02 | 0.05 | 0.02 | 42.19 |
| 2025 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 750 | 8167409.66 | 47.23338026 | 1.725868334 | 4.582085478 | 8176765.588 | 41.23499855 | 1.594662665 | 4.372421962 | 104097.5912 | 104097.5912 | 95.96430156 | 0.91 | 0.03 | 0.09 | 0.03 | 78.55 |
| 2025 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 1000 | 2336927.468 | 30.87437765 | 0.713093635 | 1.445358257 | 2348669.966 | 21.76914252 | 0.366789639 | 0.96379687 | 21119.81522 | 21119.81522 | 17.44805483 | 2.92 | 0.07 | 0.14 | 0.06 | 111.21 |
| 2025 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 9999 | 930610.1927 | 11.80849747 | 0.259319182 | 0.570171792 | 930610.1927 | 11.83068133 | 0.259983762 | 0.576742709 | 4639.078397 | 4639.078397 | 3.816761994 | 5.09 | 0.11 | 0.25 | 0.10 | 200.60 |
| 2025 | SC | Construction and Mining | 25 | Scrapers | 50 | 10038.93421 | 0.174660443 | 0.023398717 | 0.070110129 | 10038.93421 | 0.174561211 | 0.023396933 | 0.070059885 | 1417.243923 | 1417.243923 | 3.772279899 | 0.25 | 0.03 | 0.10 | 0.03 | 7.08 |
| 2025 | SC | Construction and Mining | 25 | Scrapers | 120 | 456794.2967 | 8.474430179 | 0.657875933 | 0.75548536 | 456709.3205 | 7.386927968 | 0.543390613 | 0.628307614 | 29937.77614 | 29937.77614 | 54.42860997 | 0.57 | 0.04 | 0.05 | 0.04 | 15.26 |
| 2025 | SC | Construction and Mining | 25 | Scrapers | 175 | 4837994.866 | 51.11639416 | 2.747312938 | 4.462064097 | 4838470.879 | 37.68497827 | 1.958509148 | 3.434266519 | 162106.2473 | 162106.2473 | 349.7442363 | 0.63 | 0.03 | 0.06 | 0.03 | 29.85 |
| 2025 | SC | Construction and Mining | 25 | Scrapers | 250 | 5561848.746 | 65.46418007 | 2.88065429 | 5.222085774 | 5566768.598 | 47.13153686 | 2.107992682 | 4.045990528 | 140541.9685 | 140541.9685 | 339.5051909 | 0.93 | 0.04 | 0.07 | 0.04 | 39.61 |
| 2025 | SC | Construction and Mining | 25 | Scrapers | 500 | 48673536.59 | 351.9456002 | 14.0866318 | 29.83759723 | 48675240.59 | 299.4757808 | 11.7878228 | 26.09905901 | 720221.4023 | 720221.4023 | 1492.206149 | 0.98 | 0.04 | 0.08 | 0.04 | 67.58 |
| 2025 | SC | Construction and Mining | 25 | Scrapers | 750 | 22284047.73 | 115.1419442 | 4.531895964 | 10.61898104 | 22258632.99 | 114.5001336 | 4.287600491 | 10.14464328 | 222514.8762 | 222514.8762 | 425.1898343 | 1.03 | 0.04 | 0.10 | 0.04 | 100.03 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2025 | SC | Construction and Mining | 25 | Scrapers | 1000 | 348474.3727 | 11.27541602 | 0.514000817 | 0.81148192 | 348474.3727 | 14.01698102 | 0.6535229 | 1.015251442 | 2071.924263 | 2071.924263 | 7.005662669 | 10.88 | 0.50 | 0.78 | 0.46 | 168.19 |
| 2025 | SC | Construction and Mining | 25 | Scrapers | 9999 | 1266623.733 | 15.31211861 | 0.356155532 | 0.713389633 | 1266623.733 | 14.96235024 | 0.342660706 | 0.668263164 | 3640.255453 | 3640.255453 | 7.005662669 | 8.41 | 0.20 | 0.39 | 0.18 | 347.95 |
| 2025 | SC | Construction and Mining | 26 | Skid Steer Loaders | 50 | 2387767.515 | 20.72714008 | 0.43479604 | 1.597179629 | 2387598.805 | 21.22332711 | 0.538168546 | 1.808971511 | 363204.1063 | 363204.1063 | 1122.697932 | 0.11 | 0.00 | 0.01 | 0.00 | 6.57 |
| 2025 | SC | Construction and Mining | 26 | Skid Steer Loaders | 120 | 12680109 | 67.61409209 | 1.851819994 | 4.180429102 | 12679356.24 | 71.02868186 | 2.155328252 | 4.394263912 | 1327571.169 | 1327571.169 | 3623.02471 | 0.10 | 0.00 | 0.01 | 0.00 | 9.55 |
| 2025 | SC | Construction and Mining | 26 | Skid Steer Loaders | 175 | 85748.76883 | 0.284864844 | 0.009982817 | 0.024152909 | 85703.98894 | 0.25923545 | 0.009989586 | 0.023200679 | 4172.395981 | 4172.395981 | 15.02867832 | 0.14 | 0.00 | 0.01 | 0.00 | 20.54 |
| 2025 | SC | Construction and Mining | 26 | Skid Steer Loaders | 250 | 65527.60699 | 0.147061171 | 0.003862223 | 0.014185874 | 65469.247 | 0.274678262 | 0.008441314 | 0.019225181 | 2466.770534 | 2466.770534 | 8.349265733 | 0.12 | 0.00 | 0.01 | 0.00 | 26.54 |
| 2025 | SC | Construction and Mining | 26 | Skid Steer Loaders | 500 | 18080.79734 | 0.014379483 | 0.000505751 | 0.003090253 | 18080.79734 | 0.014332816 | 0.000501557 | 0.00297967 | 496.2308072 | 496.2308072 | 1.669853147 | 0.06 | 0.00 | 0.01 | 0.00 | 36.44 |
| 2025 | SC | Construction and Mining | 26 | Skid Steer Loaders | 750 | 19072.8583 | 0.140964531 | 0.006206284 | 0.008847828 | 19072.8583 | 0.140964531 | 0.006206284 | 0.008847828 | 266.0947806 | 266.0947806 | 0.556617716 | 1.06 | 0.05 | 0.07 | 0.04 | 71.68 |
| 2025 | SC | Construction and Mining | 26 | Skid Steer Loaders | 1000 | 31123.48116 | 0.215869276 | 0.001794383 | 0.005357198 | 31123.48116 | 0.21450163 | 0.002847684 | 0.005870985 | 230.1360266 | 230.1360266 | 1.113235431 | 1.88 | 0.02 | 0.05 | 0.01 | 135.24 |
| 2025 | SC | Construction and Mining | 27 | Surfacing Equipment | 50 | 22116.63562 | 0.206295097 | 0.004402983 | 0.012114275 | 22117.4 | 0.209187046 | 0.004770501 | 0.011342275 | 4934.375168 | 4934.375168 | 19.69372586 | 0.08 | 0.00 | 0.00 | 0.00 | 4.48 |
| 2025 | SC | Construction and Mining | 27 | Surfacing Equipment | 120 | 173907.199 | 1.440600776 | 0.070099911 | 0.106821691 | 174463.1305 | 1.379633097 | 0.064467293 | 0.099599283 | 17604.0213 | 17604.0213 | 63.12091622 | 0.16 | 0.01 | 0.01 | 0.01 | 9.91 |
| 2025 | SC | Construction and Mining | 27 | Surfacing Equipment | 175 | 89390.97686 | 0.5547596 | 0.026373246 | 0.042958764 | 89385.21885 | 0.537755996 | 0.025341826 | 0.041563548 | 5362.137639 | 5362.137639 | 21.20862785 | 0.21 | 0.01 | 0.02 | 0.01 | 16.67 |
| 2025 | SC | Construction and Mining | 27 | Surfacing Equipment | 250 | 190018.173 | 1.015904927 | 0.034285156 | 0.072761777 | 189944.8115 | 0.986326583 | 0.030999421 | 0.069000696 | 7860.792136 | 7860.792136 | 31.81294178 | 0.26 | 0.01 | 0.02 | 0.01 | 24.16 |
| 2025 | SC | Construction and Mining | 27 | Surfacing Equipment | 500 | 601175.3759 | 2.144172781 | 0.081458996 | 0.177393655 | 601094.2531 | 2.404461406 | 0.092414287 | 0.191511405 | 15048.29243 | 15048.29243 | 52.5166023 | 0.28 | 0.01 | 0.02 | 0.01 | 39.94 |
| 2025 | SC | Construction and Mining | 27 | Surfacing Equipment | 750 | 554572.1475 | 1.132587866 | 0.041806538 | 0.113052765 | 554032.3667 | 1.282199048 | 0.044494565 | 0.117652579 | 8166.53849 | 8166.53849 | 26.25830115 | 0.28 | 0.01 | 0.03 | 0.01 | 67.84 |
| 2025 | SC | Construction and Mining | 27 | Surfacing Equipment | 1000 | 90537.12005 | 0.909970842 | 0.01751977 | 0.0345281 | 90537.12005 | 0.812314014 | 0.014361157 | 0.029441997 | 1000.794799 | 1000.794799 | 3.534771308 | 1.82 | 0.04 | 0.07 | 0.03 | 90.47 |
| 2025 | SC | Construction and Mining | 27 | Surfacing Equipment | 9999 | 31719.42158 | 0.21875785 | 0.003139663 | 0.007425606 | 31719.42158 | 0.218293521 | 0.003125753 | 0.007288071 | 255.2552414 | 255.2552414 | 1.00993466 | 1.71 | 0.02 | 0.06 | 0.02 | 124.27 |
| 2025 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 50 | 4704524.014 | 48.82854885 | 2.164883698 | 6.689811887 | 4704055.629 | 47.53440812 | 1.882284017 | 5.900787074 | 834270.2953 | 834270.2953 | 1571.130833 | 0.12 | 0.01 | 0.02 | 0.00 | 5.64 |
| 2025 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 120 | 76080608.22 | 511.1031069 | 23.20896973 | 43.32949145 | 76125753.41 | 477.0746166 | 19.3307061 | 39.0195419 | 6737286.188 | 6737286.188 | 10667.81412 | 0.15 | 0.01 | 0.01 | 0.01 | 11.30 |
| 2025 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 175 | 13179758.89 | 52.15451563 | 2.587877785 | 5.725059162 | 13169153.33 | 46.96078168 | 2.325775453 | 5.321600495 | 680463.1156 | 680463.1156 | 1193.402514 | 0.15 | 0.01 | 0.02 | 0.01 | 19.35 |
| 2025 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 250 | 7637687.848 | 28.4966468 | 1.141893439 | 3.014829876 | 7632325.365 | 28.38950305 | 1.087802773 | 2.928181455 | 277205.5803 | 277205.5803 | 477.3610056 | 0.21 | 0.01 | 0.02 | 0.01 | 27.53 |
| 2025 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 500 | 10251755.18 | 32.05246775 | 1.18608843 | 3.730275105 | 10240309.99 | 32.24286741 | 1.21324783 | 3.679792693 | 237095.8491 | 237095.8491 | 430.8292562 | 0.27 | 0.01 | 0.03 | 0.01 | 43.19 |
| 2025 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 750 | 1452629.867 | 6.037219169 | 0.24797853 | 0.631300184 | 1451703.11 | 7.275095771 | 0.297214503 | 0.683176817 | 18905.16192 | 18905.16192 | 30.10877902 | 0.64 | 0.03 | 0.07 | 0.02 | 76.79 |
| 2025 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 1000 | 244877.8497 | 2.151296052 | 0.037516194 | 0.082028345 | 244877.8497 | 2.148506772 | 0.037432633 | 0.081202153 | 2061.748897 | 2061.748897 | 2.737161729 | 2.09 | 0.04 | 0.08 | 0.03 | 118.77 |
| 2025 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 9999 | 3443409.568 | 28.89987685 | 0.464164451 | 1.245258771 | 3443409.568 | 31.05798512 | 0.542481064 | 1.373574552 | 12676.11787 | 12676.11787 | 20.2549968 | 4.56 | 0.07 | 0.20 | 0.07 | 271.65 |
| 2025 | SC | Construction and Mining | 29 | Trenchers | 50 | 1671160.425 | 16.88900501 | 0.824598089 | 2.267621234 | 1670420.223 | 16.42916424 | 0.732172337 | 2.012420024 | 203909.7984 | 203909.7984 | 515.2278379 | 0.17 | 0.01 | 0.02 | 0.01 | 8.19 |
| 2025 | SC | Construction and Mining | 29 | Trenchers | 120 | 1210549.921 | 16.37131482 | 1.132276722 | 1.473856464 | 1212272.9 | 15.45455516 | 1.029299354 | 1.362670927 | 79462.29621 | 79462.29621 | 238.8783612 | 0.41 | 0.03 | 0.04 | 0.03 | 15.26 |
| 2025 | SC | Construction and Mining | 29 | Trenchers | 175 | 247143.3066 | 3.003226644 | 0.153268467 | 0.245919734 | 247133.9771 | 2.658765782 | 0.134231716 | 0.221686944 | 9400.568076 | 9400.568076 | 31.61625369 | 0.64 | 0.03 | 0.05 | 0.03 | 26.29 |
| 2025 | SC | Construction and Mining | 29 | Trenchers | 250 | 485440.3501 | 4.949655192 | 0.220298746 | 0.386466828 | 485236.7812 | 4.812742763 | 0.20907542 | 0.368002813 | 11999.01186 | 11999.01186 | 37.47111549 | 0.83 | 0.04 | 0.06 | 0.03 | 40.44 |
| 2025 | SC | Construction and Mining | 29 | Trenchers | 500 | 815795.511 | 5.327844477 | 0.218610216 | 0.429624624 | 815771.9308 | 4.489790047 | 0.193403368 | 0.388102319 | 12380.69712 | 12380.69712 | 33.95819841 | 0.86 | 0.04 | 0.07 | 0.03 | 65.89 |
| 2025 | SC | Construction and Mining | 29 | Trenchers | 750 | 368731.5998 | 0.336348066 | 0.010163057 | 0.060677033 | 368731.5998 | 0.336348066 | 0.010163057 | 0.060677033 | 3212.259837 | 3212.259837 | 7.025834154 | 0.21 | 0.01 | 0.04 | 0.01 | 114.79 |
| 2025 | SC | Construction and Mining | 29 | Trenchers | 1000 | 21792.63927 | 0.876583861 | 0.040869544 | 0.063491063 | 21792.63927 | 0.876583861 | 0.040869544 | 0.063491063 | 137.4071236 | 137.4071236 | 0.585486179 | 12.76 | 0.59 | 0.92 | 0.55 | 158.60 |
| 2025 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 50 | 1454289.653 | 15.6192779 | 0.841920602 | 2.275136763 | 1454289.653 | 15.13390753 | 0.751363883 | 2.018851539 | 219626.7383 | 219626.7383 | 302.4222 | 0.14 | 0.01 | 0.02 | 0.01 | 6.62 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2025 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 120 | 2247652.887 | 19.42044567 | 1.156287316 | 1.799507231 | 2247652.887 | 18.93709096 | 1.073330304 | 1.683877432 | 172639.1949 | 172639.1949 | 246.2198442 | 0.22 | 0.01 | 0.02 | 0.01 | 13.02 |
| 2025 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 175 | 560654.4123 | 6.594561209 | 0.308256291 | 0.572555492 | 560654.4123 | 2.752298179 | 0.121253432 | 0.296187521 | 20978.80822 | 20978.80822 | 28.36880814 | 0.63 | 0.03 | 0.05 | 0.03 | 26.72 |
| 2025 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 250 | 298806.2043 | 0.882991959 | 0.029967986 | 0.107194441 | 298806.2043 | 1.456175503 | 0.045693482 | 0.126560784 | 8778.438325 | 8778.438325 | 11.77573168 | 0.20 | 0.01 | 0.02 | 0.01 | 34.04 |
| 2025 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 500 | 83363.02291 | 0.597930908 | 0.020611421 | 0.044838891 | 83363.02291 | 0.597631703 | 0.02058453 | 0.044129891 | 1648.155925 | 1648.155925 | 2.141042124 | 0.73 | 0.03 | 0.05 | 0.02 | 50.58 |
| 2025 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 1000 | 58423.0111 | 0.402414559 | 0.003284376 | 0.009226391 | 58423.0111 | 0.402414559 | 0.003284376 | 0.009226391 | 412.0389812 | 412.0389812 | 0.535260531 | 1.95 | 0.02 | 0.04 | 0.01 | 141.79 |
| 2026 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 50 | 139202.5049 | 1.461549867 | 0.068518029 | 0.178817852 | 139049.8012 | 1.461914627 | 0.069478098 | 0.180751224 | 16911.58947 | 16911.58947 | 46.06839989 | 0.17 | 0.01 | 0.02 | 0.01 | 8.22 |
| 2026 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 120 | 860712.6056 | 4.953218004 | 0.153984054 | 0.321736824 | 859558.6863 | 4.98090442 | 0.15589749 | 0.3178917 | 58086.79037 | 58086.79037 | 141.1147828 | 0.17 | 0.01 | 0.01 | 0.00 | 14.80 |
| 2026 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 175 | 1006184.364 | 2.408363103 | 0.107166093 | 0.272020853 | 1004728.044 | 2.52268071 | 0.110036849 | 0.276603513 | 36140.93305 | 36140.93305 | 110.5641597 | 0.13 | 0.01 | 0.02 | 0.01 | 27.80 |
| 2026 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 250 | 1425748.485 | 4.051777134 | 0.136322445 | 0.391375461 | 1425058.081 | 4.178166653 | 0.137065506 | 0.392112229 | 37282.67678 | 37282.67678 | 110.0792292 | 0.22 | 0.01 | 0.02 | 0.01 | 38.22 |
| 2026 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 500 | 1590016.247 | 3.522114463 | 0.121211936 | 0.388025572 | 1599778.54 | 3.797168761 | 0.13050424 | 0.398088708 | 25055.98248 | 25055.98248 | 77.1039535 | 0.28 | 0.01 | 0.03 | 0.01 | 63.85 |
| 2026 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 750 | 2183352.066 | 3.444878531 | 0.129905956 | 0.44035118 | 2180625.176 | 3.555141932 | 0.133087317 | 0.440403162 | 18959.10064 | 18959.10064 | 38.30951149 | 0.36 | 0.01 | 0.05 | 0.01 | 115.02 |
| 2026 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 1000 | 171099.2359 | 1.18611687 | 0.009846229 | 0.029270182 | 171099.2359 | 1.184264113 | 0.009790724 | 0.028721391 | 1009.8749 | 1009.8749 | 1.454791575 | 2.35 | 0.02 | 0.06 | 0.02 | 169.43 |
| 2026 | SC | Construction and Mining | 11 | Bore/Drill Rigs | 9999 | 579856.4115 | 7.560536284 | 0.193414445 | 0.297763907 | 579856.4115 | 7.560536284 | 0.193414445 | 0.297763907 | 1179.097181 | 1179.097181 | 1.454791575 | 12.82 | 0.33 | 0.51 | 0.30 | 491.78 |
| 2026 | SC | Construction and Mining | 12 | Cranes | 50 | 45661.24598 | 0.651518448 | 0.057826318 | 0.160097381 | 45661.24598 | 0.633715288 | 0.053720975 | 0.14813983 | 9695.273563 | 9695.273563 | 21.33907523 | 0.13 | 0.01 | 0.03 | 0.01 | 4.71 |
| 2026 | SC | Construction and Mining | 12 | Cranes | 120 | 1090117.482 | 17.5319797 | 1.229968183 | 1.691506296 | 1089657.686 | 12.94046473 | 0.798925813 | 1.200242375 | 116511.7377 | 116511.7377 | 257.2882785 | 0.30 | 0.02 | 0.03 | 0.02 | 9.35 |
| 2026 | SC | Construction and Mining | 12 | Cranes | 175 | 2877651.958 | 35.47684671 | 1.943103091 | 3.04314488 | 2877918.272 | 23.80451418 | 1.236243856 | 2.135967192 | 183001.5801 | 183001.5801 | 385.9324177 | 0.39 | 0.02 | 0.03 | 0.02 | 15.73 |
| 2026 | SC | Construction and Mining | 12 | Cranes | 250 | 4860199.71 | 53.84447018 | 2.449299375 | 4.275527047 | 4860128.696 | 34.87621136 | 1.45826144 | 2.926446169 | 211409.4443 | 211409.4443 | 433.4880711 | 0.51 | 0.02 | 0.04 | 0.02 | 22.99 |
| 2026 | SC | Construction and Mining | 12 | Cranes | 500 | 7442419.155 | 62.66714868 | 2.672095891 | 5.123329789 | 7443331.72 | 46.16552441 | 1.890257666 | 3.99060224 | 209514.667 | 209514.667 | 415.8071231 | 0.60 | 0.03 | 0.05 | 0.02 | 35.53 |
| 2026 | SC | Construction and Mining | 12 | Cranes | 750 | 1959490.066 | 11.81802673 | 0.498235682 | 0.987428284 | 1959564.005 | 9.194757563 | 0.383857835 | 0.827576531 | 32786.0676 | 32786.0676 | 60.96878637 | 0.72 | 0.03 | 0.06 | 0.03 | 59.77 |
| 2026 | SC | Construction and Mining | 12 | Cranes | 1000 | 458907.7203 | 8.034810359 | 0.288889404 | 0.474817741 | 458907.7203 | 7.548536358 | 0.291794989 | 0.473056689 | 4660.726306 | 4660.726306 | 9.145317956 | 3.45 | 0.12 | 0.20 | 0.11 | 98.46 |
| 2026 | SC | Construction and Mining | 12 | Cranes | 9999 | 35376.59946 | 0.2585909 | 0.006994568 | 0.020856792 | 35376.59946 | 0.2585909 | 0.006994568 | 0.020856792 | 324.8400265 | 324.8400265 | 0.609687864 | 1.59 | 0.04 | 0.13 | 0.04 | 108.90 |
| 2026 | SC | Construction and Mining | 13 | Crawler Tractors | 50 | 139351.1093 | 2.154682952 | 0.232320521 | 0.718853753 | 139497.3548 | 1.817557141 | 0.157996312 | 0.509320733 | 19054.98009 | 19054.98009 | 54.11296492 | 0.23 | 0.02 | 0.08 | 0.02 | 7.32 |
| 2026 | SC | Construction and Mining | 13 | Crawler Tractors | 120 | 6161109.86 | 83.70721906 | 6.438487328 | 8.287570159 | 6164654.565 | 68.03756371 | 4.705618496 | 6.40677092 | 446965.7198 | 446965.7198 | 931.2841262 | 0.37 | 0.03 | 0.04 | 0.03 | 13.79 |
| 2026 | SC | Construction and Mining | 13 | Crawler Tractors | 175 | 6704263.63 | 66.0911595 | 3.767072278 | 5.947645766 | 6712281.51 | 49.11518041 | 2.72683736 | 4.62454929 | 285470.0896 | 285470.0896 | 609.311985 | 0.46 | 0.03 | 0.04 | 0.02 | 23.51 |
| 2026 | SC | Construction and Mining | 13 | Crawler Tractors | 250 | 6756019.481 | 55.71780641 | 2.25168042 | 4.373790369 | 6750219.193 | 46.2265784 | 1.824330507 | 3.754202353 | 211654.2088 | 211654.2088 | 445.3497013 | 0.53 | 0.02 | 0.04 | 0.02 | 31.89 |
| 2026 | SC | Construction and Mining | 13 | Crawler Tractors | 500 | 18128189.43 | 113.6916983 | 4.805591368 | 10.15266009 | 18099104.16 | 95.5047094 | 4.050539455 | 8.981206907 | 336208.1628 | 336208.1628 | 715.9145258 | 0.68 | 0.03 | 0.06 | 0.03 | 53.83 |
| 2026 | SC | Construction and Mining | 13 | Crawler Tractors | 750 | 7059694.411 | 36.11618054 | 1.345138303 | 3.195347339 | 7060347.642 | 28.32975982 | 1.04021131 | 2.730709502 | 78595.77031 | 78595.77031 | 146.6461349 | 0.92 | 0.03 | 0.08 | 0.03 | 89.83 |
| 2026 | SC | Construction and Mining | 13 | Crawler Tractors | 1000 | 927595.8817 | 13.59273382 | 0.338976325 | 0.644378805 | 936137.809 | 12.85999546 | 0.312415277 | 0.607440728 | 7129.896155 | 7129.896155 | 12.98711158 | 3.81 | 0.10 | 0.18 | 0.09 | 131.30 |
| 2026 | SC | Construction and Mining | 13 | Crawler Tractors | 9999 | 494343.747 | 5.325194642 | 0.097090934 | 0.198499742 | 494343.747 | 5.236360006 | 0.094028762 | 0.187449049 | 2141.484798 | 2141.484798 | 3.246777895 | 4.97 | 0.09 | 0.19 | 0.08 | 230.84 |
| 2026 | SC | Construction and Mining | 14 | Excavators | 50 | 5573068.475 | 50.27536421 | 1.27868995 | 4.626346288 | 5578426.629 | 51.35808005 | 1.488850798 | 4.906023221 | 999882.5934 | 999882.5934 | 1325.352832 | 0.10 | 0.00 | 0.01 | 0.00 | 5.58 |
| 2026 | SC | Construction and Mining | 14 | Excavators | 120 | 7235585.512 | 44.08786134 | 1.687628651 | 3.598359276 | 7241259.632 | 43.48459568 | 1.600821123 | 3.451428873 | 638510.6876 | 638510.6876 | 958.6158227 | 0.14 | 0.01 | 0.01 | 0.00 | 11.34 |
| 2026 | SC | Construction and Mining | 14 | Excavators | 175 | 15259031.98 | 44.89374585 | 2.121908287 | 5.53198444 | 15262497.44 | 45.79806019 | 2.192234029 | 5.523411995 | 744923.0607 | 744923.0607 | 1217.935779 | 0.12 | 0.01 | 0.01 | 0.01 | 20.49 |
| 2026 | SC | Construction and Mining | 14 | Excavators | 250 | 19408965.16 | 46.16902714 | 1.601623898 | 6.029380292 | 19410343.07 | 52.01105673 | 1.743527856 | 6.165069953 | 632972.0769 | 632972.0769 | 1047.045013 | 0.15 | 0.01 | 0.02 | 0.00 | 30.67 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2026 | SC | Construction and Mining | 14 | Excavators | 500 | 32178551.43 | 59.7115022 | 2.182709354 | 9.030923146 | 32177735.97 | 67.03103121 | 2.378809067 | 9.197073728 | 700996.8015 | 700996.8015 | 1064.947855 | 0.17 | 0.01 | 0.03 | 0.01 | 45.90 |
| 2026 | SC | Construction and Mining | 14 | Excavators | 750 | 2916214.606 | 8.055094871 | 0.294612931 | 0.980270186 | 2917479.354 | 8.225186613 | 0.3038733 | 0.986925728 | 36288.62189 | 36288.62189 | 54.25103694 | 0.44 | 0.02 | 0.05 | 0.01 | 80.40 |
| 2026 | SC | Construction and Mining | 14 | Excavators | 1000 | 324359.3873 | 2.305205817 | 0.02650041 | 0.079739706 | 325480.0941 | 2.322696556 | 0.024105933 | 0.079580867 | 2775.372407 | 2775.372407 | 4.340082955 | 1.66 | 0.02 | 0.06 | 0.02 | 117.27 |
| 2026 | SC | Construction and Mining | 14 | Excavators | 9999 | 637007.1054 | 4.458627198 | 0.037936432 | 0.121616157 | 637007.1054 | 4.454668513 | 0.037817839 | 0.120443585 | 2924.43138 | 2924.43138 | 3.797572586 | 3.05 | 0.03 | 0.08 | 0.02 | 217.82 |
| 2026 | SC | Construction and Mining | 15 | Graders | 50 | 36819.37825 | 0.575576592 | 0.062710946 | 0.182105675 | 36880.45758 | 0.501986745 | 0.046787925 | 0.140683708 | 6009.045457 | 6009.045457 | 16.90350769 | 0.19 | 0.02 | 0.06 | 0.02 | 6.14 |
| 2026 | SC | Construction and Mining | 15 | Graders | 120 | 983956.6802 | 19.99168872 | 1.547171798 | 2.098131313 | 988764.4907 | 14.28274693 | 1.015235325 | 1.485563769 | 73043.34472 | 73043.34472 | 179.9405658 | 0.55 | 0.04 | 0.06 | 0.04 | 13.54 |
| 2026 | SC | Construction and Mining | 15 | Graders | 175 | 9157669.609 | 102.8969876 | 5.663087053 | 9.490032634 | 9170139.014 | 66.30859517 | 3.627020959 | 6.788169517 | 407530.3012 | 407530.3012 | 841.903738 | 0.50 | 0.03 | 0.05 | 0.03 | 22.50 |
| 2026 | SC | Construction and Mining | 15 | Graders | 250 | 15928451.72 | 123.6625389 | 4.168523513 | 9.407539975 | 15924126.32 | 103.8695795 | 3.376862461 | 8.256378324 | 517743.2898 | 517743.2898 | 668.5064655 | 0.48 | 0.02 | 0.04 | 0.01 | 30.76 |
| 2026 | SC | Construction and Mining | 15 | Graders | 500 | 4568697.767 | 27.73784897 | 1.078074025 | 2.971187341 | 4568260.792 | 26.59709633 | 1.039871385 | 2.901902626 | 103899.0827 | 103899.0827 | 124.8678471 | 0.53 | 0.02 | 0.06 | 0.02 | 43.97 |
| 2026 | SC | Construction and Mining | 15 | Graders | 1000 | 44240.39433 | 0.328548351 | 0.003200751 | 0.014043018 | 44240.39433 | 0.328548351 | 0.003200751 | 0.014043018 | 370.5401045 | 370.5401045 | 0.545274442 | 1.77 | 0.02 | 0.08 | 0.02 | 119.39 |
| 2026 | SC | Construction and Mining | 15 | Graders | 9999 | 623218.2196 | 7.776874539 | 0.180833971 | 0.385816729 | 623218.2196 | 7.519327688 | 0.170532654 | 0.356016502 | 2088.798222 | 2088.798222 | 2.726372208 | 7.45 | 0.17 | 0.37 | 0.16 | 298.36 |
| 2026 | SC | Construction and Mining | 16 | Off-Highway Tractors | 50 | 2311097.009 | 24.28786074 | 1.181949217 | 3.373299278 | 2306625.925 | 22.57560888 | 0.784269193 | 2.52986315 | 345162.3485 | 345162.3485 | 507.6659698 | 0.14 | 0.01 | 0.02 | 0.01 | 6.68 |
| 2026 | SC | Construction and Mining | 16 | Off-Highway Tractors | 120 | 2947113.049 | 25.30415391 | 1.445918207 | 2.247535297 | 2951856.517 | 21.78341067 | 1.052955841 | 1.843907047 | 245394.7909 | 245394.7909 | 369.1143511 | 0.21 | 0.01 | 0.02 | 0.01 | 12.03 |
| 2026 | SC | Construction and Mining | 16 | Off-Highway Tractors | 175 | 2513131.487 | 9.110436248 | 0.425468543 | 1.052256251 | 2511757.839 | 8.992376655 | 0.417346215 | 1.028091126 | 99192.9995 | 99192.9995 | 140.1564637 | 0.18 | 0.01 | 0.02 | 0.01 | 25.32 |
| 2026 | SC | Construction and Mining | 16 | Off-Highway Tractors | 250 | 2108769.144 | 6.981697322 | 0.257653874 | 0.818406163 | 2107527.055 | 6.241847499 | 0.223554097 | 0.771320169 | 61804.32019 | 61804.32019 | 91.47616526 | 0.23 | 0.01 | 0.03 | 0.01 | 34.10 |
| 2026 | SC | Construction and Mining | 16 | Off-Highway Tractors | 500 | 5930577.978 | 15.52218618 | 0.590589202 | 2.033270348 | 5927027.958 | 12.58226477 | 0.434515185 | 1.84948234 | 111273.2316 | 111273.2316 | 157.2748105 | 0.28 | 0.01 | 0.04 | 0.01 | 53.27 |
| 2026 | SC | Construction and Mining | 16 | Off-Highway Tractors | 750 | 1492721.501 | 4.45995896 | 0.188394882 | 0.61634499 | 1492446.419 | 5.024558235 | 0.203180303 | 0.638116925 | 16286.16913 | 16286.16913 | 23.0027784 | 0.55 | 0.02 | 0.08 | 0.02 | 91.64 |
| 2026 | SC | Construction and Mining | 16 | Off-Highway Tractors | 1000 | 42336.67242 | 0.297494709 | 0.002556259 | 0.008428232 | 42336.67242 | 0.317652781 | 0.00898379 | 0.021770446 | 264.8881296 | 264.8881296 | 0.534948335 | 2.25 | 0.02 | 0.06 | 0.02 | 159.83 |
| 2026 | SC | Construction and Mining | 16 | Off-Highway Tractors | 9999 | 345205.3208 | 4.931346713 | 0.141013785 | 0.333674047 | 332220.4584 | 2.918190542 | 0.062353693 | 0.172141046 | 1229.91373 | 1229.91373 | 2.139793339 | 8.02 | 0.23 | 0.54 | 0.21 | 270.12 |
| 2026 | SC | Construction and Mining | 17 | Off-Highway Trucks | 50 | 223381.4321 | 2.344399235 | 0.097249433 | 0.33651542 | 223303.4266 | 2.262952173 | 0.079504363 | 0.293168064 | 50144.21401 | 50144.21401 | 30.21318788 | 0.09 | 0.00 | 0.01 | 0.00 | 4.45 |
| 2026 | SC | Construction and Mining | 17 | Off-Highway Trucks | 120 | 270793.7798 | 2.265340561 | 0.132729521 | 0.220322029 | 270892.363 | 2.142886632 | 0.117148986 | 0.210370776 | 22506.11995 | 22506.11995 | 16.96178968 | 0.20 | 0.01 | 0.02 | 0.01 | 12.04 |
| 2026 | SC | Construction and Mining | 17 | Off-Highway Trucks | 175 | 5239762.488 | 17.75027203 | 0.869729708 | 2.583318651 | 5239840.684 | 17.66496307 | 0.854417051 | 2.569694565 | 236256.9691 | 236256.9691 | 162.1971139 | 0.15 | 0.01 | 0.02 | 0.01 | 22.18 |
| 2026 | SC | Construction and Mining | 17 | Off-Highway Trucks | 250 | 10750271.47 | 46.68939654 | 1.890897572 | 5.723143417 | 10749337.96 | 34.24307343 | 1.310610654 | 4.901878608 | 365697.0255 | 365697.0255 | 277.7493061 | 0.26 | 0.01 | 0.03 | 0.01 | 29.39 |
| 2026 | SC | Construction and Mining | 17 | Off-Highway Trucks | 500 | 45577089.55 | 153.3768996 | 5.637507278 | 21.18661957 | 45610185.55 | 133.7658163 | 4.741131442 | 19.69946478 | 867794.8055 | 867794.8055 | 616.9850998 | 0.35 | 0.01 | 0.05 | 0.01 | 52.56 |
| 2026 | SC | Construction and Mining | 17 | Off-Highway Trucks | 750 | 16376155.64 | 88.23051355 | 3.251097192 | 9.695661503 | 16376735.33 | 85.00799714 | 3.214659079 | 9.65863343 | 176501.5098 | 176501.5098 | 140.9948768 | 1.00 | 0.04 | 0.11 | 0.03 | 92.79 |
| 2026 | SC | Construction and Mining | 17 | Off-Highway Trucks | 1000 | 11337894.61 | 108.9623155 | 1.978610507 | 5.606354623 | 11358977.38 | 104.7307848 | 1.827103091 | 5.261325533 | 90060.42105 | 90060.42105 | 64.66682317 | 2.42 | 0.04 | 0.12 | 0.04 | 126.13 |
| 2026 | SC | Construction and Mining | 17 | Off-Highway Trucks | 9999 | 16436915.28 | 138.6911957 | 2.025476045 | 6.461112959 | 16428622.93 | 139.453909 | 2.09692456 | 6.528627974 | 65422.69534 | 65422.69534 | 41.87441828 | 4.24 | 0.06 | 0.20 | 0.06 | 251.12 |
| 2026 | SC | Construction and Mining | 18 | Other Construction Equipment | 50 | 1245311.898 | 14.16761331 | 0.874844021 | 2.175897374 | 1248265.588 | 13.71649156 | 0.774529207 | 1.89033848 | 192369.1705 | 192369.1705 | 392.0406493 | 0.15 | 0.01 | 0.02 | 0.01 | 6.49 |
| 2026 | SC | Construction and Mining | 18 | Other Construction Equipment | 120 | 3914628.417 | 39.56305928 | 2.561141786 | 3.532315116 | 3916202.198 | 36.18460306 | 2.198327872 | 3.145241015 | 314765.2901 | 314765.2901 | 691.7433261 | 0.25 | 0.02 | 0.02 | 0.01 | 12.44 |
| 2026 | SC | Construction and Mining | 18 | Other Construction Equipment | 175 | 2129072.069 | 15.93466536 | 0.86217306 | 1.444934361 | 2128815.297 | 12.38281286 | 0.635191643 | 1.156924292 | 91939.42319 | 91939.42319 | 215.2793875 | 0.35 | 0.02 | 0.03 | 0.02 | 23.15 |
| 2026 | SC | Construction and Mining | 18 | Other Construction Equipment | 250 | 2732196.359 | 15.99176086 | 0.656942259 | 1.366216683 | 2733625.359 | 14.69548224 | 0.581091372 | 1.260444153 | 81992.77145 | 81992.77145 | 193.1182741 | 0.39 | 0.02 | 0.03 | 0.01 | 33.34 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2026 | SC | Construction and Mining | 18 | Other Construction Equipment | 500 | 9339796.836 | 42.64624483 | 1.636829511 | 3.909850629 | 9322675.428 | 39.40583855 | 1.497108073 | 3.690818167 | 170007.4884 | 170007.4884 | 375.1559915 | 0.50 | 0.02 | 0.05 | 0.02 | 54.84 |
| 2026 | SC | Construction and Mining | 18 | Other Construction Equipment | 750 | 3636261.566 | 13.65961953 | 0.471650179 | 1.259623173 | 3637080.797 | 13.6337646 | 0.489906432 | 1.261723229 | 39804.62927 | 39804.62927 | 77.56389698 | 0.69 | 0.02 | 0.06 | 0.02 | 91.37 |
| 2026 | SC | Construction and Mining | 18 | Other Construction Equipment | 1000 | 425037.0398 | 3.727103555 | 0.06392869 | 0.137735802 | 425734.8138 | 3.370512652 | 0.052945466 | 0.121435384 | 3353.844003 | 3353.844003 | 6.85939225 | 2.22 | 0.04 | 0.08 | 0.04 | 126.94 |
| 2026 | SC | Construction and Mining | 18 | Other Construction Equipment | 9999 | 262449.31 | 3.018702167 | 0.066162391 | 0.136339965 | 262727.5171 | 2.245110234 | 0.037153129 | 0.089225545 | 1571.523578 | 1571.523578 | 3.165873346 | 3.84 | 0.08 | 0.17 | 0.08 | 167.18 |
| 2026 | SC | Construction and Mining | 19 | Pavers | 50 | 152893.3678 | 1.69606325 | 0.106439753 | 0.316797021 | 152859.6 | 1.66829856 | 0.10272325 | 0.299674292 | 23259.31215 | 23259.31215 | 63.54334125 | 0.15 | 0.01 | 0.03 | 0.01 | 6.57 |
| 2026 | SC | Construction and Mining | 19 | Pavers | 120 | 1480546.39 | 13.66995413 | 0.839955372 | 1.160717536 | 1480119.26 | 12.91691052 | 0.759288547 | 1.073380613 | 122567.3618 | 122567.3618 | 308.7147329 | 0.22 | 0.01 | 0.02 | 0.01 | 12.08 |
| 2026 | SC | Construction and Mining | 19 | Pavers | 175 | 2011997.329 | 8.186641353 | 0.370696507 | 0.788260566 | 2011227.605 | 8.753415172 | 0.415023871 | 0.833521179 | 83331.74639 | 83331.74639 | 208.6339704 | 0.20 | 0.01 | 0.02 | 0.01 | 24.14 |
| 2026 | SC | Construction and Mining | 19 | Pavers | 250 | 1356972.774 | 3.141106474 | 0.104289425 | 0.328760082 | 1356464.838 | 3.982260476 | 0.129120546 | 0.358128768 | 41588.79478 | 41588.79478 | 90.01973344 | 0.15 | 0.01 | 0.02 | 0.00 | 32.62 |
| 2026 | SC | Construction and Mining | 19 | Pavers | 500 | 512224.3359 | 1.446717418 | 0.052924786 | 0.135746426 | 510123.112 | 1.530234168 | 0.056919347 | 0.13943768 | 10351.95113 | 10351.95113 | 22.24016944 | 0.28 | 0.01 | 0.03 | 0.01 | 49.28 |
| 2026 | SC | Construction and Mining | 19 | Pavers | 750 | 59125.9503 | 0.046898912 | 0.001642765 | 0.009813051 | 59125.9503 | 0.046898912 | 0.001642765 | 0.009813051 | 517.1116406 | 517.1116406 | 1.059055688 | 0.18 | 0.01 | 0.04 | 0.01 | 114.34 |
| 2026 | SC | Construction and Mining | 20 | Paving Equipment | 50 | 190294.1457 | 1.855851755 | 0.068153442 | 0.197488476 | 190297.3713 | 1.850830096 | 0.066582287 | 0.190333372 | 38031.33 | 38031.33 | 78.24408951 | 0.10 | 0.00 | 0.01 | 0.00 | 5.00 |
| 2026 | SC | Construction and Mining | 20 | Paving Equipment | 120 | 864380.11 | 6.332322312 | 0.315787109 | 0.522544989 | 864670.2651 | 6.183326498 | 0.281202655 | 0.494870543 | 74641.03154 | 74641.03154 | 159.6602367 | 0.17 | 0.01 | 0.01 | 0.01 | 11.58 |
| 2026 | SC | Construction and Mining | 20 | Paving Equipment | 175 | 814542.5353 | 3.251315883 | 0.151479823 | 0.321156288 | 814390.5064 | 3.204968715 | 0.152755671 | 0.317734582 | 42233.16218 | 42233.16218 | 87.23158627 | 0.15 | 0.01 | 0.02 | 0.01 | 19.28 |
| 2026 | SC | Construction and Mining | 20 | Paving Equipment | 250 | 427250.8978 | 1.703364841 | 0.063455359 | 0.157319479 | 427247.2483 | 1.326138938 | 0.053433682 | 0.141618592 | 15190.43764 | 15190.43764 | 31.72057683 | 0.22 | 0.01 | 0.02 | 0.01 | 28.13 |
| 2026 | SC | Construction and Mining | 20 | Paving Equipment | 500 | 602566.429 | 2.232986961 | 0.083443279 | 0.211833894 | 602910.5966 | 1.889043462 | 0.075906788 | 0.197591726 | 13732.34049 | 13732.34049 | 28.54851914 | 0.33 | 0.01 | 0.03 | 0.01 | 43.90 |
| 2026 | SC | Construction and Mining | 20 | Paving Equipment | 750 | 284762.392 | 0.384821317 | 0.008650209 | 0.060976787 | 284709.4469 | 0.380633579 | 0.008531909 | 0.057996259 | 3621.570788 | 3621.570788 | 6.872791646 | 0.21 | 0.00 | 0.03 | 0.00 | 78.61 |
| 2026 | SC | Construction and Mining | 20 | Paving Equipment | 1000 | 55858.07028 | 0.400773228 | 0.006869077 | 0.016960283 | 55858.07028 | 0.400773228 | 0.006869077 | 0.016960283 | 508.430459 | 508.430459 | 1.057352561 | 1.58 | 0.03 | 0.07 | 0.02 | 109.86 |
| 2026 | SC | Construction and Mining | 21 | Rollers | 50 | 3138208.72 | 31.22740754 | 1.406784977 | 4.109656202 | 3139382.373 | 30.66346139 | 1.306549781 | 3.803922843 | 573311.6189 | 573311.6189 | 1605.369422 | 0.11 | 0.00 | 0.01 | 0.00 | 5.48 |
| 2026 | SC | Construction and Mining | 21 | Rollers | 120 | 4906849.318 | 40.0465689 | 2.044192905 | 3.205799272 | 4904705.959 | 37.79291151 | 1.796677914 | 2.936877178 | 408324.7673 | 408324.7673 | 1197.224654 | 0.20 | 0.01 | 0.02 | 0.01 | 12.01 |
| 2026 | SC | Construction and Mining | 21 | Rollers | 175 | 5070562.678 | 14.38798719 | 0.622025894 | 1.470741815 | 5070420.041 | 15.25294459 | 0.678285786 | 1.520022154 | 256121.8606 | 256121.8606 | 692.2135272 | 0.11 | 0.00 | 0.01 | 0.00 | 19.80 |
| 2026 | SC | Construction and Mining | 21 | Rollers | 250 | 801106.2189 | 3.748106541 | 0.142843963 | 0.331946651 | 801140.2153 | 4.124996679 | 0.153311743 | 0.340729646 | 27189.35788 | 27189.35788 | 84.89411183 | 0.28 | 0.01 | 0.02 | 0.01 | 29.47 |
| 2026 | SC | Construction and Mining | 21 | Rollers | 500 | 504509.4467 | 2.902590104 | 0.126504416 | 0.249662171 | 505357.7487 | 3.197040414 | 0.133454862 | 0.261200035 | 10819.77975 | 10819.77975 | 34.82835357 | 0.54 | 0.02 | 0.05 | 0.02 | 46.71 |
| 2026 | SC | Construction and Mining | 21 | Rollers | 750 | 24632.56979 | 0.08701564 | 0.003812746 | 0.008238372 | 24632.56979 | 0.053163082 | 0.00073427 | 0.00649459 | 343.1697033 | 343.1697033 | 1.088386049 | 0.51 | 0.02 | 0.05 | 0.02 | 71.78 |
| 2026 | SC | Construction and Mining | 22 | Rough Terrain | 50 | 159809.9382 | 1.419485615 | 0.037727247 | 0.126682565 | 159784.9125 | 1.457426763 | 0.0472035 | 0.148481638 | 20580.20803 | 20580.20803 | 72.91514245 | 0.14 | 0.00 | 0.01 | 0.00 | 7.76 |
| 2026 | SC | Construction and Mining | 22 | Rough Terrain | 120 | 12867157.52 | 69.86916843 | 1.99442066 | 4.461365823 | 12869058.81 | 67.7415575 | 1.795629807 | 4.214957491 | 903675.5994 | 903675.5994 | 3124.036707 | 0.15 | 0.00 | 0.01 | 0.00 | 14.24 |
| 2026 | SC | Construction and Mining | 22 | Rough Terrain | 175 | 2363758.472 | 4.352967714 | 0.177201633 | 0.471720576 | 2363784.472 | 4.846407613 | 0.196945115 | 0.487884595 | 123795.7355 | 123795.7355 | 418.0049115 | 0.07 | 0.00 | 0.01 | 0.00 | 19.09 |
| 2026 | SC | Construction and Mining | 22 | Rough Terrain | 250 | 194409.5338 | 0.364851098 | 0.011366992 | 0.037888481 | 194663.3588 | 0.831280409 | 0.019220264 | 0.058237699 | 6314.029888 | 6314.029888 | 24.51457376 | 0.12 | 0.00 | 0.01 | 0.00 | 30.83 |
| 2026 | SC | Construction and Mining | 22 | Rough Terrain | 500 | 82273.84923 | 0.098924749 | 0.002285907 | 0.014669252 | 82230.65159 | 0.119319267 | 0.002264971 | 0.01474633 | 1508.368136 | 1508.368136 | 5.657209328 | 0.13 | 0.00 | 0.02 | 0.00 | 54.52 |
| 2026 | SC | Construction and Mining | 22 | Rough Terrain | 750 | 12893.73108 | 0.010298874 | 0.000364669 | 0.002309433 | 12893.73108 | 0.052397249 | 0.000377467 | 0.003911149 | 139.8319691 | 139.8319691 | 0.628578814 | 0.15 | 0.01 | 0.03 | 0.00 | 92.21 |
| 2026 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 50 | 138878.1131 | 2.466631291 | 0.318652708 | 0.885253474 | 138397.6026 | 1.391084472 | 0.047645821 | 0.171180381 | 20815.25695 | 20815.25695 | 21.24686544 | 0.24 | 0.03 | 0.09 | 0.03 | 6.65 |
| 2026 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 120 | 662009.9702 | 14.7600488 | 1.258537731 | 1.558899464 | 659510.309 | 9.221542634 | 0.682746364 | 0.95502837 | 55005.05544 | 55005.05544 | 63.22238009 | 0.54 | 0.05 | 0.06 | 0.04 | 11.99 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2026 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 175 | 550571.846 | 11.09260461 | 0.62937833 | 0.939932834 | 550529.0282 | 5.922654299 | 0.32499261 | 0.559956174 | 25241.0966 | 25241.0966 | 32.64762251 | | 0.88 | 0.05 | 0.07 | 0.05 | 21.81 |
| 2026 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 250 | 573762.9678 | 10.3668748 | 0.512941506 | 0.824515643 | 572958.4482 | 5.886719466 | 0.257584054 | 0.493192466 | 18620.45377 | 18620.45377 | 25.39259528 | | 1.11 | 0.06 | 0.09 | 0.05 | 30.77 |
| 2026 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 500 | 6556190.664 | 97.38275741 | 4.57111692 | 8.081528041 | 6552112.209 | 61.27910887 | 2.760498268 | 5.689135492 | 125936.2663 | 125936.2663 | 169.4567073 | | 1.55 | 0.07 | 0.13 | 0.07 | 52.03 |
| 2026 | SC | Construction and Mining | 23 | Rubber Tired Dozers | 750 | 773920.0812 | 11.95974279 | 0.412181067 | 0.770747393 | 772296.612 | 12.34663253 | 0.45425238 | 0.823523404 | 9095.983338 | 9095.983338 | 10.36432461 | | 2.63 | 0.09 | 0.17 | 0.08 | 84.91 |
| 2026 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 50 | 435619.9259 | 5.076664832 | 0.300306048 | 0.965598985 | 435625.78 | 4.869178985 | 0.252437878 | 0.846186198 | 70867.07668 | 70867.07668 | 79.94047233 | | 0.14 | 0.01 | 0.03 | 0.01 | 6.15 |
| 2026 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 120 | 10630400.05 | 102.230512 | 6.615918799 | 10.3491124 | 10635956.67 | 88.63768177 | 5.01429827 | 8.75188744 | 939266.9938 | 939266.9938 | 993.8545208 | | 0.22 | 0.01 | 0.02 | 0.01 | 11.32 |
| 2026 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 175 | 25165573.49 | 134.8106457 | 7.222475559 | 15.40114068 | 25149037.72 | 104.9879683 | 5.448526384 | 13.14256741 | 1266823.957 | 1266823.957 | 1302.273505 | | 0.21 | 0.01 | 0.02 | 0.01 | 19.85 |
| 2026 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 250 | 34699692.66 | 151.1976736 | 5.28194684 | 16.0502251 | 34698429.74 | 130.4479876 | 4.431971528 | 14.67969724 | 1275520.454 | 1275520.454 | 1157.516434 | | 0.24 | 0.01 | 0.03 | 0.01 | 27.20 |
| 2026 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 500 | 45343538.22 | 208.881162 | 7.835673413 | 23.24550389 | 45357054.02 | 179.5038573 | 6.543918258 | 21.19670225 | 1075219.342 | 1075219.342 | 1075.415408 | | 0.39 | 0.01 | 0.04 | 0.01 | 42.18 |
| 2026 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 750 | 8120952.822 | 40.36221741 | 1.462366027 | 4.237097829 | 8143294.225 | 37.58997566 | 1.421970992 | 4.178421963 | 103557.4702 | 103557.4702 | 95.06434547 | | 0.78 | 0.03 | 0.08 | 0.03 | 78.64 |
| 2026 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 1000 | 2333089.777 | 29.44175843 | 0.657615029 | 1.390283627 | 2336751.416 | 21.80731764 | 0.368832902 | 1.009534684 | 21010.23288 | 21010.23288 | 17.28442645 | | 2.80 | 0.06 | 0.13 | 0.06 | 111.22 |
| 2026 | SC | Construction and Mining | 24 | Rubber Tired Loaders | 9999 | 925868.8421 | 11.57223475 | 0.252526612 | 0.506148967 | 925868.8421 | 11.58806357 | 0.253000809 | 0.510837502 | 4615.008061 | 4615.008061 | 3.780968286 | | 5.02 | 0.11 | 0.22 | 0.10 | 200.62 |
| 2026 | SC | Construction and Mining | 25 | Scrapers | 50 | 9986.846163 | 0.174081774 | 0.023367235 | 0.070110802 | 9986.846163 | 0.173985703 | 0.023365508 | 0.070062158 | 1409.890407 | 1409.890407 | 3.736903345 | | 0.25 | 0.03 | 0.10 | 0.03 | 7.08 |
| 2026 | SC | Construction and Mining | 25 | Scrapers | 120 | 454450.6377 | 8.191347963 | 0.632767662 | 0.732537139 | 454358.3856 | 6.720949642 | 0.485285131 | 0.563662383 | 29782.4409 | 29782.4409 | 53.91817683 | | 0.55 | 0.04 | 0.05 | 0.04 | 15.26 |
| 2026 | SC | Construction and Mining | 25 | Scrapers | 175 | 4813364.636 | 45.19070432 | 2.402921347 | 4.03294863 | 4814277.875 | 34.56345298 | 1.793607308 | 3.228939262 | 161265.1424 | 161265.1424 | 346.4643244 | | 0.56 | 0.03 | 0.05 | 0.03 | 29.85 |
| 2026 | SC | Construction and Mining | 25 | Scrapers | 250 | 5537104.76 | 56.81823386 | 2.509193495 | 4.739579807 | 5539244.769 | 43.03705532 | 1.927859222 | 3.835120626 | 139812.752 | 139812.752 | 336.321301 | | 0.81 | 0.04 | 0.07 | 0.03 | 39.62 |
| 2026 | SC | Construction and Mining | 25 | Scrapers | 500 | 48440610.56 | 315.5413684 | 12.71820779 | 28.1434672 | 48412017.57 | 273.6032978 | 10.78845769 | 24.91974608 | 716484.4594 | 716484.4594 | 1478.212195 | | 0.88 | 0.04 | 0.08 | 0.03 | 67.57 |
| 2026 | SC | Construction and Mining | 25 | Scrapers | 750 | 22176179.35 | 104.2342659 | 4.133245869 | 10.20672097 | 22152307.66 | 101.6416218 | 3.883237534 | 9.63701749 | 221360.3348 | 221360.3348 | 421.2023913 | | 0.94 | 0.04 | 0.09 | 0.03 | 100.07 |
| 2026 | SC | Construction and Mining | 25 | Scrapers | 1000 | 346666.2775 | 11.29365148 | 0.5153092 | 0.814108983 | 346666.2775 | 13.94425246 | 0.650132029 | 1.009983705 | 2061.173871 | 2061.173871 | 6.939963355 | | 10.96 | 0.50 | 0.79 | 0.46 | 168.19 |
| 2026 | SC | Construction and Mining | 25 | Scrapers | 9999 | 1260051.726 | 15.26376459 | 0.356784742 | 0.72440171 | 1260051.726 | 14.9102215 | 0.343015338 | 0.679632822 | 3621.367612 | 3621.367612 | 6.939963355 | | 8.43 | 0.20 | 0.40 | 0.18 | 347.95 |
| 2026 | SC | Construction and Mining | 26 | Skid Steer Loaders | 50 | 2372888.352 | 20.30080231 | 0.393230484 | 1.516891355 | 2373024.183 | 20.88127494 | 0.510300143 | 1.75061831 | 361319.5844 | 361319.5844 | 1112.169237 | | 0.11 | 0.00 | 0.01 | 0.00 | 6.57 |
| 2026 | SC | Construction and Mining | 26 | Skid Steer Loaders | 120 | 12608006.79 | 64.65652914 | 1.623914197 | 3.967590329 | 12610168.94 | 68.54230633 | 1.95819451 | 4.201735388 | 1320682.929 | 1320682.929 | 3589.047876 | | 0.10 | 0.00 | 0.01 | 0.00 | 9.55 |
| 2026 | SC | Construction and Mining | 26 | Skid Steer Loaders | 175 | 85315.07843 | 0.283310477 | 0.01001838 | 0.024308018 | 85264.58311 | 0.258269579 | 0.010027762 | 0.023377452 | 4150.747074 | 4150.747074 | 14.88773892 | | 0.14 | 0.00 | 0.01 | 0.00 | 20.54 |
| 2026 | SC | Construction and Mining | 26 | Skid Steer Loaders | 250 | 65232.29004 | 0.151516955 | 0.003980924 | 0.014720752 | 65157.37675 | 0.231741862 | 0.006484282 | 0.017315872 | 2453.971441 | 2453.971441 | 8.270966069 | | 0.12 | 0.00 | 0.01 | 0.00 | 26.55 |
| 2026 | SC | Construction and Mining | 26 | Skid Steer Loaders | 500 | 17986.98326 | 0.014355787 | 0.000507702 | 0.003194865 | 17986.98326 | 0.014312667 | 0.000503827 | 0.003092687 | 493.6560625 | 493.6560625 | 1.654193214 | | 0.06 | 0.00 | 0.01 | 0.00 | 36.44 |
| 2026 | SC | Construction and Mining | 26 | Skid Steer Loaders | 750 | 18973.89681 | 0.140479039 | 0.006210301 | 0.008948753 | 18973.89681 | 0.140479039 | 0.006210301 | 0.008948753 | 264.7141205 | 264.7141205 | 0.551397738 | | 1.06 | 0.05 | 0.07 | 0.04 | 71.68 |
| 2026 | SC | Construction and Mining | 26 | Skid Steer Loaders | 1000 | 30961.99377 | 0.21542083 | 0.001805193 | 0.005528336 | 30961.99377 | 0.214063522 | 0.002794827 | 0.006005301 | 228.9419421 | 228.9419421 | 1.102795476 | | 1.88 | 0.02 | 0.05 | 0.01 | 135.24 |
| 2026 | SC | Construction and Mining | 27 | Surfacing Equipment | 50 | 21947.15747 | 0.198459263 | 0.003141957 | 0.010252953 | 21947.94043 | 0.204535087 | 0.004226649 | 0.01127175 | 4908.772654 | 4908.772654 | 19.50903751 | | 0.08 | 0.00 | 0.00 | 0.00 | 4.47 |
| 2026 | SC | Construction and Mining | 27 | Surfacing Equipment | 120 | 173082.4624 | 1.439688762 | 0.070584727 | 0.108010646 | 173623.4105 | 1.378085113 | 0.064865609 | 0.1007245 | 17512.68102 | 17512.68102 | 62.52896638 | | 0.16 | 0.01 | 0.01 | 0.01 | 9.91 |
| 2026 | SC | Construction and Mining | 27 | Surfacing Equipment | 175 | 88756.76375 | 0.434160054 | 0.019481479 | 0.03599819 | 88916.60489 | 0.390687012 | 0.017054398 | 0.032583417 | 5334.315635 | 5334.315635 | 21.0097327 | | 0.16 | 0.01 | 0.01 | 0.01 | 16.67 |
| 2026 | SC | Construction and Mining | 27 | Surfacing Equipment | 250 | 189033.0483 | 0.897030088 | 0.03235325 | 0.06870635 | 189036.8917 | 0.919306404 | 0.030882251 | 0.066843165 | 7820.005606 | 7820.005606 | 31.51459905 | | 0.23 | 0.01 | 0.02 | 0.01 | 24.17 |
| 2026 | SC | Construction and Mining | 27 | Surfacing Equipment | 500 | 600041.6574 | 1.911307257 | 0.07380837 | 0.16940358 | 600540.358 | 2.010736911 | 0.076943929 | 0.171813112 | 14970.21281 | 14970.21281 | 52.02410003 | | 0.26 | 0.01 | 0.02 | 0.01 | 40.12 |
| 2026 | SC | Construction and Mining | 27 | Surfacing Equipment | 750 | 552500.3011 | 0.986054564 | 0.035456948 | 0.108322351 | 552501.5577 | 0.985787118 | 0.035439078 | 0.107955176 | 8124.165564 | 8124.165564 | 26.01205001 | | 0.24 | 0.01 | 0.03 | 0.01 | 68.01 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2026 | SC | Construction and Mining | 27 | Surfacing Equipment | 1000 | 90070.38774 | 0.809254595 | 0.014318299 | 0.029535104 | 90070.38774 | 0.810405776 | 0.014352786 | 0.029876087 | 995.6020719 | 995.6020719 | 3.501622117 | 1.63 | 0.03 | 0.06 | 0.03 | 90.47 |
| 2026 | SC | Construction and Mining | 27 | Surfacing Equipment | 9999 | 31554.84209 | 0.21827842 | 0.003152341 | 0.007651165 | 31554.84209 | 0.217830377 | 0.003138919 | 0.007518454 | 253.9308233 | 253.9308233 | 1.000463462 | 1.72 | 0.02 | 0.06 | 0.02 | 124.27 |
| 2026 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 50 | 4676797.611 | 47.3662236 | 1.945190007 | 6.365550329 | 4679512.129 | 46.49478996 | 1.741103913 | 5.755350766 | 829941.5979 | 829941.5979 | 1556.396721 | 0.11 | 0.00 | 0.02 | 0.00 | 5.64 |
| 2026 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 120 | 75717671.18 | 482.7176998 | 20.25726461 | 41.17164981 | 75781841.07 | 450.7700649 | 16.5114546 | 37.06222953 | 6702329.084 | 6702329.084 | 10567.77104 | 0.14 | 0.01 | 0.01 | 0.01 | 11.31 |
| 2026 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 175 | 13113839.67 | 45.80854293 | 2.248455706 | 5.380069331 | 13109953.59 | 42.45345481 | 2.081395439 | 5.088983531 | 676932.4626 | 676932.4626 | 1182.21075 | 0.14 | 0.01 | 0.02 | 0.01 | 19.37 |
| 2026 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 250 | 7597497.115 | 25.30090501 | 1.03509805 | 2.892857302 | 7603050.791 | 25.61879572 | 1.014439541 | 2.833217795 | 275767.2706 | 275767.2706 | 472.8842998 | 0.18 | 0.01 | 0.02 | 0.01 | 27.57 |
| 2026 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 500 | 10211180.95 | 28.51419591 | 1.065612575 | 3.600894532 | 10196823.18 | 29.31546366 | 1.113468988 | 3.616163064 | 235865.6528 | 235865.6528 | 426.7889265 | 0.24 | 0.01 | 0.03 | 0.01 | 43.23 |
| 2026 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 750 | 1441360.297 | 3.272365278 | 0.130737293 | 0.446006173 | 1443908.524 | 6.161374058 | 0.258593504 | 0.631713756 | 18807.07054 | 18807.07054 | 29.82641799 | 0.35 | 0.01 | 0.05 | 0.01 | 76.77 |
| 2026 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 1000 | 247922.674 | 1.81599111 | 0.0193735 | 0.052757497 | 243425.2898 | 2.143594025 | 0.037568282 | 0.08352198 | 2051.0513 | 2051.0513 | 2.711492545 | 1.77 | 0.02 | 0.05 | 0.02 | 118.68 |
| 2026 | SC | Construction and Mining | 28 | Tractors/Loaders/Backhoes | 9999 | 3425543.083 | 27.62407232 | 0.412708874 | 1.171343302 | 3425543.083 | 28.02577165 | 0.422798189 | 1.153182159 | 12610.34653 | 12610.34653 | 20.06504483 | 4.38 | 0.07 | 0.19 | 0.06 | 271.65 |
| 2026 | SC | Construction and Mining | 29 | Trenchers | 50 | 1663113.552 | 16.17584525 | 0.695791804 | 2.064753937 | 1662737.347 | 15.85717674 | 0.631892895 | 1.873893161 | 202851.7914 | 202851.7914 | 510.3960159 | 0.16 | 0.01 | 0.02 | 0.01 | 8.20 |
| 2026 | SC | Construction and Mining | 29 | Trenchers | 120 | 1204456.389 | 15.10297581 | 1.017681381 | 1.367624355 | 1205305.164 | 14.77645004 | 0.95180022 | 1.285996892 | 79049.99789 | 79049.99789 | 236.6381528 | 0.38 | 0.03 | 0.03 | 0.02 | 15.25 |
| 2026 | SC | Construction and Mining | 29 | Trenchers | 175 | 245860.8969 | 2.976255208 | 0.153386536 | 0.24629199 | 245851.3487 | 2.63237202 | 0.134274733 | 0.222073894 | 9351.79226 | 9351.79226 | 31.31975552 | 0.64 | 0.03 | 0.05 | 0.03 | 26.29 |
| 2026 | SC | Construction and Mining | 29 | Trenchers | 250 | 483177.8985 | 4.48989402 | 0.200508923 | 0.359301732 | 483117.8391 | 4.329803262 | 0.195739531 | 0.348218846 | 11936.75375 | 11936.75375 | 37.11971024 | 0.75 | 0.03 | 0.06 | 0.03 | 40.47 |
| 2026 | SC | Construction and Mining | 29 | Trenchers | 500 | 812006.707 | 5.050168078 | 0.21289428 | 0.416939083 | 811982.6648 | 4.436016658 | 0.193402893 | 0.384615397 | 12316.4586 | 12316.4586 | 33.63973741 | 0.82 | 0.03 | 0.07 | 0.03 | 65.93 |
| 2026 | SC | Construction and Mining | 29 | Trenchers | 750 | 366794.7971 | 0.334981368 | 0.010131712 | 0.06099486 | 366794.7971 | 0.334981368 | 0.010131712 | 0.06099486 | 3195.592695 | 3195.592695 | 6.959945671 | 0.21 | 0.01 | 0.04 | 0.01 | 114.78 |
| 2026 | SC | Construction and Mining | 29 | Trenchers | 1000 | 21679.56592 | 0.872035615 | 0.040657488 | 0.063161633 | 21679.56592 | 0.872035615 | 0.040657488 | 0.063161633 | 136.6941726 | 136.6941726 | 0.579995473 | 12.76 | 0.59 | 0.92 | 0.55 | 158.60 |
| 2026 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 50 | 1446743.921 | 15.05095522 | 0.714331289 | 2.024166254 | 1446743.921 | 14.70331122 | 0.668176584 | 1.889244494 | 218487.1824 | 218487.1824 | 299.5860755 | 0.14 | 0.01 | 0.02 | 0.01 | 6.62 |
| 2026 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 120 | 2235990.709 | 17.86414638 | 0.9608352 | 1.634422887 | 2235990.709 | 17.38200371 | 0.911630516 | 1.554694066 | 171743.4387 | 171743.4387 | 243.9107871 | 0.21 | 0.01 | 0.02 | 0.01 | 13.02 |
| 2026 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 175 | 557745.3991 | 5.029326244 | 0.221730361 | 0.466094418 | 557745.3991 | 2.746444618 | 0.121279362 | 0.30433029 | 20869.95751 | 20869.95751 | 28.10276461 | 0.48 | 0.02 | 0.04 | 0.02 | 26.72 |
| 2026 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 250 | 297255.8175 | 0.700542797 | 0.024706082 | 0.101472253 | 297255.8175 | 1.270221025 | 0.040332295 | 0.12014976 | 8732.890493 | 8732.890493 | 11.66529852 | 0.16 | 0.01 | 0.02 | 0.01 | 34.04 |
| 2026 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 500 | 82930.48527 | 0.595145337 | 0.020532953 | 0.045357067 | 82930.48527 | 0.594847685 | 0.020506202 | 0.044651745 | 1639.604298 | 1639.604298 | 2.120963366 | 0.73 | 0.03 | 0.06 | 0.02 | 50.58 |
| 2026 | SC | Construction and Mining | 36 | Sweepers/Scrubbers | 1000 | 58119.87728 | 0.403583479 | 0.003364904 | 0.010143218 | 58119.87728 | 0.403583479 | 0.003364904 | 0.010143218 | 409.9010745 | 409.9010745 | 0.530240842 | 1.97 | 0.02 | 0.05 | 0.02 | 141.79 |
| 2011 | SC | Construction and Mining | 12 | Cranes | 50 | 28476.98278 | 0.485292922 | 0.049948008 | 0.144345369 | 28476.98278 | 0.485292922 | 0.049948008 | 0.144345369 | 6040.02545 | 6040.02545 | 15.94926293 | 0.16 | 0.02 | 0.05 | 0.02 | 4.71 |
| 2011 | SC | Construction and Mining | 12 | Cranes | 120 | 679769.0818 | 22.38303111 | 1.66099633 | 2.248404184 | 679769.0818 | 22.38303111 | 1.66099633 | 2.248404184 | 72585.25056 | 72585.25056 | 192.3025416 | 0.62 | 0.05 | 0.06 | 0.04 | 9.37 |
| 2011 | SC | Construction and Mining | 12 | Cranes | 175 | 1793392.147 | 48.00837144 | 2.568730873 | 3.684322473 | 1793392.147 | 48.00837144 | 2.568730873 | 3.684322473 | 114007.531 | 114007.531 | 288.4538124 | 0.84 | 0.05 | 0.06 | 0.04 | 15.73 |
| 2011 | SC | Construction and Mining | 12 | Cranes | 250 | 3028472.197 | 75.33101292 | 3.440724554 | 5.161212011 | 3028472.197 | 75.33101292 | 3.440724554 | 5.161212011 | 131705.2496 | 131705.2496 | 323.997884 | 1.14 | 0.05 | 0.08 | 0.05 | 22.99 |
| 2011 | SC | Construction and Mining | 12 | Cranes | 500 | 4636826.162 | 95.43787453 | 3.942841796 | 5.938496843 | 4636826.162 | 95.43787453 | 3.942841796 | 5.938496843 | 130524.8287 | 130524.8287 | 310.7827805 | 1.46 | 0.06 | 0.09 | 0.06 | 35.52 |
| 2011 | SC | Construction and Mining | 12 | Cranes | 750 | 1223285.128 | 16.48199934 | 0.554998641 | 0.811726404 | 1223285.128 | 16.48199934 | 0.554998641 | 0.811726404 | 20425.28057 | 20425.28057 | 45.56932265 | 1.61 | 0.05 | 0.08 | 0.05 | 59.89 |
| 2011 | SC | Construction and Mining | 12 | Cranes | 1000 | 286140.7671 | 10.00586973 | 0.495180981 | 0.739388577 | 286140.7671 | 10.00586973 | 0.495180981 | 0.739388577 | 2903.570005 | 2903.570005 | 6.835398397 | 6.89 | 0.34 | 0.51 | 0.31 | 98.55 |
| 2011 | SC | Construction and Mining | 12 | Cranes | 9999 | 22039.14719 | 0.426435581 | 0.010153997 | 0.01805077 | 22039.14719 | 0.426435581 | 0.010153997 | 0.01805077 | 202.3709816 | 202.3709816 | 0.455693226 | 4.21 | 0.10 | 0.18 | 0.09 | 108.90 |
| 2011 | SC | Industrial | 31 | Forklifts | 50 | 1400374.673 | 23.67745549 | 2.700096553 | 7.272732316 | 1400374.673 | 23.67745549 | 2.700096553 | 7.272732316 | 402112.8204 | 402112.8204 | 639.0132462 | 0.12 | 0.01 | 0.04 | 0.01 | 3.48 |
| 2011 | SC | Industrial | 31 | Forklifts | 120 | 16870854.26 | 378.4325894 | 31.29391263 | 36.0614079 | 16870854.26 | 378.4325894 | 31.29391263 | 36.0614079 | 2779709.564 | 2779709.564 | 4266.601666 | 0.27 | 0.02 | 0.03 | 0.02 | 6.07 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2011 | SC | Industrial | 31 | Forklifts | 175 | 5327138.013 | 114.2502706 | 6.165105491 | 8.436920104 | 5327138.013 | 114.2502706 | 6.165105491 | 8.436920104 | 511082.1403 | 511082.1403 | 791.6370712 | | 0.45 | 0.02 | 0.03 | 0.02 | 10.42 |
| 2011 | SC | Industrial | 31 | Forklifts | 250 | 1125472.284 | 27.56070608 | 1.284282885 | 1.918545679 | 1125472.284 | 27.56070608 | 1.284282885 | 1.918545679 | 73100.65788 | 73100.65788 | 113.543676 | | 0.75 | 0.04 | 0.05 | 0.03 | 15.40 |
| 2011 | SC | Industrial | 31 | Forklifts | 500 | 329058.3845 | 7.723143967 | 0.362222835 | 0.538501033 | 329058.3845 | 7.723143967 | 0.362222835 | 0.538501033 | 12935.26332 | 12935.26332 | 20.59629471 | | 1.19 | 0.06 | 0.08 | 0.05 | 25.44 |
| 2011 | SC | Industrial | 31 | Forklifts | 1000 | 23221.54042 | 1.089476933 | 0.060844452 | 0.08973 | 23221.54042 | 1.089476933 | 0.060844452 | 0.08973 | 357.7224791 | 357.7224791 | 0.528110121 | | 6.09 | 0.34 | 0.50 | 0.31 | 64.91 |
| 2011 | SC | Industrial | 32 | Other General Industrial Equipment | 50 | 3011617.457 | 46.21162791 | 4.5630426 | 10.48613136 | 3011617.457 | 46.21162791 | 4.5630426 | 10.48613136 | 613788.8212 | 613788.8212 | 852.4733017 | | 0.15 | 0.01 | 0.03 | 0.01 | 4.91 |
| 2011 | SC | Industrial | 32 | Other General Industrial Equipment | 120 | 2435695.126 | 53.26287225 | 4.473173944 | 5.135372646 | 2435695.126 | 53.26287225 | 4.473173944 | 5.135372646 | 266527.0263 | 266527.0263 | 374.1540354 | | 0.40 | 0.03 | 0.04 | 0.03 | 9.14 |
| 2011 | SC | Industrial | 32 | Other General Industrial Equipment | 175 | 1122807.896 | 22.02243296 | 1.187510031 | 1.613281176 | 1122807.896 | 22.02243296 | 1.187510031 | 1.613281176 | 60055.01506 | 60055.01506 | 82.21112389 | | 0.73 | 0.04 | 0.05 | 0.04 | 18.70 |
| 2011 | SC | Industrial | 32 | Other General Industrial Equipment | 250 | 1024387.888 | 22.40601501 | 0.961815381 | 1.447337241 | 1024387.888 | 22.40601501 | 0.961815381 | 1.447337241 | 38977.24108 | 38977.24108 | 55.58593036 | | 1.15 | 0.05 | 0.07 | 0.05 | 26.28 |
| 2011 | SC | Industrial | 32 | Other General Industrial Equipment | 500 | 3166091.138 | 51.53030383 | 1.962203889 | 3.080442154 | 3166091.138 | 51.53030383 | 1.962203889 | 3.080442154 | 71044.96151 | 71044.96151 | 97.15860096 | | 1.45 | 0.06 | 0.09 | 0.05 | 44.56 |
| 2011 | SC | Industrial | 32 | Other General Industrial Equipment | 750 | 1145224.884 | 16.21718208 | 0.560247549 | 0.888925542 | 1145224.884 | 16.21718208 | 0.560247549 | 0.888925542 | 15392.1205 | 15392.1205 | 21.48699829 | | 2.11 | 0.07 | 0.12 | 0.07 | 74.40 |
| 2011 | SC | Industrial | 32 | Other General Industrial Equipment | 1000 | 117049.0999 | 2.169652717 | 0.053747612 | 0.09270351 | 117049.0999 | 2.169652717 | 0.053747612 | 0.09270351 | 1054.663132 | 1054.663132 | 1.401325975 | | 4.11 | 0.10 | 0.18 | 0.09 | 110.98 |
| 2011 | SC | Industrial | 32 | Other General Industrial Equipment | 9999 | 88172.57993 | 1.121761388 | 0.027065094 | 0.036674013 | 88172.57993 | 1.121761388 | 0.027065094 | 0.036674013 | 351.5543772 | 351.5543772 | 0.467108658 | | 6.38 | 0.15 | 0.21 | 0.14 | 250.81 |
| 2016 | SC | Construction and Mining | 12 | Cranes | 50 | 36519.98433 | 0.615987908 | 0.062627902 | 0.181842369 | 36519.98433 | 0.610755791 | 0.060994538 | 0.175969809 | 7746.908784 | 7746.908784 | 18.9744103 | | 0.16 | 0.02 | 0.05 | 0.01 | 4.71 |
| 2016 | SC | Construction and Mining | 12 | Cranes | 120 | 870934.9133 | 26.8137943 | 1.994468174 | 2.687170447 | 871122.8868 | 25.2656231 | 1.86571149 | 2.50755348 | 93097.50758 | 93097.50758 | 228.7771756 | | 0.58 | 0.04 | 0.06 | 0.04 | 9.36 |
| 2016 | SC | Construction and Mining | 12 | Cranes | 175 | 2299086.164 | 56.35934245 | 3.07025906 | 4.407788149 | 2299085.648 | 54.16464594 | 2.934261079 | 4.22019892 | 146225.5334 | 146225.5334 | 343.1657635 | | 0.77 | 0.04 | 0.06 | 0.04 | 15.72 |
| 2016 | SC | Construction and Mining | 12 | Cranes | 250 | 3883420.3 | 91.41541421 | 4.224520552 | 6.436918286 | 3883521.436 | 85.9204572 | 3.898729723 | 5.992796586 | 168924.5456 | 168924.5456 | 385.4515921 | | 1.08 | 0.05 | 0.08 | 0.05 | 22.99 |
| 2016 | SC | Construction and Mining | 12 | Cranes | 500 | 5949420.069 | 106.3839437 | 4.444238936 | 6.930704791 | 5948657.309 | 100.9375775 | 4.166851762 | 6.541571742 | 167410.5433 | 167410.5433 | 369.7299379 | | 1.27 | 0.05 | 0.08 | 0.05 | 35.53 |
| 2016 | SC | Construction and Mining | 12 | Cranes | 750 | 1567724.532 | 20.35640627 | 0.721297633 | 1.139524745 | 1567724.532 | 20.35640627 | 0.721297633 | 1.139524745 | 26197.37065 | 26197.37065 | 54.21260086 | | 1.55 | 0.06 | 0.09 | 0.05 | 59.84 |
| 2016 | SC | Construction and Mining | 12 | Cranes | 1000 | 367010.4724 | 12.91426401 | 0.640695143 | 0.959036049 | 367010.4724 | 12.91426401 | 0.640695143 | 0.959036049 | 3724.105496 | 3724.105496 | 8.131890129 | | 6.94 | 0.34 | 0.52 | 0.32 | 98.55 |
| 2016 | SC | Construction and Mining | 12 | Cranes | 9999 | 28267.30854 | 0.196003712 | 0.004793506 | 0.009943449 | 28267.30854 | 0.196003712 | 0.004793506 | 0.009943449 | 259.5600876 | 259.5600876 | 0.542126009 | | 1.51 | 0.04 | 0.08 | 0.03 | 108.90 |
| 2016 | SC | Industrial | 31 | Forklifts | 50 | 1749947.773 | 27.71530427 | 2.968820842 | 7.934498639 | 1749947.773 | 26.73467477 | 2.75346484 | 7.272298208 | 502491.5459 | 502491.5459 | 740.6767234 | | 0.11 | 0.01 | 0.03 | 0.01 | 3.48 |
| 2016 | SC | Industrial | 31 | Forklifts | 120 | 21082296.34 | 411.8366805 | 34.51072333 | 39.88023215 | 21082296.34 | 394.4250428 | 32.9814168 | 37.87188282 | 3473603.639 | 3473603.639 | 4945.39442 | | 0.24 | 0.02 | 0.02 | 0.02 | 6.07 |
| 2016 | SC | Industrial | 31 | Forklifts | 175 | 6656942.23 | 122.9551424 | 6.806879299 | 9.587495814 | 6656942.23 | 113.4501839 | 6.199047546 | 8.755192387 | 638662.6881 | 638662.6881 | 917.5821556 | | 0.39 | 0.02 | 0.03 | 0.02 | 10.42 |
| 2016 | SC | Industrial | 31 | Forklifts | 250 | 1406421.977 | 30.70425727 | 1.418087448 | 2.197001846 | 1406421.977 | 26.76498539 | 1.179001989 | 1.878212677 | 91348.64824 | 91348.64824 | 131.6078475 | | 0.67 | 0.03 | 0.05 | 0.03 | 15.40 |
| 2016 | SC | Industrial | 31 | Forklifts | 500 | 411200.658 | 7.565797674 | 0.350325344 | 0.549590243 | 411200.658 | 4.975852177 | 0.213792942 | 0.358684124 | 16164.27065 | 16164.27065 | 23.87305141 | | 0.94 | 0.04 | 0.07 | 0.04 | 25.44 |
| 2016 | SC | Industrial | 31 | Forklifts | 1000 | 29018.29326 | 1.361441169 | 0.076032947 | 0.112129144 | 29018.29326 | 1.361441169 | 0.076032947 | 0.112129144 | 447.0201207 | 447.0201207 | 0.612129523 | | 6.09 | 0.34 | 0.50 | 0.31 | 64.91 |
| 2016 | SC | Industrial | 32 | Other General Industrial Equipment | 50 | 3763402.296 | 55.06896457 | 5.185842656 | 12.04949214 | 3763402.296 | 54.83278002 | 5.136287938 | 11.90490164 | 767007.8594 | 767007.8594 | 988.0970944 | | 0.14 | 0.01 | 0.03 | 0.01 | 4.91 |
| 2016 | SC | Industrial | 32 | Other General Industrial Equipment | 120 | 3043713.473 | 58.41163726 | 4.930446756 | 5.659642024 | 3043713.473 | 56.41515269 | 4.754381754 | 5.429135411 | 333059.7053 | 333059.7053 | 433.6798754 | | 0.35 | 0.03 | 0.03 | 0.03 | 9.14 |
| 2016 | SC | Industrial | 32 | Other General Industrial Equipment | 175 | 1403092.483 | 22.91836033 | 1.275483016 | 1.786427608 | 1403092.483 | 21.31102364 | 1.162639 | 1.638004224 | 75046.44425 | 75046.44425 | 95.29045951 | | 0.61 | 0.03 | 0.05 | 0.03 | 18.70 |
| 2016 | SC | Industrial | 32 | Other General Industrial Equipment | 250 | 1280104.059 | 21.40101343 | 0.86483748 | 1.432899047 | 1280104.059 | 20.73924196 | 0.833405496 | 1.384798321 | 48707.06213 | 48707.06213 | 64.42934478 | | 0.88 | 0.04 | 0.06 | 0.03 | 26.28 |
| 2016 | SC | Industrial | 32 | Other General Industrial Equipment | 500 | 3956436.974 | 51.28126877 | 1.994326217 | 3.506874946 | 3956436.974 | 49.22107118 | 1.884875638 | 3.352689938 | 88779.79196 | 88779.79196 | 112.6159976 | | 1.16 | 0.04 | 0.08 | 0.04 | 44.56 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CalendarYear | AirBasin | Equipment Class | EquipmentTypeID | Equipment Type | HorsepowerBin | BaseBSFC | BaseNOx | BasePM | BaseHC | ScenBSFC | ScenNOx | ScenPM | ScenHC | BaseActivity | ScenActivity | Population | NOx | PM | HC | PM2.5 | BSFC per equipment |
| 2016 | SC | Industrial | 32 | Other General Industrial Equipment | 750 | 1431105.384 | 13.97241998 | 0.468616388 | 0.91593068 | 1431105.384 | 13.29412875 | 0.430416452 | 0.860353239 | 19234.42882 | 19234.42882 | 24.90546101 | 1.45 | 0.05 | 0.10 | 0.04 | 74.40 |
| 2016 | SC | Industrial | 32 | Other General Industrial Equipment | 1000 | 146267.8635 | 2.085128065 | 0.049195725 | 0.087970427 | 146267.8635 | 2.085128065 | 0.049195725 | 0.087970427 | 1317.936859 | 1317.936859 | 1.624269196 | 3.16 | 0.07 | 0.13 | 0.07 | 110.98 |
| 2016 | SC | Industrial | 32 | Other General Industrial Equipment | 9999 | 110182.948 | 1.471619647 | 0.039694262 | 0.067373194 | 110182.948 | 1.471619647 | 0.039694262 | 0.067373194 | 439.3122863 | 439.3122863 | 0.541423065 | 6.70 | 0.18 | 0.31 | 0.17 | 250.81 |
| 2021 | SC | Construction and Mining | 12 | Cranes | 50 | 44018.97883 | 0.735095888 | 0.078367724 | 0.217548839 | 44018.97883 | 0.724719314 | 0.076053608 | 0.210597689 | 9339.975433 | 9339.975433 | 21.45693215 | 0.16 | 0.02 | 0.05 | 0.02 | 4.71 |
| 2021 | SC | Construction and Mining | 12 | Cranes | 120 | 1050570.607 | 24.82774343 | 1.830426621 | 2.443619218 | 1050726.276 | 18.16962224 | 1.262659196 | 1.706827301 | 112241.9868 | 112241.9868 | 258.7092962 | 0.44 | 0.03 | 0.04 | 0.03 | 9.36 |
| 2021 | SC | Construction and Mining | 12 | Cranes | 175 | 2771723.242 | 56.57981364 | 3.107822452 | 4.542280266 | 2771143.312 | 42.32961962 | 2.258764509 | 3.410598215 | 176295.2073 | 176295.2073 | 388.0639443 | 0.64 | 0.04 | 0.05 | 0.03 | 15.72 |
| 2021 | SC | Construction and Mining | 12 | Cranes | 250 | 4681278.133 | 90.85568462 | 4.20601755 | 6.623405218 | 4681246.502 | 57.60571843 | 2.338793414 | 4.053675955 | 203662.0218 | 203662.0218 | 435.8822503 | 0.89 | 0.04 | 0.07 | 0.04 | 22.99 |
| 2021 | SC | Construction and Mining | 12 | Cranes | 500 | 7177144.162 | 99.55302293 | 4.193250112 | 6.957856502 | 7178861.713 | 74.16577686 | 2.983995344 | 5.258780808 | 201836.6815 | 201836.6815 | 418.1036493 | 0.99 | 0.04 | 0.07 | 0.04 | 35.57 |
| 2021 | SC | Construction and Mining | 12 | Cranes | 750 | 1888170.559 | 18.48317749 | 0.727218034 | 1.239163321 | 1888104.407 | 15.51667014 | 0.607377753 | 1.071233681 | 31584.572 | 31584.572 | 61.30552043 | 1.17 | 0.05 | 0.08 | 0.04 | 59.78 |
| 2021 | SC | Construction and Mining | 12 | Cranes | 1000 | 442378.5631 | 11.39626346 | 0.495174816 | 0.759702239 | 442378.5631 | 12.33100847 | 0.594516424 | 0.896054556 | 4489.926861 | 4489.926861 | 9.195828065 | 5.08 | 0.22 | 0.34 | 0.20 | 98.53 |
| 2021 | SC | Construction and Mining | 12 | Cranes | 9999 | 34080.16986 | 0.243010174 | 0.006281065 | 0.016229003 | 34080.16986 | 0.243010174 | 0.006281065 | 0.016229003 | 312.9357668 | 312.9357668 | 0.613055204 | 1.55 | 0.04 | 0.10 | 0.04 | 108.90 |
| 2021 | SC | Industrial | 31 | Forklifts | 50 | 2099520.872 | 27.28630248 | 2.158999497 | 5.712018213 | 2099520.872 | 25.60642162 | 1.800311798 | 4.691380875 | 602870.2714 | 602870.2714 | 833.5004809 | 0.09 | 0.01 | 0.02 | 0.01 | 3.48 |
| 2021 | SC | Industrial | 31 | Forklifts | 120 | 25293738.41 | 327.4051683 | 24.75520053 | 30.85364979 | 25293738.41 | 285.6613282 | 20.27668914 | 25.89407539 | 4167497.713 | 4167497.713 | 5565.165608 | 0.16 | 0.01 | 0.01 | 0.01 | 6.07 |
| 2021 | SC | Industrial | 31 | Forklifts | 175 | 7986746.447 | 88.54708172 | 4.785757804 | 7.525920113 | 7986746.447 | 70.05626462 | 3.783113103 | 6.112119982 | 766243.2358 | 766243.2358 | 1032.576216 | 0.23 | 0.01 | 0.02 | 0.01 | 10.42 |
| 2021 | SC | Industrial | 31 | Forklifts | 250 | 1687371.67 | 20.50159304 | 0.878737353 | 1.582478174 | 1687371.67 | 13.05056675 | 0.501284771 | 1.039528402 | 109596.6386 | 109596.6386 | 148.1013251 | 0.37 | 0.02 | 0.03 | 0.01 | 15.40 |
| 2021 | SC | Industrial | 31 | Forklifts | 500 | 493342.9315 | 4.98151563 | 0.204960491 | 0.403868667 | 493342.9315 | 3.400824409 | 0.138554904 | 0.309569142 | 19393.27799 | 19393.27799 | 26.86489153 | 0.51 | 0.02 | 0.04 | 0.02 | 25.44 |
| 2021 | SC | Industrial | 31 | Forklifts | 1000 | 34815.04609 | 1.633405406 | 0.091221442 | 0.134528288 | 34815.04609 | 0.246256811 | 0.00215051 | 0.007409419 | 536.3177624 | 536.3177624 | 0.688843373 | 6.09 | 0.34 | 0.50 | 0.31 | 64.91 |
| 2021 | SC | Industrial | 32 | Other General Industrial Equipment | 50 | 4515187.135 | 54.73569507 | 3.696851048 | 8.917337876 | 4515187.135 | 53.84184212 | 3.515531224 | 8.360103051 | 920226.8977 | 920226.8977 | 1111.928291 | 0.12 | 0.01 | 0.02 | 0.01 | 4.91 |
| 2021 | SC | Industrial | 32 | Other General Industrial Equipment | 120 | 3651731.82 | 46.17196399 | 3.381291536 | 4.314207586 | 3651731.82 | 40.9549609 | 2.81864737 | 3.675108557 | 399592.3843 | 399592.3843 | 488.0298966 | 0.23 | 0.02 | 0.02 | 0.02 | 9.14 |
| 2021 | SC | Industrial | 32 | Other General Industrial Equipment | 175 | 1683377.069 | 14.93939648 | 0.796182563 | 1.313099685 | 1683377.069 | 11.87419488 | 0.611761482 | 1.06222925 | 90037.87343 | 90037.87343 | 107.2325366 | 0.33 | 0.02 | 0.03 | 0.02 | 18.70 |
| 2021 | SC | Industrial | 32 | Other General Industrial Equipment | 250 | 1535820.23 | 14.14385909 | 0.544142592 | 1.100926529 | 1535820.23 | 9.635220843 | 0.320467088 | 0.774749048 | 58436.88318 | 58436.88318 | 72.50381734 | 0.48 | 0.02 | 0.04 | 0.02 | 26.28 |
| 2021 | SC | Industrial | 32 | Other General Industrial Equipment | 500 | 4746782.811 | 34.16082768 | 1.359385187 | 2.954330696 | 4746782.811 | 25.56217914 | 0.913117253 | 2.298613197 | 106514.6224 | 106514.6224 | 126.7293614 | 0.64 | 0.03 | 0.06 | 0.02 | 44.56 |
| 2021 | SC | Industrial | 32 | Other General Industrial Equipment | 750 | 1716985.885 | 7.791591937 | 0.300912932 | 0.736623815 | 1716985.885 | 7.130157198 | 0.279557809 | 0.705385106 | 23076.73715 | 23076.73715 | 28.0266857 | 0.68 | 0.03 | 0.06 | 0.02 | 74.40 |
| 2021 | SC | Industrial | 32 | Other General Industrial Equipment | 1000 | 175486.6272 | 2.569851143 | 0.063065708 | 0.120287472 | 175486.6272 | 2.569851143 | 0.063065708 | 0.120287472 | 1581.210586 | 1581.210586 | 1.827827328 | 3.25 | 0.08 | 0.15 | 0.07 | 110.98 |
| 2021 | SC | Industrial | 32 | Other General Industrial Equipment | 9999 | 132193.3162 | 0.914274702 | 0.007543403 | 0.021982581 | 132193.3162 | 0.914274702 | 0.007543403 | 0.021982581 | 527.0701954 | 527.0701954 | 0.609275776 | 3.47 | 0.03 | 0.08 | 0.03 | 250.81 |
| 2024 | SC | Construction and Mining | 12 | Cranes | 50 | 46149.93667 | 0.75975611 | 0.079746979 | 0.221262422 | 46149.93667 | 0.731314258 | 0.072922716 | 0.202231447 | 9792.639832 | 9792.639832 | 21.73695143 | 0.16 | 0.02 | 0.05 | 0.01 | 4.71 |
| 2024 | SC | Construction and Mining | 12 | Cranes | 120 | 1101549.297 | 20.53418182 | 1.485483338 | 1.997891117 | 1101688.645 | 15.35384599 | 1.001954286 | 1.440179434 | 117681.8246 | 117681.8246 | 262.0855287 | 0.35 | 0.03 | 0.03 | 0.02 | 9.36 |
| 2024 | SC | Construction and Mining | 12 | Cranes | 175 | 2905923.641 | 45.49963748 | 2.529240673 | 3.785584683 | 2905998.104 | 32.1445842 | 1.70304252 | 2.735478262 | 184839.4015 | 184839.4015 | 393.1282931 | 0.49 | 0.03 | 0.04 | 0.03 | 15.72 |
| 2024 | SC | Construction and Mining | 12 | Cranes | 250 | 4908569.303 | 75.96483502 | 3.524053777 | 5.729573865 | 4908726.76 | 43.64523432 | 1.815965571 | 3.414770386 | 213532.556 | 213532.556 | 441.570642 | 0.71 | 0.03 | 0.05 | 0.03 | 22.99 |
| 2024 | SC | Construction and Mining | 12 | Cranes | 500 | 7518576.379 | 81.40238273 | 3.488872025 | 6.155387144 | 7520591.001 | 53.8252478 | 2.175604565 | 4.302947754 | 211618.7501 | 211618.7501 | 423.5600251 | 0.77 | 0.03 | 0.06 | 0.03 | 35.54 |

**Table C.18 CARB Offroad 2011 output**

Used to calculate NOx, PM, HC, and fuel consumption

| | | | | | | lb/yr | ton/yr | ton/yr | ton/yr | lb/yr | ton/yr | ton/yr | ton/yr | hr/yr | hr/yr | | Emissions per Equipment (lb/hr) | | | | lb/hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CalendarYear** | **AirBasin** | **Equipment Class** | **EquipmentTypeID** | **Equipment Type** | **HorsepowerBin** | **BaseBSFC** | **BaseNOx** | **BasePM** | **BaseHC** | **ScenBSFC** | **ScenNOx** | **ScenPM** | **ScenHC** | **BaseActivity** | **ScenActivity** | **Population** | **NOx** | **PM** | **HC** | **PM2.5** | **BSFC per equipment** |
| 2024 | SC | Construction and Mining | 12 | Cranes | 750 | 1978552.892 | 14.42598405 | 0.601468835 | 1.118330114 | 1978691.086 | 11.33212861 | 0.474797192 | 0.940432256 | 33115.32671 | 33115.32671 | 62.10557552 | 0.87 | 0.04 | 0.07 | 0.03 | 59.75 |
| 2024 | SC | Construction and Mining | 12 | Cranes | 1000 | 463818.5581 | 9.73148571 | 0.37891647 | 0.600779453 | 463472.2807 | 10.00581523 | 0.448250399 | 0.692072391 | 4707.532364 | 4707.532364 | 9.315836329 | 4.13 | 0.16 | 0.26 | 0.15 | 98.45 |
| 2024 | SC | Construction and Mining | 12 | Cranes | 9999 | 35731.87438 | 0.258702803 | 0.006878696 | 0.019493443 | 35731.87438 | 0.258702803 | 0.006878696 | 0.019493443 | 328.1022822 | 328.1022822 | 0.621055755 | 1.58 | 0.04 | 0.12 | 0.04 | 108.90 |
| 2024 | SC | Industrial | 31 | Forklifts | 50 | 2309264.732 | 26.94648052 | 1.65690984 | 4.605763177 | 2309264.732 | 25.16925019 | 1.264740265 | 3.564756958 | 663097.5067 | 663097.5067 | 885.8013553 | 0.08 | 0.00 | 0.01 | 0.00 | 3.48 |
| 2024 | SC | Industrial | 31 | Forklifts | 120 | 27820603.65 | 270.1301966 | 17.5353143 | 24.97570801 | 27820603.65 | 235.4303742 | 13.59609804 | 20.74416163 | 4583834.158 | 4583834.158 | 5914.371198 | 0.12 | 0.01 | 0.01 | 0.01 | 6.07 |
| 2024 | SC | Industrial | 31 | Forklifts | 175 | 8784628.978 | 66.86108609 | 3.467151172 | 6.230986404 | 8784628.978 | 49.10524192 | 2.520369953 | 4.886260306 | 842791.5645 | 842791.5645 | 1097.368786 | 0.16 | 0.01 | 0.01 | 0.01 | 10.42 |
| 2024 | SC | Industrial | 31 | Forklifts | 250 | 1855941.485 | 14.13684142 | 0.577366702 | 1.246985857 | 1855941.485 | 9.035835956 | 0.34125706 | 0.898184656 | 120545.4328 | 120545.4328 | 157.3944557 | 0.23 | 0.01 | 0.02 | 0.01 | 15.40 |
| 2024 | SC | Industrial | 31 | Forklifts | 500 | 542628.2956 | 3.674683412 | 0.140889612 | 0.347530698 | 542628.2956 | 2.799514341 | 0.106010473 | 0.2920001 | 21330.68239 | 21330.68239 | 28.5506222 | 0.34 | 0.01 | 0.03 | 0.01 | 25.44 |
| 2024 | SC | Industrial | 31 | Forklifts | 1000 | 38293.09779 | 0.277625474 | 0.002568085 | 0.010154148 | 38293.09779 | 0.277625474 | 0.002568085 | 0.010154148 | 589.8963473 | 589.8963473 | 0.732067236 | 0.94 | 0.01 | 0.03 | 0.01 | 64.91 |
| 2024 | SC | Industrial | 32 | Other General Industrial Equipment | 50 | 4966258.039 | 52.30600121 | 2.328042626 | 6.319919378 | 4966258.039 | 51.64094358 | 2.213275661 | 6.038200399 | 1012158.321 | 1012158.321 | 1181.700083 | 0.10 | 0.00 | 0.01 | 0.00 | 4.91 |
| 2024 | SC | Industrial | 32 | Other General Industrial Equipment | 120 | 4016542.828 | 36.88174331 | 2.190842277 | 3.339573813 | 4016542.828 | 32.80943826 | 1.767707096 | 2.875575882 | 439511.9917 | 439511.9917 | 518.6530227 | 0.17 | 0.01 | 0.02 | 0.01 | 9.14 |
| 2024 | SC | Industrial | 32 | Other General Industrial Equipment | 175 | 1851547.821 | 9.577549023 | 0.480180932 | 0.98564311 | 1851547.821 | 8.054722077 | 0.404703344 | 0.87624318 | 99032.73095 | 99032.73095 | 113.9612135 | 0.19 | 0.01 | 0.02 | 0.01 | 18.70 |
| 2024 | SC | Industrial | 32 | Other General Industrial Equipment | 250 | 1689249.932 | 9.027104188 | 0.367825867 | 0.920620934 | 1689249.932 | 6.675183692 | 0.231399395 | 0.722447231 | 64274.7758 | 64274.7758 | 77.05332047 | 0.28 | 0.01 | 0.03 | 0.01 | 26.28 |
| 2024 | SC | Industrial | 32 | Other General Industrial Equipment | 500 | 5220990.312 | 24.12405949 | 0.954738657 | 2.529644143 | 5220990.312 | 18.04556715 | 0.618439669 | 2.038205419 | 117155.5207 | 117155.5207 | 134.6814341 | 0.41 | 0.02 | 0.04 | 0.01 | 44.56 |
| 2024 | SC | Industrial | 32 | Other General Industrial Equipment | 750 | 1888514.185 | 6.3726991 | 0.277674915 | 0.752464018 | 1888514.185 | 3.550587921 | 0.128513233 | 0.538104411 | 25382.12215 | 25382.12215 | 29.78531716 | 0.50 | 0.02 | 0.06 | 0.02 | 74.40 |
| 2024 | SC | Industrial | 32 | Other General Industrial Equipment | 1000 | 193017.8854 | 2.305787443 | 0.046600423 | 0.09586387 | 193017.8854 | 2.302147222 | 0.04649137 | 0.094785627 | 1739.174823 | 1739.174823 | 1.942520684 | 2.65 | 0.05 | 0.11 | 0.05 | 110.98 |
| 2024 | SC | Industrial | 32 | Other General Industrial Equipment | 9999 | 145399.537 | 1.034162249 | 0.009152313 | 0.032635464 | 145399.537 | 1.034162249 | 0.009152313 | 0.032635464 | 579.7249409 | 579.7249409 | 0.647506895 | 3.57 | 0.03 | 0.11 | 0.03 | 250.81 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.88E+01 | 4.24E+01 | 3.60E+01 | 5.22E-04 | 1.69E-03 | 3.18E-03 | 3.95E-01 | 5.01E-06 | 1.59E-04 | 0.00E+00 | 4.71E-05 | 7.98E-02 | 2.37E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.09E+03 | 2.50E+03 | 3.28E+03 | 1.71E-01 | 4.49E-01 | 3.68E-01 | 3.50E+01 | 4.52E-04 | 3.85E-02 | 0.00E+00 | 1.54E-02 | 3.59E-01 | 3.62E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.29E+03 | 2.95E+03 | 9.36E+03 | 2.04E-01 | 7.45E-01 | 1.23E+00 | 1.02E+02 | 1.20E-03 | 1.07E-01 | 0.00E+00 | 1.84E-02 | 5.05E-01 | 8.11E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.02E+02 | 1.83E+03 | 1.07E+04 | 1.63E-01 | 7.12E-01 | 1.26E+00 | 1.17E+02 | 1.32E-03 | 7.04E-02 | 0.00E+00 | 1.47E-02 | 7.78E-01 | 1.44E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 9.66E+01 | 2.21E+02 | 1.95E+03 | 2.28E-02 | 6.71E-02 | 2.15E-01 | 2.14E+01 | 2.41E-04 | 8.33E-03 | 0.00E+00 | 2.06E-03 | 6.07E-01 | 2.19E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 9.91E+01 | 2.26E+02 | 2.40E+03 | 2.57E-02 | 1.05E-01 | 2.39E-01 | 2.64E+01 | 2.59E-04 | 9.25E-03 | 0.00E+00 | 2.32E-03 | 9.25E-01 | 2.29E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Plate Comp | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.04E+02 | 6.65E+02 | 1.31E+02 | 1.67E-03 | 8.74E-03 | 1.04E-02 | 1.43E+00 | 2.23E-05 | 4.09E-04 | 0.00E+00 | 1.50E-04 | 2.63E-02 | 6.71E-05 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 7.59E+02 | 1.45E+03 | 4.17E+02 | 5.32E-03 | 2.79E-02 | 3.33E-02 | 4.57E+00 | 7.11E-05 | 1.29E-03 | 0.00E+00 | 4.80E-04 | 3.86E-02 | 9.83E-05 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.17E+02 | 6.05E+02 | 3.67E+02 | 4.88E-03 | 1.66E-02 | 3.09E-02 | 4.03E+00 | 5.12E-05 | 1.24E-03 | 0.00E+00 | 4.40E-04 | 5.49E-02 | 1.69E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.87E+02 | 1.90E+03 | 2.30E+03 | 9.72E-02 | 2.76E-01 | 2.45E-01 | 2.47E+01 | 3.19E-04 | 2.32E-02 | 0.00E+00 | 8.77E-03 | 2.91E-01 | 3.36E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.30E+03 | 1.02E+04 | 2.75E+04 | 5.02E-01 | 2.07E+00 | 3.19E+00 | 3.01E+02 | 3.53E-03 | 2.72E-01 | 0.00E+00 | 4.53E-02 | 4.06E-01 | 6.91E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.13E+03 | 4.10E+03 | 2.02E+04 | 2.55E-01 | 1.27E+00 | 2.07E+00 | 2.22E+02 | 2.49E-03 | 1.13E-01 | 0.00E+00 | 2.31E-02 | 6.19E-01 | 1.22E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.02E+02 | 5.82E+02 | 4.04E+03 | 3.67E-02 | 1.13E-01 | 3.81E-01 | 4.45E+01 | 5.01E-04 | 1.31E-02 | 0.00E+00 | 3.31E-03 | 3.88E-01 | 1.72E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.12E+02 | 4.08E+02 | 4.05E+03 | 3.37E-02 | 1.29E-01 | 3.43E-01 | 4.46E+01 | 4.38E-04 | 1.21E-02 | 0.00E+00 | 3.04E-03 | 6.31E-01 | 2.15E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.89E+01 | 1.49E+02 | 6.43E+02 | 1.40E-02 | 5.18E-02 | 8.30E-02 | 7.00E+00 | 8.21E-05 | 7.33E-03 | 0.00E+00 | 1.26E-03 | 6.94E-01 | 1.10E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.48E+02 | 1.37E+03 | 9.24E+03 | 1.41E-01 | 6.21E-01 | 1.06E+00 | 1.01E+02 | 1.14E-03 | 6.03E-02 | 0.00E+00 | 1.27E-02 | 9.10E-01 | 1.66E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.37E+02 | 1.33E+03 | 1.27E+04 | 1.50E-01 | 4.26E-01 | 1.36E+00 | 1.39E+02 | 1.57E-03 | 5.26E-02 | 0.00E+00 | 1.35E-02 | 6.40E-01 | 2.35E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.20E+03 | 3.66E+03 | 5.35E+04 | 5.83E-01 | 2.22E+00 | 5.18E+00 | 5.88E+02 | 5.78E-03 | 2.01E-01 | 0.00E+00 | 5.26E-02 | 1.21E+00 | 3.15E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.97E+02 | 6.02E+02 | 1.52E+04 | 1.66E-01 | 6.28E-01 | 1.50E+00 | 1.67E+02 | 1.68E-03 | 5.76E-02 | 0.00E+00 | 1.50E-02 | 2.09E+00 | 5.58E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.26E+01 | 7.41E+01 | 4.26E+01 | 5.66E-04 | 1.93E-03 | 3.59E-03 | 4.68E-01 | 5.93E-06 | 1.44E-04 | 0.00E+00 | 5.10E-05 | 5.19E-02 | 1.60E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.76E+01 | 6.33E+01 | 7.09E+01 | 3.69E-03 | 9.64E-03 | 7.95E-03 | 7.56E-01 | 9.78E-06 | 8.31E-04 | 0.00E+00 | 3.33E-04 | 3.05E-01 | 3.09E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.98E+02 | 9.12E+02 | 2.28E+03 | 4.95E-02 | 1.80E-01 | 2.99E-01 | 2.48E+01 | 2.91E-04 | 2.61E-02 | 0.00E+00 | 4.47E-03 | 3.95E-01 | 6.39E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.87E+02 | 4.29E+02 | 1.98E+03 | 2.97E-02 | 1.30E-01 | 2.32E-01 | 2.16E+01 | 2.43E-04 | 1.29E-02 | 0.00E+00 | 2.68E-03 | 6.07E-01 | 1.14E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.27E+01 | 1.21E+02 | 6.71E+02 | 7.71E-03 | 2.27E-02 | 7.37E-02 | 7.38E+00 | 8.30E-05 | 2.82E-03 | 0.00E+00 | 6.96E-04 | 3.76E-01 | 1.37E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.51E+01 | 3.11E+01 | 2.04E+01 | 7.42E-04 | 2.18E-03 | 2.11E-03 | 2.19E-01 | 2.84E-06 | 1.85E-04 | 0.00E+00 | 6.69E-05 | 1.40E-01 | 1.82E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.02E+00 | 6.23E+00 | 1.82E+01 | 3.02E-04 | 1.31E-03 | 2.03E-03 | 1.98E-01 | 2.33E-06 | 1.61E-04 | 0.00E+00 | 2.72E-05 | 4.21E-01 | 7.47E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.76E+00 | 4.67E+00 | 1.83E+01 | 2.09E-04 | 1.10E-03 | 1.81E-03 | 2.00E-01 | 2.25E-06 | 9.14E-05 | 0.00E+00 | 1.88E-05 | 4.73E-01 | 9.64E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.53E+00 | 9.34E+00 | 5.71E+01 | 4.78E-04 | 1.57E-03 | 5.22E-03 | 6.29E-01 | 7.08E-06 | 1.75E-04 | 0.00E+00 | 4.32E-05 | 3.37E-01 | 1.52E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.27E+01 | 7.79E+01 | 7.81E+02 | 5.96E-03 | 2.50E-02 | 6.46E-02 | 8.60E+00 | 8.44E-05 | 2.20E-03 | 0.00E+00 | 5.38E-04 | 6.41E-01 | 2.17E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.77E+01 | 4.68E+01 | 7.36E+02 | 5.71E-03 | 2.35E-02 | 6.23E-02 | 8.11E+00 | 8.16E-05 | 2.10E-03 | 0.00E+00 | 5.15E-04 | 1.01E+00 | 3.49E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.53E+03 | 7.26E+03 | 2.04E+03 | 2.61E-02 | 1.37E-01 | 1.63E-01 | 2.24E+01 | 3.48E-04 | 6.37E-03 | 0.00E+00 | 2.35E-03 | 3.76E-02 | 9.59E-05 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.76E+01 | 2.58E+01 | 4.31E+01 | 1.48E-03 | 4.45E-03 | 4.40E-03 | 4.66E-01 | 6.02E-06 | 3.81E-04 | 0.00E+00 | 1.34E-04 | 3.45E-01 | 4.67E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.87E+02 | 4.21E+02 | 1.55E+03 | 2.48E-02 | 1.10E-01 | 1.64E-01 | 1.69E+01 | 1.98E-04 | 1.36E-02 | 0.00E+00 | 2.23E-03 | 5.21E-01 | 9.40E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.78E+02 | 2.61E+02 | 1.84E+03 | 2.00E-02 | 1.09E-01 | 1.74E-01 | 2.02E+01 | 2.27E-04 | 8.95E-03 | 0.00E+00 | 1.81E-03 | 8.33E-01 | 1.74E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.76E+01 | 5.52E+01 | 6.38E+02 | 4.50E-03 | 1.48E-02 | 5.51E-02 | 7.04E+00 | 7.92E-05 | 1.60E-03 | 0.00E+00 | 4.06E-04 | 5.35E-01 | 2.87E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.41E+01 | 1.59E+02 | 6.16E+01 | 7.85E-04 | 4.12E-03 | 4.91E-03 | 6.74E-01 | 1.05E-05 | 1.92E-04 | 0.00E+00 | 7.08E-05 | 5.16E-02 | 1.32E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.91E+01 | 1.68E+02 | 2.52E+02 | 3.33E-03 | 1.14E-02 | 2.11E-02 | 2.76E+00 | 3.50E-05 | 8.17E-04 | 0.00E+00 | 3.01E-04 | 1.35E-01 | 4.17E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.77E+03 | 6.53E+03 | 1.00E+04 | 5.11E-01 | 1.33E+00 | 1.12E+00 | 1.07E+02 | 1.39E-03 | 1.15E-01 | 0.00E+00 | 4.61E-02 | 4.08E-01 | 4.25E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.11E+03 | 8.84E+03 | 2.63E+04 | 5.66E-01 | 2.07E+00 | 3.47E+00 | 2.87E+02 | 3.36E-03 | 2.95E-01 | 0.00E+00 | 5.11E-02 | 4.68E-01 | 7.61E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.60E+02 | 9.68E+02 | 6.36E+03 | 9.45E-02 | 4.17E-01 | 7.50E-01 | 6.96E+01 | 7.83E-04 | 4.10E-02 | 0.00E+00 | 8.53E-03 | 8.62E-01 | 1.62E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.02E+01 | 8.68E+01 | 8.79E+02 | 1.02E-02 | 3.07E-02 | 9.75E-02 | 9.67E+00 | 1.09E-04 | 3.82E-03 | 0.00E+00 | 9.21E-04 | 7.08E-01 | 2.51E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.40E+01 | 1.11E+02 | 1.57E+03 | 1.65E-02 | 7.19E-02 | 1.57E-01 | 1.72E+01 | 1.69E-04 | 6.11E-03 | 0.00E+00 | 1.49E-03 | 1.30E+00 | 3.05E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.54E+00 | 1.30E+01 | 3.48E+02 | 3.69E-03 | 1.60E-02 | 3.56E-02 | 3.82E+00 | 3.85E-05 | 1.37E-03 | 0.00E+00 | 3.33E-04 | 2.45E+00 | 5.90E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 15 | Constructi | U | P | NHH | P | Total | Total | Total | 1.25E+01 | 2.79E+01 | 1.32E+01 | 1.68E-04 | 8.80E-04 | 1.05E-03 | 1.44E-01 | 2.24E-06 | 4.08E-05 | 0.00E+00 | 1.51E-05 | 6.31E-02 | 1.61E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 25 | Constructi | U | P | NHH | P | Total | Total | Total | 3.76E+01 | 8.37E+01 | 6.09E+01 | 8.09E-04 | 2.75E-03 | 5.13E-03 | 6.68E-01 | 8.48E-06 | 2.05E-04 | 0.00E+00 | 7.30E-05 | 6.58E-02 | 2.03E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 1.64E+02 | 3.80E+02 | 5.38E+02 | 5.48E-03 | 4.33E-02 | 4.87E-02 | 5.89E+00 | 7.61E-05 | 2.27E-03 | 0.00E+00 | 4.95E-04 | 2.28E-01 | 4.01E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 5.04E+02 | 1.17E+03 | 4.09E+03 | 2.60E-02 | 2.73E-01 | 2.67E-01 | 4.49E+01 | 5.27E-04 | 1.50E-02 | 0.00E+00 | 2.35E-03 | 4.69E-01 | 9.04E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 1.17E+02 | 2.70E+02 | 1.73E+03 | 9.47E-03 | 1.01E-01 | 9.33E-02 | 1.90E+01 | 2.14E-04 | 4.06E-03 | 0.00E+00 | 8.55E-04 | 7.53E-01 | 1.59E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 1.00E+02 | 2.32E+02 | 1.97E+03 | 9.20E-03 | 3.97E-02 | 8.84E-02 | 2.18E+01 | 2.45E-04 | 2.56E-03 | 0.00E+00 | 8.30E-04 | 3.43E-01 | 2.11E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 2.23E+02 | 5.16E+02 | 7.26E+03 | 3.34E-02 | 1.42E-01 | 3.02E-01 | 8.02E+01 | 7.87E-04 | 9.31E-03 | 0.00E+00 | 3.01E-03 | 5.51E-01 | 3.05E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 1.17E+02 | 2.70E+02 | 7.51E+03 | 3.46E-02 | 1.47E-01 | 3.16E-01 | 8.30E+01 | 8.34E-04 | 9.66E-03 | 0.00E+00 | 3.12E-03 | 1.09E+00 | 6.18E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 1000 | Constructi | U | N | NHH | P | Total | Total | Total | 1.96E+02 | 4.52E+02 | 1.90E+04 | 9.42E-02 | 3.77E-01 | 1.35E+00 | 2.10E+02 | 2.11E-03 | 3.49E-02 | 0.00E+00 | 8.50E-03 | 1.67E+00 | 9.33E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.64E+01 | 1.78E+02 | 1.33E+02 | 1.76E-03 | 6.01E-03 | 1.11E-02 | 1.46E+00 | 1.85E-05 | 4.17E-04 | 0.00E+00 | 1.59E-04 | 6.76E-02 | 2.08E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.75E+03 | 6.82E+03 | 7.91E+03 | 2.78E-01 | 9.67E-01 | 8.37E-01 | 8.52E+01 | 1.10E-03 | 7.23E-02 | 0.00E+00 | 2.51E-02 | 2.84E-01 | 3.23E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.75E+03 | 1.85E+04 | 6.24E+04 | 1.00E+00 | 4.79E+00 | 6.28E+00 | 6.81E+02 | 7.99E-03 | 5.42E-01 | 0.00E+00 | 9.07E-02 | 5.17E-01 | 8.63E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.16E+03 | 3.57E+04 | 1.83E+05 | 2.16E+00 | 1.19E+01 | 1.59E+01 | 2.00E+03 | 2.25E-02 | 9.14E-01 | 0.00E+00 | 1.95E-01 | 6.66E-01 | 1.26E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.72E+03 | 1.45E+04 | 1.04E+05 | 9.02E-01 | 2.57E+00 | 8.24E+00 | 1.15E+03 | 1.30E-02 | 2.70E-01 | 0.00E+00 | 8.13E-02 | 3.54E-01 | 1.78E-03 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.69E+03 | 1.05E+04 | 1.11E+05 | 9.08E-01 | 2.76E+00 | 7.73E+00 | 1.22E+03 | 1.20E-02 | 2.70E-01 | 0.00E+00 | 8.19E-02 | 5.27E-01 | 2.29E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.91E+01 | 2.30E+02 | 4.04E+03 | 3.33E-02 | 1.01E-01 | 2.90E-01 | 4.46E+01 | 4.48E-04 | 1.00E-02 | 0.00E+00 | 3.00E-03 | 8.73E-01 | 3.89E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.02E+00 | 8.15E+00 | 6.11E+00 | 8.09E-05 | 2.76E-04 | 5.12E-04 | 6.71E-02 | 8.51E-07 | 1.98E-05 | 0.00E+00 | 7.30E-06 | 6.78E-02 | 2.09E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.39E+01 | 6.98E+01 | 9.76E+01 | 3.33E-03 | 1.02E-02 | 9.97E-03 | 1.05E+00 | 1.36E-05 | 8.60E-04 | 0.00E+00 | 3.01E-04 | 2.92E-01 | 3.90E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 7.65E+01 | 1.22E+02 | 4.13E+02 | 6.47E-03 | 2.94E-02 | 4.35E-02 | 4.51E+00 | 5.29E-05 | 3.58E-03 | 0.00E+00 | 5.84E-04 | 4.83E-01 | 8.69E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.51E+00 | 3.99E+00 | 2.91E+01 | 3.13E-04 | 1.73E-03 | 2.71E-03 | 3.19E-01 | 3.59E-06 | 1.41E-04 | 0.00E+00 | 2.82E-05 | 8.69E-01 | 1.80E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 6.41E+02 | 5.27E+02 | 1.52E+02 | 1.96E-03 | 1.02E-02 | 1.24E-02 | 1.66E+00 | 2.59E-05 | 5.62E-04 | 0.00E+00 | 1.77E-04 | 3.86E-02 | 9.83E-05 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.77E+01 | 4.75E+01 | 3.80E+01 | 6.41E-04 | 1.93E-03 | 3.58E-03 | 4.16E-01 | 5.28E-06 | 1.97E-04 | 0.00E+00 | 5.79E-05 | 8.12E-02 | 2.23E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 4.27E+01 | 1.50E+02 | 1.62E+02 | 7.59E-03 | 2.16E-02 | 1.79E-02 | 1.74E+00 | 2.24E-05 | 1.79E-03 | 0.00E+00 | 6.85E-04 | 2.89E-01 | 2.99E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 4.68E+02 | 1.64E+03 | 3.78E+03 | 7.54E-02 | 2.97E-01 | 4.52E-01 | 4.12E+01 | 4.83E-04 | 4.05E-02 | 0.00E+00 | 6.81E-03 | 3.61E-01 | 5.88E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 4.68E+02 | 1.64E+03 | 6.03E+03 | 8.47E-02 | 3.96E-01 | 6.38E-01 | 6.60E+01 | 7.42E-04 | 3.65E-02 | 0.00E+00 | 7.64E-03 | 4.82E-01 | 9.03E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 9.07E+02 | 3.19E+03 | 1.62E+04 | 1.66E-01 | 4.69E-01 | 1.58E+00 | 1.78E+02 | 2.01E-03 | 5.58E-02 | 0.00E+00 | 1.49E-02 | 2.95E-01 | 1.26E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 3.32E+02 | 1.17E+03 | 9.54E+03 | 9.05E-02 | 3.09E-01 | 8.30E-01 | 1.05E+02 | 1.03E-03 | 3.02E-02 | 0.00E+00 | 8.16E-03 | 5.29E-01 | 1.77E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 2.45E+02 | 8.60E+02 | 1.18E+04 | 1.13E-01 | 3.83E-01 | 1.06E+00 | 1.30E+02 | 1.31E-03 | 3.80E-02 | 0.00E+00 | 1.02E-02 | 8.89E-01 | 3.04E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 9999 | Constructi | U | N | NHH | P | Total | Total | Total | 3.08E+02 | 1.08E+03 | 4.76E+04 | 5.12E-01 | 1.80E+00 | 5.59E+00 | 5.24E+02 | 5.27E-03 | 1.72E-01 | 0.00E+00 | 4.62E-02 | 3.33E+00 | 9.75E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.76E+01 | 4.58E+01 | 5.87E+01 | 2.47E-03 | 7.46E-03 | 6.34E-03 | 6.30E-01 | 8.14E-06 | 5.99E-04 | 0.00E+00 | 2.23E-04 | 3.26E-01 | 3.56E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.17E+03 | 3.05E+03 | 1.05E+04 | 1.91E-01 | 8.10E-01 | 1.18E+00 | 1.14E+02 | 1.34E-03 | 1.03E-01 | 0.00E+00 | 1.73E-02 | 5.30E-01 | 8.79E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.00E+03 | 1.04E+04 | 5.90E+04 | 7.65E-01 | 3.83E+00 | 5.84E+00 | 6.46E+02 | 7.27E-03 | 3.29E-01 | 0.00E+00 | 6.90E-02 | 7.34E-01 | 1.39E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.48E+03 | 6.47E+03 | 5.05E+04 | 4.83E-01 | 1.40E+00 | 4.59E+00 | 5.57E+02 | 6.26E-03 | 1.60E-01 | 0.00E+00 | 4.35E-02 | 4.33E-01 | 1.93E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.03E+01 | 1.83E+02 | 1.90E+03 | 1.70E-02 | 5.75E-02 | 1.54E-01 | 2.10E+01 | 2.06E-04 | 5.56E-03 | 0.00E+00 | 1.53E-03 | 6.28E-01 | 2.25E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.77E+00 | 9.83E+00 | 2.16E+02 | 1.94E-03 | 6.53E-03 | 1.80E-02 | 2.38E+00 | 2.40E-05 | 6.41E-04 | 0.00E+00 | 1.75E-04 | 1.33E+00 | 4.88E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.15E+01 | 4.45E+02 | 2.54E+03 | 3.20E-02 | 1.68E-01 | 2.29E-01 | 2.78E+01 | 3.13E-04 | 1.34E-02 | 0.00E+00 | 2.89E-03 | 7.57E-01 | 1.41E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.02E+02 | 3.28E+03 | 2.48E+04 | 2.30E-01 | 6.30E-01 | 2.03E+00 | 2.73E+02 | 3.07E-03 | 6.77E-02 | 0.00E+00 | 2.07E-02 | 3.83E-01 | 1.87E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 8.48E+02 | 4.63E+03 | 5.71E+04 | 5.01E-01 | 1.47E+00 | 4.13E+00 | 6.29E+02 | 6.18E-03 | 1.46E-01 | 0.00E+00 | 4.52E-02 | 6.36E-01 | 2.67E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.90E+02 | 4.31E+03 | 8.63E+04 | 7.62E-01 | 2.22E+00 | 6.43E+00 | 9.51E+02 | 9.56E-03 | 2.25E-01 | 0.00E+00 | 6.88E-02 | 1.03E+00 | 4.44E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.71E+02 | 2.02E+03 | 5.72E+04 | 5.53E-01 | 1.69E+00 | 6.03E+00 | 6.30E+02 | 6.34E-03 | 1.81E-01 | 0.00E+00 | 4.99E-02 | 1.67E+00 | 6.28E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 2.01E+02 | 5.26E+02 | 1.08E+03 | 4.57E-02 | 1.32E-01 | 1.14E-01 | 1.16E+01 | 1.49E-04 | 1.11E-02 | 0.00E+00 | 4.13E-03 | 5.00E-01 | 5.69E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 5.66E+02 | 1.48E+03 | 5.64E+03 | 1.04E-01 | 4.27E-01 | 6.33E-01 | 6.15E+01 | 7.22E-04 | 5.77E-02 | 0.00E+00 | 9.37E-03 | 5.76E-01 | 9.74E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 2.40E+02 | 6.27E+02 | 4.79E+03 | 6.09E-02 | 3.01E-01 | 4.78E-01 | 5.24E+01 | 5.90E-04 | 2.71E-02 | 0.00E+00 | 5.49E-03 | 9.61E-01 | 1.88E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 2.38E+01 | 6.24E+01 | 6.91E+02 | 5.76E-03 | 1.69E-02 | 6.30E-02 | 7.62E+00 | 8.58E-05 | 1.93E-03 | 0.00E+00 | 5.20E-04 | 5.42E-01 | 2.75E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 1.34E+02 | 3.52E+02 | 5.95E+03 | 4.58E-02 | 1.49E-01 | 4.76E-01 | 6.56E+01 | 6.44E-04 | 1.55E-02 | 0.00E+00 | 4.13E-03 | 8.47E-01 | 3.66E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 6.28E+00 | 1.65E+01 | 4.39E+02 | 3.40E-03 | 1.08E-02 | 3.65E-02 | 4.84E+00 | 4.87E-05 | 1.16E-03 | 0.00E+00 | 3.07E-04 | 1.32E+00 | 5.92E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 9999 | Constructi | U | N | NHH | P | Total | Total | Total | 6.28E+00 | 1.65E+01 | 9.76E+02 | 9.26E-03 | 3.02E-02 | 1.09E-01 | 1.07E+01 | 1.08E-04 | 3.19E-03 | 0.00E+00 | 8.36E-04 | 3.68E+00 | 1.31E-02 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.39E+02 | 4.33E+02 | 6.80E+02 | 2.55E-02 | 8.16E-02 | 7.17E-02 | 7.32E+00 | 9.46E-05 | 6.49E-03 | 0.00E+00 | 2.30E-03 | 3.77E-01 | 4.37E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 6.67E+03 | 2.07E+04 | 5.92E+04 | 9.89E-01 | 4.48E+00 | 6.20E+00 | 6.46E+02 | 7.58E-03 | 5.48E-01 | 0.00E+00 | 8.92E-02 | 4.32E-01 | 7.32E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.54E+02 | 2.65E+03 | 1.51E+04 | 1.79E-01 | 9.62E-01 | 1.39E+00 | 1.66E+02 | 1.86E-03 | 7.85E-02 | 0.00E+00 | 1.62E-02 | 7.25E-01 | 1.40E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.77E+01 | 1.48E+02 | 1.15E+03 | 9.57E-03 | 2.81E-02 | 9.58E-02 | 1.26E+01 | 1.42E-04 | 3.08E-03 | 0.00E+00 | 8.64E-04 | 3.79E-01 | 1.92E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.14E+01 | 9.74E+01 | 1.13E+03 | 8.88E-03 | 2.78E-02 | 8.32E-02 | 1.25E+01 | 1.23E-04 | 2.84E-03 | 0.00E+00 | 8.01E-04 | 5.71E-01 | 2.52E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.76E+01 | 4.61E+01 | 3.55E+01 | 4.70E-04 | 1.60E-03 | 2.97E-03 | 3.90E-01 | 4.95E-06 | 1.15E-04 | 0.00E+00 | 4.24E-05 | 6.96E-02 | 2.15E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.41E+02 | 9.12E+02 | 1.32E+03 | 5.47E-02 | 1.66E-01 | 1.42E-01 | 1.42E+01 | 1.84E-04 | 1.33E-02 | 0.00E+00 | 4.93E-03 | 3.64E-01 | 4.02E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.28E+03 | 2.48E+04 | 6.69E+04 | 1.20E+00 | 5.15E+00 | 7.45E+00 | 7.30E+02 | 8.56E-03 | 6.51E-01 | 0.00E+00 | 1.09E-01 | 4.15E-01 | 6.90E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.23E+03 | 1.40E+04 | 6.78E+04 | 8.65E-01 | 4.38E+00 | 6.64E+00 | 7.43E+02 | 8.35E-03 | 3.74E-01 | 0.00E+00 | 7.80E-02 | 6.27E-01 | 1.20E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.20E+03 | 1.39E+04 | 9.39E+04 | 8.74E-01 | 2.56E+00 | 8.42E+00 | 1.03E+03 | 1.16E-02 | 2.90E-01 | 0.00E+00 | 7.89E-02 | 3.68E-01 | 1.67E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.16E+03 | 5.79E+03 | 6.22E+04 | 5.40E-01 | 1.85E+00 | 4.96E+00 | 6.85E+02 | 6.72E-03 | 1.77E-01 | 0.00E+00 | 4.87E-02 | 6.39E-01 | 2.32E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.52E+02 | 4.07E+02 | 8.95E+03 | 7.81E-02 | 2.66E-01 | 7.33E-01 | 9.86E+01 | 9.91E-04 | 2.59E-02 | 0.00E+00 | 7.05E-03 | 1.31E+00 | 4.88E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.63E+01 | 4.36E+01 | 1.18E+03 | 1.13E-02 | 4.01E-02 | 1.30E-01 | 1.29E+01 | 1.30E-04 | 3.91E-03 | 0.00E+00 | 1.02E-03 | 1.84E+00 | 5.97E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.25E+01 | 5.60E+01 | 3.32E+02 | 5.93E-03 | 2.37E-02 | 4.35E-02 | 3.62E+00 | 4.08E-05 | 2.50E-03 | 0.00E+00 | 5.35E-04 | 8.45E-01 | 1.46E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.07E+02 | 1.37E+03 | 1.15E+04 | 1.67E-01 | 4.68E-01 | 1.43E+00 | 1.26E+02 | 1.41E-03 | 6.03E-02 | 0.00E+00 | 1.51E-02 | 6.83E-01 | 2.06E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.73E+02 | 2.11E+03 | 2.55E+04 | 3.39E-01 | 1.50E+00 | 2.88E+00 | 2.79E+02 | 2.74E-03 | 1.19E-01 | 0.00E+00 | 3.06E-02 | 1.42E+00 | 2.60E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.67E+02 | 7.46E+02 | 1.36E+04 | 1.81E-01 | 7.97E-01 | 1.56E+00 | 1.49E+02 | 1.49E-03 | 6.40E-02 | 0.00E+00 | 1.63E-02 | 2.14E+00 | 4.01E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.13E+01 | 5.04E+01 | 1.36E+03 | 1.89E-02 | 8.68E-02 | 1.88E-01 | 1.49E+01 | 1.50E-04 | 6.54E-03 | 0.00E+00 | 1.71E-03 | 3.44E+00 | 5.95E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.54E+02 | 9.14E+02 | 6.60E+02 | 8.91E-03 | 3.00E-02 | 5.65E-02 | 7.24E+00 | 9.19E-05 | 2.58E-03 | 0.00E+00 | 8.04E-04 | 6.56E-02 | 2.01E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.11E+03 | 5.60E+03 | 7.87E+03 | 2.50E-01 | 8.96E-01 | 8.10E-01 | 8.50E+01 | 1.10E-03 | 6.67E-02 | 0.00E+00 | 2.26E-02 | 3.20E-01 | 3.92E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.83E+04 | 7.50E+04 | 1.77E+05 | 2.60E+00 | 1.32E+01 | 1.71E+01 | 1.94E+03 | 2.27E-02 | 1.43E+00 | 0.00E+00 | 2.35E-01 | 3.53E-01 | 6.06E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.11E+03 | 5.59E+03 | 2.59E+04 | 2.76E-01 | 1.64E+00 | 2.15E+00 | 2.83E+02 | 3.19E-03 | 1.20E-01 | 0.00E+00 | 2.49E-02 | 5.86E-01 | 1.14E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.82E+02 | 1.81E+03 | 1.41E+04 | 1.09E-01 | 3.31E-01 | 1.05E+00 | 1.55E+02 | 1.75E-03 | 3.34E-02 | 0.00E+00 | 9.82E-03 | 3.66E-01 | 1.93E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.10E+03 | 2.92E+03 | 4.56E+04 | 3.34E-01 | 1.09E+00 | 3.01E+00 | 5.03E+02 | 5.66E-03 | 1.02E-01 | 0.00E+00 | 3.01E-02 | 7.44E-01 | 3.88E-03 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.60E+02 | 2.02E+03 | 4.72E+04 | 3.48E-01 | 1.12E+00 | 3.22E+00 | 5.21E+02 | 5.86E-03 | 1.08E-01 | 0.00E+00 | 3.14E-02 | 1.12E+00 | 5.82E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.76E+01 | 5.04E+01 | 5.87E+01 | 2.96E-03 | 8.17E-03 | 6.62E-03 | 6.27E-01 | 8.10E-06 | 6.80E-04 | 0.00E+00 | 2.67E-04 | 3.24E-01 | 3.21E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.96E+03 | 2.86E+04 | 8.63E+04 | 1.85E+00 | 6.94E+00 | 1.10E+01 | 9.40E+02 | 1.10E-02 | 9.68E-01 | 0.00E+00 | 1.67E-01 | 4.85E-01 | 7.71E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.37E+03 | 9.68E+03 | 5.36E+04 | 8.09E-01 | 3.60E+00 | 6.06E+00 | 5.86E+02 | 6.59E-03 | 3.45E-01 | 0.00E+00 | 7.30E-02 | 7.44E-01 | 1.36E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.90E+03 | 8.32E+03 | 6.27E+04 | 7.33E-01 | 2.08E+00 | 6.63E+00 | 6.90E+02 | 7.77E-03 | 2.55E-01 | 0.00E+00 | 6.61E-02 | 5.00E-01 | 1.87E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.99E+03 | 5.70E+03 | 6.71E+04 | 7.24E-01 | 2.71E+00 | 6.38E+00 | 7.38E+02 | 7.24E-03 | 2.47E-01 | 0.00E+00 | 6.53E-02 | 9.50E-01 | 2.54E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.01E+02 | 2.89E+02 | 6.09E+03 | 6.60E-02 | 2.45E-01 | 5.91E-01 | 6.70E+01 | 6.74E-04 | 2.27E-02 | 0.00E+00 | 5.95E-03 | 1.70E+00 | 4.67E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.01E+02 | 2.88E+02 | 8.63E+03 | 9.94E-02 | 3.89E-01 | 1.06E+00 | 9.48E+01 | 9.53E-04 | 3.40E-02 | 0.00E+00 | 8.97E-03 | 2.70E+00 | 6.61E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.41E+03 | 5.51E+03 | 3.46E+03 | 5.55E-02 | 1.71E-01 | 3.21E-01 | 3.80E+01 | 4.82E-04 | 1.73E-02 | 0.00E+00 | 5.01E-03 | 6.20E-02 | 1.75E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.18E+04 | 5.09E+04 | 5.97E+04 | 1.31E+00 | 5.75E+00 | 5.79E+00 | 6.48E+02 | 8.38E-03 | 3.99E-01 | 0.00E+00 | 1.19E-01 | 2.26E-01 | 3.30E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.14E+04 | 2.67E+04 | 5.20E+04 | 5.71E-01 | 3.66E+00 | 4.35E+00 | 5.69E+02 | 6.68E-03 | 3.26E-01 | 0.00E+00 | 5.15E-02 | 2.75E-01 | 5.01E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.25E+00 | 3.84E+00 | 1.65E+01 | 4.05E-04 | 1.38E-03 | 2.37E-03 | 1.80E-01 | 2.11E-06 | 2.07E-04 | 0.00E+00 | 3.66E-05 | 7.18E-01 | 1.10E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.53E+03 | 4.70E+03 | 2.80E+04 | 4.80E-01 | 1.96E+00 | 3.60E+00 | 3.06E+02 | 3.44E-03 | 2.04E-01 | 0.00E+00 | 4.33E-02 | 8.33E-01 | 1.47E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.45E+03 | 4.44E+03 | 2.63E+04 | 3.64E-01 | 1.04E+00 | 3.21E+00 | 2.89E+02 | 3.25E-03 | 1.33E-01 | 0.00E+00 | 3.28E-02 | 4.69E-01 | 1.47E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.31E+02 | 1.93E+03 | 5.00E+04 | 6.31E-01 | 2.79E+00 | 5.60E+00 | 5.48E+02 | 5.51E-03 | 2.27E-01 | 0.00E+00 | 5.70E-02 | 2.89E+00 | 5.71E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.66E+01 | 2.04E+02 | 7.56E+03 | 1.00E-01 | 4.59E-01 | 1.02E+00 | 8.29E+01 | 8.33E-04 | 3.50E-02 | 0.00E+00 | 9.02E-03 | 4.51E+00 | 8.18E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Dumpers/T | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.01E+01 | 5.47E+01 | 1.90E+01 | 2.64E-04 | 8.74E-04 | 1.64E-03 | 2.08E-01 | 2.64E-06 | 7.91E-05 | 0.00E+00 | 2.38E-05 | 3.20E-02 | 9.67E-05 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.15E+02 | 7.86E+02 | 3.62E+02 | 4.62E-03 | 2.42E-02 | 2.89E-02 | 3.97E+00 | 6.17E-05 | 1.12E-03 | 0.00E+00 | 4.17E-04 | 6.17E-02 | 1.57E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 7.03E+01 | 1.33E+02 | 7.99E+01 | 1.06E-03 | 3.61E-03 | 6.73E-03 | 8.78E-01 | 1.11E-05 | 2.69E-04 | 0.00E+00 | 9.58E-05 | 5.44E-02 | 1.68E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.08E+02 | 2.08E+02 | 2.68E+02 | 7.82E-03 | 2.75E-02 | 2.68E-02 | 2.91E+00 | 3.76E-05 | 2.13E-03 | 0.00E+00 | 7.05E-04 | 2.65E-01 | 3.62E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.78E+02 | 3.43E+02 | 1.27E+03 | 1.72E-02 | 9.04E-02 | 1.20E-01 | 1.39E+01 | 1.63E-04 | 9.72E-03 | 0.00E+00 | 1.56E-03 | 5.27E-01 | 9.48E-04 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.46E+02 | 4.74E+02 | 2.30E+03 | 2.21E-02 | 1.39E-01 | 1.90E-01 | 2.52E+01 | 2.84E-04 | 9.93E-03 | 0.00E+00 | 2.00E-03 | 5.87E-01 | 1.20E-03 |
| 2013 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.71E+02 | 1.10E+03 | 1.26E+04 | 7.97E-02 | 2.87E-01 | 8.34E-01 | 1.40E+02 | 1.37E-03 | 2.70E-02 | 0.00E+00 | 7.19E-03 | 5.23E-01 | 2.49E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.91E+01 | 4.30E+01 | 3.65E+01 | 5.14E-04 | 1.69E-03 | 3.16E-03 | 4.01E-01 | 5.09E-06 | 1.51E-04 | 0.00E+00 | 4.63E-05 | 7.88E-02 | 2.37E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.11E+03 | 2.54E+03 | 3.32E+03 | 1.62E-01 | 4.44E-01 | 3.63E-01 | 3.55E+01 | 4.59E-04 | 3.67E-02 | 0.00E+00 | 1.47E-02 | 3.50E-01 | 3.62E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.31E+03 | 2.99E+03 | 9.49E+03 | 1.96E-01 | 7.49E-01 | 1.19E+00 | 1.03E+02 | 1.21E-03 | 1.02E-01 | 0.00E+00 | 1.77E-02 | 5.01E-01 | 8.11E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.14E+02 | 1.86E+03 | 1.09E+04 | 1.57E-01 | 7.19E-01 | 1.21E+00 | 1.19E+02 | 1.34E-03 | 6.69E-02 | 0.00E+00 | 1.42E-02 | 7.74E-01 | 1.44E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 9.81E+01 | 2.24E+02 | 1.98E+03 | 2.20E-02 | 6.52E-02 | 2.02E-01 | 2.18E+01 | 2.45E-04 | 7.79E-03 | 0.00E+00 | 1.98E-03 | 5.82E-01 | 2.19E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.01E+02 | 2.30E+02 | 2.44E+03 | 2.49E-02 | 9.93E-02 | 2.24E-01 | 2.68E+01 | 2.63E-04 | 8.68E-03 | 0.00E+00 | 2.24E-03 | 8.64E-01 | 2.29E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Plate Comp | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.10E+02 | 6.75E+02 | 1.33E+02 | 1.69E-03 | 8.88E-03 | 1.06E-02 | 1.45E+00 | 2.26E-05 | 4.13E-04 | 0.00E+00 | 1.53E-04 | 2.63E-02 | 6.71E-05 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 7.71E+02 | 1.47E+03 | 4.24E+02 | 5.40E-03 | 2.83E-02 | 3.38E-02 | 4.64E+00 | 7.22E-05 | 1.32E-03 | 0.00E+00 | 4.87E-04 | 3.86E-02 | 9.83E-05 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.22E+02 | 6.14E+02 | 3.73E+02 | 4.94E-03 | 1.69E-02 | 3.13E-02 | 4.09E+00 | 5.20E-05 | 1.22E-03 | 0.00E+00 | 4.46E-04 | 5.49E-02 | 1.69E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.00E+03 | 1.93E+03 | 2.33E+03 | 9.12E-02 | 2.73E-01 | 2.40E-01 | 2.50E+01 | 3.24E-04 | 2.18E-02 | 0.00E+00 | 8.23E-03 | 2.83E-01 | 3.36E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.38E+03 | 1.04E+04 | 2.80E+04 | 4.77E-01 | 2.08E+00 | 3.06E+00 | 3.05E+02 | 3.58E-03 | 2.55E-01 | 0.00E+00 | 4.30E-02 | 4.03E-01 | 6.91E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.16E+03 | 4.16E+03 | 2.05E+04 | 2.45E-01 | 1.29E+00 | 1.98E+00 | 2.25E+02 | 2.53E-03 | 1.06E-01 | 0.00E+00 | 2.21E-02 | 6.18E-01 | 1.22E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.07E+02 | 5.91E+02 | 4.10E+03 | 3.48E-02 | 1.10E-01 | 3.54E-01 | 4.52E+01 | 5.08E-04 | 1.20E-02 | 0.00E+00 | 3.14E-03 | 3.71E-01 | 1.72E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.15E+02 | 4.14E+02 | 4.11E+03 | 3.22E-02 | 1.23E-01 | 3.17E-01 | 4.53E+01 | 4.45E-04 | 1.11E-02 | 0.00E+00 | 2.90E-03 | 5.92E-01 | 2.15E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.97E+01 | 1.51E+02 | 6.52E+02 | 1.34E-02 | 5.20E-02 | 7.99E-02 | 7.10E+00 | 8.33E-05 | 6.91E-03 | 0.00E+00 | 1.21E-03 | 6.88E-01 | 1.10E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.55E+02 | 1.39E+03 | 9.37E+03 | 1.37E-01 | 6.28E-01 | 1.02E+00 | 1.03E+02 | 1.15E-03 | 5.70E-02 | 0.00E+00 | 1.23E-02 | 9.06E-01 | 1.66E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.43E+02 | 1.35E+03 | 1.28E+04 | 1.44E-01 | 4.15E-01 | 1.28E+00 | 1.41E+02 | 1.59E-03 | 4.90E-02 | 0.00E+00 | 1.30E-02 | 6.14E-01 | 2.35E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.22E+03 | 3.72E+03 | 5.43E+04 | 5.63E-01 | 2.11E+00 | 4.86E+00 | 5.97E+02 | 5.86E-03 | 1.88E-01 | 0.00E+00 | 5.08E-02 | 1.13E+00 | 3.15E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.00E+02 | 6.10E+02 | 1.54E+04 | 1.60E-01 | 5.98E-01 | 1.41E+00 | 1.69E+02 | 1.70E-03 | 5.39E-02 | 0.00E+00 | 1.45E-02 | 1.96E+00 | 5.58E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.31E+01 | 7.53E+01 | 4.33E+01 | 5.74E-04 | 1.96E-03 | 3.63E-03 | 4.75E-01 | 6.03E-06 | 1.42E-04 | 0.00E+00 | 5.18E-05 | 5.19E-02 | 1.60E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.80E+01 | 6.42E+01 | 7.18E+01 | 3.51E-03 | 9.54E-03 | 7.83E-03 | 7.68E-01 | 9.93E-06 | 7.93E-04 | 0.00E+00 | 3.17E-04 | 2.97E-01 | 3.09E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.04E+02 | 9.26E+02 | 2.31E+03 | 4.75E-02 | 1.81E-01 | 2.89E-01 | 2.52E+01 | 2.96E-04 | 2.49E-02 | 0.00E+00 | 4.29E-03 | 3.92E-01 | 6.39E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.90E+02 | 4.35E+02 | 2.01E+03 | 2.88E-02 | 1.31E-01 | 2.23E-01 | 2.20E+01 | 2.47E-04 | 1.23E-02 | 0.00E+00 | 2.59E-03 | 6.04E-01 | 1.14E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.35E+01 | 1.23E+02 | 6.81E+02 | 7.39E-03 | 2.20E-02 | 6.94E-02 | 7.49E+00 | 8.43E-05 | 2.63E-03 | 0.00E+00 | 6.67E-04 | 3.59E-01 | 1.37E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.55E+01 | 3.16E+01 | 2.06E+01 | 6.98E-04 | 2.16E-03 | 2.07E-03 | 2.23E-01 | 2.88E-06 | 1.73E-04 | 0.00E+00 | 6.29E-05 | 1.37E-01 | 1.82E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.10E+00 | 6.32E+00 | 1.84E+01 | 2.86E-04 | 1.32E-03 | 1.95E-03 | 2.01E-01 | 2.36E-06 | 1.51E-04 | 0.00E+00 | 2.58E-05 | 4.18E-01 | 7.47E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.82E+00 | 4.74E+00 | 1.85E+01 | 2.00E-04 | 1.12E-03 | 1.73E-03 | 2.03E-01 | 2.29E-06 | 8.59E-05 | 0.00E+00 | 1.80E-05 | 4.71E-01 | 9.64E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.64E+00 | 9.49E+00 | 5.79E+01 | 4.53E-04 | 1.53E-03 | 4.85E-03 | 6.39E-01 | 7.19E-06 | 1.62E-04 | 0.00E+00 | 4.09E-05 | 3.23E-01 | 1.52E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.37E+01 | 7.91E+01 | 7.92E+02 | 5.66E-03 | 2.40E-02 | 5.99E-02 | 8.74E+00 | 8.58E-05 | 2.04E-03 | 0.00E+00 | 5.11E-04 | 6.06E-01 | 2.17E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.83E+01 | 4.75E+01 | 7.47E+02 | 5.42E-03 | 2.26E-02 | 5.78E-02 | 8.24E+00 | 8.28E-05 | 1.94E-03 | 0.00E+00 | 4.89E-04 | 9.51E-01 | 3.49E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.59E+03 | 7.38E+03 | 2.08E+03 | 2.65E-02 | 1.39E-01 | 1.66E-01 | 2.27E+01 | 3.54E-04 | 6.48E-03 | 0.00E+00 | 2.39E-03 | 3.76E-02 | 9.59E-05 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.78E+01 | 2.62E+01 | 4.37E+01 | 1.35E-03 | 4.36E-03 | 4.28E-03 | 4.73E-01 | 6.12E-06 | 3.52E-04 | 0.00E+00 | 1.22E-04 | 3.33E-01 | 4.67E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.92E+02 | 4.28E+02 | 1.57E+03 | 2.29E-02 | 1.10E-01 | 1.57E-01 | 1.72E+01 | 2.01E-04 | 1.25E-02 | 0.00E+00 | 2.07E-03 | 5.16E-01 | 9.40E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.81E+02 | 2.65E+02 | 1.87E+03 | 1.88E-02 | 1.10E-01 | 1.65E-01 | 2.05E+01 | 2.31E-04 | 8.24E-03 | 0.00E+00 | 1.69E-03 | 8.31E-01 | 1.74E-03 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.82E+01 | 5.61E+01 | 6.48E+02 | 4.26E-03 | 1.46E-02 | 5.06E-02 | 7.15E+00 | 8.05E-05 | 1.47E-03 | 0.00E+00 | 3.84E-04 | 5.21E-01 | 2.87E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.56E+01 | 1.62E+02 | 6.26E+01 | 7.97E-04 | 4.18E-03 | 4.99E-03 | 6.85E-01 | 1.07E-05 | 1.95E-04 | 0.00E+00 | 7.19E-05 | 5.16E-02 | 1.32E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.01E+02 | 1.71E+02 | 2.55E+02 | 3.38E-03 | 1.15E-02 | 2.14E-02 | 2.80E+00 | 3.56E-05 | 8.12E-04 | 0.00E+00 | 3.05E-04 | 1.35E-01 | 4.17E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.83E+03 | 6.62E+03 | 1.02E+04 | 4.89E-01 | 1.32E+00 | 1.10E+00 | 1.09E+02 | 1.41E-03 | 1.10E-01 | 0.00E+00 | 4.41E-02 | 3.99E-01 | 4.25E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.19E+03 | 8.97E+03 | 2.67E+04 | 5.43E-01 | 2.08E+00 | 3.36E+00 | 2.91E+02 | 3.41E-03 | 2.82E-01 | 0.00E+00 | 4.90E-02 | 4.64E-01 | 7.61E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.68E+02 | 9.82E+02 | 6.45E+03 | 9.15E-02 | 4.21E-01 | 7.25E-01 | 7.06E+01 | 7.94E-04 | 3.91E-02 | 0.00E+00 | 8.25E-03 | 8.57E-01 | 1.62E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.10E+01 | 8.81E+01 | 8.91E+02 | 9.79E-03 | 2.99E-02 | 9.21E-02 | 9.81E+00 | 1.10E-04 | 3.58E-03 | 0.00E+00 | 8.83E-04 | 6.78E-01 | 2.51E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.50E+01 | 1.12E+02 | 1.59E+03 | 1.59E-02 | 6.80E-02 | 1.48E-01 | 1.75E+01 | 1.71E-04 | 5.74E-03 | 0.00E+00 | 1.43E-03 | 1.21E+00 | 3.05E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.66E+00 | 1.32E+01 | 3.53E+02 | 3.56E-03 | 1.51E-02 | 3.36E-02 | 3.88E+00 | 3.90E-05 | 1.29E-03 | 0.00E+00 | 3.21E-04 | 2.28E+00 | 5.90E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 15 | Constructi | U | P | NHH | P | Total | Total | Total | 1.27E+01 | 2.83E+01 | 1.34E+01 | 1.70E-04 | 8.94E-04 | 1.07E-03 | 1.46E-01 | 2.28E-06 | 4.16E-05 | 0.00E+00 | 1.54E-05 | 6.31E-02 | 1.61E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 25 | Constructi | U | P | NHH | P | Total | Total | Total | 3.82E+01 | 8.50E+01 | 6.18E+01 | 8.20E-04 | 2.80E-03 | 5.19E-03 | 6.79E-01 | 8.61E-06 | 2.02E-04 | 0.00E+00 | 7.40E-05 | 6.58E-02 | 2.03E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 1.67E+02 | 3.85E+02 | 5.46E+02 | 4.91E-03 | 4.34E-02 | 4.61E-02 | 5.98E+00 | 7.72E-05 | 1.84E-03 | 0.00E+00 | 4.43E-04 | 2.25E-01 | 4.01E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 5.12E+02 | 1.18E+03 | 4.15E+03 | 2.41E-02 | 2.77E-01 | 2.51E-01 | 4.56E+01 | 5.34E-04 | 1.20E-02 | 0.00E+00 | 2.18E-03 | 4.68E-01 | 9.04E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 1.18E+02 | 2.74E+02 | 1.75E+03 | 9.17E-03 | 1.03E-01 | 8.92E-02 | 1.93E+01 | 2.17E-04 | 3.37E-03 | 0.00E+00 | 8.28E-04 | 7.53E-01 | 1.59E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 1.02E+02 | 2.35E+02 | 2.00E+03 | 8.66E-03 | 4.03E-02 | 7.22E-02 | 2.21E+01 | 2.49E-04 | 2.11E-03 | 0.00E+00 | 7.81E-04 | 3.42E-01 | 2.11E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 2.27E+02 | 5.24E+02 | 7.37E+03 | 3.15E-02 | 1.44E-01 | 2.49E-01 | 8.14E+01 | 7.99E-04 | 7.69E-03 | 0.00E+00 | 2.85E-03 | 5.51E-01 | 3.05E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 1.19E+02 | 2.74E+02 | 7.62E+03 | 3.27E-02 | 1.49E-01 | 2.60E-01 | 8.42E+01 | 8.47E-04 | 7.98E-03 | 0.00E+00 | 2.95E-03 | 1.09E+00 | 6.18E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 1000 | Constructi | U | N | NHH | P | Total | Total | Total | 1.99E+02 | 4.59E+02 | 1.93E+04 | 8.93E-02 | 3.81E-01 | 1.24E+00 | 2.13E+02 | 2.14E-03 | 3.24E-02 | 0.00E+00 | 8.06E-03 | 1.66E+00 | 9.33E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.71E+01 | 1.80E+02 | 1.35E+02 | 1.79E-03 | 6.10E-03 | 1.13E-02 | 1.48E+00 | 1.88E-05 | 4.21E-04 | 0.00E+00 | 1.61E-04 | 6.76E-02 | 2.08E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.77E+03 | 6.92E+03 | 8.01E+03 | 2.52E-01 | 9.53E-01 | 8.14E-01 | 8.65E+01 | 1.12E-03 | 6.53E-02 | 0.00E+00 | 2.27E-02 | 2.75E-01 | 3.23E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.82E+03 | 1.88E+04 | 6.33E+04 | 9.36E-01 | 4.82E+00 | 5.94E+00 | 6.91E+02 | 8.11E-03 | 4.87E-01 | 0.00E+00 | 8.45E-02 | 5.13E-01 | 8.63E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.30E+03 | 3.62E+04 | 1.85E+05 | 2.05E+00 | 1.21E+01 | 1.51E+01 | 2.03E+03 | 2.29E-02 | 8.28E-01 | 0.00E+00 | 1.85E-01 | 6.65E-01 | 1.26E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.78E+03 | 1.47E+04 | 1.06E+05 | 8.69E-01 | 2.56E+00 | 7.44E+00 | 1.17E+03 | 1.31E-02 | 2.46E-01 | 0.00E+00 | 7.84E-02 | 3.48E-01 | 1.78E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.73E+03 | 1.06E+04 | 1.13E+05 | 8.80E-01 | 2.71E+00 | 6.97E+00 | 1.24E+03 | 1.22E-02 | 2.46E-01 | 0.00E+00 | 7.94E-02 | 5.10E-01 | 2.29E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.00E+01 | 2.34E+02 | 4.10E+03 | 3.22E-02 | 9.87E-02 | 2.62E-01 | 4.52E+01 | 4.55E-04 | 9.12E-03 | 0.00E+00 | 2.91E-03 | 8.45E-01 | 3.89E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Concrete/Ir | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.10E+00 | 8.27E+00 | 6.20E+00 | 8.22E-05 | 2.80E-04 | 5.19E-04 | 6.81E-02 | 8.64E-07 | 1.97E-05 | 0.00E+00 | 7.41E-06 | 6.78E-02 | 2.09E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Concrete/Ir | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.46E+01 | 7.09E+01 | 9.89E+01 | 3.06E-03 | 1.00E-02 | 9.74E-03 | 1.07E+00 | 1.38E-05 | 7.99E-04 | 0.00E+00 | 2.76E-04 | 2.82E-01 | 3.90E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Concrete/Ir | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 7.77E+01 | 1.24E+02 | 4.19E+02 | 6.04E-03 | 2.96E-02 | 4.16E-02 | 4.58E+00 | 5.37E-05 | 3.32E-03 | 0.00E+00 | 5.45E-04 | 4.79E-01 | 8.69E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Concrete/Ir | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.55E+00 | 4.05E+00 | 2.96E+01 | 2.95E-04 | 1.76E-03 | 2.59E-03 | 3.24E-01 | 3.65E-06 | 1.31E-04 | 0.00E+00 | 2.66E-05 | 8.68E-01 | 1.80E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 6.51E+02 | 5.36E+02 | 1.54E+02 | 1.98E-03 | 1.03E-02 | 1.25E-02 | 1.69E+00 | 2.63E-05 | 5.27E-04 | 0.00E+00 | 1.79E-04 | 3.86E-02 | 9.83E-05 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.86E+01 | 4.82E+01 | 3.86E+01 | 6.23E-04 | 1.91E-03 | 3.57E-03 | 4.23E-01 | 5.37E-06 | 1.88E-04 | 0.00E+00 | 5.63E-05 | 7.94E-02 | 2.23E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 4.33E+01 | 1.52E+02 | 1.64E+02 | 7.08E-03 | 2.13E-02 | 1.76E-02 | 1.76E+00 | 2.28E-05 | 1.68E-03 | 0.00E+00 | 6.39E-04 | 2.81E-01 | 2.99E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 4.75E+02 | 1.67E+03 | 3.83E+03 | 7.16E-02 | 2.99E-01 | 4.33E-01 | 4.18E+01 | 4.90E-04 | 3.78E-02 | 0.00E+00 | 6.46E-03 | 3.58E-01 | 5.88E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 4.75E+02 | 1.67E+03 | 6.12E+03 | 8.15E-02 | 4.01E-01 | 6.09E-01 | 6.70E+01 | 7.54E-04 | 3.43E-02 | 0.00E+00 | 7.35E-03 | 4.80E-01 | 9.03E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 9.21E+02 | 3.23E+03 | 1.64E+04 | 1.58E-01 | 4.55E-01 | 1.47E+00 | 1.81E+02 | 2.04E-03 | 5.12E-02 | 0.00E+00 | 1.43E-02 | 2.81E-01 | 1.26E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 3.38E+02 | 1.19E+03 | 9.68E+03 | 8.69E-02 | 2.93E-01 | 7.69E-01 | 1.07E+02 | 1.05E-03 | 2.78E-02 | 0.00E+00 | 7.84E-03 | 4.94E-01 | 1.77E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 2.49E+02 | 8.74E+02 | 1.20E+04 | 1.08E-01 | 3.63E-01 | 9.79E-01 | 1.32E+02 | 1.33E-03 | 3.50E-02 | 0.00E+00 | 9.78E-03 | 8.31E-01 | 3.04E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 9999 | Constructi | U | N | NHH | P | Total | Total | Total | 3.13E+02 | 1.10E+03 | 4.83E+04 | 5.00E-01 | 1.70E+00 | 5.37E+00 | 5.32E+02 | 5.35E-03 | 1.64E-01 | 0.00E+00 | 4.51E-02 | 3.10E+00 | 9.75E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.78E+01 | 4.65E+01 | 5.95E+01 | 2.29E-03 | 7.36E-03 | 6.19E-03 | 6.39E-01 | 8.27E-06 | 5.55E-04 | 0.00E+00 | 2.06E-04 | 3.17E-01 | 3.56E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.19E+03 | 3.10E+03 | 1.06E+04 | 1.81E-01 | 8.16E-01 | 1.13E+00 | 1.16E+02 | 1.36E-03 | 9.51E-02 | 0.00E+00 | 1.63E-02 | 5.26E-01 | 8.79E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.07E+03 | 1.06E+04 | 5.99E+04 | 7.34E-01 | 3.88E+00 | 5.56E+00 | 6.56E+02 | 7.38E-03 | 3.06E-01 | 0.00E+00 | 6.62E-02 | 7.32E-01 | 1.39E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.52E+03 | 6.57E+03 | 5.13E+04 | 4.62E-01 | 1.37E+00 | 4.22E+00 | 5.65E+02 | 6.36E-03 | 1.46E-01 | 0.00E+00 | 4.17E-02 | 4.17E-01 | 1.93E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.13E+01 | 1.86E+02 | 1.93E+03 | 1.63E-02 | 5.56E-02 | 1.42E-01 | 2.13E+01 | 2.09E-04 | 5.11E-03 | 0.00E+00 | 1.47E-03 | 5.99E-01 | 2.25E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.83E+00 | 9.97E+00 | 2.20E+02 | 1.87E-03 | 6.32E-03 | 1.65E-02 | 2.42E+00 | 2.43E-05 | 5.88E-04 | 0.00E+00 | 1.68E-04 | 1.27E+00 | 4.88E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.28E+01 | 4.51E+02 | 2.58E+03 | 3.06E-02 | 1.71E-01 | 2.17E-01 | 2.82E+01 | 3.17E-04 | 1.21E-02 | 0.00E+00 | 2.76E-03 | 7.56E-01 | 1.41E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.12E+02 | 3.33E+03 | 2.51E+04 | 2.21E-01 | 6.26E-01 | 1.84E+00 | 2.77E+02 | 3.12E-03 | 6.14E-02 | 0.00E+00 | 1.99E-02 | 3.76E-01 | 1.87E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 8.61E+02 | 4.69E+03 | 5.79E+04 | 4.84E-01 | 1.44E+00 | 3.74E+00 | 6.39E+02 | 6.27E-03 | 1.33E-01 | 0.00E+00 | 4.37E-02 | 6.13E-01 | 2.67E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 8.03E+02 | 4.37E+03 | 8.75E+04 | 7.36E-01 | 2.17E+00 | 5.83E+00 | 9.65E+02 | 9.71E-03 | 2.04E-01 | 0.00E+00 | 6.64E-02 | 9.94E-01 | 4.44E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.76E+02 | 2.05E+03 | 5.80E+04 | 5.31E-01 | 1.61E+00 | 5.71E+00 | 6.40E+02 | 6.43E-03 | 1.70E-01 | 0.00E+00 | 4.79E-02 | 1.57E+00 | 6.28E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 2.04E+02 | 5.34E+02 | 1.09E+03 | 4.16E-02 | 1.28E-01 | 1.12E-01 | 1.17E+01 | 1.52E-04 | 1.02E-02 | 0.00E+00 | 3.75E-03 | 4.81E-01 | 5.69E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 5.75E+02 | 1.50E+03 | 5.72E+03 | 9.65E-02 | 4.29E-01 | 6.01E-01 | 6.25E+01 | 7.33E-04 | 5.30E-02 | 0.00E+00 | 8.71E-03 | 5.70E-01 | 9.74E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 2.43E+02 | 6.37E+02 | 4.86E+03 | 5.74E-02 | 3.05E-01 | 4.52E-01 | 5.32E+01 | 5.99E-04 | 2.49E-02 | 0.00E+00 | 5.18E-03 | 9.57E-01 | 1.88E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 2.42E+01 | 6.34E+01 | 7.02E+02 | 5.52E-03 | 1.67E-02 | 5.78E-02 | 7.74E+00 | 8.71E-05 | 1.78E-03 | 0.00E+00 | 4.98E-04 | 5.28E-01 | 2.75E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 1.36E+02 | 3.57E+02 | 6.04E+03 | 4.42E-02 | 1.44E-01 | 4.34E-01 | 6.66E+01 | 6.54E-04 | 1.43E-02 | 0.00E+00 | 3.99E-03 | 8.08E-01 | 3.66E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 6.38E+00 | 1.67E+01 | 4.45E+02 | 3.28E-03 | 1.05E-02 | 3.32E-02 | 4.92E+00 | 4.94E-05 | 1.07E-03 | 0.00E+00 | 2.96E-04 | 1.26E+00 | 5.92E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 9999 | Constructi | U | N | NHH | P | Total | Total | Total | 6.38E+00 | 1.67E+01 | 9.90E+02 | 8.77E-03 | 2.81E-02 | 1.04E-01 | 1.09E+01 | 1.10E-04 | 2.98E-03 | 0.00E+00 | 7.91E-04 | 3.36E+00 | 1.31E-02 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.41E+02 | 4.39E+02 | 6.89E+02 | 2.31E-02 | 8.02E-02 | 6.99E-02 | 7.43E+00 | 9.60E-05 | 5.94E-03 | 0.00E+00 | 2.09E-03 | 3.65E-01 | 4.37E-04 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 6.77E+03 | 2.10E+04 | 6.01E+04 | 9.21E-01 | 4.51E+00 | 5.90E+00 | 6.56E+02 | 7.70E-03 | 4.98E-01 | 0.00E+00 | 8.31E-02 | 4.29E-01 | 7.32E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.68E+02 | 2.69E+03 | 1.53E+04 | 1.70E-01 | 9.75E-01 | 1.31E+00 | 1.68E+02 | 1.89E-03 | 7.18E-02 | 0.00E+00 | 1.54E-02 | 7.24E-01 | 1.40E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.84E+01 | 1.50E+02 | 1.16E+03 | 9.24E-03 | 2.79E-02 | 8.74E-02 | 1.28E+01 | 1.44E-04 | 2.82E-03 | 0.00E+00 | 8.34E-04 | 3.71E-01 | 1.92E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.19E+01 | 9.89E+01 | 1.15E+03 | 8.62E-03 | 2.72E-02 | 7.56E-02 | 1.27E+01 | 1.24E-04 | 2.61E-03 | 0.00E+00 | 7.78E-04 | 5.50E-01 | 2.52E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.78E+01 | 4.68E+01 | 3.61E+01 | 4.78E-04 | 1.63E-03 | 3.02E-03 | 3.96E-01 | 5.02E-06 | 1.15E-04 | 0.00E+00 | 4.31E-05 | 6.96E-02 | 2.15E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.47E+02 | 9.26E+02 | 1.34E+03 | 5.06E-02 | 1.64E-01 | 1.39E-01 | 1.44E+01 | 1.86E-04 | 1.23E-02 | 0.00E+00 | 4.56E-03 | 3.53E-01 | 4.02E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.42E+03 | 2.52E+04 | 6.79E+04 | 1.13E+00 | 5.18E+00 | 7.12E+00 | 7.41E+02 | 8.70E-03 | 6.00E-01 | 0.00E+00 | 1.02E-01 | 4.12E-01 | 6.90E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.31E+03 | 1.42E+04 | 6.88E+04 | 8.29E-01 | 4.44E+00 | 6.32E+00 | 7.54E+02 | 8.48E-03 | 3.47E-01 | 0.00E+00 | 7.48E-02 | 6.26E-01 | 1.20E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.28E+03 | 1.41E+04 | 9.53E+04 | 8.36E-01 | 2.51E+00 | 7.73E+00 | 1.05E+03 | 1.18E-02 | 2.65E-01 | 0.00E+00 | 7.55E-02 | 3.55E-01 | 1.67E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.20E+03 | 5.88E+03 | 6.31E+04 | 5.19E-01 | 1.79E+00 | 4.55E+00 | 6.96E+02 | 6.83E-03 | 1.62E-01 | 0.00E+00 | 4.69E-02 | 6.08E-01 | 2.32E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.54E+02 | 4.13E+02 | 9.08E+03 | 7.52E-02 | 2.57E-01 | 6.73E-01 | 1.00E+02 | 1.01E-03 | 2.37E-02 | 0.00E+00 | 6.78E-03 | 1.25E+00 | 4.88E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.66E+01 | 4.43E+01 | 1.19E+03 | 1.09E-02 | 3.84E-02 | 1.24E-01 | 1.31E+01 | 1.32E-04 | 3.73E-03 | 0.00E+00 | 9.84E-04 | 1.74E+00 | 5.97E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.27E+01 | 5.68E+01 | 3.36E+02 | 5.77E-03 | 2.38E-02 | 4.22E-02 | 3.67E+00 | 4.13E-05 | 2.39E-03 | 0.00E+00 | 5.21E-04 | 8.38E-01 | 1.46E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.12E+02 | 1.39E+03 | 1.16E+04 | 1.61E-01 | 4.56E-01 | 1.36E+00 | 1.28E+02 | 1.44E-03 | 5.71E-02 | 0.00E+00 | 1.46E-02 | 6.55E-01 | 2.06E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.80E+02 | 2.14E+03 | 2.58E+04 | 3.29E-01 | 1.42E+00 | 2.74E+00 | 2.83E+02 | 2.78E-03 | 1.13E-01 | 0.00E+00 | 2.96E-02 | 1.33E+00 | 2.60E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.70E+02 | 7.57E+02 | 1.38E+04 | 1.75E-01 | 7.57E-01 | 1.48E+00 | 1.51E+02 | 1.52E-03 | 6.07E-02 | 0.00E+00 | 1.58E-02 | 2.00E+00 | 4.01E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.15E+01 | 5.12E+01 | 1.38E+03 | 1.84E-02 | 8.24E-02 | 1.82E-01 | 1.51E+01 | 1.52E-04 | 6.29E-03 | 0.00E+00 | 1.66E-03 | 3.22E+00 | 5.95E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.59E+02 | 9.28E+02 | 6.70E+02 | 8.95E-03 | 3.03E-02 | 5.69E-02 | 7.35E+00 | 9.33E-05 | 2.43E-03 | 0.00E+00 | 8.08E-04 | 6.53E-02 | 2.01E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.15E+03 | 5.69E+03 | 7.97E+03 | 2.25E-01 | 8.82E-01 | 7.85E-01 | 8.62E+01 | 1.11E-03 | 6.00E-02 | 0.00E+00 | 2.03E-02 | 3.10E-01 | 3.92E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.87E+04 | 7.61E+04 | 1.80E+05 | 2.41E+00 | 1.33E+01 | 1.62E+01 | 1.97E+03 | 2.31E-02 | 1.28E+00 | 0.00E+00 | 2.17E-01 | 3.50E-01 | 6.06E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.14E+03 | 5.68E+03 | 2.62E+04 | 2.62E-01 | 1.66E+00 | 2.03E+00 | 2.87E+02 | 3.23E-03 | 1.08E-01 | 0.00E+00 | 2.36E-02 | 5.85E-01 | 1.14E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.93E+02 | 1.84E+03 | 1.43E+04 | 1.05E-01 | 3.31E-01 | 9.44E-01 | 1.57E+02 | 1.77E-03 | 3.03E-02 | 0.00E+00 | 9.45E-03 | 3.60E-01 | 1.93E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.12E+03 | 2.96E+03 | 4.62E+04 | 3.24E-01 | 1.07E+00 | 2.70E+00 | 5.10E+02 | 5.74E-03 | 9.28E-02 | 0.00E+00 | 2.92E-02 | 7.24E-01 | 3.88E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.72E+02 | 2.04E+03 | 4.79E+04 | 3.37E-01 | 1.11E+00 | 2.88E+00 | 5.28E+02 | 5.94E-03 | 9.77E-02 | 0.00E+00 | 3.04E-02 | 1.09E+00 | 5.82E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.78E+01 | 5.11E+01 | 5.94E+01 | 2.79E-03 | 8.08E-03 | 6.50E-03 | 6.35E-01 | 8.21E-06 | 6.41E-04 | 0.00E+00 | 2.52E-04 | 3.16E-01 | 3.21E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.01E+04 | 2.90E+04 | 8.75E+04 | 1.76E+00 | 6.97E+00 | 1.05E+01 | 9.53E+02 | 1.12E-02 | 9.09E-01 | 0.00E+00 | 1.59E-01 | 4.81E-01 | 7.71E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.42E+03 | 9.81E+03 | 5.43E+04 | 7.82E-01 | 3.63E+00 | 5.81E+00 | 5.94E+02 | 6.68E-03 | 3.25E-01 | 0.00E+00 | 7.05E-02 | 7.41E-01 | 1.36E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.94E+03 | 8.43E+03 | 6.36E+04 | 7.04E-01 | 2.02E+00 | 6.19E+00 | 7.00E+02 | 7.88E-03 | 2.37E-01 | 0.00E+00 | 6.35E-02 | 4.79E-01 | 1.87E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.02E+03 | 5.78E+03 | 6.80E+04 | 6.99E-01 | 2.56E+00 | 5.96E+00 | 7.48E+02 | 7.35E-03 | 2.30E-01 | 0.00E+00 | 6.30E-02 | 8.88E-01 | 2.54E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.02E+02 | 2.93E+02 | 6.17E+03 | 6.37E-02 | 2.33E-01 | 5.52E-01 | 6.79E+01 | 6.83E-04 | 2.11E-02 | 0.00E+00 | 5.74E-03 | 1.59E+00 | 4.67E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.02E+02 | 2.92E+02 | 8.74E+03 | 9.63E-02 | 3.69E-01 | 1.02E+00 | 9.61E+01 | 9.66E-04 | 3.25E-02 | 0.00E+00 | 8.69E-03 | 2.52E+00 | 6.61E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.45E+03 | 5.59E+03 | 3.52E+03 | 5.45E-02 | 1.71E-01 | 3.20E-01 | 3.86E+01 | 4.89E-04 | 1.66E-02 | 0.00E+00 | 4.91E-03 | 6.10E-02 | 1.75E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.22E+04 | 5.17E+04 | 6.05E+04 | 1.14E+00 | 5.67E+00 | 5.58E+00 | 6.59E+02 | 8.51E-03 | 3.47E-01 | 0.00E+00 | 1.03E-01 | 2.19E-01 | 3.30E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.16E+04 | 2.71E+04 | 5.28E+04 | 5.13E-01 | 3.69E+00 | 4.08E+00 | 5.78E+02 | 6.78E-03 | 2.78E-01 | 0.00E+00 | 4.63E-02 | 2.72E-01 | 5.01E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.27E+00 | 3.90E+00 | 1.68E+01 | 3.91E-04 | 1.39E-03 | 2.30E-03 | 1.82E-01 | 2.14E-06 | 1.97E-04 | 0.00E+00 | 3.53E-05 | 7.11E-01 | 1.10E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.56E+03 | 4.76E+03 | 2.84E+04 | 4.66E-01 | 1.97E+00 | 3.48E+00 | 3.10E+02 | 3.49E-03 | 1.95E-01 | 0.00E+00 | 4.21E-02 | 8.26E-01 | 1.47E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.47E+03 | 4.50E+03 | 2.67E+04 | 3.52E-01 | 1.01E+00 | 3.04E+00 | 2.93E+02 | 3.30E-03 | 1.26E-01 | 0.00E+00 | 3.17E-02 | 4.49E-01 | 1.47E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.41E+02 | 1.96E+03 | 5.07E+04 | 6.13E-01 | 2.64E+00 | 5.32E+00 | 5.56E+02 | 5.59E-03 | 2.15E-01 | 0.00E+00 | 5.53E-02 | 2.70E+00 | 5.71E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.76E+01 | 2.07E+02 | 7.67E+03 | 9.73E-02 | 4.35E-01 | 9.93E-01 | 8.41E+01 | 8.45E-04 | 3.37E-02 | 0.00E+00 | 8.78E-03 | 4.21E+00 | 8.18E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Dumpers/T | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.06E+01 | 5.55E+01 | 1.93E+01 | 2.62E-04 | 8.79E-04 | 1.65E-03 | 2.11E-01 | 2.68E-06 | 7.47E-05 | 0.00E+00 | 2.37E-05 | 3.17E-02 | 9.67E-05 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.22E+02 | 7.98E+02 | 3.68E+02 | 4.69E-03 | 2.46E-02 | 2.94E-02 | 4.03E+00 | 6.27E-05 | 1.14E-03 | 0.00E+00 | 4.23E-04 | 6.17E-02 | 1.57E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 7.13E+01 | 1.35E+02 | 8.12E+01 | 1.08E-03 | 3.67E-03 | 6.81E-03 | 8.91E-01 | 1.13E-05 | 2.66E-04 | 0.00E+00 | 9.71E-05 | 5.44E-02 | 1.68E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.10E+02 | 2.11E+02 | 2.72E+02 | 7.06E-03 | 2.71E-02 | 2.60E-02 | 2.95E+00 | 3.81E-05 | 1.93E-03 | 0.00E+00 | 6.37E-04 | 2.57E-01 | 3.62E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.81E+02 | 3.48E+02 | 1.28E+03 | 1.59E-02 | 9.11E-02 | 1.14E-01 | 1.41E+01 | 1.65E-04 | 8.74E-03 | 0.00E+00 | 1.44E-03 | 5.23E-01 | 9.48E-04 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.50E+02 | 4.80E+02 | 2.33E+03 | 2.08E-02 | 1.41E-01 | 1.79E-01 | 2.56E+01 | 2.88E-04 | 8.99E-03 | 0.00E+00 | 1.88E-03 | 5.86E-01 | 1.20E-03 |
| 2014 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.80E+02 | 1.12E+03 | 1.28E+04 | 7.68E-02 | 2.83E-01 | 7.50E-01 | 1.42E+02 | 1.39E-03 | 2.46E-02 | 0.00E+00 | 6.93E-03 | 5.08E-01 | 2.49E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.94E+01 | 4.37E+01 | 3.71E+01 | 5.10E-04 | 1.70E-03 | 3.18E-03 | 4.07E-01 | 5.17E-06 | 1.43E-04 | 0.00E+00 | 4.60E-05 | 7.79E-02 | 2.37E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.13E+03 | 2.57E+03 | 3.36E+03 | 1.54E-01 | 4.40E-01 | 3.57E-01 | 3.60E+01 | 4.65E-04 | 3.48E-02 | 0.00E+00 | 1.39E-02 | 3.42E-01 | 3.62E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.33E+03 | 3.04E+03 | 9.62E+03 | 1.87E-01 | 7.53E-01 | 1.13E+00 | 1.05E+02 | 1.23E-03 | 9.65E-02 | 0.00E+00 | 1.69E-02 | 4.96E-01 | 8.11E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.27E+02 | 1.89E+03 | 1.10E+04 | 1.52E-01 | 7.26E-01 | 1.15E+00 | 1.21E+02 | 1.36E-03 | 6.34E-02 | 0.00E+00 | 1.37E-02 | 7.70E-01 | 1.44E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 9.96E+01 | 2.27E+02 | 2.00E+03 | 2.11E-02 | 6.34E-02 | 1.90E-01 | 2.21E+01 | 2.48E-04 | 7.27E-03 | 0.00E+00 | 1.90E-03 | 5.58E-01 | 2.19E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.02E+02 | 2.33E+02 | 2.47E+03 | 2.40E-02 | 9.45E-02 | 2.11E-01 | 2.72E+01 | 2.67E-04 | 8.12E-03 | 0.00E+00 | 2.16E-03 | 8.10E-01 | 2.29E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Plate Comp | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.17E+02 | 6.85E+02 | 1.35E+02 | 1.72E-03 | 9.02E-03 | 1.08E-02 | 1.48E+00 | 2.30E-05 | 4.19E-04 | 0.00E+00 | 1.55E-04 | 2.63E-02 | 6.71E-05 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 7.83E+02 | 1.49E+03 | 4.30E+02 | 5.48E-03 | 2.88E-02 | 3.43E-02 | 4.71E+00 | 7.33E-05 | 1.34E-03 | 0.00E+00 | 4.95E-04 | 3.86E-02 | 9.83E-05 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.27E+02 | 6.24E+02 | 3.79E+02 | 5.02E-03 | 1.71E-02 | 3.17E-02 | 4.16E+00 | 5.28E-05 | 1.22E-03 | 0.00E+00 | 4.53E-04 | 5.49E-02 | 1.69E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.02E+03 | 1.96E+03 | 2.36E+03 | 8.52E-02 | 2.69E-01 | 2.35E-01 | 2.54E+01 | 3.29E-04 | 2.04E-02 | 0.00E+00 | 7.69E-03 | 2.75E-01 | 3.36E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.47E+03 | 1.05E+04 | 2.84E+04 | 4.50E-01 | 2.10E+00 | 2.89E+00 | 3.10E+02 | 3.63E-03 | 2.39E-01 | 0.00E+00 | 4.06E-02 | 4.00E-01 | 6.91E-04 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.20E+03 | 4.23E+03 | 2.08E+04 | 2.33E-01 | 1.30E+00 | 1.84E+00 | 2.28E+02 | 2.57E-03 | 9.93E-02 | 0.00E+00 | 2.10E-02 | 6.16E-01 | 1.22E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.12E+02 | 6.00E+02 | 4.16E+03 | 3.31E-02 | 1.07E-01 | 3.28E-01 | 4.59E+01 | 5.16E-04 | 1.10E-02 | 0.00E+00 | 2.99E-03 | 3.57E-01 | 1.72E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.19E+02 | 4.20E+02 | 4.17E+03 | 3.08E-02 | 1.18E-01 | 2.93E-01 | 4.60E+01 | 4.52E-04 | 1.02E-02 | 0.00E+00 | 2.78E-03 | 5.59E-01 | 2.15E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.05E+01 | 1.54E+02 | 6.61E+02 | 1.28E-02 | 5.24E-02 | 7.61E-02 | 7.21E+00 | 8.45E-05 | 6.49E-03 | 0.00E+00 | 1.15E-03 | 6.82E-01 | 1.10E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.62E+02 | 1.41E+03 | 9.50E+03 | 1.31E-01 | 6.34E-01 | 9.59E-01 | 1.04E+02 | 1.17E-03 | 5.38E-02 | 0.00E+00 | 1.19E-02 | 9.02E-01 | 1.66E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.50E+02 | 1.37E+03 | 1.30E+04 | 1.38E-01 | 4.04E-01 | 1.20E+00 | 1.43E+02 | 1.61E-03 | 4.55E-02 | 0.00E+00 | 1.25E-02 | 5.90E-01 | 2.35E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.24E+03 | 3.77E+03 | 5.50E+04 | 5.43E-01 | 2.01E+00 | 4.54E+00 | 6.06E+02 | 5.95E-03 | 1.75E-01 | 0.00E+00 | 4.90E-02 | 1.07E+00 | 3.15E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.03E+02 | 6.19E+02 | 1.56E+04 | 1.55E-01 | 5.71E-01 | 1.32E+00 | 1.72E+02 | 1.73E-03 | 5.02E-02 | 0.00E+00 | 1.40E-02 | 1.84E+00 | 5.58E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.36E+01 | 7.65E+01 | 4.39E+01 | 5.82E-04 | 1.99E-03 | 3.68E-03 | 4.82E-01 | 6.12E-06 | 1.41E-04 | 0.00E+00 | 5.25E-05 | 5.19E-02 | 1.60E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.85E+01 | 6.52E+01 | 7.28E+01 | 3.33E-03 | 9.45E-03 | 7.71E-03 | 7.80E-01 | 1.01E-05 | 7.54E-04 | 0.00E+00 | 3.01E-04 | 2.90E-01 | 3.09E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.10E+02 | 9.40E+02 | 2.35E+03 | 4.55E-02 | 1.83E-01 | 2.76E-01 | 2.56E+01 | 3.00E-04 | 2.36E-02 | 0.00E+00 | 4.10E-03 | 3.89E-01 | 6.39E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.93E+02 | 4.42E+02 | 2.04E+03 | 2.77E-02 | 1.33E-01 | 2.11E-01 | 2.23E+01 | 2.51E-04 | 1.17E-02 | 0.00E+00 | 2.50E-03 | 6.02E-01 | 1.14E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.43E+01 | 1.25E+02 | 6.91E+02 | 7.09E-03 | 2.14E-02 | 6.53E-02 | 7.61E+00 | 8.56E-05 | 2.45E-03 | 0.00E+00 | 6.40E-04 | 3.44E-01 | 1.37E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.59E+01 | 3.21E+01 | 2.09E+01 | 6.54E-04 | 2.14E-03 | 2.03E-03 | 2.26E-01 | 2.92E-06 | 1.62E-04 | 0.00E+00 | 5.90E-05 | 1.33E-01 | 1.82E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.17E+00 | 6.42E+00 | 1.87E+01 | 2.69E-04 | 1.33E-03 | 1.85E-03 | 2.05E-01 | 2.40E-06 | 1.41E-04 | 0.00E+00 | 2.43E-05 | 4.15E-01 | 7.47E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.88E+00 | 4.82E+00 | 1.88E+01 | 1.89E-04 | 1.13E-03 | 1.61E-03 | 2.06E-01 | 2.32E-06 | 8.05E-05 | 0.00E+00 | 1.71E-05 | 4.70E-01 | 9.64E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.76E+00 | 9.63E+00 | 5.88E+01 | 4.29E-04 | 1.50E-03 | 4.49E-03 | 6.49E-01 | 7.30E-06 | 1.49E-04 | 0.00E+00 | 3.87E-05 | 3.11E-01 | 1.52E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.47E+01 | 8.03E+01 | 8.04E+02 | 5.38E-03 | 2.31E-02 | 5.54E-02 | 8.87E+00 | 8.71E-05 | 1.88E-03 | 0.00E+00 | 4.86E-04 | 5.75E-01 | 2.17E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.89E+01 | 4.82E+01 | 7.58E+02 | 5.15E-03 | 2.18E-02 | 5.35E-02 | 8.36E+00 | 8.41E-05 | 1.79E-03 | 0.00E+00 | 4.64E-04 | 9.02E-01 | 3.49E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.64E+03 | 7.49E+03 | 2.11E+03 | 2.69E-02 | 1.41E-01 | 1.68E-01 | 2.31E+01 | 3.59E-04 | 6.58E-03 | 0.00E+00 | 2.42E-03 | 3.76E-02 | 9.59E-05 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.81E+01 | 2.66E+01 | 4.43E+01 | 1.24E-03 | 4.28E-03 | 4.18E-03 | 4.80E-01 | 6.21E-06 | 3.23E-04 | 0.00E+00 | 1.11E-04 | 3.22E-01 | 4.67E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.96E+02 | 4.35E+02 | 1.59E+03 | 2.11E-02 | 1.11E-01 | 1.47E-01 | 1.74E+01 | 2.04E-04 | 1.14E-02 | 0.00E+00 | 1.90E-03 | 5.11E-01 | 9.40E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.84E+02 | 2.69E+02 | 1.90E+03 | 1.74E-02 | 1.12E-01 | 1.51E-01 | 2.08E+01 | 2.34E-04 | 7.52E-03 | 0.00E+00 | 1.57E-03 | 8.29E-01 | 1.74E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.88E+01 | 5.69E+01 | 6.57E+02 | 4.03E-03 | 1.45E-02 | 4.62E-02 | 7.26E+00 | 8.17E-05 | 1.35E-03 | 0.00E+00 | 3.63E-04 | 5.09E-01 | 2.87E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.70E+01 | 1.64E+02 | 6.35E+01 | 8.09E-04 | 4.25E-03 | 5.07E-03 | 6.95E-01 | 1.08E-05 | 1.98E-04 | 0.00E+00 | 7.30E-05 | 5.16E-02 | 1.32E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.02E+02 | 1.73E+02 | 2.59E+02 | 3.44E-03 | 1.17E-02 | 2.17E-02 | 2.85E+00 | 3.61E-05 | 8.16E-04 | 0.00E+00 | 3.10E-04 | 1.35E-01 | 4.17E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.89E+03 | 6.72E+03 | 1.03E+04 | 4.66E-01 | 1.31E+00 | 1.09E+00 | 1.10E+02 | 1.43E-03 | 1.05E-01 | 0.00E+00 | 4.21E-02 | 3.90E-01 | 4.25E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.27E+03 | 9.10E+03 | 2.71E+04 | 5.20E-01 | 2.09E+00 | 3.21E+00 | 2.95E+02 | 3.46E-03 | 2.68E-01 | 0.00E+00 | 4.69E-02 | 4.60E-01 | 7.61E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.77E+02 | 9.96E+02 | 6.54E+03 | 8.81E-02 | 4.25E-01 | 6.85E-01 | 7.16E+01 | 8.06E-04 | 3.72E-02 | 0.00E+00 | 7.95E-03 | 8.53E-01 | 1.62E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.17E+01 | 8.93E+01 | 9.03E+02 | 9.39E-03 | 2.91E-02 | 8.68E-02 | 9.95E+00 | 1.12E-04 | 3.35E-03 | 0.00E+00 | 8.47E-04 | 6.50E-01 | 2.51E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.60E+01 | 1.14E+02 | 1.61E+03 | 1.53E-02 | 6.46E-02 | 1.40E-01 | 1.77E+01 | 1.74E-04 | 5.39E-03 | 0.00E+00 | 1.38E-03 | 1.13E+00 | 3.05E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.77E+00 | 1.34E+01 | 3.58E+02 | 3.42E-03 | 1.43E-02 | 3.17E-02 | 3.93E+00 | 3.96E-05 | 1.21E-03 | 0.00E+00 | 3.09E-04 | 2.14E+00 | 5.90E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 15 | Constructi | U | P | NHH | P | Total | Total | Total | 1.29E+01 | 2.88E+01 | 1.36E+01 | 1.73E-04 | 9.08E-04 | 1.08E-03 | 1.49E-01 | 2.31E-06 | 4.23E-05 | 0.00E+00 | 1.56E-05 | 6.31E-02 | 1.61E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 25 | Constructi | U | P | NHH | P | Total | Total | Total | 3.88E+01 | 8.63E+01 | 6.28E+01 | 8.32E-04 | 2.84E-03 | 5.26E-03 | 6.89E-01 | 8.75E-06 | 2.01E-04 | 0.00E+00 | 7.51E-05 | 6.58E-02 | 2.03E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 1.69E+02 | 3.91E+02 | 5.54E+02 | 4.58E-03 | 4.37E-02 | 4.38E-02 | 6.06E+00 | 7.84E-05 | 1.46E-03 | 0.00E+00 | 4.13E-04 | 2.23E-01 | 4.01E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 5.20E+02 | 1.20E+03 | 4.21E+03 | 2.25E-02 | 2.80E-01 | 2.24E-01 | 4.62E+01 | 5.42E-04 | 9.62E-03 | 0.00E+00 | 2.03E-03 | 4.67E-01 | 9.04E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 1.20E+02 | 2.78E+02 | 1.78E+03 | 8.57E-03 | 1.05E-01 | 7.44E-02 | 1.96E+01 | 2.20E-04 | 2.75E-03 | 0.00E+00 | 7.73E-04 | 7.53E-01 | 1.59E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 1.03E+02 | 2.39E+02 | 2.03E+03 | 8.12E-03 | 4.09E-02 | 5.85E-02 | 2.24E+01 | 2.53E-04 | 1.72E-03 | 0.00E+00 | 7.33E-04 | 3.42E-01 | 2.11E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 2.30E+02 | 5.31E+02 | 7.47E+03 | 2.97E-02 | 1.46E-01 | 2.04E-01 | 8.27E+01 | 8.11E-04 | 6.26E-03 | 0.00E+00 | 2.68E-03 | 5.51E-01 | 3.05E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 1.21E+02 | 2.78E+02 | 7.73E+03 | 3.07E-02 | 1.51E-01 | 2.13E-01 | 8.55E+01 | 8.59E-04 | 6.49E-03 | 0.00E+00 | 2.77E-03 | 1.09E+00 | 6.18E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 1000 | Constructi | U | N | NHH | P | Total | Total | Total | 2.02E+02 | 4.66E+02 | 1.95E+04 | 8.29E-02 | 3.85E-01 | 1.16E+00 | 2.16E+02 | 2.17E-03 | 2.78E-02 | 0.00E+00 | 7.48E-03 | 1.65E+00 | 9.33E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.79E+01 | 1.83E+02 | 1.37E+02 | 1.82E-03 | 6.20E-03 | 1.15E-02 | 1.50E+00 | 1.91E-05 | 4.27E-04 | 0.00E+00 | 1.64E-04 | 6.76E-02 | 2.08E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.80E+03 | 7.02E+03 | 8.12E+03 | 2.28E-01 | 9.41E-01 | 7.91E-01 | 8.77E+01 | 1.13E-03 | 5.86E-02 | 0.00E+00 | 2.06E-02 | 2.68E-01 | 3.23E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.89E+03 | 1.91E+04 | 6.41E+04 | 8.68E-01 | 4.86E+00 | 5.51E+00 | 7.01E+02 | 8.22E-03 | 4.33E-01 | 0.00E+00 | 7.84E-02 | 5.10E-01 | 8.63E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.44E+03 | 3.68E+04 | 1.88E+05 | 1.93E+00 | 1.22E+01 | 1.36E+01 | 2.06E+03 | 2.32E-02 | 7.43E-01 | 0.00E+00 | 1.74E-01 | 6.65E-01 | 1.26E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.84E+03 | 1.50E+04 | 1.07E+05 | 8.34E-01 | 2.56E+00 | 6.67E+00 | 1.19E+03 | 1.33E-02 | 2.22E-01 | 0.00E+00 | 7.53E-02 | 3.43E-01 | 1.78E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.77E+03 | 1.08E+04 | 1.14E+05 | 8.50E-01 | 2.67E+00 | 6.26E+00 | 1.26E+03 | 1.24E-02 | 2.23E-01 | 0.00E+00 | 7.67E-02 | 4.96E-01 | 2.29E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.09E+01 | 2.37E+02 | 4.16E+03 | 3.11E-02 | 9.74E-02 | 2.35E-01 | 4.59E+01 | 4.61E-04 | 8.25E-03 | 0.00E+00 | 2.81E-03 | 8.22E-01 | 3.89E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Concrete/Ir | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.17E+00 | 8.40E+00 | 6.30E+00 | 8.34E-05 | 2.85E-04 | 5.27E-04 | 6.91E-02 | 8.77E-07 | 1.98E-05 | 0.00E+00 | 7.53E-06 | 6.78E-02 | 2.09E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Concrete/Ir | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.53E+01 | 7.20E+01 | 1.00E+02 | 2.81E-03 | 9.88E-03 | 9.54E-03 | 1.09E+00 | 1.40E-05 | 7.40E-04 | 0.00E+00 | 2.54E-04 | 2.74E-01 | 3.90E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Concrete/Ir | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 7.89E+01 | 1.26E+02 | 4.25E+02 | 5.59E-03 | 2.98E-02 | 3.92E-02 | 4.65E+00 | 5.45E-05 | 3.05E-03 | 0.00E+00 | 5.05E-04 | 4.75E-01 | 8.69E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Concrete/Ir | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.59E+00 | 4.11E+00 | 3.00E+01 | 2.75E-04 | 1.78E-03 | 2.38E-03 | 3.29E-01 | 3.71E-06 | 1.20E-04 | 0.00E+00 | 2.49E-05 | 8.67E-01 | 1.80E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 6.61E+02 | 5.44E+02 | 1.57E+02 | 2.01E-03 | 1.05E-02 | 1.26E-02 | 1.72E+00 | 2.67E-05 | 5.18E-04 | 0.00E+00 | 1.81E-04 | 3.86E-02 | 9.83E-05 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.95E+01 | 4.90E+01 | 3.92E+01 | 6.13E-04 | 1.91E-03 | 3.56E-03 | 4.29E-01 | 5.45E-06 | 1.81E-04 | 0.00E+00 | 5.53E-05 | 7.81E-02 | 2.23E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 4.40E+01 | 1.54E+02 | 1.67E+02 | 6.58E-03 | 2.11E-02 | 1.72E-02 | 1.79E+00 | 2.31E-05 | 1.56E-03 | 0.00E+00 | 5.94E-04 | 2.73E-01 | 2.99E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 4.83E+02 | 1.69E+03 | 3.89E+03 | 6.77E-02 | 3.01E-01 | 4.08E-01 | 4.24E+01 | 4.98E-04 | 3.51E-02 | 0.00E+00 | 6.11E-03 | 3.56E-01 | 5.88E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 4.83E+02 | 1.69E+03 | 6.21E+03 | 7.78E-02 | 4.06E-01 | 5.66E-01 | 6.80E+01 | 7.65E-04 | 3.20E-02 | 0.00E+00 | 7.02E-03 | 4.79E-01 | 9.03E-04 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | hr/day for total population | gal/day for total population | | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 9.35E+02 | 3.28E+03 | 1.67E+04 | 1.52E-01 | 4.45E-01 | 1.36E+00 | 1.84E+02 | 2.07E-03 | 4.70E-02 | 0.00E+00 | 1.37E-02 | 2.71E-01 | 1.26E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 3.43E+02 | 1.20E+03 | 9.82E+03 | 8.37E-02 | 2.80E-01 | 7.10E-01 | 1.08E+02 | 1.06E-03 | 2.56E-02 | 0.00E+00 | 7.56E-03 | 4.66E-01 | 1.77E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 2.53E+02 | 8.87E+02 | 1.22E+04 | 1.04E-01 | 3.47E-01 | 9.06E-01 | 1.34E+02 | 1.35E-03 | 3.23E-02 | 0.00E+00 | 9.42E-03 | 7.84E-01 | 3.04E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 9999 | Constructi | U | N | NHH | P | Total | Total | Total | 3.17E+02 | 1.11E+03 | 4.90E+04 | 4.83E-01 | 1.61E+00 | 5.15E+00 | 5.40E+02 | 5.43E-03 | 1.54E-01 | 0.00E+00 | 4.36E-02 | 2.89E+00 | 9.75E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.81E+01 | 4.72E+01 | 6.03E+01 | 2.11E-03 | 7.26E-03 | 6.05E-03 | 6.49E-01 | 8.39E-06 | 5.11E-04 | 0.00E+00 | 1.91E-04 | 3.08E-01 | 3.56E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.21E+03 | 3.15E+03 | 1.08E+04 | 1.70E-01 | 8.22E-01 | 1.06E+00 | 1.18E+02 | 1.38E-03 | 8.73E-02 | 0.00E+00 | 1.53E-02 | 5.23E-01 | 8.79E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.13E+03 | 1.08E+04 | 6.08E+04 | 6.98E-01 | 3.93E+00 | 5.12E+00 | 6.66E+02 | 7.49E-03 | 2.82E-01 | 0.00E+00 | 6.30E-02 | 7.31E-01 | 1.39E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.56E+03 | 6.67E+03 | 5.20E+04 | 4.42E-01 | 1.35E+00 | 3.87E+00 | 5.74E+02 | 6.45E-03 | 1.33E-01 | 0.00E+00 | 3.99E-02 | 4.04E-01 | 1.93E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.24E+01 | 1.89E+02 | 1.96E+03 | 1.57E-02 | 5.41E-02 | 1.30E-01 | 2.16E+01 | 2.12E-04 | 4.67E-03 | 0.00E+00 | 1.42E-03 | 5.73E-01 | 2.25E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.89E+00 | 1.01E+01 | 2.23E+02 | 1.79E-03 | 6.14E-03 | 1.51E-02 | 2.46E+00 | 2.47E-05 | 5.38E-04 | 0.00E+00 | 1.62E-04 | 1.21E+00 | 4.88E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.41E+01 | 4.58E+02 | 2.61E+03 | 2.88E-02 | 1.73E-01 | 1.97E-01 | 2.86E+01 | 3.22E-04 | 1.09E-02 | 0.00E+00 | 2.60E-03 | 7.55E-01 | 1.41E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.21E+02 | 3.38E+03 | 2.55E+04 | 2.11E-01 | 6.25E-01 | 1.66E+00 | 2.81E+02 | 3.17E-03 | 5.54E-02 | 0.00E+00 | 1.91E-02 | 3.70E-01 | 1.87E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 8.75E+02 | 4.76E+03 | 5.87E+04 | 4.66E-01 | 1.42E+00 | 3.37E+00 | 6.48E+02 | 6.36E-03 | 1.20E-01 | 0.00E+00 | 4.21E-02 | 5.94E-01 | 2.67E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 8.15E+02 | 4.44E+03 | 8.88E+04 | 7.09E-01 | 2.14E+00 | 5.26E+00 | 9.79E+02 | 9.85E-03 | 1.85E-01 | 0.00E+00 | 6.39E-02 | 9.64E-01 | 4.44E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.82E+02 | 2.08E+03 | 5.88E+04 | 5.06E-01 | 1.54E+00 | 5.42E+00 | 6.49E+02 | 6.52E-03 | 1.56E-01 | 0.00E+00 | 4.57E-02 | 1.48E+00 | 6.28E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 2.07E+02 | 5.42E+02 | 1.11E+03 | 3.77E-02 | 1.26E-01 | 1.09E-01 | 1.19E+01 | 1.54E-04 | 9.37E-03 | 0.00E+00 | 3.40E-03 | 4.64E-01 | 5.69E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 5.83E+02 | 1.53E+03 | 5.81E+03 | 8.91E-02 | 4.31E-01 | 5.63E-01 | 6.35E+01 | 7.44E-04 | 4.80E-02 | 0.00E+00 | 8.04E-03 | 5.64E-01 | 9.74E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 2.47E+02 | 6.47E+02 | 4.93E+03 | 5.35E-02 | 3.09E-01 | 4.13E-01 | 5.41E+01 | 6.08E-04 | 2.26E-02 | 0.00E+00 | 4.83E-03 | 9.55E-01 | 1.88E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 2.46E+01 | 6.44E+01 | 7.12E+02 | 5.29E-03 | 1.66E-02 | 5.26E-02 | 7.86E+00 | 8.85E-05 | 1.63E-03 | 0.00E+00 | 4.78E-04 | 5.17E-01 | 2.75E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 1.38E+02 | 3.62E+02 | 6.13E+03 | 4.27E-02 | 1.41E-01 | 3.93E-01 | 6.77E+01 | 6.64E-04 | 1.31E-02 | 0.00E+00 | 3.85E-03 | 7.78E-01 | 3.66E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 6.48E+00 | 1.70E+01 | 4.52E+02 | 3.15E-03 | 1.03E-02 | 3.01E-02 | 4.99E+00 | 5.02E-05 | 9.76E-04 | 0.00E+00 | 2.84E-04 | 1.22E+00 | 5.92E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 9999 | Constructi | U | N | NHH | P | Total | Total | Total | 6.48E+00 | 1.70E+01 | 1.00E+03 | 8.24E-03 | 2.62E-02 | 9.79E-02 | 1.11E+01 | 1.11E-04 | 2.73E-03 | 0.00E+00 | 7.43E-04 | 3.09E+00 | 1.31E-02 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.44E+02 | 4.46E+02 | 6.98E+02 | 2.10E-02 | 7.91E-02 | 6.82E-02 | 7.54E+00 | 9.74E-05 | 5.41E-03 | 0.00E+00 | 1.89E-03 | 3.55E-01 | 4.37E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 6.88E+03 | 2.13E+04 | 6.09E+04 | 8.54E-01 | 4.54E+00 | 5.51E+00 | 6.66E+02 | 7.81E-03 | 4.48E-01 | 0.00E+00 | 7.70E-02 | 4.26E-01 | 7.32E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.81E+02 | 2.73E+03 | 1.56E+04 | 1.60E-01 | 9.89E-01 | 1.19E+00 | 1.71E+02 | 1.92E-03 | 6.52E-02 | 0.00E+00 | 1.44E-02 | 7.23E-01 | 1.40E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.92E+01 | 1.53E+02 | 1.18E+03 | 8.90E-03 | 2.78E-02 | 7.92E-02 | 1.30E+01 | 1.46E-04 | 2.58E-03 | 0.00E+00 | 8.03E-04 | 3.65E-01 | 1.92E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.23E+01 | 1.00E+02 | 1.17E+03 | 8.36E-03 | 2.68E-02 | 6.84E-02 | 1.29E+01 | 1.26E-04 | 2.39E-03 | 0.00E+00 | 7.54E-04 | 5.33E-01 | 2.52E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.81E+01 | 4.75E+01 | 3.66E+01 | 4.85E-04 | 1.66E-03 | 3.06E-03 | 4.02E-01 | 5.10E-06 | 1.15E-04 | 0.00E+00 | 4.38E-05 | 6.96E-02 | 2.15E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.52E+02 | 9.40E+02 | 1.36E+03 | 4.66E-02 | 1.61E-01 | 1.36E-01 | 1.46E+01 | 1.89E-04 | 1.14E-02 | 0.00E+00 | 4.21E-03 | 3.43E-01 | 4.02E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.57E+03 | 2.56E+04 | 6.89E+04 | 1.07E+00 | 5.22E+00 | 6.67E+00 | 7.52E+02 | 8.83E-03 | 5.50E-01 | 0.00E+00 | 9.62E-02 | 4.09E-01 | 6.90E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.39E+03 | 1.44E+04 | 6.98E+04 | 7.87E-01 | 4.50E+00 | 5.81E+00 | 7.65E+02 | 8.61E-03 | 3.20E-01 | 0.00E+00 | 7.11E-02 | 6.25E-01 | 1.20E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.36E+03 | 1.43E+04 | 9.67E+04 | 8.01E-01 | 2.47E+00 | 7.08E+00 | 1.07E+03 | 1.20E-02 | 2.41E-01 | 0.00E+00 | 7.22E-02 | 3.44E-01 | 1.67E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.23E+03 | 5.96E+03 | 6.40E+04 | 5.00E-01 | 1.73E+00 | 4.17E+00 | 7.06E+02 | 6.93E-03 | 1.49E-01 | 0.00E+00 | 4.51E-02 | 5.81E-01 | 2.32E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.57E+02 | 4.19E+02 | 9.21E+03 | 7.23E-02 | 2.49E-01 | 6.16E-01 | 1.02E+02 | 1.02E-03 | 2.17E-02 | 0.00E+00 | 6.53E-03 | 1.19E+00 | 4.88E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.68E+01 | 4.50E+01 | 1.21E+03 | 1.05E-02 | 3.69E-02 | 1.19E-01 | 1.33E+01 | 1.34E-04 | 3.48E-03 | 0.00E+00 | 9.43E-04 | 1.64E+00 | 5.97E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.29E+01 | 5.76E+01 | 3.41E+02 | 5.59E-03 | 2.40E-02 | 4.01E-02 | 3.73E+00 | 4.19E-05 | 2.28E-03 | 0.00E+00 | 5.05E-04 | 8.33E-01 | 1.46E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.17E+02 | 1.41E+03 | 1.18E+04 | 1.56E-01 | 4.45E-01 | 1.29E+00 | 1.29E+02 | 1.46E-03 | 5.38E-02 | 0.00E+00 | 1.41E-02 | 6.30E-01 | 2.06E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.88E+02 | 2.17E+03 | 2.62E+04 | 3.18E-01 | 1.35E+00 | 2.60E+00 | 2.87E+02 | 2.82E-03 | 1.07E-01 | 0.00E+00 | 2.87E-02 | 1.24E+00 | 2.60E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.72E+02 | 7.68E+02 | 1.39E+04 | 1.70E-01 | 7.18E-01 | 1.41E+00 | 1.53E+02 | 1.54E-03 | 5.73E-02 | 0.00E+00 | 1.53E-02 | 1.87E+00 | 4.01E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.17E+01 | 5.19E+01 | 1.40E+03 | 1.79E-02 | 7.84E-02 | 1.77E-01 | 1.53E+01 | 1.54E-04 | 5.99E-03 | 0.00E+00 | 1.61E-03 | 3.02E+00 | 5.95E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.65E+02 | 9.42E+02 | 6.80E+02 | 9.05E-03 | 3.07E-02 | 5.75E-02 | 7.47E+00 | 9.47E-05 | 2.31E-03 | 0.00E+00 | 8.17E-04 | 6.53E-02 | 2.01E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.18E+03 | 5.77E+03 | 8.07E+03 | 2.02E-01 | 8.70E-01 | 7.62E-01 | 8.74E+01 | 1.13E-03 | 5.35E-02 | 0.00E+00 | 1.82E-02 | 3.02E-01 | 3.92E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.92E+04 | 7.71E+04 | 1.82E+05 | 2.22E+00 | 1.34E+01 | 1.49E+01 | 1.99E+03 | 2.34E-02 | 1.13E+00 | 0.00E+00 | 2.01E-01 | 3.48E-01 | 6.06E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.18E+03 | 5.76E+03 | 2.66E+04 | 2.46E-01 | 1.68E+00 | 1.82E+00 | 2.92E+02 | 3.28E-03 | 9.63E-02 | 0.00E+00 | 2.22E-02 | 5.85E-01 | 1.14E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.04E+02 | 1.86E+03 | 1.45E+04 | 1.01E-01 | 3.32E-01 | 8.42E-01 | 1.60E+02 | 1.80E-03 | 2.73E-02 | 0.00E+00 | 9.08E-03 | 3.56E-01 | 1.93E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.14E+03 | 3.01E+03 | 4.69E+04 | 3.13E-01 | 1.06E+00 | 2.41E+00 | 5.18E+02 | 5.83E-03 | 8.39E-02 | 0.00E+00 | 2.82E-02 | 7.08E-01 | 3.88E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.84E+02 | 2.07E+03 | 4.85E+04 | 3.26E-01 | 1.10E+00 | 2.57E+00 | 5.36E+02 | 6.03E-03 | 8.83E-02 | 0.00E+00 | 2.94E-02 | 1.06E+00 | 5.82E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.81E+01 | 5.18E+01 | 6.01E+01 | 2.63E-03 | 7.99E-03 | 6.38E-03 | 6.44E-01 | 8.33E-06 | 6.02E-04 | 0.00E+00 | 2.37E-04 | 3.08E-01 | 3.21E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.03E+04 | 2.94E+04 | 8.87E+04 | 1.68E+00 | 7.01E+00 | 1.00E+01 | 9.67E+02 | 1.13E-02 | 8.50E-01 | 0.00E+00 | 1.52E-01 | 4.77E-01 | 7.71E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.48E+03 | 9.95E+03 | 5.50E+04 | 7.50E-01 | 3.67E+00 | 5.44E+00 | 6.02E+02 | 6.78E-03 | 3.05E-01 | 0.00E+00 | 6.77E-02 | 7.38E-01 | 1.36E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.99E+03 | 8.55E+03 | 6.44E+04 | 6.76E-01 | 1.97E+00 | 5.78E+00 | 7.10E+02 | 7.98E-03 | 2.19E-01 | 0.00E+00 | 6.10E-02 | 4.61E-01 | 1.87E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.05E+03 | 5.86E+03 | 6.89E+04 | 6.73E-01 | 2.44E+00 | 5.56E+00 | 7.59E+02 | 7.45E-03 | 2.14E-01 | 0.00E+00 | 6.07E-02 | 8.34E-01 | 2.54E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.04E+02 | 2.97E+02 | 6.25E+03 | 6.13E-02 | 2.22E-01 | 5.15E-01 | 6.88E+01 | 6.92E-04 | 1.96E-02 | 0.00E+00 | 5.53E-03 | 1.49E+00 | 4.67E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.04E+02 | 2.96E+02 | 8.86E+03 | 9.29E-02 | 3.51E-01 | 9.85E-01 | 9.74E+01 | 9.79E-04 | 3.07E-02 | 0.00E+00 | 8.39E-03 | 2.37E+00 | 6.61E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.48E+03 | 5.68E+03 | 3.57E+03 | 5.36E-02 | 1.71E-01 | 3.19E-01 | 3.91E+01 | 4.97E-04 | 1.59E-02 | 0.00E+00 | 4.84E-03 | 6.01E-02 | 1.75E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.25E+04 | 5.25E+04 | 6.14E+04 | 9.92E-01 | 5.60E+00 | 5.38E+00 | 6.69E+02 | 8.65E-03 | 2.97E-01 | 0.00E+00 | 8.95E-02 | 2.14E-01 | 3.30E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.18E+04 | 2.75E+04 | 5.36E+04 | 4.59E-01 | 3.72E+00 | 3.71E+00 | 5.87E+02 | 6.89E-03 | 2.33E-01 | 0.00E+00 | 4.14E-02 | 2.71E-01 | 5.01E-04 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.29E+00 | 3.95E+00 | 1.70E+01 | 3.76E-04 | 1.39E-03 | 2.20E-03 | 1.85E-01 | 2.17E-06 | 1.88E-04 | 0.00E+00 | 3.39E-05 | 7.04E-01 | 1.10E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.58E+03 | 4.83E+03 | 2.88E+04 | 4.51E-01 | 1.98E+00 | 3.31E+00 | 3.15E+02 | 3.54E-03 | 1.86E-01 | 0.00E+00 | 4.07E-02 | 8.21E-01 | 1.47E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.50E+03 | 4.57E+03 | 2.71E+04 | 3.40E-01 | 9.86E-01 | 2.89E+00 | 2.98E+02 | 3.35E-03 | 1.19E-01 | 0.00E+00 | 3.07E-02 | 4.32E-01 | 1.47E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.50E+02 | 1.99E+03 | 5.14E+04 | 5.93E-01 | 2.50E+00 | 5.04E+00 | 5.64E+02 | 5.67E-03 | 2.03E-01 | 0.00E+00 | 5.35E-02 | 2.52E+00 | 5.71E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.87E+01 | 2.10E+02 | 7.77E+03 | 9.44E-02 | 4.13E-01 | 9.64E-01 | 8.53E+01 | 8.57E-04 | 3.21E-02 | 0.00E+00 | 8.52E-03 | 3.94E+00 | 8.18E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Dumpers/T | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.10E+01 | 5.64E+01 | 1.96E+01 | 2.63E-04 | 8.88E-04 | 1.66E-03 | 2.15E-01 | 2.72E-06 | 7.08E-05 | 0.00E+00 | 2.37E-05 | 3.15E-02 | 9.67E-05 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.28E+02 | 8.10E+02 | 3.74E+02 | 4.76E-03 | 2.50E-02 | 2.98E-02 | 4.09E+00 | 6.37E-05 | 1.16E-03 | 0.00E+00 | 4.30E-04 | 6.17E-02 | 1.57E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 7.24E+01 | 1.37E+02 | 8.24E+01 | 1.09E-03 | 3.73E-03 | 6.90E-03 | 9.05E-01 | 1.15E-05 | 2.65E-04 | 0.00E+00 | 9.85E-05 | 5.44E-02 | 1.68E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.11E+02 | 2.14E+02 | 2.75E+02 | 6.38E-03 | 2.68E-02 | 2.53E-02 | 2.99E+00 | 3.87E-05 | 1.74E-03 | 0.00E+00 | 5.75E-04 | 2.50E-01 | 3.62E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.84E+02 | 3.53E+02 | 1.30E+03 | 1.46E-02 | 9.18E-02 | 1.06E-01 | 1.43E+01 | 1.67E-04 | 7.79E-03 | 0.00E+00 | 1.32E-03 | 5.20E-01 | 9.48E-04 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.54E+02 | 4.87E+02 | 2.36E+03 | 1.94E-02 | 1.43E-01 | 1.62E-01 | 2.59E+01 | 2.92E-04 | 8.07E-03 | 0.00E+00 | 1.75E-03 | 5.86E-01 | 1.20E-03 |
| 2015 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.89E+02 | 1.13E+03 | 1.30E+04 | 7.40E-02 | 2.80E-01 | 6.71E-01 | 1.44E+02 | 1.41E-03 | 2.23E-02 | 0.00E+00 | 6.68E-03 | 4.96E-01 | 2.49E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.97E+01 | 4.43E+01 | 3.77E+01 | 5.10E-04 | 1.72E-03 | 3.21E-03 | 4.13E-01 | 5.25E-06 | 1.36E-04 | 0.00E+00 | 4.60E-05 | 7.74E-02 | 2.37E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.15E+03 | 2.61E+03 | 3.41E+03 | 1.46E-01 | 4.36E-01 | 3.52E-01 | 3.65E+01 | 4.72E-04 | 3.29E-02 | 0.00E+00 | 1.32E-02 | 3.34E-01 | 3.62E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.35E+03 | 3.08E+03 | 9.76E+03 | 1.79E-01 | 7.58E-01 | 1.08E+00 | 1.06E+02 | 1.25E-03 | 9.10E-02 | 0.00E+00 | 1.62E-02 | 4.93E-01 | 8.11E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.39E+02 | 1.91E+03 | 1.12E+04 | 1.46E-01 | 7.34E-01 | 1.08E+00 | 1.23E+02 | 1.38E-03 | 5.99E-02 | 0.00E+00 | 1.32E-02 | 7.67E-01 | 1.44E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.01E+02 | 2.31E+02 | 2.03E+03 | 2.03E-02 | 6.19E-02 | 1.78E-01 | 2.24E+01 | 2.52E-04 | 6.76E-03 | 0.00E+00 | 1.83E-03 | 5.36E-01 | 2.19E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.04E+02 | 2.37E+02 | 2.50E+03 | 2.31E-02 | 9.04E-02 | 1.98E-01 | 2.76E+01 | 2.71E-04 | 7.58E-03 | 0.00E+00 | 2.09E-03 | 7.64E-01 | 2.29E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Plate Comp | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.23E+02 | 6.96E+02 | 1.37E+02 | 1.75E-03 | 9.15E-03 | 1.09E-02 | 1.50E+00 | 2.33E-05 | 4.26E-04 | 0.00E+00 | 1.57E-04 | 2.63E-02 | 6.71E-05 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 7.95E+02 | 1.51E+03 | 4.37E+02 | 5.56E-03 | 2.92E-02 | 3.48E-02 | 4.78E+00 | 7.44E-05 | 1.36E-03 | 0.00E+00 | 5.02E-04 | 3.86E-02 | 9.83E-05 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.32E+02 | 6.33E+02 | 3.84E+02 | 5.09E-03 | 1.74E-02 | 3.22E-02 | 4.22E+00 | 5.35E-05 | 1.22E-03 | 0.00E+00 | 4.59E-04 | 5.49E-02 | 1.69E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.03E+03 | 1.99E+03 | 2.39E+03 | 7.92E-02 | 2.66E-01 | 2.31E-01 | 2.58E+01 | 3.33E-04 | 1.90E-02 | 0.00E+00 | 7.15E-03 | 2.68E-01 | 3.36E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.55E+03 | 1.07E+04 | 2.88E+04 | 4.24E-01 | 2.12E+00 | 2.72E+00 | 3.14E+02 | 3.69E-03 | 2.22E-01 | 0.00E+00 | 3.82E-02 | 3.97E-01 | 6.91E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.23E+03 | 4.29E+03 | 2.11E+04 | 2.21E-01 | 1.32E+00 | 1.71E+00 | 2.32E+02 | 2.61E-03 | 9.25E-02 | 0.00E+00 | 2.00E-02 | 6.15E-01 | 1.22E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.16E+02 | 6.08E+02 | 4.22E+03 | 3.17E-02 | 1.05E-01 | 3.03E-01 | 4.65E+01 | 5.24E-04 | 1.01E-02 | 0.00E+00 | 2.86E-03 | 3.46E-01 | 1.72E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.22E+02 | 4.27E+02 | 4.23E+03 | 2.97E-02 | 1.13E-01 | 2.70E-01 | 4.67E+01 | 4.58E-04 | 9.42E-03 | 0.00E+00 | 2.68E-03 | 5.31E-01 | 2.15E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.12E+01 | 1.56E+02 | 6.70E+02 | 1.22E-02 | 5.27E-02 | 7.24E-02 | 7.31E+00 | 8.58E-05 | 6.08E-03 | 0.00E+00 | 1.10E-03 | 6.77E-01 | 1.10E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.69E+02 | 1.43E+03 | 9.64E+03 | 1.26E-01 | 6.41E-01 | 8.99E-01 | 1.06E+02 | 1.19E-03 | 5.06E-02 | 0.00E+00 | 1.14E-02 | 8.99E-01 | 1.66E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.57E+02 | 1.39E+03 | 1.32E+04 | 1.33E-01 | 3.95E-01 | 1.12E+00 | 1.46E+02 | 1.64E-03 | 4.22E-02 | 0.00E+00 | 1.20E-02 | 5.68E-01 | 2.35E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.26E+03 | 3.83E+03 | 5.58E+04 | 5.23E-01 | 1.93E+00 | 4.24E+00 | 6.15E+02 | 6.03E-03 | 1.63E-01 | 0.00E+00 | 4.72E-02 | 1.01E+00 | 3.15E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.07E+02 | 6.28E+02 | 1.58E+04 | 1.49E-01 | 5.48E-01 | 1.23E+00 | 1.74E+02 | 1.75E-03 | 4.67E-02 | 0.00E+00 | 1.34E-02 | 1.74E+00 | 5.58E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.41E+01 | 7.76E+01 | 4.46E+01 | 5.91E-04 | 2.02E-03 | 3.73E-03 | 4.90E-01 | 6.21E-06 | 1.41E-04 | 0.00E+00 | 5.33E-05 | 5.19E-02 | 1.60E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.89E+01 | 6.62E+01 | 7.38E+01 | 3.15E-03 | 9.36E-03 | 7.60E-03 | 7.91E-01 | 1.02E-05 | 7.13E-04 | 0.00E+00 | 2.84E-04 | 2.83E-01 | 3.09E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.16E+02 | 9.54E+02 | 2.38E+03 | 4.35E-02 | 1.84E-01 | 2.63E-01 | 2.60E+01 | 3.05E-04 | 2.23E-02 | 0.00E+00 | 3.92E-03 | 3.86E-01 | 6.39E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.96E+02 | 4.48E+02 | 2.07E+03 | 2.66E-02 | 1.34E-01 | 1.98E-01 | 2.26E+01 | 2.55E-04 | 1.10E-02 | 0.00E+00 | 2.40E-03 | 6.00E-01 | 1.14E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.52E+01 | 1.26E+02 | 7.01E+02 | 6.80E-03 | 2.08E-02 | 6.13E-02 | 7.72E+00 | 8.69E-05 | 2.27E-03 | 0.00E+00 | 6.14E-04 | 3.30E-01 | 1.37E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.63E+01 | 3.26E+01 | 2.12E+01 | 6.12E-04 | 2.12E-03 | 1.98E-03 | 2.30E-01 | 2.97E-06 | 1.51E-04 | 0.00E+00 | 5.52E-05 | 1.30E-01 | 1.82E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.25E+00 | 6.52E+00 | 1.90E+01 | 2.54E-04 | 1.34E-03 | 1.75E-03 | 2.08E-01 | 2.43E-06 | 1.31E-04 | 0.00E+00 | 2.29E-05 | 4.12E-01 | 7.47E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.94E+00 | 4.89E+00 | 1.91E+01 | 1.79E-04 | 1.15E-03 | 1.50E-03 | 2.09E-01 | 2.36E-06 | 7.51E-05 | 0.00E+00 | 1.62E-05 | 4.69E-01 | 9.64E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.88E+00 | 9.77E+00 | 5.97E+01 | 4.06E-04 | 1.47E-03 | 4.15E-03 | 6.58E-01 | 7.41E-06 | 1.37E-04 | 0.00E+00 | 3.67E-05 | 3.01E-01 | 1.52E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.57E+01 | 8.14E+01 | 8.16E+02 | 5.13E-03 | 2.23E-02 | 5.11E-02 | 9.00E+00 | 8.83E-05 | 1.73E-03 | 0.00E+00 | 4.63E-04 | 5.48E-01 | 2.17E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.95E+01 | 4.89E+01 | 7.69E+02 | 4.90E-03 | 2.10E-02 | 4.94E-02 | 8.48E+00 | 8.53E-05 | 1.65E-03 | 0.00E+00 | 4.42E-04 | 8.59E-01 | 3.49E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.70E+03 | 7.60E+03 | 2.14E+03 | 2.73E-02 | 1.43E-01 | 1.71E-01 | 2.34E+01 | 3.65E-04 | 6.67E-03 | 0.00E+00 | 2.46E-03 | 3.76E-02 | 9.59E-05 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.84E+01 | 2.70E+01 | 4.49E+01 | 1.12E-03 | 4.22E-03 | 4.09E-03 | 4.88E-01 | 6.30E-06 | 2.95E-04 | 0.00E+00 | 1.01E-04 | 3.13E-01 | 4.67E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.01E+02 | 4.41E+02 | 1.61E+03 | 1.92E-02 | 1.12E-01 | 1.37E-01 | 1.77E+01 | 2.07E-04 | 1.03E-02 | 0.00E+00 | 1.74E-03 | 5.07E-01 | 9.40E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.86E+02 | 2.74E+02 | 1.92E+03 | 1.60E-02 | 1.13E-01 | 1.38E-01 | 2.11E+01 | 2.38E-04 | 6.80E-03 | 0.00E+00 | 1.44E-03 | 8.28E-01 | 1.74E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.94E+01 | 5.78E+01 | 6.67E+02 | 3.81E-03 | 1.44E-02 | 4.18E-02 | 7.37E+00 | 8.29E-05 | 1.22E-03 | 0.00E+00 | 3.43E-04 | 4.99E-01 | 2.87E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.85E+01 | 1.67E+02 | 6.45E+01 | 8.22E-04 | 4.31E-03 | 5.14E-03 | 7.06E-01 | 1.10E-05 | 2.01E-04 | 0.00E+00 | 7.41E-05 | 5.16E-02 | 1.32E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.04E+02 | 1.76E+02 | 2.63E+02 | 3.49E-03 | 1.19E-02 | 2.20E-02 | 2.89E+00 | 3.67E-05 | 8.22E-04 | 0.00E+00 | 3.15E-04 | 1.35E-01 | 4.17E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.95E+03 | 6.81E+03 | 1.04E+04 | 4.44E-01 | 1.30E+00 | 1.07E+00 | 1.12E+02 | 1.45E-03 | 9.97E-02 | 0.00E+00 | 4.01E-02 | 3.81E-01 | 4.25E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.35E+03 | 9.23E+03 | 2.74E+04 | 4.98E-01 | 2.10E+00 | 3.07E+00 | 2.99E+02 | 3.51E-03 | 2.54E-01 | 0.00E+00 | 4.49E-02 | 4.56E-01 | 7.61E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.86E+02 | 1.01E+03 | 6.63E+03 | 8.47E-02 | 4.29E-01 | 6.46E-01 | 7.26E+01 | 8.17E-04 | 3.53E-02 | 0.00E+00 | 7.64E-03 | 8.49E-01 | 1.62E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.25E+01 | 9.06E+01 | 9.16E+02 | 9.01E-03 | 2.83E-02 | 8.17E-02 | 1.01E+01 | 1.14E-04 | 3.13E-03 | 0.00E+00 | 8.13E-04 | 6.25E-01 | 2.51E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.70E+01 | 1.16E+02 | 1.63E+03 | 1.48E-02 | 6.16E-02 | 1.31E-01 | 1.80E+01 | 1.76E-04 | 5.04E-03 | 0.00E+00 | 1.33E-03 | 1.07E+00 | 3.05E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.89E+00 | 1.36E+01 | 3.63E+02 | 3.30E-03 | 1.37E-02 | 2.98E-02 | 3.99E+00 | 4.01E-05 | 1.13E-03 | 0.00E+00 | 2.98E-04 | 2.01E+00 | 5.90E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 15 | Constructi | U | P | NHH | P | Total | Total | Total | 1.31E+01 | 2.92E+01 | 1.38E+01 | 1.76E-04 | 9.22E-04 | 1.10E-03 | 1.51E-01 | 2.35E-06 | 4.30E-05 | 0.00E+00 | 1.59E-05 | 6.31E-02 | 1.61E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 25 | Constructi | U | P | NHH | P | Total | Total | Total | 3.94E+01 | 8.76E+01 | 6.37E+01 | 8.44E-04 | 2.88E-03 | 5.33E-03 | 7.00E-01 | 8.88E-06 | 2.02E-04 | 0.00E+00 | 7.62E-05 | 6.58E-02 | 2.03E-04 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 50 | Constructio | U | P | NHH | P | Total | Total | Total | 1.72E+02 | 3.97E+02 | 5.62E+02 | 4.36E-03 | 4.41E-02 | 4.18E-02 | 6.15E+00 | 7.96E-05 | 1.15E-03 | 0.00E+00 | 3.94E-04 | 2.22E-01 | 4.01E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 120 | Constructio | U | P | NHH | P | Total | Total | Total | 5.28E+02 | 1.22E+03 | 4.27E+03 | 2.12E-02 | 2.84E-01 | 2.01E-01 | 4.69E+01 | 5.50E-04 | 7.60E-03 | 0.00E+00 | 1.92E-03 | 4.67E-01 | 9.04E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 175 | Constructio | U | P | NHH | P | Total | Total | Total | 1.22E+02 | 2.82E+02 | 1.81E+03 | 7.97E-03 | 1.06E-01 | 6.16E-02 | 1.99E+01 | 2.23E-04 | 2.20E-03 | 0.00E+00 | 7.19E-04 | 7.53E-01 | 1.59E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 250 | Constructio | U | N | NHH | P | Total | Total | Total | 1.05E+02 | 2.42E+02 | 2.06E+03 | 7.60E-03 | 4.15E-02 | 4.71E-02 | 2.28E+01 | 2.56E-04 | 1.37E-03 | 0.00E+00 | 6.86E-04 | 3.42E-01 | 2.11E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 500 | Constructio | U | N | NHH | P | Total | Total | Total | 2.34E+02 | 5.39E+02 | 7.58E+03 | 2.78E-02 | 1.48E-01 | 1.68E-01 | 8.39E+01 | 8.23E-04 | 5.01E-03 | 0.00E+00 | 2.51E-03 | 5.51E-01 | 3.05E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 750 | Constructio | U | N | NHH | P | Total | Total | Total | 1.22E+02 | 2.82E+02 | 7.84E+03 | 2.88E-02 | 1.54E-01 | 1.75E-01 | 8.67E+01 | 8.72E-04 | 5.20E-03 | 0.00E+00 | 2.60E-03 | 1.09E+00 | 6.18E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 1000 | Constructio | U | N | NHH | P | Total | Total | Total | 2.05E+02 | 4.73E+02 | 1.98E+04 | 7.73E-02 | 3.89E-01 | 1.10E+00 | 2.19E+02 | 2.21E-03 | 2.39E-02 | 0.00E+00 | 6.98E-03 | 1.65E+00 | 9.33E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.86E+01 | 1.86E+02 | 1.39E+02 | 1.84E-03 | 6.29E-03 | 1.16E-02 | 1.53E+00 | 1.94E-05 | 4.35E-04 | 0.00E+00 | 1.66E-04 | 6.76E-02 | 2.08E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.83E+03 | 7.12E+03 | 8.22E+03 | 2.07E-01 | 9.32E-01 | 7.70E-01 | 8.89E+01 | 1.15E-03 | 5.23E-02 | 0.00E+00 | 1.87E-02 | 2.62E-01 | 3.23E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.97E+03 | 1.93E+04 | 6.50E+04 | 8.04E-01 | 4.90E+00 | 5.11E+00 | 7.11E+02 | 8.34E-03 | 3.82E-01 | 0.00E+00 | 7.26E-02 | 5.07E-01 | 8.63E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 9.58E+03 | 3.73E+04 | 1.91E+05 | 1.81E+00 | 1.24E+01 | 1.22E+01 | 2.09E+03 | 2.35E-02 | 6.61E-01 | 0.00E+00 | 1.63E-01 | 6.64E-01 | 1.26E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.90E+03 | 1.52E+04 | 1.09E+05 | 7.98E-01 | 2.57E+00 | 5.96E+00 | 1.20E+03 | 1.35E-02 | 1.99E-01 | 0.00E+00 | 7.20E-02 | 3.39E-01 | 1.78E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.81E+03 | 1.09E+04 | 1.16E+05 | 8.17E-01 | 2.65E+00 | 5.59E+00 | 1.28E+03 | 1.25E-02 | 2.00E-01 | 0.00E+00 | 7.37E-02 | 4.85E-01 | 2.29E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 6.18E+01 | 2.40E+02 | 4.21E+03 | 2.99E-02 | 9.65E-02 | 2.10E-01 | 4.65E+01 | 4.68E-04 | 7.41E-03 | 0.00E+00 | 2.70E-03 | 8.03E-01 | 3.89E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Concrete/Ir | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 5.25E+00 | 8.53E+00 | 6.39E+00 | 8.47E-05 | 2.89E-04 | 5.35E-04 | 7.02E-02 | 8.91E-07 | 2.00E-05 | 0.00E+00 | 7.64E-06 | 6.78E-02 | 2.09E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Concrete/Ir | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.60E+01 | 7.31E+01 | 1.02E+02 | 2.57E-03 | 9.76E-03 | 9.35E-03 | 1.10E+00 | 1.43E-05 | 6.80E-04 | 0.00E+00 | 2.32E-04 | 2.67E-01 | 3.90E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Concrete/Ir | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.01E+01 | 1.27E+02 | 4.31E+02 | 5.15E-03 | 3.01E-02 | 3.68E-02 | 4.72E+00 | 5.54E-05 | 2.77E-03 | 0.00E+00 | 4.65E-04 | 4.72E-01 | 8.69E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Concrete/Ir | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.63E+00 | 4.18E+00 | 3.05E+01 | 2.56E-04 | 1.81E-03 | 2.18E-03 | 3.34E-01 | 3.76E-06 | 1.10E-04 | 0.00E+00 | 2.31E-05 | 8.66E-01 | 1.80E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 15 | Constructio | U | P | NHH | NP | Total | Total | Total | 6.71E+02 | 5.52E+02 | 1.59E+02 | 2.03E-03 | 1.06E-02 | 1.27E-02 | 1.74E+00 | 2.71E-05 | 5.14E-04 | 0.00E+00 | 1.83E-04 | 3.86E-02 | 9.83E-05 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 6.04E+01 | 4.97E+01 | 3.97E+01 | 6.04E-04 | 1.91E-03 | 3.56E-03 | 4.36E-01 | 5.53E-06 | 1.75E-04 | 0.00E+00 | 5.45E-05 | 7.71E-02 | 2.23E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 50 | Constructio | U | P | NHH | P | Total | Total | Total | 4.47E+01 | 1.57E+02 | 1.69E+02 | 6.10E-03 | 2.08E-02 | 1.69E-02 | 1.82E+00 | 2.35E-05 | 1.45E-03 | 0.00E+00 | 5.50E-04 | 2.65E-01 | 2.99E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 120 | Constructio | U | P | NHH | P | Total | Total | Total | 4.90E+02 | 1.72E+03 | 3.95E+03 | 6.39E-02 | 3.03E-01 | 3.84E-01 | 4.31E+01 | 5.05E-04 | 3.24E-02 | 0.00E+00 | 5.77E-03 | 3.53E-01 | 5.88E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 175 | Constructio | U | P | NHH | P | Total | Total | Total | 4.90E+02 | 1.72E+03 | 6.30E+03 | 7.41E-02 | 4.11E-01 | 5.24E-01 | 6.90E+01 | 7.76E-04 | 2.97E-02 | 0.00E+00 | 6.68E-03 | 4.78E-01 | 9.03E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 250 | Constructio | U | N | NHH | P | Total | Total | Total | 9.49E+02 | 3.33E+03 | 1.69E+04 | 1.46E-01 | 4.38E-01 | 1.25E+00 | 1.87E+02 | 2.10E-03 | 4.32E-02 | 0.00E+00 | 1.32E-02 | 2.63E-01 | 1.26E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 500 | Constructio | U | N | NHH | P | Total | Total | Total | 3.48E+02 | 1.22E+03 | 9.96E+03 | 8.08E-02 | 2.70E-01 | 6.54E-01 | 1.10E+02 | 1.08E-03 | 2.36E-02 | 0.00E+00 | 7.29E-03 | 4.43E-01 | 1.77E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 750 | Constructio | U | N | NHH | P | Total | Total | Total | 2.56E+02 | 9.00E+02 | 1.24E+04 | 1.01E-01 | 3.35E-01 | 8.36E-01 | 1.36E+02 | 1.37E-03 | 2.98E-02 | 0.00E+00 | 9.10E-03 | 7.45E-01 | 3.04E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 9999 | Constructio | U | N | NHH | P | Total | Total | Total | 3.22E+02 | 1.13E+03 | 4.97E+04 | 4.65E-01 | 1.53E+00 | 4.94E+00 | 5.48E+02 | 5.51E-03 | 1.44E-01 | 0.00E+00 | 4.20E-02 | 2.70E+00 | 9.75E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.84E+01 | 4.79E+01 | 6.11E+01 | 1.95E-03 | 7.18E-03 | 5.92E-03 | 6.59E-01 | 8.51E-06 | 4.68E-04 | 0.00E+00 | 1.76E-04 | 3.00E-01 | 3.56E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.23E+03 | 3.19E+03 | 1.09E+04 | 1.60E-01 | 8.29E-01 | 9.92E-01 | 1.20E+02 | 1.40E-03 | 7.97E-02 | 0.00E+00 | 1.44E-02 | 5.19E-01 | 8.79E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.19E+03 | 1.09E+04 | 6.16E+04 | 6.63E-01 | 3.98E+00 | 4.70E+00 | 6.75E+02 | 7.60E-03 | 2.60E-01 | 0.00E+00 | 5.98E-02 | 7.30E-01 | 1.39E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.60E+03 | 6.77E+03 | 5.28E+04 | 4.23E-01 | 1.33E+00 | 3.53E+00 | 5.82E+02 | 6.55E-03 | 1.21E-01 | 0.00E+00 | 3.82E-02 | 3.93E-01 | 1.93E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 7.35E+01 | 1.91E+02 | 1.99E+03 | 1.51E-02 | 5.28E-02 | 1.19E-01 | 2.20E+01 | 2.15E-04 | 4.27E-03 | 0.00E+00 | 1.36E-03 | 5.52E-01 | 2.25E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.95E+00 | 1.03E+01 | 2.26E+02 | 1.72E-03 | 6.00E-03 | 1.38E-02 | 2.49E+00 | 2.51E-05 | 4.92E-04 | 0.00E+00 | 1.56E-04 | 1.17E+00 | 4.88E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.54E+01 | 4.65E+02 | 2.65E+03 | 2.70E-02 | 1.75E-01 | 1.77E-01 | 2.90E+01 | 3.27E-04 | 9.69E-03 | 0.00E+00 | 2.44E-03 | 7.55E-01 | 1.41E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 6.30E+02 | 3.43E+03 | 2.59E+04 | 2.02E-01 | 6.26E-01 | 1.49E+00 | 2.85E+02 | 3.21E-03 | 4.98E-02 | 0.00E+00 | 1.82E-02 | 3.65E-01 | 1.87E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 8.88E+02 | 4.83E+03 | 5.96E+04 | 4.48E-01 | 1.40E+00 | 3.02E+00 | 6.57E+02 | 6.45E-03 | 1.08E-01 | 0.00E+00 | 4.04E-02 | 5.79E-01 | 2.67E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 8.27E+02 | 4.50E+03 | 9.00E+04 | 6.80E-01 | 2.11E+00 | 4.71E+00 | 9.93E+02 | 9.99E-03 | 1.66E-01 | 0.00E+00 | 6.14E-02 | 9.39E-01 | 4.44E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.88E+02 | 2.11E+03 | 5.97E+04 | 4.82E-01 | 1.49E+00 | 5.15E+00 | 6.58E+02 | 6.62E-03 | 1.43E-01 | 0.00E+00 | 4.35E-02 | 1.41E+00 | 6.28E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 50 | Constructio | U | P | NHH | P | Total | Total | Total | 2.10E+02 | 5.50E+02 | 1.12E+03 | 3.39E-02 | 1.24E-01 | 1.07E-01 | 1.21E+01 | 1.56E-04 | 8.51E-03 | 0.00E+00 | 3.06E-03 | 4.49E-01 | 5.69E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 120 | Constructio | U | P | NHH | P | Total | Total | Total | 5.92E+02 | 1.55E+03 | 5.89E+03 | 8.17E-02 | 4.33E-01 | 5.25E-01 | 6.44E+01 | 7.56E-04 | 4.30E-02 | 0.00E+00 | 7.37E-03 | 5.59E-01 | 9.74E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 175 | Constructio | U | P | NHH | P | Total | Total | Total | 2.51E+02 | 6.57E+02 | 5.01E+03 | 4.96E-02 | 3.13E-01 | 3.75E-01 | 5.49E+01 | 6.18E-04 | 2.04E-02 | 0.00E+00 | 4.48E-03 | 9.53E-01 | 1.88E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 250 | Constructio | U | N | NHH | P | Total | Total | Total | 2.50E+01 | 6.53E+01 | 7.23E+02 | 5.07E-03 | 1.66E-02 | 4.75E-02 | 7.98E+00 | 8.98E-05 | 1.48E-03 | 0.00E+00 | 4.57E-04 | 5.07E-01 | 2.75E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 500 | Constructio | U | N | NHH | P | Total | Total | Total | 1.41E+02 | 3.68E+02 | 6.22E+03 | 4.12E-02 | 1.39E-01 | 3.54E-01 | 6.87E+01 | 6.74E-04 | 1.19E-02 | 0.00E+00 | 3.72E-03 | 7.53E-01 | 3.66E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 750 | Constructio | U | N | NHH | P | Total | Total | Total | 6.58E+00 | 1.72E+01 | 4.59E+02 | 3.03E-03 | 1.02E-02 | 2.69E-02 | 5.07E+00 | 5.09E-05 | 8.86E-04 | 0.00E+00 | 2.73E-04 | 1.18E+00 | 5.92E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 9999 | Constructio | U | N | NHH | P | Total | Total | Total | 6.58E+00 | 1.72E+01 | 1.02E+03 | 7.87E-03 | 2.52E-02 | 9.31E-02 | 1.13E+01 | 1.13E-04 | 2.53E-03 | 0.00E+00 | 7.10E-04 | 2.93E+00 | 1.31E-02 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.46E+02 | 4.52E+02 | 7.07E+02 | 1.90E-02 | 7.81E-02 | 6.67E-02 | 7.65E+00 | 9.89E-05 | 4.88E-03 | 0.00E+00 | 1.71E-03 | 3.46E-01 | 4.37E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 6.98E+03 | 2.17E+04 | 6.18E+04 | 7.88E-01 | 4.58E+00 | 5.13E+00 | 6.75E+02 | 7.92E-03 | 3.99E-01 | 0.00E+00 | 7.11E-02 | 4.23E-01 | 7.32E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.94E+02 | 2.77E+03 | 1.58E+04 | 1.50E-01 | 1.00E+00 | 1.08E+00 | 1.73E+02 | 1.95E-03 | 5.86E-02 | 0.00E+00 | 1.35E-02 | 7.23E-01 | 1.40E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 4.99E+01 | 1.55E+02 | 1.20E+03 | 8.56E-03 | 2.78E-02 | 7.12E-02 | 1.32E+01 | 1.49E-04 | 2.34E-03 | 0.00E+00 | 7.72E-04 | 3.59E-01 | 1.92E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.28E+01 | 1.02E+02 | 1.18E+03 | 8.09E-03 | 2.65E-02 | 6.15E-02 | 1.31E+01 | 1.28E-04 | 2.18E-03 | 0.00E+00 | 7.30E-04 | 5.20E-01 | 2.52E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.84E+01 | 4.82E+01 | 3.72E+01 | 4.92E-04 | 1.68E-03 | 3.11E-03 | 4.08E-01 | 5.18E-06 | 1.16E-04 | 0.00E+00 | 4.44E-05 | 6.96E-02 | 2.15E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 3.57E+02 | 9.54E+02 | 1.38E+03 | 4.30E-02 | 1.60E-01 | 1.33E-01 | 1.48E+01 | 1.92E-04 | 1.04E-02 | 0.00E+00 | 3.88E-03 | 3.35E-01 | 4.02E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 9.71E+03 | 2.59E+04 | 6.99E+04 | 1.00E+00 | 5.26E+00 | 6.26E+00 | 7.63E+02 | 8.95E-03 | 5.01E-01 | 0.00E+00 | 9.03E-02 | 4.06E-01 | 6.90E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 5.47E+03 | 1.46E+04 | 7.08E+04 | 7.47E-01 | 4.56E+00 | 5.33E+00 | 7.76E+02 | 8.74E-03 | 2.94E-01 | 0.00E+00 | 6.74E-02 | 6.24E-01 | 1.20E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 5.44E+03 | 1.45E+04 | 9.81E+04 | 7.67E-01 | 2.44E+00 | 6.46E+00 | 1.08E+03 | 1.22E-02 | 2.20E-01 | 0.00E+00 | 6.92E-02 | 3.35E-01 | 1.67E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.27E+03 | 6.05E+03 | 6.49E+04 | 4.81E-01 | 1.69E+00 | 3.80E+00 | 7.16E+02 | 7.03E-03 | 1.36E-01 | 0.00E+00 | 4.34E-02 | 5.59E-01 | 2.32E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.59E+02 | 4.25E+02 | 9.34E+03 | 6.96E-02 | 2.43E-01 | 5.63E-01 | 1.03E+02 | 1.04E-03 | 1.99E-02 | 0.00E+00 | 6.28E-03 | 1.14E+00 | 4.88E-03 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.71E+01 | 4.56E+01 | 1.23E+03 | 1.00E-02 | 3.55E-02 | 1.14E-01 | 1.35E+01 | 1.36E-04 | 3.24E-03 | 0.00E+00 | 9.04E-04 | 1.56E+00 | 5.97E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.31E+01 | 5.84E+01 | 3.46E+02 | 5.41E-03 | 2.42E-02 | 3.82E-02 | 3.78E+00 | 4.25E-05 | 2.16E-03 | 0.00E+00 | 4.88E-04 | 8.27E-01 | 1.46E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.22E+02 | 1.43E+03 | 1.19E+04 | 1.50E-01 | 4.34E-01 | 1.22E+00 | 1.31E+02 | 1.48E-03 | 5.06E-02 | 0.00E+00 | 1.35E-02 | 6.06E-01 | 2.06E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.95E+02 | 2.20E+03 | 2.65E+04 | 3.07E-01 | 1.29E+00 | 2.46E+00 | 2.92E+02 | 2.86E-03 | 1.01E-01 | 0.00E+00 | 2.77E-02 | 1.17E+00 | 2.60E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.75E+02 | 7.79E+02 | 1.41E+04 | 1.64E-01 | 6.83E-01 | 1.33E+00 | 1.55E+02 | 1.56E-03 | 5.40E-02 | 0.00E+00 | 1.48E-02 | 1.75E+00 | 4.01E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.18E+01 | 5.26E+01 | 1.42E+03 | 1.73E-02 | 7.46E-02 | 1.72E-01 | 1.56E+01 | 1.56E-04 | 5.70E-03 | 0.00E+00 | 1.56E-03 | 2.83E+00 | 5.95E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.70E+02 | 9.57E+02 | 6.90E+02 | 9.17E-03 | 3.12E-02 | 5.81E-02 | 7.58E+00 | 9.62E-05 | 2.29E-03 | 0.00E+00 | 8.27E-04 | 6.53E-02 | 2.01E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.21E+03 | 5.85E+03 | 8.17E+03 | 1.82E-01 | 8.61E-01 | 7.41E-01 | 8.87E+01 | 1.15E-03 | 4.74E-02 | 0.00E+00 | 1.64E-02 | 2.95E-01 | 3.92E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.96E+04 | 7.82E+04 | 1.85E+05 | 2.05E+00 | 1.35E+01 | 1.38E+01 | 2.02E+03 | 2.37E-02 | 9.90E-01 | 0.00E+00 | 1.85E-01 | 3.46E-01 | 6.06E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.21E+03 | 5.84E+03 | 2.70E+04 | 2.30E-01 | 1.71E+00 | 1.63E+00 | 2.96E+02 | 3.33E-03 | 8.54E-02 | 0.00E+00 | 2.07E-02 | 5.84E-01 | 1.14E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.14E+02 | 1.89E+03 | 1.47E+04 | 9.67E-02 | 3.33E-01 | 7.46E-01 | 1.62E+02 | 1.82E-03 | 2.45E-02 | 0.00E+00 | 8.72E-03 | 3.53E-01 | 1.93E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.15E+03 | 3.05E+03 | 4.75E+04 | 3.02E-01 | 1.06E+00 | 2.15E+00 | 5.25E+02 | 5.91E-03 | 7.55E-02 | 0.00E+00 | 2.73E-02 | 6.96E-01 | 3.88E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.96E+02 | 2.10E+03 | 4.92E+04 | 3.14E-01 | 1.10E+00 | 2.29E+00 | 5.43E+02 | 6.11E-03 | 7.94E-02 | 0.00E+00 | 2.84E-02 | 1.04E+00 | 5.82E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.84E+01 | 5.25E+01 | 6.08E+01 | 2.48E-03 | 7.91E-03 | 6.26E-03 | 6.53E-01 | 8.44E-06 | 5.63E-04 | 0.00E+00 | 2.24E-04 | 3.01E-01 | 3.21E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.04E+04 | 2.98E+04 | 8.98E+04 | 1.60E+00 | 7.05E+00 | 9.50E+00 | 9.80E+02 | 1.15E-02 | 7.94E-01 | 0.00E+00 | 1.44E-01 | 4.73E-01 | 7.71E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.53E+03 | 1.01E+04 | 5.58E+04 | 7.19E-01 | 3.71E+00 | 5.09E+00 | 6.11E+02 | 6.87E-03 | 2.86E-01 | 0.00E+00 | 6.49E-02 | 7.35E-01 | 1.36E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.03E+03 | 8.67E+03 | 6.53E+04 | 6.48E-01 | 1.93E+00 | 5.38E+00 | 7.19E+02 | 8.09E-03 | 2.03E-01 | 0.00E+00 | 5.84E-02 | 4.45E-01 | 1.87E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.08E+03 | 5.94E+03 | 6.98E+04 | 6.48E-01 | 2.34E+00 | 5.17E+00 | 7.69E+02 | 7.55E-03 | 1.98E-01 | 0.00E+00 | 5.84E-02 | 7.90E-01 | 2.54E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.05E+02 | 3.01E+02 | 6.34E+03 | 5.90E-02 | 2.13E-01 | 4.80E-01 | 6.98E+01 | 7.02E-04 | 1.82E-02 | 0.00E+00 | 5.32E-03 | 1.41E+00 | 4.67E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.05E+02 | 3.00E+02 | 8.97E+03 | 8.96E-02 | 3.35E-01 | 9.49E-01 | 9.87E+01 | 9.93E-04 | 2.89E-02 | 0.00E+00 | 8.08E-03 | 2.23E+00 | 6.61E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.52E+03 | 5.77E+03 | 3.62E+03 | 5.29E-02 | 1.71E-01 | 3.19E-01 | 3.97E+01 | 5.04E-04 | 1.53E-02 | 0.00E+00 | 4.77E-03 | 5.93E-02 | 1.75E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.29E+04 | 5.33E+04 | 6.23E+04 | 8.60E-01 | 5.56E+00 | 5.20E+00 | 6.79E+02 | 8.78E-03 | 2.51E-01 | 0.00E+00 | 7.76E-02 | 2.09E-01 | 3.30E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.20E+04 | 2.79E+04 | 5.44E+04 | 4.11E-01 | 3.76E+00 | 3.36E+00 | 5.96E+02 | 7.00E-03 | 1.93E-01 | 0.00E+00 | 3.71E-02 | 2.69E-01 | 5.01E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.31E+00 | 4.01E+00 | 1.72E+01 | 3.62E-04 | 1.40E-03 | 2.11E-03 | 1.88E-01 | 2.20E-06 | 1.79E-04 | 0.00E+00 | 3.26E-05 | 6.98E-01 | 1.10E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.61E+03 | 4.90E+03 | 2.92E+04 | 4.36E-01 | 2.00E+00 | 3.14E+00 | 3.19E+02 | 3.59E-03 | 1.77E-01 | 0.00E+00 | 3.94E-02 | 8.16E-01 | 1.47E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.52E+03 | 4.63E+03 | 2.74E+04 | 3.28E-01 | 9.62E-01 | 2.73E+00 | 3.02E+02 | 3.40E-03 | 1.12E-01 | 0.00E+00 | 2.96E-02 | 4.15E-01 | 1.47E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.60E+02 | 2.02E+03 | 5.21E+04 | 5.74E-01 | 2.38E+00 | 4.78E+00 | 5.72E+02 | 5.75E-03 | 1.92E-01 | 0.00E+00 | 5.18E-02 | 2.36E+00 | 5.71E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.97E+01 | 2.13E+02 | 7.88E+03 | 9.15E-02 | 3.93E-01 | 9.35E-01 | 8.65E+01 | 8.69E-04 | 3.05E-02 | 0.00E+00 | 8.25E-03 | 3.70E+00 | 8.18E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Dumpers/T | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.15E+01 | 5.72E+01 | 1.98E+01 | 2.65E-04 | 8.98E-04 | 1.68E-03 | 2.18E-01 | 2.76E-06 | 6.75E-05 | 0.00E+00 | 2.39E-05 | 3.14E-02 | 9.67E-05 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.35E+02 | 8.22E+02 | 3.79E+02 | 4.83E-03 | 2.54E-02 | 3.03E-02 | 4.15E+00 | 6.46E-05 | 1.18E-03 | 0.00E+00 | 4.36E-04 | 6.17E-02 | 1.57E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 7.35E+01 | 1.39E+02 | 8.37E+01 | 1.11E-03 | 3.78E-03 | 7.00E-03 | 9.19E-01 | 1.17E-05 | 2.65E-04 | 0.00E+00 | 1.00E-04 | 5.44E-02 | 1.68E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.13E+02 | 2.17E+02 | 2.79E+02 | 5.74E-03 | 2.65E-02 | 2.46E-02 | 3.03E+00 | 3.92E-05 | 1.55E-03 | 0.00E+00 | 5.18E-04 | 2.44E-01 | 3.62E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.86E+02 | 3.58E+02 | 1.32E+03 | 1.34E-02 | 9.25E-02 | 9.83E-02 | 1.45E+01 | 1.70E-04 | 6.87E-03 | 0.00E+00 | 1.20E-03 | 5.17E-01 | 9.48E-04 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.57E+02 | 4.94E+02 | 2.40E+03 | 1.80E-02 | 1.45E-01 | 1.45E-01 | 2.63E+01 | 2.96E-04 | 7.18E-03 | 0.00E+00 | 1.62E-03 | 5.86E-01 | 1.20E-03 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.98E+02 | 1.15E+03 | 1.32E+04 | 7.13E-02 | 2.79E-01 | 5.97E-01 | 1.46E+02 | 1.43E-03 | 2.01E-02 | 0.00E+00 | 6.43E-03 | 4.86E-01 | 2.49E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.00E+01 | 4.50E+01 | 3.82E+01 | 5.12E-04 | 1.73E-03 | 3.24E-03 | 4.20E-01 | 5.32E-06 | 1.30E-04 | 0.00E+00 | 4.62E-05 | 7.70E-02 | 2.37E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.16E+03 | 2.65E+03 | 3.45E+03 | 1.38E-01 | 4.32E-01 | 3.46E-01 | 3.71E+01 | 4.79E-04 | 3.10E-02 | 0.00E+00 | 1.24E-02 | 3.26E-01 | 3.62E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.37E+03 | 3.12E+03 | 9.90E+03 | 1.71E-01 | 7.64E-01 | 1.03E+00 | 1.08E+02 | 1.27E-03 | 8.56E-02 | 0.00E+00 | 1.54E-02 | 4.89E-01 | 8.11E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.52E+02 | 1.94E+03 | 1.14E+04 | 1.40E-01 | 7.43E-01 | 1.01E+00 | 1.24E+02 | 1.40E-03 | 5.65E-02 | 0.00E+00 | 1.26E-02 | 7.65E-01 | 1.44E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.03E+02 | 2.34E+02 | 2.06E+03 | 1.95E-02 | 6.05E-02 | 1.67E-01 | 2.27E+01 | 2.56E-04 | 6.28E-03 | 0.00E+00 | 1.76E-03 | 5.17E-01 | 2.19E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.05E+02 | 2.40E+02 | 2.54E+03 | 2.23E-02 | 8.68E-02 | 1.85E-01 | 2.80E+01 | 2.75E-04 | 7.05E-03 | 0.00E+00 | 2.01E-03 | 7.23E-01 | 2.29E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Plate Comp | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.29E+02 | 7.06E+02 | 1.39E+02 | 1.77E-03 | 9.29E-03 | 1.11E-02 | 1.52E+00 | 2.37E-05 | 4.33E-04 | 0.00E+00 | 1.60E-04 | 2.63E-02 | 6.71E-05 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.06E+02 | 1.54E+03 | 4.43E+02 | 5.65E-03 | 2.96E-02 | 3.54E-02 | 4.85E+00 | 7.55E-05 | 1.38E-03 | 0.00E+00 | 5.10E-04 | 3.86E-02 | 9.83E-05 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.37E+02 | 6.43E+02 | 3.90E+02 | 5.17E-03 | 1.76E-02 | 3.27E-02 | 4.28E+00 | 5.43E-05 | 1.22E-03 | 0.00E+00 | 4.66E-04 | 5.49E-02 | 1.69E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.05E+03 | 2.02E+03 | 2.42E+03 | 7.34E-02 | 2.63E-01 | 2.26E-01 | 2.62E+01 | 3.38E-04 | 1.76E-02 | 0.00E+00 | 6.62E-03 | 2.61E-01 | 3.36E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.63E+03 | 1.08E+04 | 2.92E+04 | 3.98E-01 | 2.13E+00 | 2.57E+00 | 3.19E+02 | 3.74E-03 | 2.04E-01 | 0.00E+00 | 3.59E-02 | 3.94E-01 | 6.91E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.26E+03 | 4.35E+03 | 2.14E+04 | 2.10E-01 | 1.33E+00 | 1.58E+00 | 2.35E+02 | 2.65E-03 | 8.55E-02 | 0.00E+00 | 1.89E-02 | 6.13E-01 | 1.22E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.21E+02 | 6.17E+02 | 4.28E+03 | 3.04E-02 | 1.04E-01 | 2.79E-01 | 4.72E+01 | 5.31E-04 | 9.31E-03 | 0.00E+00 | 2.74E-03 | 3.37E-01 | 1.72E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.25E+02 | 4.33E+02 | 4.29E+03 | 2.86E-02 | 1.10E-01 | 2.48E-01 | 4.74E+01 | 4.65E-04 | 8.68E-03 | 0.00E+00 | 2.58E-03 | 5.09E-01 | 2.15E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.20E+01 | 1.58E+02 | 6.80E+02 | 1.16E-02 | 5.31E-02 | 6.88E-02 | 7.42E+00 | 8.70E-05 | 5.68E-03 | 0.00E+00 | 1.05E-03 | 6.72E-01 | 1.10E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.76E+02 | 1.45E+03 | 9.78E+03 | 1.21E-01 | 6.49E-01 | 8.41E-01 | 1.07E+02 | 1.20E-03 | 4.74E-02 | 0.00E+00 | 1.09E-02 | 8.97E-01 | 1.66E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.64E+02 | 1.41E+03 | 1.34E+04 | 1.27E-01 | 3.87E-01 | 1.04E+00 | 1.48E+02 | 1.66E-03 | 3.89E-02 | 0.00E+00 | 1.15E-02 | 5.49E-01 | 2.35E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.28E+03 | 3.88E+03 | 5.66E+04 | 5.03E-01 | 1.86E+00 | 3.95E+00 | 6.24E+02 | 6.12E-03 | 1.51E-01 | 0.00E+00 | 4.54E-02 | 9.59E-01 | 3.15E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.10E+02 | 6.37E+02 | 1.60E+04 | 1.43E-01 | 5.28E-01 | 1.15E+00 | 1.77E+02 | 1.78E-03 | 4.32E-02 | 0.00E+00 | 1.29E-02 | 1.66E+00 | 5.58E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.47E+01 | 7.88E+01 | 4.53E+01 | 5.99E-04 | 2.05E-03 | 3.79E-03 | 4.97E-01 | 6.31E-06 | 1.42E-04 | 0.00E+00 | 5.41E-05 | 5.19E-02 | 1.60E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.93E+01 | 6.72E+01 | 7.47E+01 | 2.97E-03 | 9.26E-03 | 7.48E-03 | 8.03E-01 | 1.04E-05 | 6.72E-04 | 0.00E+00 | 2.68E-04 | 2.76E-01 | 3.09E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.23E+02 | 9.68E+02 | 2.41E+03 | 4.15E-02 | 1.85E-01 | 2.51E-01 | 2.64E+01 | 3.09E-04 | 2.10E-02 | 0.00E+00 | 3.74E-03 | 3.83E-01 | 6.39E-04 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.99E+02 | 4.55E+02 | 2.10E+03 | 2.56E-02 | 1.36E-01 | 1.86E-01 | 2.30E+01 | 2.58E-04 | 1.04E-02 | 0.00E+00 | 2.31E-03 | 5.98E-01 | 1.14E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 5.60E+01 | 1.28E+02 | 7.11E+02 | 6.52E-03 | 2.04E-02 | 5.73E-02 | 7.83E+00 | 8.82E-05 | 2.11E-03 | 0.00E+00 | 5.88E-04 | 3.17E-01 | 1.37E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.67E+01 | 3.30E+01 | 2.15E+01 | 5.71E-04 | 2.10E-03 | 1.94E-03 | 2.33E-01 | 3.01E-06 | 1.40E-04 | 0.00E+00 | 5.15E-05 | 1.27E-01 | 1.82E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 5.33E+00 | 6.61E+00 | 1.92E+01 | 2.38E-04 | 1.35E-03 | 1.65E-03 | 2.11E-01 | 2.47E-06 | 1.22E-04 | 0.00E+00 | 2.15E-05 | 4.09E-01 | 7.47E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.00E+00 | 4.96E+00 | 1.94E+01 | 1.70E-04 | 1.16E-03 | 1.38E-03 | 2.12E-01 | 2.39E-06 | 6.98E-05 | 0.00E+00 | 1.53E-05 | 4.68E-01 | 9.64E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 8.00E+00 | 9.91E+00 | 6.05E+01 | 3.86E-04 | 1.45E-03 | 3.83E-03 | 6.68E-01 | 7.52E-06 | 1.25E-04 | 0.00E+00 | 3.49E-05 | 2.92E-01 | 1.52E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 6.66E+01 | 8.26E+01 | 8.27E+02 | 4.90E-03 | 2.17E-02 | 4.70E-02 | 9.13E+00 | 8.96E-05 | 1.59E-03 | 0.00E+00 | 4.42E-04 | 5.24E-01 | 2.17E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 4.00E+01 | 4.96E+01 | 7.80E+02 | 4.67E-03 | 2.04E-02 | 4.55E-02 | 8.61E+00 | 8.65E-05 | 1.52E-03 | 0.00E+00 | 4.22E-04 | 8.22E-01 | 3.49E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 15 | Constructio | U | P | NHH | NP | Total | Total | Total | 3.75E+03 | 7.72E+03 | 2.17E+03 | 2.77E-02 | 1.45E-01 | 1.73E-01 | 2.38E+01 | 3.70E-04 | 6.77E-03 | 0.00E+00 | 2.50E-03 | 3.76E-02 | 9.59E-05 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.87E+01 | 2.74E+01 | 4.55E+01 | 1.01E-03 | 4.17E-03 | 4.00E-03 | 4.95E-01 | 6.40E-06 | 2.67E-04 | 0.00E+00 | 9.11E-05 | 3.04E-01 | 4.67E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 3.05E+02 | 4.48E+02 | 1.64E+03 | 1.75E-02 | 1.13E-01 | 1.28E-01 | 1.79E+01 | 2.10E-04 | 9.18E-03 | 0.00E+00 | 1.58E-03 | 5.03E-01 | 9.40E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.89E+02 | 2.78E+02 | 1.95E+03 | 1.47E-02 | 1.15E-01 | 1.25E-01 | 2.14E+01 | 2.41E-04 | 6.10E-03 | 0.00E+00 | 1.32E-03 | 8.27E-01 | 1.74E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 4.00E+01 | 5.87E+01 | 6.77E+02 | 3.60E-03 | 1.44E-02 | 3.76E-02 | 7.48E+00 | 8.42E-05 | 1.11E-03 | 0.00E+00 | 3.25E-04 | 4.91E-01 | 2.87E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 15 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.00E+02 | 1.69E+02 | 6.54E+01 | 8.34E-04 | 4.37E-03 | 5.22E-03 | 7.16E-01 | 1.11E-05 | 2.04E-04 | 0.00E+00 | 7.52E-05 | 5.16E-02 | 1.32E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.05E+02 | 1.78E+02 | 2.67E+02 | 3.54E-03 | 1.21E-02 | 2.24E-02 | 2.93E+00 | 3.72E-05 | 8.34E-04 | 0.00E+00 | 3.19E-04 | 1.35E-01 | 4.17E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.01E+03 | 6.91E+03 | 1.06E+04 | 4.22E-01 | 1.29E+00 | 1.05E+00 | 1.14E+02 | 1.47E-03 | 9.45E-02 | 0.00E+00 | 3.81E-02 | 3.73E-01 | 4.25E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 5.43E+03 | 9.36E+03 | 2.78E+04 | 4.76E-01 | 2.12E+00 | 2.93E+00 | 3.03E+02 | 3.56E-03 | 2.40E-01 | 0.00E+00 | 4.30E-02 | 4.53E-01 | 7.61E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 5.94E+02 | 1.02E+03 | 6.72E+03 | 8.14E-02 | 4.33E-01 | 6.09E-01 | 7.37E+01 | 8.29E-04 | 3.34E-02 | 0.00E+00 | 7.34E-03 | 8.46E-01 | 1.62E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 5.33E+01 | 9.19E+01 | 9.29E+02 | 8.65E-03 | 2.77E-02 | 7.67E-02 | 1.02E+01 | 1.15E-04 | 2.91E-03 | 0.00E+00 | 7.80E-04 | 6.03E-01 | 2.51E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 6.80E+01 | 1.17E+02 | 1.65E+03 | 1.42E-02 | 5.90E-02 | 1.23E-01 | 1.82E+01 | 1.79E-04 | 4.71E-03 | 0.00E+00 | 1.28E-03 | 1.01E+00 | 3.05E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 8.01E+00 | 1.38E+01 | 3.67E+02 | 3.18E-03 | 1.31E-02 | 2.79E-02 | 4.05E+00 | 4.07E-05 | 1.06E-03 | 0.00E+00 | 2.87E-04 | 1.90E+00 | 5.90E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 15 | Constructio | U | P | NHH | P | Total | Total | Total | 1.33E+01 | 2.96E+01 | 1.40E+01 | 1.78E-04 | 9.35E-04 | 1.12E-03 | 1.53E-01 | 2.38E-06 | 4.36E-05 | 0.00E+00 | 1.61E-05 | 6.31E-02 | 1.61E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 25 | Constructio | U | P | NHH | P | Total | Total | Total | 4.00E+01 | 8.89E+01 | 6.47E+01 | 8.57E-04 | 2.92E-03 | 5.41E-03 | 7.10E-01 | 9.01E-06 | 2.03E-04 | 0.00E+00 | 7.73E-05 | 6.58E-02 | 2.03E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 50 | Constructio | U | P | NHH | P | Total | Total | Total | 1.75E+02 | 4.03E+02 | 5.70E+02 | 4.22E-03 | 4.46E-02 | 4.01E-02 | 6.24E+00 | 8.07E-05 | 8.87E-04 | 0.00E+00 | 3.81E-04 | 2.21E-01 | 4.01E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 120 | Constructio | U | P | NHH | P | Total | Total | Total | 5.36E+02 | 1.24E+03 | 4.33E+03 | 2.01E-02 | 2.88E-01 | 1.83E-01 | 4.76E+01 | 5.58E-04 | 5.89E-03 | 0.00E+00 | 1.82E-03 | 4.66E-01 | 9.04E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 175 | Constructio | U | P | NHH | P | Total | Total | Total | 1.24E+02 | 2.86E+02 | 1.83E+03 | 7.41E-03 | 1.08E-01 | 5.12E-02 | 2.01E+01 | 2.27E-04 | 1.73E-03 | 0.00E+00 | 6.68E-04 | 7.53E-01 | 1.59E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 250 | Constructio | U | N | NHH | P | Total | Total | Total | 1.07E+02 | 2.46E+02 | 2.09E+03 | 7.12E-03 | 4.21E-02 | 3.84E-02 | 2.31E+01 | 2.60E-04 | 1.08E-03 | 0.00E+00 | 6.43E-04 | 3.42E-01 | 2.11E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 500 | Constructio | U | N | NHH | P | Total | Total | Total | 2.37E+02 | 5.47E+02 | 7.69E+03 | 2.61E-02 | 1.51E-01 | 1.38E-01 | 8.51E+01 | 8.35E-04 | 3.95E-03 | 0.00E+00 | 2.36E-03 | 5.51E-01 | 3.05E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 750 | Constructio | U | N | NHH | P | Total | Total | Total | 1.24E+02 | 2.86E+02 | 7.95E+03 | 2.70E-02 | 1.56E-01 | 1.43E-01 | 8.80E+01 | 8.84E-04 | 4.10E-03 | 0.00E+00 | 2.44E-03 | 1.09E+00 | 6.18E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 1000 | Constructio | U | N | NHH | P | Total | Total | Total | 2.08E+02 | 4.80E+02 | 2.01E+04 | 7.22E-02 | 3.94E-01 | 1.05E+00 | 2.22E+02 | 2.24E-03 | 2.05E-02 | 0.00E+00 | 6.52E-03 | 1.64E+00 | 9.33E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.93E+01 | 1.89E+02 | 1.41E+02 | 1.87E-03 | 6.38E-03 | 1.18E-02 | 1.55E+00 | 1.97E-05 | 4.41E-04 | 0.00E+00 | 1.69E-04 | 6.76E-02 | 2.08E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.86E+03 | 7.22E+03 | 8.32E+03 | 1.88E-01 | 9.26E-01 | 7.50E-01 | 9.02E+01 | 1.17E-03 | 4.62E-02 | 0.00E+00 | 1.70E-02 | 2.57E-01 | 3.23E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 5.04E+03 | 1.96E+04 | 6.59E+04 | 7.44E-01 | 4.94E+00 | 4.74E+00 | 7.21E+02 | 8.45E-03 | 3.33E-01 | 0.00E+00 | 6.71E-02 | 5.04E-01 | 8.63E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 9.73E+03 | 3.78E+04 | 1.93E+05 | 1.69E+00 | 1.25E+01 | 1.09E+01 | 2.12E+03 | 2.38E-02 | 5.81E-01 | 0.00E+00 | 1.53E-01 | 6.64E-01 | 1.26E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.96E+03 | 1.54E+04 | 1.10E+05 | 7.62E-01 | 2.58E+00 | 5.28E+00 | 1.22E+03 | 1.37E-02 | 1.77E-01 | 0.00E+00 | 6.88E-02 | 3.35E-01 | 1.78E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.85E+03 | 1.11E+04 | 1.17E+05 | 7.84E-01 | 2.64E+00 | 4.98E+00 | 1.29E+03 | 1.27E-02 | 1.79E-01 | 0.00E+00 | 7.08E-02 | 4.76E-01 | 2.29E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 6.27E+01 | 2.44E+02 | 4.27E+03 | 2.87E-02 | 9.61E-02 | 1.87E-01 | 4.72E+01 | 4.74E-04 | 6.61E-03 | 0.00E+00 | 2.59E-03 | 7.88E-01 | 3.89E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Concrete/Ir | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 5.33E+00 | 8.65E+00 | 6.49E+00 | 8.59E-05 | 2.93E-04 | 5.43E-04 | 7.12E-02 | 9.04E-07 | 2.02E-05 | 0.00E+00 | 7.75E-06 | 6.78E-02 | 2.09E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Concrete/Ir | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.66E+01 | 7.42E+01 | 1.03E+02 | 2.32E-03 | 9.64E-03 | 9.17E-03 | 1.12E+00 | 1.45E-05 | 6.18E-04 | 0.00E+00 | 2.09E-04 | 2.60E-01 | 3.90E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Concrete/Ir | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.13E+01 | 1.29E+02 | 4.37E+02 | 4.70E-03 | 3.03E-02 | 3.44E-02 | 4.79E+00 | 5.62E-05 | 2.48E-03 | 0.00E+00 | 4.24E-04 | 4.69E-01 | 8.69E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Concrete/Ir | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.67E+00 | 4.24E+00 | 3.09E+01 | 2.36E-04 | 1.83E-03 | 1.98E-03 | 3.39E-01 | 3.82E-06 | 9.88E-05 | 0.00E+00 | 2.13E-05 | 8.66E-01 | 1.80E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 15 | Constructio | U | P | NHH | NP | Total | Total | Total | 6.81E+02 | 5.60E+02 | 1.62E+02 | 2.06E-03 | 1.08E-02 | 1.29E-02 | 1.77E+00 | 2.75E-05 | 5.14E-04 | 0.00E+00 | 1.86E-04 | 3.86E-02 | 9.83E-05 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 6.13E+01 | 5.04E+01 | 4.03E+01 | 5.98E-04 | 1.92E-03 | 3.55E-03 | 4.42E-01 | 5.61E-06 | 1.69E-04 | 0.00E+00 | 5.39E-05 | 7.61E-02 | 2.23E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 50 | Constructio | U | P | NHH | P | Total | Total | Total | 4.53E+01 | 1.59E+02 | 1.71E+02 | 5.64E-03 | 2.06E-02 | 1.66E-02 | 1.84E+00 | 2.38E-05 | 1.33E-03 | 0.00E+00 | 5.09E-04 | 2.59E-01 | 2.99E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 120 | Constructio | U | P | NHH | P | Total | Total | Total | 4.97E+02 | 1.74E+03 | 4.00E+03 | 6.01E-02 | 3.06E-01 | 3.62E-01 | 4.37E+01 | 5.13E-04 | 2.98E-02 | 0.00E+00 | 5.43E-03 | 3.51E-01 | 5.88E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 175 | Constructio | U | P | NHH | P | Total | Total | Total | 4.97E+02 | 1.74E+03 | 6.39E+03 | 7.03E-02 | 4.16E-01 | 4.84E-01 | 7.00E+01 | 7.88E-04 | 2.74E-02 | 0.00E+00 | 6.34E-03 | 4.77E-01 | 9.03E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 250 | Constructio | U | N | NHH | P | Total | Total | Total | 9.64E+02 | 3.38E+03 | 1.72E+04 | 1.40E-01 | 4.34E-01 | 1.15E+00 | 1.89E+02 | 2.13E-03 | 3.97E-02 | 0.00E+00 | 1.27E-02 | 2.57E-01 | 1.26E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 500 | Constructio | U | N | NHH | P | Total | Total | Total | 3.53E+02 | 1.24E+03 | 1.01E+04 | 7.81E-02 | 2.63E-01 | 6.01E-01 | 1.12E+02 | 1.09E-03 | 2.17E-02 | 0.00E+00 | 7.05E-03 | 4.24E-01 | 1.77E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 750 | Constructio | U | N | NHH | P | Total | Total | Total | 2.60E+02 | 9.13E+02 | 1.25E+04 | 9.75E-02 | 3.26E-01 | 7.68E-01 | 1.38E+02 | 1.39E-03 | 2.74E-02 | 0.00E+00 | 8.79E-03 | 7.13E-01 | 3.04E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 9999 | Constructio | U | N | NHH | P | Total | Total | Total | 3.27E+02 | 1.15E+03 | 5.04E+04 | 4.48E-01 | 1.45E+00 | 4.74E+00 | 5.56E+02 | 5.59E-03 | 1.34E-01 | 0.00E+00 | 4.04E-02 | 2.53E+00 | 9.75E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.87E+01 | 4.86E+01 | 6.18E+01 | 1.80E-03 | 7.11E-03 | 5.79E-03 | 6.68E-01 | 8.64E-06 | 4.27E-04 | 0.00E+00 | 1.63E-04 | 2.93E-01 | 3.56E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.24E+03 | 3.24E+03 | 1.11E+04 | 1.50E-01 | 8.36E-01 | 9.31E-01 | 1.21E+02 | 1.42E-03 | 7.24E-02 | 0.00E+00 | 1.36E-02 | 5.16E-01 | 8.79E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.25E+03 | 1.11E+04 | 6.25E+04 | 6.28E-01 | 4.04E+00 | 4.30E+00 | 6.85E+02 | 7.71E-03 | 2.37E-01 | 0.00E+00 | 5.67E-02 | 7.29E-01 | 1.39E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.64E+03 | 6.87E+03 | 5.35E+04 | 4.05E-01 | 1.32E+00 | 3.22E+00 | 5.90E+02 | 6.64E-03 | 1.10E-01 | 0.00E+00 | 3.65E-02 | 3.84E-01 | 1.93E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 7.46E+01 | 1.94E+02 | 2.02E+03 | 1.45E-02 | 5.19E-02 | 1.08E-01 | 2.23E+01 | 2.19E-04 | 3.89E-03 | 0.00E+00 | 1.31E-03 | 5.34E-01 | 2.25E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 4.00E+00 | 1.04E+01 | 2.29E+02 | 1.66E-03 | 5.89E-03 | 1.26E-02 | 2.53E+00 | 2.54E-05 | 4.48E-04 | 0.00E+00 | 1.50E-04 | 1.13E+00 | 4.88E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.66E+01 | 4.71E+02 | 2.69E+03 | 2.52E-02 | 1.78E-01 | 1.59E-01 | 2.94E+01 | 3.31E-04 | 8.55E-03 | 0.00E+00 | 2.28E-03 | 7.54E-01 | 1.41E-03 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.40E+02 | 3.48E+03 | 2.62E+04 | 1.93E-01 | 6.27E-01 | 1.33E+00 | 2.89E+02 | 3.26E-03 | 4.46E-02 | 0.00E+00 | 1.74E-02 | 3.61E-01 | 1.87E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 9.01E+02 | 4.90E+03 | 6.04E+04 | 4.29E-01 | 1.39E+00 | 2.70E+00 | 6.67E+02 | 6.54E-03 | 9.72E-02 | 0.00E+00 | 3.87E-02 | 5.67E-01 | 2.67E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 8.40E+02 | 4.56E+03 | 9.13E+04 | 6.51E-01 | 2.10E+00 | 4.20E+00 | 1.01E+03 | 1.01E-02 | 1.49E-01 | 0.00E+00 | 5.88E-02 | 9.20E-01 | 4.44E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.94E+02 | 2.14E+03 | 6.05E+04 | 4.60E-01 | 1.46E+00 | 4.91E+00 | 6.67E+02 | 6.71E-03 | 1.31E-01 | 0.00E+00 | 4.15E-02 | 1.37E+00 | 6.28E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 2.13E+02 | 5.58E+02 | 1.13E+03 | 3.03E-02 | 1.22E-01 | 1.04E-01 | 1.23E+01 | 1.59E-04 | 7.66E-03 | 0.00E+00 | 2.73E-03 | 4.35E-01 | 5.69E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 6.01E+02 | 1.57E+03 | 5.98E+03 | 7.45E-02 | 4.36E-01 | 4.88E-01 | 6.54E+01 | 7.67E-04 | 3.80E-02 | 0.00E+00 | 6.73E-03 | 5.54E-01 | 9.74E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 2.55E+02 | 6.67E+02 | 5.08E+03 | 4.60E-02 | 3.17E-01 | 3.38E-01 | 5.57E+01 | 6.27E-04 | 1.82E-02 | 0.00E+00 | 4.15E-03 | 9.52E-01 | 1.88E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 2.53E+01 | 6.63E+01 | 7.34E+02 | 4.86E-03 | 1.65E-02 | 4.26E-02 | 8.10E+00 | 9.11E-05 | 1.34E-03 | 0.00E+00 | 4.38E-04 | 4.99E-01 | 2.75E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 1.43E+02 | 3.73E+02 | 6.31E+03 | 3.98E-02 | 1.37E-01 | 3.19E-01 | 6.97E+01 | 6.84E-04 | 1.09E-02 | 0.00E+00 | 3.59E-03 | 7.35E-01 | 3.66E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 6.67E+00 | 1.75E+01 | 4.65E+02 | 2.92E-03 | 1.01E-02 | 2.41E-02 | 5.14E+00 | 5.17E-05 | 8.03E-04 | 0.00E+00 | 2.64E-04 | 1.15E+00 | 5.92E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 9999 | Constructi | U | N | NHH | P | Total | Total | Total | 6.67E+00 | 1.75E+01 | 1.03E+03 | 7.60E-03 | 2.47E-02 | 8.89E-02 | 1.14E+01 | 1.15E-04 | 2.35E-03 | 0.00E+00 | 6.86E-04 | 2.83E+00 | 1.31E-02 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.48E+02 | 4.59E+02 | 7.16E+02 | 1.70E-02 | 7.73E-02 | 6.52E-02 | 7.76E+00 | 1.00E-04 | 4.36E-03 | 0.00E+00 | 1.54E-03 | 3.37E-01 | 4.37E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 7.09E+03 | 2.20E+04 | 6.26E+04 | 7.24E-01 | 4.61E+00 | 4.76E+00 | 6.85E+02 | 8.04E-03 | 3.51E-01 | 0.00E+00 | 6.53E-02 | 4.20E-01 | 7.32E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.08E+02 | 2.81E+03 | 1.60E+04 | 1.40E-01 | 1.02E+00 | 9.70E-01 | 1.76E+02 | 1.98E-03 | 5.21E-02 | 0.00E+00 | 1.26E-02 | 7.23E-01 | 1.40E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.06E+01 | 1.57E+02 | 1.21E+03 | 8.21E-03 | 2.78E-02 | 6.35E-02 | 1.34E+01 | 1.51E-04 | 2.11E-03 | 0.00E+00 | 7.41E-04 | 3.54E-01 | 1.92E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.33E+01 | 1.03E+02 | 1.20E+03 | 7.81E-03 | 2.63E-02 | 5.53E-02 | 1.32E+01 | 1.30E-04 | 1.97E-03 | 0.00E+00 | 7.05E-04 | 5.10E-01 | 2.52E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.87E+01 | 4.90E+01 | 3.77E+01 | 5.00E-04 | 1.71E-03 | 3.16E-03 | 4.14E-01 | 5.25E-06 | 1.18E-04 | 0.00E+00 | 4.51E-05 | 6.96E-02 | 2.15E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.63E+02 | 9.68E+02 | 1.39E+03 | 3.95E-02 | 1.58E-01 | 1.30E-01 | 1.51E+01 | 1.95E-04 | 9.45E-03 | 0.00E+00 | 3.57E-03 | 3.27E-01 | 4.02E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.86E+03 | 2.63E+04 | 7.08E+04 | 9.39E-01 | 5.31E+00 | 5.86E+00 | 7.74E+02 | 9.08E-03 | 4.54E-01 | 0.00E+00 | 8.47E-02 | 4.03E-01 | 6.90E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.56E+03 | 1.48E+04 | 7.18E+04 | 7.06E-01 | 4.62E+00 | 4.87E+00 | 7.87E+02 | 8.86E-03 | 2.68E-01 | 0.00E+00 | 6.37E-02 | 6.23E-01 | 1.20E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.52E+03 | 1.47E+04 | 9.94E+04 | 7.36E-01 | 2.42E+00 | 5.88E+00 | 1.10E+03 | 1.23E-02 | 2.00E-01 | 0.00E+00 | 6.64E-02 | 3.29E-01 | 1.67E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.30E+03 | 6.14E+03 | 6.58E+04 | 4.64E-01 | 1.66E+00 | 3.46E+00 | 7.27E+02 | 7.13E-03 | 1.24E-01 | 0.00E+00 | 4.19E-02 | 5.41E-01 | 2.32E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.62E+02 | 4.31E+02 | 9.47E+03 | 6.71E-02 | 2.39E-01 | 5.12E-01 | 1.05E+02 | 1.05E-03 | 1.81E-02 | 0.00E+00 | 6.06E-03 | 1.11E+00 | 4.88E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.74E+01 | 4.63E+01 | 1.24E+03 | 9.58E-03 | 3.43E-02 | 1.09E-01 | 1.37E+01 | 1.38E-04 | 3.01E-03 | 0.00E+00 | 8.65E-04 | 1.48E+00 | 5.97E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.33E+01 | 5.93E+01 | 3.51E+02 | 5.22E-03 | 2.44E-02 | 3.62E-02 | 3.83E+00 | 4.31E-05 | 2.05E-03 | 0.00E+00 | 4.71E-04 | 8.22E-01 | 1.46E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.27E+02 | 1.45E+03 | 1.21E+04 | 1.44E-01 | 4.24E-01 | 1.16E+00 | 1.33E+02 | 1.50E-03 | 4.75E-02 | 0.00E+00 | 1.30E-02 | 5.84E-01 | 2.06E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.02E+02 | 2.23E+03 | 2.69E+04 | 2.97E-01 | 1.22E+00 | 2.33E+00 | 2.96E+02 | 2.90E-03 | 9.48E-02 | 0.00E+00 | 2.68E-02 | 1.10E+00 | 2.60E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.78E+02 | 7.89E+02 | 1.43E+04 | 1.58E-01 | 6.51E-01 | 1.26E+00 | 1.57E+02 | 1.58E-03 | 5.08E-02 | 0.00E+00 | 1.43E-02 | 1.65E+00 | 4.01E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.20E+01 | 5.34E+01 | 1.44E+03 | 1.67E-02 | 7.11E-02 | 1.67E-01 | 1.58E+01 | 1.59E-04 | 5.42E-03 | 0.00E+00 | 1.51E-03 | 2.66E+00 | 5.95E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.76E+02 | 9.71E+02 | 7.01E+02 | 9.29E-03 | 3.17E-02 | 5.88E-02 | 7.69E+00 | 9.76E-05 | 2.28E-03 | 0.00E+00 | 8.39E-04 | 6.53E-02 | 2.01E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.25E+03 | 5.93E+03 | 8.28E+03 | 1.64E-01 | 8.56E-01 | 7.21E-01 | 8.99E+01 | 1.16E-03 | 4.16E-02 | 0.00E+00 | 1.48E-02 | 2.89E-01 | 3.92E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.00E+04 | 7.93E+04 | 1.87E+05 | 1.89E+00 | 1.36E+01 | 1.27E+01 | 2.05E+03 | 2.40E-02 | 8.58E-01 | 0.00E+00 | 1.71E-01 | 3.44E-01 | 6.06E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.24E+03 | 5.92E+03 | 2.73E+04 | 2.15E-01 | 1.73E+00 | 1.44E+00 | 3.00E+02 | 3.37E-03 | 7.51E-02 | 0.00E+00 | 1.94E-02 | 5.84E-01 | 1.14E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.25E+02 | 1.91E+03 | 1.49E+04 | 9.26E-02 | 3.35E-01 | 6.59E-01 | 1.64E+02 | 1.85E-03 | 2.19E-02 | 0.00E+00 | 8.35E-03 | 3.50E-01 | 1.93E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.17E+03 | 3.09E+03 | 4.82E+04 | 2.91E-01 | 1.06E+00 | 1.90E+00 | 5.32E+02 | 5.99E-03 | 6.76E-02 | 0.00E+00 | 2.63E-02 | 6.85E-01 | 3.88E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 8.08E+02 | 2.13E+03 | 4.99E+04 | 3.02E-01 | 1.10E+00 | 2.02E+00 | 5.51E+02 | 6.20E-03 | 7.10E-02 | 0.00E+00 | 2.73E-02 | 1.03E+00 | 5.82E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.87E+01 | 5.32E+01 | 6.16E+01 | 2.33E-03 | 7.84E-03 | 6.15E-03 | 6.62E-01 | 8.55E-06 | 5.25E-04 | 0.00E+00 | 2.10E-04 | 2.94E-01 | 3.21E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.06E+04 | 3.02E+04 | 9.10E+04 | 1.52E+00 | 7.10E+00 | 9.01E+00 | 9.93E+02 | 1.16E-02 | 7.38E-01 | 0.00E+00 | 1.37E-01 | 4.70E-01 | 7.71E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.58E+03 | 1.02E+04 | 5.65E+04 | 6.88E-01 | 3.75E+00 | 4.75E+00 | 6.19E+02 | 6.96E-03 | 2.67E-01 | 0.00E+00 | 6.21E-02 | 7.34E-01 | 1.36E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.08E+03 | 8.79E+03 | 6.62E+04 | 6.20E-01 | 1.89E+00 | 5.00E+00 | 7.29E+02 | 8.20E-03 | 1.87E-01 | 0.00E+00 | 5.59E-02 | 4.30E-01 | 1.87E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.11E+03 | 6.02E+03 | 7.08E+04 | 6.22E-01 | 2.26E+00 | 4.81E+00 | 7.80E+02 | 7.65E-03 | 1.83E-01 | 0.00E+00 | 5.62E-02 | 7.52E-01 | 2.54E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.07E+02 | 3.05E+02 | 6.42E+03 | 5.67E-02 | 2.05E-01 | 4.46E-01 | 7.07E+01 | 7.11E-04 | 1.68E-02 | 0.00E+00 | 5.12E-03 | 1.35E+00 | 4.67E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.07E+02 | 3.04E+02 | 9.09E+03 | 8.62E-02 | 3.23E-01 | 9.15E-01 | 1.00E+02 | 1.01E-03 | 2.73E-02 | 0.00E+00 | 7.78E-03 | 2.12E+00 | 6.61E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.56E+03 | 5.85E+03 | 3.68E+03 | 5.24E-02 | 1.72E-01 | 3.19E-01 | 4.03E+01 | 5.12E-04 | 1.47E-02 | 0.00E+00 | 4.73E-03 | 5.87E-02 | 1.75E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.32E+04 | 5.41E+04 | 6.32E+04 | 7.77E-01 | 5.56E+00 | 5.04E+00 | 6.90E+02 | 8.92E-03 | 2.12E-01 | 0.00E+00 | 7.01E-02 | 2.05E-01 | 3.30E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.22E+04 | 2.83E+04 | 5.52E+04 | 3.79E-01 | 3.80E+00 | 3.08E+00 | 6.06E+02 | 7.10E-03 | 1.62E-01 | 0.00E+00 | 3.42E-02 | 2.68E-01 | 5.01E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.33E+00 | 4.06E+00 | 1.75E+01 | 3.48E-04 | 1.41E-03 | 2.02E-03 | 1.90E-01 | 2.23E-06 | 1.69E-04 | 0.00E+00 | 3.14E-05 | 6.93E-01 | 1.10E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.63E+03 | 4.97E+03 | 2.96E+04 | 4.21E-01 | 2.02E+00 | 2.98E+00 | 3.24E+02 | 3.64E-03 | 1.68E-01 | 0.00E+00 | 3.80E-02 | 8.11E-01 | 1.47E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.54E+03 | 4.70E+03 | 2.78E+04 | 3.15E-01 | 9.39E-01 | 2.58E+00 | 3.06E+02 | 3.44E-03 | 1.05E-01 | 0.00E+00 | 2.85E-02 | 4.00E-01 | 1.47E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.70E+02 | 2.04E+03 | 5.27E+04 | 5.55E-01 | 2.27E+00 | 4.51E+00 | 5.80E+02 | 5.83E-03 | 1.80E-01 | 0.00E+00 | 5.01E-02 | 2.22E+00 | 5.71E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.07E+01 | 2.16E+02 | 7.98E+03 | 8.85E-02 | 3.75E-01 | 9.08E-01 | 8.77E+01 | 8.81E-04 | 2.90E-02 | 0.00E+00 | 7.99E-03 | 3.48E+00 | 8.18E-03 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Dumpers/T | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.20E+01 | 5.81E+01 | 2.01E+01 | 2.68E-04 | 9.11E-04 | 1.70E-03 | 2.21E-01 | 2.81E-06 | 6.69E-05 | 0.00E+00 | 2.41E-05 | 3.14E-02 | 9.67E-05 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.41E+02 | 8.35E+02 | 3.85E+02 | 4.91E-03 | 2.57E-02 | 3.07E-02 | 4.21E+00 | 6.56E-05 | 1.20E-03 | 0.00E+00 | 4.43E-04 | 6.17E-02 | 1.57E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 7.46E+01 | 1.41E+02 | 8.49E+01 | 1.12E-03 | 3.84E-03 | 7.11E-03 | 9.32E-01 | 1.18E-05 | 2.67E-04 | 0.00E+00 | 1.01E-04 | 5.44E-02 | 1.68E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.15E+02 | 2.20E+02 | 2.83E+02 | 5.14E-03 | 2.63E-02 | 2.40E-02 | 3.08E+00 | 3.98E-05 | 1.37E-03 | 0.00E+00 | 4.64E-04 | 2.39E-01 | 3.62E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.89E+02 | 3.63E+02 | 1.34E+03 | 1.22E-02 | 9.33E-02 | 9.10E-02 | 1.47E+01 | 1.72E-04 | 5.98E-03 | 0.00E+00 | 1.10E-03 | 5.14E-01 | 9.48E-04 |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.61E+02 | 5.01E+02 | 2.43E+03 | 1.67E-02 | 1.47E-01 | 1.29E-01 | 2.67E+01 | 3.00E-04 | 6.32E-03 | 0.00E+00 | 1.50E-03 | 5.85E-01 | 1.20E-03 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2017 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.06E+02 | 1.16E+03 | 1.34E+04 | 6.86E-02 | 2.79E-01 | 5.31E-01 | 1.48E+02 | 1.45E-03 | 1.81E-02 | 0.00E+00 | 6.19E-03 | 4.79E-01 | 2.49E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.03E+01 | 4.57E+01 | 3.88E+01 | 5.16E-04 | 1.75E-03 | 3.27E-03 | 4.26E-01 | 5.40E-06 | 1.29E-04 | 0.00E+00 | 4.66E-05 | 7.68E-02 | 2.37E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.18E+03 | 2.69E+03 | 3.49E+03 | 1.30E-01 | 4.28E-01 | 3.41E-01 | 3.76E+01 | 4.86E-04 | 2.91E-02 | 0.00E+00 | 1.17E-02 | 3.19E-01 | 3.62E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.39E+03 | 3.17E+03 | 1.00E+04 | 1.63E-01 | 7.70E-01 | 9.83E-01 | 1.10E+02 | 1.29E-03 | 8.02E-02 | 0.00E+00 | 1.47E-02 | 4.86E-01 | 8.11E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.64E+02 | 1.97E+03 | 1.15E+04 | 1.34E-01 | 7.51E-01 | 9.49E-01 | 1.26E+02 | 1.42E-03 | 5.31E-02 | 0.00E+00 | 1.21E-02 | 7.63E-01 | 1.44E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.04E+02 | 2.37E+02 | 2.09E+03 | 1.87E-02 | 5.93E-02 | 1.56E-01 | 2.31E+01 | 2.59E-04 | 5.82E-03 | 0.00E+00 | 1.68E-03 | 5.00E-01 | 2.19E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.07E+02 | 2.44E+02 | 2.58E+03 | 2.15E-02 | 8.38E-02 | 1.73E-01 | 2.84E+01 | 2.79E-04 | 6.55E-03 | 0.00E+00 | 1.94E-03 | 6.88E-01 | 2.29E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Plate Comp | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.35E+02 | 7.16E+02 | 1.41E+02 | 1.80E-03 | 9.43E-03 | 1.13E-02 | 1.54E+00 | 2.40E-05 | 4.40E-04 | 0.00E+00 | 1.62E-04 | 2.63E-02 | 6.71E-05 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.18E+02 | 1.56E+03 | 4.50E+02 | 5.73E-03 | 3.01E-02 | 3.59E-02 | 4.92E+00 | 7.66E-05 | 1.40E-03 | 0.00E+00 | 5.17E-04 | 3.86E-02 | 9.83E-05 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.42E+02 | 6.52E+02 | 3.96E+02 | 5.24E-03 | 1.79E-02 | 3.31E-02 | 4.35E+00 | 5.51E-05 | 1.24E-03 | 0.00E+00 | 4.73E-04 | 5.49E-02 | 1.69E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.06E+03 | 2.04E+03 | 2.45E+03 | 6.77E-02 | 2.60E-01 | 2.22E-01 | 2.65E+01 | 3.43E-04 | 1.62E-02 | 0.00E+00 | 6.11E-03 | 2.55E-01 | 3.36E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.71E+03 | 1.10E+04 | 2.96E+04 | 3.73E-01 | 2.15E+00 | 2.42E+00 | 3.23E+02 | 3.79E-03 | 1.87E-01 | 0.00E+00 | 3.37E-02 | 3.92E-01 | 6.91E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.30E+03 | 4.41E+03 | 2.17E+04 | 1.98E-01 | 1.35E+00 | 1.45E+00 | 2.38E+02 | 2.68E-03 | 7.85E-02 | 0.00E+00 | 1.79E-02 | 6.12E-01 | 1.22E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.26E+02 | 6.26E+02 | 4.34E+03 | 2.92E-02 | 1.03E-01 | 2.55E-01 | 4.79E+01 | 5.39E-04 | 8.56E-03 | 0.00E+00 | 2.64E-03 | 3.30E-01 | 1.72E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.29E+02 | 4.39E+02 | 4.35E+03 | 2.77E-02 | 1.08E-01 | 2.27E-01 | 4.81E+01 | 4.72E-04 | 8.00E-03 | 0.00E+00 | 2.50E-03 | 4.90E-01 | 2.15E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.27E+01 | 1.60E+02 | 6.89E+02 | 1.11E-02 | 5.36E-02 | 6.54E-02 | 7.52E+00 | 8.82E-05 | 5.29E-03 | 0.00E+00 | 9.99E-04 | 6.68E-01 | 1.10E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.83E+02 | 1.47E+03 | 9.91E+03 | 1.16E-01 | 6.57E-01 | 7.86E-01 | 1.09E+02 | 1.22E-03 | 4.42E-02 | 0.00E+00 | 1.04E-02 | 8.95E-01 | 1.66E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.71E+02 | 1.43E+03 | 1.36E+04 | 1.22E-01 | 3.81E-01 | 9.69E-01 | 1.50E+02 | 1.68E-03 | 3.58E-02 | 0.00E+00 | 1.10E-02 | 5.32E-01 | 2.35E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.30E+03 | 3.94E+03 | 5.74E+04 | 4.84E-01 | 1.80E+00 | 3.68E+00 | 6.33E+02 | 6.21E-03 | 1.39E-01 | 0.00E+00 | 4.37E-02 | 9.16E-01 | 3.15E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.13E+02 | 6.46E+02 | 1.63E+04 | 1.38E-01 | 5.11E-01 | 1.07E+00 | 1.79E+02 | 1.80E-03 | 3.99E-02 | 0.00E+00 | 1.24E-02 | 1.58E+00 | 5.58E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.52E+01 | 7.99E+01 | 4.59E+01 | 6.08E-04 | 2.08E-03 | 3.84E-03 | 5.04E-01 | 6.40E-06 | 1.44E-04 | 0.00E+00 | 5.49E-05 | 5.19E-02 | 1.60E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.98E+01 | 6.82E+01 | 7.57E+01 | 2.80E-03 | 9.18E-03 | 7.37E-03 | 8.15E-01 | 1.05E-05 | 6.31E-04 | 0.00E+00 | 2.52E-04 | 2.69E-01 | 3.09E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.29E+02 | 9.82E+02 | 2.45E+03 | 3.95E-02 | 1.87E-01 | 2.39E-01 | 2.67E+01 | 3.14E-04 | 1.96E-02 | 0.00E+00 | 3.57E-03 | 3.81E-01 | 6.39E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.02E+02 | 4.62E+02 | 2.13E+03 | 2.45E-02 | 1.38E-01 | 1.75E-01 | 2.33E+01 | 2.62E-04 | 9.78E-03 | 0.00E+00 | 2.21E-03 | 5.97E-01 | 1.14E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.68E+01 | 1.30E+02 | 7.21E+02 | 6.25E-03 | 1.99E-02 | 5.35E-02 | 7.95E+00 | 8.94E-05 | 1.95E-03 | 0.00E+00 | 5.64E-04 | 3.07E-01 | 1.37E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.70E+01 | 3.35E+01 | 2.18E+01 | 5.31E-04 | 2.08E-03 | 1.91E-03 | 2.36E-01 | 3.05E-06 | 1.30E-04 | 0.00E+00 | 4.79E-05 | 1.24E-01 | 1.82E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.41E+00 | 6.70E+00 | 1.95E+01 | 2.24E-04 | 1.36E-03 | 1.56E-03 | 2.14E-01 | 2.51E-06 | 1.12E-04 | 0.00E+00 | 2.02E-05 | 4.07E-01 | 7.47E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.06E+00 | 5.03E+00 | 1.96E+01 | 1.60E-04 | 1.17E-03 | 1.28E-03 | 2.15E-01 | 2.42E-06 | 6.45E-05 | 0.00E+00 | 1.44E-05 | 4.67E-01 | 9.64E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 8.11E+00 | 1.01E+01 | 6.13E+01 | 3.68E-04 | 1.44E-03 | 3.52E-03 | 6.77E-01 | 7.62E-06 | 1.15E-04 | 0.00E+00 | 3.32E-05 | 2.86E-01 | 1.52E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.76E+01 | 8.38E+01 | 8.39E+02 | 4.69E-03 | 2.11E-02 | 4.32E-02 | 9.26E+00 | 9.09E-05 | 1.46E-03 | 0.00E+00 | 4.23E-04 | 5.04E-01 | 2.17E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.06E+01 | 5.03E+01 | 7.90E+02 | 4.48E-03 | 1.99E-02 | 4.18E-02 | 8.73E+00 | 8.78E-05 | 1.40E-03 | 0.00E+00 | 4.04E-04 | 7.91E-01 | 3.49E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.81E+03 | 7.83E+03 | 2.20E+03 | 2.81E-02 | 1.47E-01 | 1.76E-01 | 2.41E+01 | 3.76E-04 | 6.87E-03 | 0.00E+00 | 2.53E-03 | 3.76E-02 | 9.59E-05 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.89E+01 | 2.78E+01 | 4.61E+01 | 9.00E-04 | 4.12E-03 | 3.91E-03 | 5.02E-01 | 6.49E-06 | 2.39E-04 | 0.00E+00 | 8.12E-05 | 2.96E-01 | 4.67E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.10E+02 | 4.54E+02 | 1.66E+03 | 1.58E-02 | 1.13E-01 | 1.19E-01 | 1.82E+01 | 2.14E-04 | 8.09E-03 | 0.00E+00 | 1.42E-03 | 4.99E-01 | 9.40E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.92E+02 | 2.82E+02 | 1.98E+03 | 1.34E-02 | 1.16E-01 | 1.12E-01 | 2.18E+01 | 2.45E-04 | 5.42E-03 | 0.00E+00 | 1.21E-03 | 8.27E-01 | 1.74E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.06E+01 | 5.95E+01 | 6.87E+02 | 3.42E-03 | 1.44E-02 | 3.36E-02 | 7.59E+00 | 8.54E-05 | 1.00E-03 | 0.00E+00 | 3.09E-04 | 4.85E-01 | 2.87E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.01E+02 | 1.72E+02 | 6.64E+01 | 8.46E-04 | 4.44E-03 | 5.30E-03 | 7.27E-01 | 1.13E-05 | 2.07E-04 | 0.00E+00 | 7.63E-05 | 5.16E-02 | 1.32E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.07E+02 | 1.81E+02 | 2.71E+02 | 3.59E-03 | 1.23E-02 | 2.27E-02 | 2.98E+00 | 3.78E-05 | 8.47E-04 | 0.00E+00 | 3.24E-04 | 1.35E-01 | 4.17E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.07E+03 | 7.01E+03 | 1.07E+04 | 4.00E-01 | 1.28E+00 | 1.04E+00 | 1.15E+02 | 1.49E-03 | 8.92E-02 | 0.00E+00 | 3.61E-02 | 3.64E-01 | 4.25E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.51E+03 | 9.49E+03 | 2.82E+04 | 4.55E-01 | 2.13E+00 | 2.80E+00 | 3.08E+02 | 3.61E-03 | 2.26E-01 | 0.00E+00 | 4.10E-02 | 4.49E-01 | 7.61E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 6.03E+02 | 1.04E+03 | 6.82E+03 | 7.81E-02 | 4.38E-01 | 5.72E-01 | 7.47E+01 | 8.40E-04 | 3.15E-02 | 0.00E+00 | 7.05E-03 | 8.43E-01 | 1.62E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.41E+01 | 9.32E+01 | 9.41E+02 | 8.30E-03 | 2.71E-02 | 7.19E-02 | 1.04E+01 | 1.17E-04 | 2.71E-03 | 0.00E+00 | 7.49E-04 | 5.82E-01 | 2.51E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.90E+01 | 1.19E+02 | 1.68E+03 | 1.37E-02 | 5.68E-02 | 1.15E-01 | 1.85E+01 | 1.81E-04 | 4.39E-03 | 0.00E+00 | 1.24E-03 | 9.55E-01 | 3.05E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 8.13E+00 | 1.40E+01 | 3.72E+02 | 3.06E-03 | 1.26E-02 | 2.62E-02 | 4.10E+00 | 4.13E-05 | 9.87E-04 | 0.00E+00 | 2.76E-04 | 1.80E+00 | 5.90E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 15 | Constructi | U | P | NHH | P | Total | Total | Total | 1.35E+01 | 3.01E+01 | 1.42E+01 | 1.81E-04 | 9.49E-04 | 1.13E-03 | 1.55E-01 | 2.42E-06 | 4.43E-05 | 0.00E+00 | 1.63E-05 | 6.31E-02 | 1.61E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 25 | Constructi | U | P | NHH | P | Total | Total | Total | 4.06E+01 | 9.02E+01 | 6.56E+01 | 8.69E-04 | 2.97E-03 | 5.49E-03 | 7.21E-01 | 9.14E-06 | 2.05E-04 | 0.00E+00 | 7.84E-05 | 6.58E-02 | 2.03E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 1.77E+02 | 4.08E+02 | 5.78E+02 | 4.16E-03 | 4.51E-02 | 3.87E-02 | 6.33E+00 | 8.18E-05 | 7.00E-04 | 0.00E+00 | 3.76E-04 | 2.21E-01 | 4.01E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 5.44E+02 | 1.25E+03 | 4.40E+03 | 1.93E-02 | 2.92E-01 | 1.70E-01 | 4.83E+01 | 5.66E-04 | 4.53E-03 | 0.00E+00 | 1.74E-03 | 4.66E-01 | 9.04E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 1.26E+02 | 2.90E+02 | 1.86E+03 | 6.88E-03 | 1.09E-01 | 4.21E-02 | 2.04E+01 | 2.30E-04 | 1.33E-03 | 0.00E+00 | 6.20E-04 | 7.53E-01 | 1.59E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 1.08E+02 | 2.49E+02 | 2.12E+03 | 6.70E-03 | 4.27E-02 | 3.11E-02 | 2.34E+01 | 2.64E-04 | 8.51E-04 | 0.00E+00 | 6.04E-04 | 3.42E-01 | 2.11E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 2.41E+02 | 5.55E+02 | 7.80E+03 | 2.46E-02 | 1.53E-01 | 1.12E-01 | 8.63E+01 | 8.47E-04 | 3.11E-03 | 0.00E+00 | 2.22E-03 | 5.51E-01 | 3.05E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 1.26E+02 | 2.90E+02 | 8.06E+03 | 2.54E-02 | 1.58E-01 | 1.16E-01 | 8.92E+01 | 8.97E-04 | 3.22E-03 | 0.00E+00 | 2.29E-03 | 1.09E+00 | 6.18E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 1000 | Constructi | U | N | NHH | P | Total | Total | Total | 2.11E+02 | 4.86E+02 | 2.04E+04 | 6.77E-02 | 3.99E-01 | 1.02E+00 | 2.26E+02 | 2.27E-03 | 1.75E-02 | 0.00E+00 | 6.11E-03 | 1.64E+00 | 9.33E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.00E+01 | 1.92E+02 | 1.43E+02 | 1.90E-03 | 6.48E-03 | 1.20E-02 | 1.57E+00 | 2.00E-05 | 4.48E-04 | 0.00E+00 | 1.71E-04 | 6.76E-02 | 2.08E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.88E+03 | 7.32E+03 | 8.43E+03 | 1.71E-01 | 9.21E-01 | 7.32E-01 | 9.14E+01 | 1.18E-03 | 4.04E-02 | 0.00E+00 | 1.54E-02 | 2.52E-01 | 3.23E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.12E+03 | 1.99E+04 | 6.68E+04 | 6.88E-01 | 4.98E+00 | 4.39E+00 | 7.31E+02 | 8.57E-03 | 2.87E-01 | 0.00E+00 | 6.21E-02 | 5.01E-01 | 8.63E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.87E+03 | 3.83E+04 | 1.96E+05 | 1.58E+00 | 1.27E+01 | 9.71E+00 | 2.15E+03 | 2.42E-02 | 5.06E-01 | 0.00E+00 | 1.42E-01 | 6.63E-01 | 1.26E-03 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.01E+03 | 1.56E+04 | 1.12E+05 | 7.27E-01 | 2.59E+00 | 4.66E+00 | 1.24E+03 | 1.39E-02 | 1.57E-01 | 0.00E+00 | 6.56E-02 | 3.32E-01 | 1.78E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.90E+03 | 1.12E+04 | 1.19E+05 | 7.52E-01 | 2.63E+00 | 4.43E+00 | 1.31E+03 | 1.29E-02 | 1.60E-01 | 0.00E+00 | 6.78E-02 | 4.68E-01 | 2.29E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.37E+01 | 2.47E+02 | 4.33E+03 | 2.75E-02 | 9.60E-02 | 1.65E-01 | 4.78E+01 | 4.81E-04 | 5.89E-03 | 0.00E+00 | 2.48E-03 | 7.76E-01 | 3.89E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.41E+00 | 8.78E+00 | 6.58E+00 | 8.72E-05 | 2.98E-04 | 5.51E-04 | 7.23E-02 | 9.17E-07 | 2.06E-05 | 0.00E+00 | 7.87E-06 | 6.78E-02 | 2.09E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.73E+01 | 7.53E+01 | 1.04E+02 | 2.06E-03 | 9.53E-03 | 8.98E-03 | 1.14E+00 | 1.47E-05 | 5.55E-04 | 0.00E+00 | 1.86E-04 | 2.53E-01 | 3.90E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.25E+01 | 1.31E+02 | 4.44E+02 | 4.26E-03 | 3.05E-02 | 3.21E-02 | 4.86E+00 | 5.70E-05 | 2.20E-03 | 0.00E+00 | 3.85E-04 | 4.66E-01 | 8.69E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.70E+00 | 4.30E+00 | 3.13E+01 | 2.18E-04 | 1.86E-03 | 1.78E-03 | 3.44E-01 | 3.87E-06 | 8.82E-05 | 0.00E+00 | 1.96E-05 | 8.65E-01 | 1.80E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 6.91E+02 | 5.69E+02 | 1.64E+02 | 2.09E-03 | 1.10E-02 | 1.31E-02 | 1.79E+00 | 2.79E-05 | 5.16E-04 | 0.00E+00 | 1.89E-04 | 3.86E-02 | 9.83E-05 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 6.22E+01 | 5.12E+01 | 4.09E+01 | 5.92E-04 | 1.93E-03 | 3.56E-03 | 4.49E-01 | 5.69E-06 | 1.63E-04 | 0.00E+00 | 5.34E-05 | 7.53E-02 | 2.23E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 4.60E+01 | 1.61E+02 | 1.73E+02 | 5.21E-03 | 2.04E-02 | 1.63E-02 | 1.87E+00 | 2.42E-05 | 1.22E-03 | 0.00E+00 | 4.70E-04 | 2.52E-01 | 2.99E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 5.04E+02 | 1.77E+03 | 4.06E+03 | 5.65E-02 | 3.08E-01 | 3.41E-01 | 4.43E+01 | 5.20E-04 | 2.71E-02 | 0.00E+00 | 5.10E-03 | 3.48E-01 | 5.88E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 5.04E+02 | 1.77E+03 | 6.48E+03 | 6.65E-02 | 4.21E-01 | 4.45E-01 | 7.10E+01 | 7.99E-04 | 2.50E-02 | 0.00E+00 | 6.00E-03 | 4.76E-01 | 9.03E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 9.78E+02 | 3.43E+03 | 1.74E+04 | 1.35E-01 | 4.32E-01 | 1.06E+00 | 1.92E+02 | 2.16E-03 | 3.63E-02 | 0.00E+00 | 1.22E-02 | 2.52E-01 | 1.26E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 3.58E+02 | 1.26E+03 | 1.03E+04 | 7.55E-02 | 2.57E-01 | 5.50E-01 | 1.13E+02 | 1.11E-03 | 1.99E-02 | 0.00E+00 | 6.81E-03 | 4.08E-01 | 1.77E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 2.64E+02 | 9.27E+02 | 1.27E+04 | 9.41E-02 | 3.18E-01 | 7.03E-01 | 1.40E+02 | 1.41E-03 | 2.51E-02 | 0.00E+00 | 8.49E-03 | 6.87E-01 | 3.04E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 9999 | Constructi | U | N | NHH | P | Total | Total | Total | 3.32E+02 | 1.16E+03 | 5.11E+04 | 4.31E-01 | 1.39E+00 | 4.55E+00 | 5.64E+02 | 5.67E-03 | 1.25E-01 | 0.00E+00 | 3.89E-02 | 2.39E+00 | 9.75E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.89E+01 | 4.92E+01 | 6.26E+01 | 1.66E-03 | 7.06E-03 | 5.67E-03 | 6.77E-01 | 8.76E-06 | 3.87E-04 | 0.00E+00 | 1.50E-04 | 2.87E-01 | 3.56E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.26E+03 | 3.29E+03 | 1.13E+04 | 1.41E-01 | 8.43E-01 | 8.74E-01 | 1.23E+02 | 1.44E-03 | 6.54E-02 | 0.00E+00 | 1.27E-02 | 5.13E-01 | 8.79E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.32E+03 | 1.12E+04 | 6.34E+04 | 5.94E-01 | 4.09E+00 | 3.93E+00 | 6.95E+02 | 7.82E-03 | 2.16E-01 | 0.00E+00 | 5.36E-02 | 7.29E-01 | 1.39E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.68E+03 | 6.96E+03 | 5.43E+04 | 3.88E-01 | 1.31E+00 | 2.93E+00 | 5.99E+02 | 6.74E-03 | 1.00E-01 | 0.00E+00 | 3.50E-02 | 3.77E-01 | 1.93E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.57E+01 | 1.97E+02 | 2.05E+03 | 1.40E-02 | 5.11E-02 | 9.83E-02 | 2.26E+01 | 2.22E-04 | 3.54E-03 | 0.00E+00 | 1.26E-03 | 5.19E-01 | 2.25E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.06E+00 | 1.06E+01 | 2.32E+02 | 1.59E-03 | 5.80E-03 | 1.15E-02 | 2.56E+00 | 2.58E-05 | 4.08E-04 | 0.00E+00 | 1.44E-04 | 1.10E+00 | 4.88E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.79E+01 | 4.78E+02 | 2.72E+03 | 2.35E-02 | 1.80E-01 | 1.42E-01 | 2.99E+01 | 3.36E-04 | 7.49E-03 | 0.00E+00 | 2.12E-03 | 7.54E-01 | 1.41E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.49E+02 | 3.53E+03 | 2.66E+04 | 1.84E-01 | 6.29E-01 | 1.17E+00 | 2.93E+02 | 3.30E-03 | 3.97E-02 | 0.00E+00 | 1.66E-02 | 3.57E-01 | 1.87E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 9.14E+02 | 4.97E+03 | 6.12E+04 | 4.11E-01 | 1.38E+00 | 2.41E+00 | 6.76E+02 | 6.63E-03 | 8.71E-02 | 0.00E+00 | 3.71E-02 | 5.57E-01 | 2.67E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 8.52E+02 | 4.63E+03 | 9.25E+04 | 6.23E-01 | 2.09E+00 | 3.73E+00 | 1.02E+03 | 1.03E-02 | 1.33E-01 | 0.00E+00 | 5.62E-02 | 9.04E-01 | 4.44E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.00E+02 | 2.17E+03 | 6.13E+04 | 4.40E-01 | 1.45E+00 | 4.70E+00 | 6.77E+02 | 6.81E-03 | 1.20E-01 | 0.00E+00 | 3.97E-02 | 1.33E+00 | 6.28E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 2.16E+02 | 5.67E+02 | 1.15E+03 | 2.69E-02 | 1.20E-01 | 1.02E-01 | 1.25E+01 | 1.61E-04 | 6.82E-03 | 0.00E+00 | 2.42E-03 | 4.23E-01 | 5.69E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 6.10E+02 | 1.60E+03 | 6.06E+03 | 6.78E-02 | 4.39E-01 | 4.53E-01 | 6.63E+01 | 7.78E-04 | 3.32E-02 | 0.00E+00 | 6.12E-03 | 5.50E-01 | 9.74E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 2.58E+02 | 6.76E+02 | 5.15E+03 | 4.25E-02 | 3.22E-01 | 3.03E-01 | 5.65E+01 | 6.36E-04 | 1.61E-02 | 0.00E+00 | 3.83E-03 | 9.51E-01 | 1.88E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 2.57E+01 | 6.73E+01 | 7.44E+02 | 4.66E-03 | 1.66E-02 | 3.79E-02 | 8.22E+00 | 9.25E-05 | 1.21E-03 | 0.00E+00 | 4.20E-04 | 4.93E-01 | 2.75E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 1.45E+02 | 3.79E+02 | 6.40E+03 | 3.86E-02 | 1.37E-01 | 2.88E-01 | 7.07E+01 | 6.94E-04 | 9.91E-03 | 0.00E+00 | 3.48E-03 | 7.22E-01 | 3.66E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 6.77E+00 | 1.77E+01 | 4.72E+02 | 2.83E-03 | 1.01E-02 | 2.16E-02 | 5.22E+00 | 5.25E-05 | 7.30E-04 | 0.00E+00 | 2.55E-04 | 1.14E+00 | 5.92E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 9999 | Constructi | U | N | NHH | P | Total | Total | Total | 6.77E+00 | 1.77E+01 | 1.05E+03 | 7.37E-03 | 2.44E-02 | 8.50E-02 | 1.16E+01 | 1.16E-04 | 2.19E-03 | 0.00E+00 | 6.65E-04 | 2.76E+00 | 1.31E-02 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.50E+02 | 4.65E+02 | 7.25E+02 | 1.52E-02 | 7.66E-02 | 6.38E-02 | 7.87E+00 | 1.02E-04 | 3.85E-03 | 0.00E+00 | 1.37E-03 | 3.29E-01 | 4.37E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 7.19E+03 | 2.23E+04 | 6.35E+04 | 6.64E-01 | 4.65E+00 | 4.42E+00 | 6.95E+02 | 8.16E-03 | 3.04E-01 | 0.00E+00 | 5.99E-02 | 4.18E-01 | 7.32E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.21E+02 | 2.85E+03 | 1.62E+04 | 1.30E-01 | 1.03E+00 | 8.66E-01 | 1.78E+02 | 2.00E-03 | 4.59E-02 | 0.00E+00 | 1.17E-02 | 7.22E-01 | 1.40E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.14E+01 | 1.59E+02 | 1.23E+03 | 7.86E-03 | 2.79E-02 | 5.63E-02 | 1.36E+01 | 1.53E-04 | 1.89E-03 | 0.00E+00 | 7.09E-04 | 3.50E-01 | 1.92E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.38E+01 | 1.05E+02 | 1.22E+03 | 7.54E-03 | 2.63E-02 | 4.96E-02 | 1.34E+01 | 1.32E-04 | 1.79E-03 | 0.00E+00 | 6.81E-04 | 5.02E-01 | 2.52E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.89E+01 | 4.97E+01 | 3.83E+01 | 5.07E-04 | 1.73E-03 | 3.20E-03 | 4.20E-01 | 5.33E-06 | 1.20E-04 | 0.00E+00 | 4.57E-05 | 6.96E-02 | 2.15E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.68E+02 | 9.81E+02 | 1.41E+03 | 3.64E-02 | 1.57E-01 | 1.27E-01 | 1.53E+01 | 1.97E-04 | 8.55E-03 | 0.00E+00 | 3.28E-03 | 3.20E-01 | 4.02E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.00E+04 | 2.67E+04 | 7.18E+04 | 8.79E-01 | 5.35E+00 | 5.49E+00 | 7.85E+02 | 9.21E-03 | 4.09E-01 | 0.00E+00 | 7.93E-02 | 4.01E-01 | 6.90E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.64E+03 | 1.50E+04 | 7.28E+04 | 6.67E-01 | 4.68E+00 | 4.43E+00 | 7.99E+02 | 8.98E-03 | 2.43E-01 | 0.00E+00 | 6.02E-02 | 6.22E-01 | 1.20E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.61E+03 | 1.50E+04 | 1.01E+05 | 7.07E-01 | 2.42E+00 | 5.34E+00 | 1.11E+03 | 1.25E-02 | 1.82E-01 | 0.00E+00 | 6.38E-02 | 3.23E-01 | 1.67E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.33E+03 | 6.22E+03 | 6.67E+04 | 4.48E-01 | 1.63E+00 | 3.14E+00 | 7.37E+02 | 7.23E-03 | 1.13E-01 | 0.00E+00 | 4.04E-02 | 5.25E-01 | 2.32E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.64E+02 | 4.37E+02 | 9.60E+03 | 6.47E-02 | 2.35E-01 | 4.65E-01 | 1.06E+02 | 1.07E-03 | 1.65E-02 | 0.00E+00 | 5.84E-03 | 1.08E+00 | 4.88E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.76E+01 | 4.69E+01 | 1.26E+03 | 9.16E-03 | 3.32E-02 | 1.04E-01 | 1.39E+01 | 1.40E-04 | 2.78E-03 | 0.00E+00 | 8.27E-04 | 1.42E+00 | 5.97E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.35E+01 | 6.01E+01 | 3.55E+02 | 5.03E-03 | 2.46E-02 | 3.43E-02 | 3.89E+00 | 4.37E-05 | 1.94E-03 | 0.00E+00 | 4.54E-04 | 8.18E-01 | 1.46E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.31E+02 | 1.47E+03 | 1.23E+04 | 1.39E-01 | 4.15E-01 | 1.09E+00 | 1.35E+02 | 1.52E-03 | 4.45E-02 | 0.00E+00 | 1.25E-02 | 5.63E-01 | 2.06E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.10E+02 | 2.26E+03 | 2.73E+04 | 2.86E-01 | 1.17E+00 | 2.20E+00 | 3.00E+02 | 2.94E-03 | 8.90E-02 | 0.00E+00 | 2.58E-02 | 1.03E+00 | 2.60E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.80E+02 | 8.00E+02 | 1.45E+04 | 1.53E-01 | 6.22E-01 | 1.19E+00 | 1.59E+02 | 1.60E-03 | 4.78E-02 | 0.00E+00 | 1.38E-02 | 1.55E+00 | 4.01E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.22E+01 | 5.41E+01 | 1.46E+03 | 1.62E-02 | 6.79E-02 | 1.62E-01 | 1.60E+01 | 1.61E-04 | 5.15E-03 | 0.00E+00 | 1.46E-03 | 2.51E+00 | 5.95E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.81E+02 | 9.85E+02 | 7.11E+02 | 9.42E-03 | 3.21E-02 | 5.96E-02 | 7.81E+00 | 9.91E-05 | 2.29E-03 | 0.00E+00 | 8.50E-04 | 6.53E-02 | 2.01E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.28E+03 | 6.01E+03 | 8.38E+03 | 1.49E-01 | 8.52E-01 | 7.03E-01 | 9.11E+01 | 1.18E-03 | 3.63E-02 | 0.00E+00 | 1.35E-02 | 2.84E-01 | 3.92E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.05E+04 | 8.04E+04 | 1.90E+05 | 1.75E+00 | 1.38E+01 | 1.18E+01 | 2.08E+03 | 2.44E-02 | 7.37E-01 | 0.00E+00 | 1.58E-01 | 3.42E-01 | 6.06E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.27E+03 | 6.00E+03 | 2.77E+04 | 2.00E-01 | 1.75E+00 | 1.28E+00 | 3.04E+02 | 3.42E-03 | 6.54E-02 | 0.00E+00 | 1.81E-02 | 5.84E-01 | 1.14E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.36E+02 | 1.94E+03 | 1.51E+04 | 8.85E-02 | 3.37E-01 | 5.78E-01 | 1.66E+02 | 1.87E-03 | 1.94E-02 | 0.00E+00 | 7.99E-03 | 3.48E-01 | 1.93E-03 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.19E+03 | 3.13E+03 | 4.88E+04 | 2.80E-01 | 1.06E+00 | 1.68E+00 | 5.39E+02 | 6.07E-03 | 6.02E-02 | 0.00E+00 | 2.52E-02 | 6.76E-01 | 3.88E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 8.19E+02 | 2.16E+03 | 5.05E+04 | 2.90E-01 | 1.10E+00 | 1.78E+00 | 5.58E+02 | 6.28E-03 | 6.31E-02 | 0.00E+00 | 2.62E-02 | 1.01E+00 | 5.82E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.89E+01 | 5.40E+01 | 6.23E+01 | 2.19E-03 | 7.78E-03 | 6.04E-03 | 6.71E-01 | 8.67E-06 | 4.88E-04 | 0.00E+00 | 1.98E-04 | 2.88E-01 | 3.21E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.07E+04 | 3.06E+04 | 9.22E+04 | 1.45E+00 | 7.16E+00 | 8.55E+00 | 1.01E+03 | 1.18E-02 | 6.85E-01 | 0.00E+00 | 1.30E-01 | 4.67E-01 | 7.71E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.64E+03 | 1.04E+04 | 5.73E+04 | 6.57E-01 | 3.79E+00 | 4.42E+00 | 6.27E+02 | 7.06E-03 | 2.48E-01 | 0.00E+00 | 5.93E-02 | 7.32E-01 | 1.36E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.12E+03 | 8.91E+03 | 6.70E+04 | 5.93E-01 | 1.86E+00 | 4.64E+00 | 7.39E+02 | 8.32E-03 | 1.71E-01 | 0.00E+00 | 5.35E-02 | 4.18E-01 | 1.87E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.14E+03 | 6.10E+03 | 7.17E+04 | 5.97E-01 | 2.20E+00 | 4.46E+00 | 7.90E+02 | 7.76E-03 | 1.69E-01 | 0.00E+00 | 5.39E-02 | 7.19E-01 | 2.54E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.08E+02 | 3.09E+02 | 6.50E+03 | 5.44E-02 | 1.99E-01 | 4.14E-01 | 7.17E+01 | 7.21E-04 | 1.55E-02 | 0.00E+00 | 4.91E-03 | 1.29E+00 | 4.67E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.08E+02 | 3.09E+02 | 9.21E+03 | 8.29E-02 | 3.11E-01 | 8.83E-01 | 1.01E+02 | 1.02E-03 | 2.56E-02 | 0.00E+00 | 7.48E-03 | 2.02E+00 | 6.61E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.60E+03 | 5.94E+03 | 3.73E+03 | 5.22E-02 | 1.73E-01 | 3.21E-01 | 4.09E+01 | 5.19E-04 | 1.42E-02 | 0.00E+00 | 4.71E-03 | 5.82E-02 | 1.75E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.36E+04 | 5.49E+04 | 6.41E+04 | 7.22E-01 | 5.58E+00 | 4.90E+00 | 7.00E+02 | 9.05E-03 | 1.78E-01 | 0.00E+00 | 6.51E-02 | 2.03E-01 | 3.30E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.23E+04 | 2.88E+04 | 5.60E+04 | 3.56E-01 | 3.85E+00 | 2.83E+00 | 6.14E+02 | 7.21E-03 | 1.36E-01 | 0.00E+00 | 3.22E-02 | 2.68E-01 | 5.01E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.35E+00 | 4.12E+00 | 1.77E+01 | 3.34E-04 | 1.42E-03 | 1.94E-03 | 1.93E-01 | 2.26E-06 | 1.60E-04 | 0.00E+00 | 3.01E-05 | 6.87E-01 | 1.10E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.65E+03 | 5.04E+03 | 3.00E+04 | 4.06E-01 | 2.04E+00 | 2.82E+00 | 3.28E+02 | 3.69E-03 | 1.59E-01 | 0.00E+00 | 3.67E-02 | 8.08E-01 | 1.47E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.56E+03 | 4.76E+03 | 2.82E+04 | 3.03E-01 | 9.19E-01 | 2.44E+00 | 3.10E+02 | 3.49E-03 | 9.78E-02 | 0.00E+00 | 2.74E-02 | 3.86E-01 | 1.47E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.80E+02 | 2.07E+03 | 5.34E+04 | 5.35E-01 | 2.17E+00 | 4.26E+00 | 5.88E+02 | 5.91E-03 | 1.69E-01 | 0.00E+00 | 4.83E-02 | 2.09E+00 | 5.71E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.18E+01 | 2.18E+02 | 8.09E+03 | 8.56E-02 | 3.58E-01 | 8.82E-01 | 8.89E+01 | 8.94E-04 | 2.76E-02 | 0.00E+00 | 7.72E-03 | 3.28E+00 | 8.18E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Dumpers/T | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.25E+01 | 5.89E+01 | 2.04E+01 | 2.71E-04 | 9.24E-04 | 1.72E-03 | 2.24E-01 | 2.85E-06 | 6.68E-05 | 0.00E+00 | 2.45E-05 | 3.14E-02 | 9.67E-05 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.48E+02 | 8.47E+02 | 3.91E+02 | 4.98E-03 | 2.61E-02 | 3.12E-02 | 4.28E+00 | 6.65E-05 | 1.22E-03 | 0.00E+00 | 4.49E-04 | 6.17E-02 | 1.57E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 7.57E+01 | 1.43E+02 | 8.62E+01 | 1.14E-03 | 3.90E-03 | 7.21E-03 | 9.46E-01 | 1.20E-05 | 2.69E-04 | 0.00E+00 | 1.03E-04 | 5.44E-02 | 1.68E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.16E+02 | 2.23E+02 | 2.86E+02 | 4.59E-03 | 2.61E-02 | 2.34E-02 | 3.12E+00 | 4.03E-05 | 1.20E-03 | 0.00E+00 | 4.14E-04 | 2.34E-01 | 3.62E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.92E+02 | 3.68E+02 | 1.36E+03 | 1.11E-02 | 9.41E-02 | 8.41E-02 | 1.49E+01 | 1.75E-04 | 5.14E-03 | 0.00E+00 | 1.00E-03 | 5.11E-01 | 9.48E-04 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.65E+02 | 5.08E+02 | 2.46E+03 | 1.54E-02 | 1.49E-01 | 1.14E-01 | 2.70E+01 | 3.04E-04 | 5.53E-03 | 0.00E+00 | 1.39E-03 | 5.85E-01 | 1.20E-03 |
| 2018 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.15E+02 | 1.18E+03 | 1.36E+04 | 6.62E-02 | 2.80E-01 | 4.72E-01 | 1.50E+02 | 1.47E-03 | 1.62E-02 | 0.00E+00 | 5.97E-03 | 4.74E-01 | 2.49E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.68E+00 | 1.95E+01 | 1.66E+01 | 2.20E-04 | 7.50E-04 | 1.40E-03 | 1.82E-01 | 2.31E-06 | 5.43E-05 | 0.00E+00 | 1.99E-05 | 7.68E-02 | 2.37E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.04E+02 | 1.15E+03 | 1.49E+03 | 5.16E-02 | 1.79E-01 | 1.42E-01 | 1.61E+01 | 2.08E-04 | 1.15E-02 | 0.00E+00 | 4.66E-03 | 3.12E-01 | 3.62E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.95E+02 | 1.36E+03 | 4.29E+03 | 6.56E-02 | 3.27E-01 | 3.94E-01 | 4.68E+01 | 5.50E-04 | 3.16E-02 | 0.00E+00 | 5.92E-03 | 4.83E-01 | 8.11E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.70E+02 | 8.42E+02 | 4.93E+03 | 5.43E-02 | 3.20E-01 | 3.74E-01 | 5.40E+01 | 6.07E-04 | 2.10E-02 | 0.00E+00 | 4.90E-03 | 7.61E-01 | 1.44E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.45E+01 | 1.02E+02 | 8.94E+02 | 7.55E-03 | 2.46E-02 | 6.14E-02 | 9.86E+00 | 1.11E-04 | 2.27E-03 | 0.00E+00 | 6.82E-04 | 4.84E-01 | 2.19E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.57E+01 | 1.04E+02 | 1.10E+03 | 8.72E-03 | 3.42E-02 | 6.78E-02 | 1.21E+01 | 1.19E-04 | 2.56E-03 | 0.00E+00 | 7.87E-04 | 6.57E-01 | 2.29E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Plate Comp | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.86E+02 | 3.06E+02 | 6.03E+01 | 7.69E-04 | 4.03E-03 | 4.81E-03 | 6.60E-01 | 1.03E-05 | 1.88E-04 | 0.00E+00 | 6.94E-05 | 2.63E-02 | 6.71E-05 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.50E+02 | 6.67E+02 | 1.92E+02 | 2.45E-03 | 1.29E-02 | 1.53E-02 | 2.11E+00 | 3.28E-05 | 6.00E-04 | 0.00E+00 | 2.21E-04 | 3.86E-02 | 9.83E-05 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.46E+02 | 2.79E+02 | 1.69E+02 | 2.24E-03 | 7.65E-03 | 1.42E-02 | 1.86E+00 | 2.36E-05 | 5.29E-04 | 0.00E+00 | 2.02E-04 | 5.49E-02 | 1.69E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.55E+02 | 8.74E+02 | 1.05E+03 | 2.62E-02 | 1.09E-01 | 9.18E-02 | 1.13E+01 | 1.47E-04 | 6.23E-03 | 0.00E+00 | 2.37E-03 | 2.49E-01 | 3.36E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.44E+03 | 4.69E+03 | 1.26E+04 | 1.47E-01 | 9.13E-01 | 9.60E-01 | 1.38E+02 | 1.62E-03 | 7.15E-02 | 0.00E+00 | 1.33E-02 | 3.89E-01 | 6.91E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.83E+02 | 1.89E+03 | 9.29E+03 | 7.86E-02 | 5.77E-01 | 5.59E-01 | 1.02E+02 | 1.15E-03 | 3.02E-02 | 0.00E+00 | 7.09E-03 | 6.12E-01 | 1.22E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.39E+02 | 2.68E+02 | 1.85E+03 | 1.19E-02 | 4.35E-02 | 9.83E-02 | 2.05E+01 | 2.30E-04 | 3.31E-03 | 0.00E+00 | 1.07E-03 | 3.25E-01 | 1.72E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 9.77E+01 | 1.88E+02 | 1.86E+03 | 1.13E-02 | 4.45E-02 | 8.73E-02 | 2.05E+01 | 2.02E-04 | 3.10E-03 | 0.00E+00 | 1.02E-03 | 4.74E-01 | 2.15E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.26E+01 | 6.86E+01 | 2.95E+02 | 4.44E-03 | 2.28E-02 | 2.62E-02 | 3.22E+00 | 3.77E-05 | 2.07E-03 | 0.00E+00 | 4.01E-04 | 6.64E-01 | 1.10E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.06E+02 | 6.28E+02 | 4.24E+03 | 4.66E-02 | 2.80E-01 | 3.09E-01 | 4.64E+01 | 5.22E-04 | 1.73E-02 | 0.00E+00 | 4.21E-03 | 8.93E-01 | 1.66E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.01E+02 | 6.12E+02 | 5.81E+03 | 4.92E-02 | 1.58E-01 | 3.79E-01 | 6.40E+01 | 7.20E-04 | 1.39E-02 | 0.00E+00 | 4.44E-03 | 5.17E-01 | 2.35E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.54E+02 | 1.68E+03 | 2.45E+04 | 1.96E-01 | 7.39E-01 | 1.44E+00 | 2.70E+02 | 2.65E-03 | 5.41E-02 | 0.00E+00 | 1.77E-02 | 8.78E-01 | 3.15E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.86E+01 | 5.65E+01 | 1.42E+03 | 1.14E-02 | 4.27E-02 | 8.56E-02 | 1.57E+01 | 1.57E-04 | 3.18E-03 | 0.00E+00 | 1.03E-03 | 1.51E+00 | 5.58E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.50E+01 | 3.42E+01 | 1.96E+01 | 2.60E-04 | 8.88E-04 | 1.64E-03 | 2.16E-01 | 2.74E-06 | 6.13E-05 | 0.00E+00 | 2.35E-05 | 5.19E-02 | 1.60E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.27E+01 | 2.91E+01 | 3.23E+01 | 1.11E-03 | 3.83E-03 | 3.06E-03 | 3.48E-01 | 4.50E-06 | 2.49E-04 | 0.00E+00 | 9.98E-05 | 2.63E-01 | 3.09E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.83E+02 | 4.20E+02 | 1.05E+03 | 1.58E-02 | 7.94E-02 | 9.58E-02 | 1.14E+01 | 1.34E-04 | 7.72E-03 | 0.00E+00 | 1.43E-03 | 3.78E-01 | 6.39E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.62E+01 | 1.97E+02 | 9.09E+02 | 9.88E-03 | 5.87E-02 | 6.87E-02 | 9.96E+00 | 1.12E-04 | 3.86E-03 | 0.00E+00 | 8.92E-04 | 5.95E-01 | 1.14E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.43E+01 | 5.56E+01 | 3.08E+02 | 2.53E-03 | 8.26E-03 | 2.10E-02 | 3.40E+00 | 3.82E-05 | 7.60E-04 | 0.00E+00 | 2.28E-04 | 2.97E-01 | 1.37E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.16E+01 | 1.43E+01 | 9.29E+00 | 2.08E-04 | 8.70E-04 | 7.89E-04 | 1.01E-01 | 1.31E-06 | 5.02E-05 | 0.00E+00 | 1.87E-05 | 1.21E-01 | 1.82E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.31E+00 | 2.87E+00 | 8.34E+00 | 8.84E-05 | 5.80E-04 | 6.20E-04 | 9.13E-02 | 1.07E-06 | 4.33E-05 | 0.00E+00 | 7.97E-06 | 4.05E-01 | 7.47E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.74E+00 | 2.15E+00 | 8.39E+00 | 6.36E-05 | 5.01E-04 | 4.95E-04 | 9.21E-02 | 1.04E-06 | 2.50E-05 | 0.00E+00 | 5.74E-06 | 4.67E-01 | 9.64E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.47E+00 | 4.30E+00 | 2.62E+01 | 1.48E-04 | 6.01E-04 | 1.36E-03 | 2.90E-01 | 3.26E-06 | 4.46E-05 | 0.00E+00 | 1.34E-05 | 2.80E-01 | 1.52E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.89E+01 | 3.58E+01 | 3.58E+02 | 1.90E-03 | 8.72E-03 | 1.67E-02 | 3.96E+00 | 3.89E-05 | 5.68E-04 | 0.00E+00 | 1.71E-04 | 4.87E-01 | 2.17E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.55E+00 | 4.40E+00 | 6.90E+01 | 3.70E-04 | 1.68E-03 | 3.31E-03 | 7.62E-01 | 7.66E-06 | 1.11E-04 | 0.00E+00 | 3.34E-05 | 7.64E-01 | 3.49E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.63E+03 | 3.35E+03 | 9.43E+02 | 1.20E-02 | 6.30E-02 | 7.52E-02 | 1.03E+01 | 1.61E-04 | 2.94E-03 | 0.00E+00 | 1.08E-03 | 3.76E-02 | 9.59E-05 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.10E+00 | 1.19E+01 | 1.97E+01 | 3.35E-04 | 1.72E-03 | 1.61E-03 | 2.15E-01 | 2.78E-06 | 8.93E-05 | 0.00E+00 | 3.03E-05 | 2.89E-01 | 4.67E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.32E+02 | 1.94E+02 | 7.10E+02 | 5.99E-03 | 4.82E-02 | 4.67E-02 | 7.79E+00 | 9.13E-05 | 2.96E-03 | 0.00E+00 | 5.40E-04 | 4.96E-01 | 9.40E-04 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | Activity | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.21E+01 | 1.20E+02 | 8.47E+02 | 5.26E-03 | 4.98E-02 | 4.26E-02 | 9.30E+00 | 1.05E-04 | 2.05E-03 | 0.00E+00 | 4.75E-04 | 8.27E-01 | 1.74E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.74E+01 | 2.55E+01 | 2.94E+02 | 1.38E-03 | 6.11E-03 | 1.27E-02 | 3.25E+00 | 3.65E-05 | 3.81E-04 | 0.00E+00 | 1.24E-04 | 4.80E-01 | 2.87E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.34E+01 | 7.35E+01 | 2.84E+01 | 3.62E-04 | 1.90E-03 | 2.27E-03 | 3.11E-01 | 4.84E-06 | 8.85E-05 | 0.00E+00 | 3.26E-05 | 5.16E-02 | 1.32E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.57E+01 | 7.74E+01 | 1.16E+02 | 1.54E-03 | 5.24E-03 | 9.71E-03 | 1.27E+00 | 1.62E-05 | 3.63E-04 | 0.00E+00 | 1.39E-04 | 1.35E-01 | 4.17E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.74E+03 | 2.99E+03 | 4.57E+03 | 1.59E-01 | 5.34E-01 | 4.31E-01 | 4.92E+01 | 6.37E-04 | 3.53E-02 | 0.00E+00 | 1.44E-02 | 3.57E-01 | 4.25E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.36E+03 | 4.06E+03 | 1.20E+04 | 1.83E-01 | 9.06E-01 | 1.13E+00 | 1.32E+02 | 1.54E-03 | 8.96E-02 | 0.00E+00 | 1.65E-02 | 4.47E-01 | 7.61E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.58E+02 | 4.44E+02 | 2.91E+03 | 3.16E-02 | 1.87E-01 | 2.26E-01 | 3.19E+01 | 3.59E-04 | 1.25E-02 | 0.00E+00 | 2.85E-03 | 8.41E-01 | 1.62E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.31E+01 | 3.98E+01 | 4.02E+02 | 3.36E-03 | 1.12E-02 | 2.84E-02 | 4.44E+00 | 4.99E-05 | 1.06E-03 | 0.00E+00 | 3.03E-04 | 5.63E-01 | 2.51E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.95E+01 | 5.08E+01 | 7.17E+02 | 5.58E-03 | 2.31E-02 | 4.55E-02 | 7.90E+00 | 7.75E-05 | 1.72E-03 | 0.00E+00 | 5.03E-04 | 9.10E-01 | 3.05E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.10E-01 | 1.22E+00 | 3.25E+01 | 2.54E-04 | 1.05E-03 | 2.11E-03 | 3.58E-01 | 3.60E-06 | 7.93E-05 | 0.00E+00 | 2.30E-05 | 1.71E+00 | 5.90E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 15 | Constructi | U | P | NHH | P | Total | Total | Total | 5.78E+00 | 1.29E+01 | 6.07E+00 | 7.74E-05 | 4.06E-04 | 4.85E-04 | 6.65E-02 | 1.03E-06 | 1.89E-05 | 0.00E+00 | 6.98E-06 | 6.31E-02 | 1.61E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 25 | Constructi | U | P | NHH | P | Total | Total | Total | 1.74E+01 | 3.86E+01 | 2.81E+01 | 3.72E-04 | 1.27E-03 | 2.35E-03 | 3.08E-01 | 3.91E-06 | 8.77E-05 | 0.00E+00 | 3.35E-05 | 6.58E-02 | 2.03E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 7.58E+01 | 1.74E+02 | 2.47E+02 | 1.74E-03 | 1.92E-02 | 1.58E-02 | 2.71E+00 | 3.50E-05 | 2.27E-04 | 0.00E+00 | 1.57E-04 | 2.21E-01 | 4.01E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 2.33E+02 | 5.35E+02 | 1.88E+03 | 7.84E-03 | 1.25E-01 | 6.69E-02 | 2.06E+01 | 2.42E-04 | 1.44E-03 | 0.00E+00 | 7.07E-04 | 4.66E-01 | 9.04E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 5.38E+01 | 1.24E+02 | 7.94E+02 | 2.70E-03 | 4.67E-02 | 1.45E-02 | 8.73E+00 | 9.82E-05 | 4.22E-04 | 0.00E+00 | 2.43E-04 | 7.54E-01 | 1.59E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 4.63E+01 | 1.07E+02 | 9.05E+02 | 2.67E-03 | 1.82E-02 | 1.06E-02 | 1.00E+01 | 1.13E-04 | 2.85E-04 | 0.00E+00 | 2.41E-04 | 3.42E-01 | 2.11E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 1.03E+02 | 2.37E+02 | 3.33E+03 | 9.82E-03 | 6.53E-02 | 3.83E-02 | 3.69E+01 | 3.62E-04 | 1.04E-03 | 0.00E+00 | 8.86E-04 | 5.51E-01 | 3.05E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 1.10E+01 | 2.53E+01 | 7.04E+02 | 2.08E-03 | 1.38E-02 | 8.14E-03 | 7.79E+00 | 7.83E-05 | 2.20E-04 | 0.00E+00 | 1.87E-04 | 1.09E+00 | 6.18E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 1000 | Constructi | U | N | NHH | P | Total | Total | Total | 1.85E+01 | 4.25E+01 | 1.78E+03 | 5.51E-03 | 3.49E-02 | 8.64E-02 | 1.97E+01 | 1.98E-04 | 1.30E-03 | 0.00E+00 | 4.97E-04 | 1.64E+00 | 9.33E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.14E+01 | 8.19E+01 | 6.13E+01 | 8.12E-04 | 2.77E-03 | 5.13E-03 | 6.73E-01 | 8.54E-06 | 1.92E-04 | 0.00E+00 | 7.32E-05 | 6.76E-02 | 2.08E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.06E+02 | 3.13E+03 | 3.60E+03 | 6.59E-02 | 3.87E-01 | 3.01E-01 | 3.91E+01 | 5.05E-04 | 1.48E-02 | 0.00E+00 | 5.95E-03 | 2.48E-01 | 3.23E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.19E+03 | 8.49E+03 | 2.85E+04 | 2.69E-01 | 2.12E+00 | 1.72E+00 | 3.12E+02 | 3.66E-03 | 1.04E-01 | 0.00E+00 | 2.42E-02 | 4.99E-01 | 8.63E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.22E+03 | 1.64E+04 | 8.37E+04 | 6.21E-01 | 5.43E+00 | 3.62E+00 | 9.18E+02 | 1.03E-02 | 1.85E-01 | 0.00E+00 | 5.60E-02 | 6.63E-01 | 1.26E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.72E+03 | 6.66E+03 | 4.78E+04 | 2.92E-01 | 1.10E+00 | 1.73E+00 | 5.28E+02 | 5.94E-03 | 5.87E-02 | 0.00E+00 | 2.64E-02 | 3.29E-01 | 1.78E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.24E+03 | 4.81E+03 | 5.08E+04 | 3.04E-01 | 1.11E+00 | 1.66E+00 | 5.61E+02 | 5.51E-03 | 6.00E-02 | 0.00E+00 | 2.74E-02 | 4.63E-01 | 2.29E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.56E+00 | 2.16E+01 | 3.78E+02 | 2.27E-03 | 8.28E-03 | 1.26E-02 | 4.18E+00 | 4.20E-05 | 4.50E-04 | 0.00E+00 | 2.04E-04 | 7.67E-01 | 3.89E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.31E+00 | 3.76E+00 | 2.82E+00 | 3.73E-05 | 1.27E-04 | 2.36E-04 | 3.09E-02 | 3.92E-07 | 8.80E-06 | 0.00E+00 | 3.36E-06 | 6.78E-02 | 2.09E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.02E+01 | 3.22E+01 | 4.46E+01 | 7.69E-04 | 3.97E-03 | 3.71E-03 | 4.86E-01 | 6.28E-06 | 2.08E-04 | 0.00E+00 | 6.94E-05 | 2.47E-01 | 3.90E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.53E+01 | 5.61E+01 | 1.90E+02 | 1.62E-03 | 1.30E-02 | 1.26E-02 | 2.08E+00 | 2.44E-05 | 8.07E-04 | 0.00E+00 | 1.46E-04 | 4.63E-01 | 8.69E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.16E+00 | 1.84E+00 | 1.34E+01 | 8.55E-05 | 7.96E-04 | 6.78E-04 | 1.47E-01 | 1.66E-06 | 3.34E-05 | 0.00E+00 | 7.72E-06 | 8.65E-01 | 1.80E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.96E+02 | 2.43E+02 | 7.01E+01 | 8.94E-04 | 4.69E-03 | 5.60E-03 | 7.68E-01 | 1.19E-05 | 2.19E-04 | 0.00E+00 | 8.06E-05 | 3.86E-02 | 9.83E-05 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.66E+01 | 2.19E+01 | 1.75E+01 | 2.48E-04 | 8.17E-04 | 1.51E-03 | 1.92E-01 | 2.44E-06 | 6.64E-05 | 0.00E+00 | 2.24E-05 | 7.46E-02 | 2.23E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 1.97E+01 | 6.90E+01 | 7.39E+01 | 2.02E-03 | 8.52E-03 | 6.74E-03 | 7.99E-01 | 1.03E-05 | 4.68E-04 | 0.00E+00 | 1.83E-04 | 2.47E-01 | 2.99E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 2.16E+02 | 7.57E+02 | 1.73E+03 | 2.23E-02 | 1.31E-01 | 1.35E-01 | 1.90E+01 | 2.22E-04 | 1.03E-02 | 0.00E+00 | 2.01E-03 | 3.46E-01 | 5.88E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 2.16E+02 | 7.57E+02 | 2.77E+03 | 2.64E-02 | 1.80E-01 | 1.71E-01 | 3.04E+01 | 3.42E-04 | 9.54E-03 | 0.00E+00 | 2.38E-03 | 4.76E-01 | 9.03E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 4.18E+02 | 1.47E+03 | 7.45E+03 | 5.46E-02 | 1.82E-01 | 4.06E-01 | 8.22E+01 | 9.25E-04 | 1.39E-02 | 0.00E+00 | 4.92E-03 | 2.48E-01 | 1.26E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 1.53E+02 | 5.38E+02 | 4.38E+03 | 3.07E-02 | 1.06E-01 | 2.11E-01 | 4.84E+01 | 4.75E-04 | 7.68E-03 | 0.00E+00 | 2.77E-03 | 3.95E-01 | 1.77E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 2.31E+01 | 8.10E+01 | 1.11E+03 | 7.82E-03 | 2.69E-02 | 5.53E-02 | 1.23E+01 | 1.23E-04 | 1.98E-03 | 0.00E+00 | 7.06E-04 | 6.64E-01 | 3.04E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 9999 | Constructi | U | N | NHH | P | Total | Total | Total | 2.90E+01 | 1.02E+02 | 4.47E+03 | 3.58E-02 | 1.16E-01 | 3.77E-01 | 4.93E+01 | 4.95E-04 | 9.97E-03 | 0.00E+00 | 3.23E-03 | 2.28E+00 | 9.75E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.10E+00 | 2.10E+01 | 2.67E+01 | 6.48E-04 | 2.96E-03 | 2.34E-03 | 2.90E-01 | 3.74E-06 | 1.47E-04 | 0.00E+00 | 5.85E-05 | 2.81E-01 | 3.56E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.40E+02 | 1.40E+03 | 4.81E+03 | 5.59E-02 | 3.59E-01 | 3.46E-01 | 5.26E+01 | 6.17E-04 | 2.48E-02 | 0.00E+00 | 5.04E-03 | 5.11E-01 | 8.79E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.85E+03 | 4.80E+03 | 2.71E+04 | 2.36E-01 | 1.75E+00 | 1.51E+00 | 2.97E+02 | 3.34E-03 | 8.22E-02 | 0.00E+00 | 2.13E-02 | 7.28E-01 | 1.39E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.15E+03 | 2.98E+03 | 2.32E+04 | 1.57E-01 | 5.54E-01 | 1.12E+00 | 2.56E+02 | 2.88E-03 | 3.82E-02 | 0.00E+00 | 1.42E-02 | 3.72E-01 | 1.93E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.24E+01 | 8.42E+01 | 8.74E+02 | 5.68E-03 | 2.13E-02 | 3.76E-02 | 9.65E+00 | 9.47E-05 | 1.35E-03 | 0.00E+00 | 5.12E-04 | 5.07E-01 | 2.25E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.55E-01 | 9.22E-01 | 2.03E+01 | 1.32E-04 | 4.94E-04 | 8.99E-04 | 2.24E-01 | 2.25E-06 | 3.19E-05 | 0.00E+00 | 1.19E-05 | 1.07E+00 | 4.88E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.76E+01 | 2.04E+02 | 1.16E+03 | 9.22E-03 | 7.69E-02 | 5.31E-02 | 1.28E+01 | 1.44E-04 | 2.76E-03 | 0.00E+00 | 8.32E-04 | 7.53E-01 | 1.41E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.78E+02 | 1.51E+03 | 1.14E+04 | 7.39E-02 | 2.67E-01 | 4.37E-01 | 1.25E+02 | 1.41E-03 | 1.49E-02 | 0.00E+00 | 6.67E-03 | 3.54E-01 | 1.87E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.91E+02 | 2.12E+03 | 2.62E+04 | 1.66E-01 | 5.84E-01 | 9.05E-01 | 2.89E+02 | 2.84E-03 | 3.29E-02 | 0.00E+00 | 1.50E-02 | 5.50E-01 | 2.67E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.45E+01 | 4.05E+02 | 8.08E+03 | 5.15E-02 | 1.80E-01 | 2.85E-01 | 8.93E+01 | 8.98E-04 | 1.03E-02 | 0.00E+00 | 4.64E-03 | 8.91E-01 | 4.44E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.49E+01 | 1.90E+02 | 5.36E+03 | 3.62E-02 | 1.24E-01 | 3.89E-01 | 5.92E+01 | 5.95E-04 | 9.48E-03 | 0.00E+00 | 3.27E-03 | 1.31E+00 | 6.28E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 9.25E+01 | 2.42E+02 | 4.91E+02 | 9.98E-03 | 4.98E-02 | 4.21E-02 | 5.33E+00 | 6.89E-05 | 2.53E-03 | 0.00E+00 | 9.01E-04 | 4.11E-01 | 5.69E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 2.61E+02 | 6.83E+02 | 2.59E+03 | 2.59E-02 | 1.87E-01 | 1.77E-01 | 2.84E+01 | 3.33E-04 | 1.21E-02 | 0.00E+00 | 2.34E-03 | 5.47E-01 | 9.74E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 1.10E+02 | 2.89E+02 | 2.20E+03 | 1.68E-02 | 1.38E-01 | 1.15E-01 | 2.42E+01 | 2.72E-04 | 6.02E-03 | 0.00E+00 | 1.51E-03 | 9.51E-01 | 1.88E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 1.10E+01 | 2.88E+01 | 3.18E+02 | 1.89E-03 | 7.02E-03 | 1.42E-02 | 3.52E+00 | 3.96E-05 | 4.58E-04 | 0.00E+00 | 1.70E-04 | 4.88E-01 | 2.75E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 6.19E+01 | 1.62E+02 | 2.74E+03 | 1.57E-02 | 5.79E-02 | 1.09E-01 | 3.02E+01 | 2.97E-04 | 3.79E-03 | 0.00E+00 | 1.42E-03 | 7.14E-01 | 3.66E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 5.92E-01 | 1.55E+00 | 4.13E+01 | 2.36E-04 | 8.71E-04 | 1.67E-03 | 4.56E-01 | 4.58E-06 | 5.71E-05 | 0.00E+00 | 2.13E-05 | 1.12E+00 | 5.92E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 9999 | Constructi | U | N | NHH | P | Total | Total | Total | 5.92E-01 | 1.55E+00 | 9.17E+01 | 6.15E-04 | 2.09E-03 | 7.00E-03 | 1.01E+00 | 1.02E-05 | 1.75E-04 | 0.00E+00 | 5.55E-05 | 2.70E+00 | 1.31E-02 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| | | | | | | | | | | | | | | | | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CY** | **Season** | **AvgDays** | **Code** | **Equipment** | **Fuel** | **MaxHP** | **Class** | **C/R** | **Pre** | **Hand** | **Port** | **County** | **Air Basin** | **Air Dist.** | **Population** | **Activity** | **Consumption** | **ROG Exhaust** | **CO Exhaust** | **NOX Exhaust** | **CO2 Exhaust** | **SO2 Exhaust** | **PM Exhaust** | **N2O Exhaust** | **CH4 Exhaust** | **CO** | **SOx** |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 6.42E+01 | 1.99E+02 | 3.10E+02 | 5.73E-03 | 3.20E-02 | 2.63E-02 | 3.37E+00 | 4.35E-05 | 1.42E-03 | 0.00E+00 | 5.17E-04 | 3.22E-01 | 4.37E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 3.07E+03 | 9.53E+03 | 2.71E+04 | 2.56E-01 | 1.98E+00 | 1.73E+00 | 2.97E+02 | 3.49E-03 | 1.10E-01 | 0.00E+00 | 2.31E-02 | 4.15E-01 | 7.32E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 3.94E+02 | 1.22E+03 | 6.94E+03 | 5.15E-02 | 4.41E-01 | 3.26E-01 | 7.62E+01 | 8.57E-04 | 1.71E-02 | 0.00E+00 | 4.64E-03 | 7.22E-01 | 1.40E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.20E+01 | 6.81E+01 | 5.26E+02 | 3.17E-03 | 1.18E-02 | 2.10E-02 | 5.81E+00 | 6.54E-05 | 7.09E-04 | 0.00E+00 | 2.86E-04 | 3.47E-01 | 1.92E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.45E+01 | 4.48E+01 | 5.20E+02 | 3.06E-03 | 1.11E-02 | 1.87E-02 | 5.74E+00 | 5.64E-05 | 6.76E-04 | 0.00E+00 | 2.76E-04 | 4.97E-01 | 2.52E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.10E+00 | 2.12E+01 | 1.64E+01 | 2.17E-04 | 7.40E-04 | 1.37E-03 | 1.80E-01 | 2.28E-06 | 5.12E-05 | 0.00E+00 | 1.96E-05 | 6.96E-02 | 2.15E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.57E+02 | 4.19E+02 | 6.02E+02 | 1.41E-02 | 6.57E-02 | 5.25E-02 | 6.53E+00 | 8.44E-05 | 3.25E-03 | 0.00E+00 | 1.28E-03 | 3.13E-01 | 4.02E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.28E+03 | 1.14E+04 | 3.07E+04 | 3.47E-01 | 2.28E+00 | 2.17E+00 | 3.36E+02 | 3.94E-03 | 1.54E-01 | 0.00E+00 | 3.13E-02 | 3.99E-01 | 6.90E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.41E+03 | 6.43E+03 | 3.11E+04 | 2.65E-01 | 2.00E+00 | 1.70E+00 | 3.41E+02 | 3.84E-03 | 9.21E-02 | 0.00E+00 | 2.39E-02 | 6.22E-01 | 1.20E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.40E+03 | 6.39E+03 | 4.31E+04 | 2.86E-01 | 1.02E+00 | 2.03E+00 | 4.76E+02 | 5.35E-03 | 6.95E-02 | 0.00E+00 | 2.58E-02 | 3.19E-01 | 1.67E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 9.98E+02 | 2.66E+03 | 2.85E+04 | 1.82E-01 | 6.81E-01 | 1.20E+00 | 3.15E+02 | 3.09E-03 | 4.33E-02 | 0.00E+00 | 1.64E-02 | 5.12E-01 | 2.32E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.43E+01 | 3.81E+01 | 8.38E+02 | 5.37E-03 | 2.00E-02 | 3.63E-02 | 9.25E+00 | 9.30E-05 | 1.29E-03 | 0.00E+00 | 4.85E-04 | 1.05E+00 | 4.88E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.54E+00 | 4.09E+00 | 1.10E+02 | 7.55E-04 | 2.78E-03 | 8.63E-03 | 1.21E+00 | 1.22E-05 | 2.21E-04 | 0.00E+00 | 6.81E-05 | 1.36E+00 | 5.97E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 5.78E+00 | 2.57E+01 | 1.52E+02 | 2.04E-03 | 1.05E-02 | 1.37E-02 | 1.66E+00 | 1.87E-05 | 7.73E-04 | 0.00E+00 | 1.84E-04 | 8.15E-01 | 1.46E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.42E+02 | 6.29E+02 | 5.24E+03 | 5.63E-02 | 1.71E-01 | 4.35E-01 | 5.76E+01 | 6.49E-04 | 1.76E-02 | 0.00E+00 | 5.08E-03 | 5.45E-01 | 2.06E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.18E+02 | 9.68E+02 | 1.16E+04 | 1.16E-01 | 4.72E-01 | 8.77E-01 | 1.28E+02 | 1.26E-03 | 3.52E-02 | 0.00E+00 | 1.05E-02 | 9.76E-01 | 2.60E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.57E+01 | 6.99E+01 | 1.27E+03 | 1.27E-02 | 5.12E-02 | 9.73E-02 | 1.39E+01 | 1.40E-04 | 3.86E-03 | 0.00E+00 | 1.14E-03 | 1.47E+00 | 4.01E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.07E+00 | 4.72E+00 | 1.27E+02 | 1.35E-03 | 5.60E-03 | 1.36E-02 | 1.40E+00 | 1.40E-05 | 4.21E-04 | 0.00E+00 | 1.21E-04 | 2.37E+00 | 5.95E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.63E+02 | 4.21E+02 | 3.04E+02 | 4.03E-03 | 1.37E-02 | 2.55E-02 | 3.34E+00 | 4.24E-05 | 9.66E-04 | 0.00E+00 | 3.63E-04 | 6.53E-02 | 2.01E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 9.75E+02 | 2.57E+03 | 3.58E+03 | 5.74E-02 | 3.59E-01 | 2.89E-01 | 3.89E+01 | 5.03E-04 | 1.32E-02 | 0.00E+00 | 5.18E-03 | 2.79E-01 | 3.92E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.30E+04 | 3.43E+04 | 8.10E+04 | 6.82E-01 | 5.85E+00 | 4.61E+00 | 8.87E+02 | 1.04E-02 | 2.65E-01 | 0.00E+00 | 6.16E-02 | 3.41E-01 | 6.06E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 9.73E+02 | 2.56E+03 | 1.18E+04 | 7.90E-02 | 7.48E-01 | 4.75E-01 | 1.30E+02 | 1.46E-03 | 2.39E-02 | 0.00E+00 | 7.13E-03 | 5.84E-01 | 1.14E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.15E+02 | 8.29E+02 | 6.44E+03 | 3.57E-02 | 1.43E-01 | 2.13E-01 | 7.11E+01 | 8.00E-04 | 7.21E-03 | 0.00E+00 | 3.22E-03 | 3.46E-01 | 1.93E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 5.08E+02 | 1.34E+03 | 2.09E+04 | 1.13E-01 | 4.48E-01 | 6.25E-01 | 2.30E+02 | 2.59E-03 | 2.25E-02 | 0.00E+00 | 1.02E-02 | 6.69E-01 | 3.88E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 7.16E+01 | 1.89E+02 | 4.41E+03 | 2.40E-02 | 9.46E-02 | 1.35E-01 | 4.87E+01 | 5.48E-04 | 4.80E-03 | 0.00E+00 | 2.16E-03 | 1.00E+00 | 5.82E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.10E+00 | 2.31E+01 | 2.66E+01 | 8.69E-04 | 3.26E-03 | 2.50E-03 | 2.87E-01 | 3.71E-06 | 1.90E-04 | 0.00E+00 | 7.84E-05 | 2.82E-01 | 3.21E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.59E+03 | 1.31E+04 | 3.94E+04 | 5.79E-01 | 3.04E+00 | 3.42E+00 | 4.30E+02 | 5.05E-03 | 2.67E-01 | 0.00E+00 | 5.23E-02 | 4.65E-01 | 7.71E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.55E+03 | 4.43E+03 | 2.45E+04 | 2.64E-01 | 1.62E+00 | 1.73E+00 | 2.68E+02 | 3.02E-03 | 9.67E-02 | 0.00E+00 | 2.38E-02 | 7.31E-01 | 1.36E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.34E+03 | 3.81E+03 | 2.86E+04 | 2.39E-01 | 7.73E-01 | 1.81E+00 | 3.16E+02 | 3.55E-03 | 6.63E-02 | 0.00E+00 | 2.16E-02 | 4.06E-01 | 1.87E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 9.16E+02 | 2.61E+03 | 3.06E+04 | 2.42E-01 | 9.01E-01 | 1.74E+00 | 3.38E+02 | 3.31E-03 | 6.54E-02 | 0.00E+00 | 2.18E-02 | 6.91E-01 | 2.54E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 9.47E+00 | 2.70E+01 | 5.68E+02 | 4.50E-03 | 1.67E-02 | 3.31E-02 | 6.26E+00 | 6.29E-05 | 1.23E-03 | 0.00E+00 | 4.06E-04 | 1.24E+00 | 4.67E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 1000 | Constructio | U | N | NHH | NP | Total | Total | Total | 9.47E+00 | 2.69E+01 | 8.04E+02 | 6.86E-03 | 2.59E-02 | 7.35E-02 | 8.85E+00 | 8.90E-05 | 2.07E-03 | 0.00E+00 | 6.19E-04 | 1.92E+00 | 6.61E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.11E+03 | 2.54E+03 | 1.59E+03 | 2.20E-02 | 7.33E-02 | 1.36E-01 | 1.75E+01 | 2.22E-04 | 5.78E-03 | 0.00E+00 | 1.98E-03 | 5.78E-02 | 1.75E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.01E+04 | 2.35E+04 | 2.74E+04 | 2.87E-01 | 2.37E+00 | 2.01E+00 | 2.99E+02 | 3.87E-03 | 6.26E-02 | 0.00E+00 | 2.59E-02 | 2.02E-01 | 3.30E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 5.28E+03 | 1.23E+04 | 2.39E+04 | 1.42E-01 | 1.64E+00 | 1.10E+00 | 2.63E+02 | 3.08E-03 | 4.83E-02 | 0.00E+00 | 1.29E-02 | 2.67E-01 | 5.01E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 5.78E-01 | 1.76E+00 | 7.56E+00 | 1.35E-04 | 6.01E-04 | 7.84E-04 | 8.25E-02 | 9.67E-07 | 6.38E-05 | 0.00E+00 | 1.22E-05 | 6.83E-01 | 1.10E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 7.07E+02 | 2.15E+03 | 1.28E+04 | 1.65E-01 | 8.66E-01 | 1.12E+00 | 1.40E+02 | 1.58E-03 | 6.33E-02 | 0.00E+00 | 1.49E-02 | 8.05E-01 | 1.47E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 6.69E+02 | 2.04E+03 | 1.20E+04 | 1.23E-01 | 3.80E-01 | 9.69E-01 | 1.33E+02 | 1.49E-03 | 3.85E-02 | 0.00E+00 | 1.11E-02 | 3.73E-01 | 1.47E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 5.94E+01 | 1.81E+02 | 4.66E+03 | 4.45E-02 | 1.79E-01 | 3.47E-01 | 5.13E+01 | 5.16E-04 | 1.36E-02 | 0.00E+00 | 4.01E-03 | 1.98E+00 | 5.71E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructio | U | N | NHH | NP | Total | Total | Total | 6.27E+00 | 1.91E+01 | 7.06E+02 | 7.13E-03 | 2.96E-02 | 7.38E-02 | 7.76E+00 | 7.80E-05 | 2.25E-03 | 0.00E+00 | 6.43E-04 | 3.10E+00 | 8.18E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Dumpers/T | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.39E+01 | 2.52E+01 | 8.74E+00 | 1.16E-04 | 3.95E-04 | 7.33E-04 | 9.60E-02 | 1.22E-06 | 2.82E-05 | 0.00E+00 | 1.05E-05 | 3.14E-02 | 9.67E-05 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 15 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.91E+02 | 3.62E+02 | 1.67E+02 | 2.13E-03 | 1.12E-02 | 1.33E-02 | 1.83E+00 | 2.85E-05 | 5.21E-04 | 0.00E+00 | 1.92E-04 | 6.17E-02 | 1.57E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 3.24E+01 | 6.13E+01 | 3.69E+01 | 4.88E-04 | 1.67E-03 | 3.08E-03 | 4.05E-01 | 5.13E-06 | 1.15E-04 | 0.00E+00 | 4.40E-05 | 5.44E-02 | 1.68E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.97E+01 | 9.53E+01 | 1.22E+02 | 1.73E-03 | 1.09E-02 | 9.65E-03 | 1.33E+00 | 1.72E-05 | 4.38E-04 | 0.00E+00 | 1.56E-04 | 2.30E-01 | 3.62E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.21E+01 | 1.57E+02 | 5.80E+02 | 4.28E-03 | 4.01E-02 | 3.28E-02 | 6.36E+00 | 7.46E-05 | 1.85E-03 | 0.00E+00 | 3.87E-04 | 5.09E-01 | 9.48E-04 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.13E+02 | 2.17E+02 | 1.05E+03 | 6.10E-03 | 6.36E-02 | 4.25E-02 | 1.16E+01 | 1.30E-04 | 2.05E-03 | 0.00E+00 | 5.51E-04 | 5.85E-01 | 1.20E-03 |
| 2019 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.63E+02 | 5.04E+02 | 5.80E+03 | 2.69E-02 | 1.19E-01 | 1.76E-01 | 6.41E+01 | 6.29E-04 | 6.11E-03 | 0.00E+00 | 2.42E-03 | 4.70E-01 | 2.49E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.80E+00 | 1.98E+01 | 1.68E+01 | 2.23E-04 | 7.60E-04 | 1.41E-03 | 1.85E-01 | 2.34E-06 | 5.45E-05 | 0.00E+00 | 2.01E-05 | 7.68E-02 | 2.37E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 5.12E+02 | 1.17E+03 | 1.51E+03 | 4.86E-02 | 1.78E-01 | 1.40E-01 | 1.63E+01 | 2.11E-04 | 1.07E-02 | 0.00E+00 | 4.38E-03 | 3.05E-01 | 3.62E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 6.03E+02 | 1.37E+03 | 4.35E+03 | 6.25E-02 | 3.30E-01 | 3.76E-01 | 4.75E+01 | 5.57E-04 | 2.94E-02 | 0.00E+00 | 5.64E-03 | 4.80E-01 | 8.11E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 3.75E+02 | 8.54E+02 | 4.99E+03 | 5.19E-02 | 3.24E-01 | 3.49E-01 | 5.47E+01 | 6.16E-04 | 1.96E-02 | 0.00E+00 | 4.69E-03 | 7.59E-01 | 1.44E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 4.52E+01 | 1.03E+02 | 9.06E+02 | 7.26E-03 | 2.42E-02 | 5.71E-02 | 9.99E+00 | 1.12E-04 | 2.09E-03 | 0.00E+00 | 6.55E-04 | 4.71E-01 | 2.19E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 4.63E+01 | 1.06E+02 | 1.12E+03 | 8.41E-03 | 3.33E-02 | 6.31E-02 | 1.23E+01 | 1.21E-04 | 2.37E-03 | 0.00E+00 | 7.59E-04 | 6.30E-01 | 2.29E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Plate Com | D | 15 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.89E+02 | 3.11E+02 | 6.12E+01 | 7.80E-04 | 4.09E-03 | 4.88E-03 | 6.70E-01 | 1.04E-05 | 1.91E-04 | 0.00E+00 | 7.03E-05 | 2.63E-02 | 6.71E-05 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 15 | Constructio | U | P | NHH | NP | Total | Total | Total | 3.55E+02 | 6.76E+02 | 1.95E+02 | 2.49E-03 | 1.30E-02 | 1.56E-02 | 2.14E+00 | 3.32E-05 | 6.08E-04 | 0.00E+00 | 2.24E-04 | 3.86E-02 | 9.83E-05 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.48E+02 | 2.83E+02 | 1.72E+02 | 2.27E-03 | 7.76E-03 | 1.44E-02 | 1.89E+00 | 2.39E-05 | 5.37E-04 | 0.00E+00 | 2.05E-04 | 5.49E-02 | 1.69E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.62E+02 | 8.86E+02 | 1.06E+03 | 2.40E-02 | 1.08E-01 | 9.03E-02 | 1.15E+01 | 1.49E-04 | 5.66E-03 | 0.00E+00 | 2.17E-03 | 2.43E-01 | 3.36E-04 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population Activity | gal/day for total population Consumption | ton/day ROG Exhaust | ton/day CO Exhaust | ton/day NOX Exhaust | ton/day CO2 Exhaust | ton/day SO2 Exhaust | ton/day PM Exhaust | ton/day N2O Exhaust | ton/day CH4 Exhaust | lb/hr/equipment CO | lb/hr/equipment SOx |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.48E+03 | 4.76E+03 | 1.28E+04 | 1.37E-01 | 9.21E-01 | 9.03E-01 | 1.40E+02 | 1.65E-03 | 6.42E-02 | 0.00E+00 | 1.24E-02 | 3.87E-01 | 6.91E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.97E+02 | 1.91E+03 | 9.42E+03 | 7.40E-02 | 5.84E-01 | 5.10E-01 | 1.03E+02 | 1.16E-03 | 2.73E-02 | 0.00E+00 | 6.68E-03 | 6.11E-01 | 1.22E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.41E+02 | 2.71E+02 | 1.88E+03 | 1.14E-02 | 4.34E-02 | 8.92E-02 | 2.08E+01 | 2.34E-04 | 3.03E-03 | 0.00E+00 | 1.03E-03 | 3.20E-01 | 1.72E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 9.91E+01 | 1.90E+02 | 1.89E+03 | 1.09E-02 | 4.38E-02 | 7.94E-02 | 2.08E+01 | 2.05E-04 | 2.85E-03 | 0.00E+00 | 9.88E-04 | 4.60E-01 | 2.15E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.29E+01 | 6.95E+01 | 2.98E+02 | 4.23E-03 | 2.30E-02 | 2.49E-02 | 3.26E+00 | 3.83E-05 | 1.91E-03 | 0.00E+00 | 3.82E-04 | 6.61E-01 | 1.10E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.09E+02 | 6.36E+02 | 4.30E+03 | 4.45E-02 | 2.84E-01 | 2.87E-01 | 4.71E+01 | 5.30E-04 | 1.60E-02 | 0.00E+00 | 4.02E-03 | 8.91E-01 | 1.66E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.04E+02 | 6.20E+02 | 5.88E+03 | 4.72E-02 | 1.56E-01 | 3.52E-01 | 6.49E+01 | 7.30E-04 | 1.28E-02 | 0.00E+00 | 4.26E-03 | 5.04E-01 | 2.35E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.62E+02 | 1.71E+03 | 2.49E+04 | 1.89E-01 | 7.21E-01 | 1.33E+00 | 2.74E+02 | 2.69E-03 | 4.98E-02 | 0.00E+00 | 1.70E-02 | 8.45E-01 | 3.15E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.89E+01 | 5.72E+01 | 1.44E+03 | 1.10E-02 | 4.17E-02 | 7.93E-02 | 1.59E+01 | 1.60E-04 | 2.93E-03 | 0.00E+00 | 9.90E-04 | 1.46E+00 | 5.58E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.53E+01 | 3.47E+01 | 1.99E+01 | 2.64E-04 | 9.01E-04 | 1.67E-03 | 2.19E-01 | 2.78E-06 | 6.23E-05 | 0.00E+00 | 2.38E-05 | 5.19E-02 | 1.60E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.29E+01 | 2.95E+01 | 3.27E+01 | 1.04E-03 | 3.80E-03 | 3.02E-03 | 3.53E-01 | 4.57E-06 | 2.31E-04 | 0.00E+00 | 9.35E-05 | 2.57E-01 | 3.09E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.86E+02 | 4.26E+02 | 1.06E+03 | 1.51E-02 | 8.00E-02 | 9.10E-02 | 1.16E+01 | 1.36E-04 | 7.17E-03 | 0.00E+00 | 1.36E-03 | 3.76E-01 | 6.39E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.74E+01 | 2.00E+02 | 9.21E+02 | 9.44E-03 | 5.94E-02 | 6.40E-02 | 1.01E+01 | 1.14E-04 | 3.60E-03 | 0.00E+00 | 8.52E-04 | 5.94E-01 | 1.14E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.46E+01 | 5.64E+01 | 3.12E+02 | 2.43E-03 | 8.16E-03 | 1.95E-02 | 3.45E+00 | 3.88E-05 | 7.02E-04 | 0.00E+00 | 2.20E-04 | 2.89E-01 | 1.37E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.17E+01 | 1.45E+01 | 9.41E+00 | 1.92E-04 | 8.64E-04 | 7.76E-04 | 1.02E-01 | 1.32E-06 | 4.59E-05 | 0.00E+00 | 1.73E-05 | 1.19E-01 | 1.82E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.35E+00 | 2.91E+00 | 8.45E+00 | 8.27E-05 | 5.85E-04 | 5.86E-04 | 9.25E-02 | 1.09E-06 | 3.94E-05 | 0.00E+00 | 7.46E-06 | 4.02E-01 | 7.47E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.76E+00 | 2.18E+00 | 8.50E+00 | 5.99E-05 | 5.08E-04 | 4.54E-04 | 9.34E-02 | 1.05E-06 | 2.29E-05 | 0.00E+00 | 5.40E-06 | 4.66E-01 | 9.64E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.52E+00 | 4.36E+00 | 2.66E+01 | 1.42E-04 | 6.00E-04 | 1.25E-03 | 2.94E-01 | 3.30E-06 | 4.10E-05 | 0.00E+00 | 1.28E-05 | 2.75E-01 | 1.52E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.93E+01 | 3.63E+01 | 3.63E+02 | 1.83E-03 | 8.58E-03 | 1.52E-02 | 4.01E+00 | 3.94E-05 | 5.22E-04 | 0.00E+00 | 1.65E-04 | 4.72E-01 | 2.17E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.60E+00 | 4.46E+00 | 6.99E+01 | 3.56E-04 | 1.65E-03 | 3.03E-03 | 7.72E-01 | 7.77E-06 | 1.02E-04 | 0.00E+00 | 3.21E-05 | 7.41E-01 | 3.49E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.65E+03 | 3.40E+03 | 9.56E+02 | 1.22E-02 | 6.39E-02 | 7.63E-02 | 1.05E+01 | 1.63E-04 | 2.98E-03 | 0.00E+00 | 1.10E-03 | 3.76E-02 | 9.59E-05 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.21E+00 | 1.20E+01 | 2.00E+01 | 3.02E-04 | 1.70E-03 | 1.58E-03 | 2.18E-01 | 2.82E-06 | 7.90E-05 | 0.00E+00 | 2.73E-05 | 2.83E-01 | 4.67E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.34E+02 | 1.97E+02 | 7.20E+02 | 5.49E-03 | 4.87E-02 | 4.36E-02 | 7.90E+00 | 9.26E-05 | 2.60E-03 | 0.00E+00 | 4.95E-04 | 4.94E-01 | 9.40E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.33E+01 | 1.22E+02 | 8.59E+02 | 4.95E-03 | 5.05E-02 | 3.83E-02 | 9.43E+00 | 1.06E-04 | 1.84E-03 | 0.00E+00 | 4.47E-04 | 8.27E-01 | 1.74E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.76E+01 | 2.58E+01 | 2.98E+02 | 1.32E-03 | 6.15E-03 | 1.13E-02 | 3.29E+00 | 3.70E-05 | 3.43E-04 | 0.00E+00 | 1.19E-04 | 4.76E-01 | 2.87E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.40E+01 | 7.46E+01 | 2.88E+01 | 3.67E-04 | 1.93E-03 | 2.30E-03 | 3.15E-01 | 4.91E-06 | 8.98E-05 | 0.00E+00 | 3.31E-05 | 5.16E-02 | 1.32E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.63E+01 | 7.85E+01 | 1.18E+02 | 1.56E-03 | 5.32E-03 | 9.85E-03 | 1.29E+00 | 1.64E-05 | 3.68E-04 | 0.00E+00 | 1.41E-04 | 1.35E-01 | 4.17E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.76E+03 | 3.04E+03 | 4.63E+03 | 1.50E-01 | 5.30E-01 | 4.25E-01 | 4.99E+01 | 6.45E-04 | 3.31E-02 | 0.00E+00 | 1.36E-02 | 3.49E-01 | 4.25E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.39E+03 | 4.11E+03 | 1.22E+04 | 1.75E-01 | 9.13E-01 | 1.07E+00 | 1.33E+02 | 1.56E-03 | 8.38E-02 | 0.00E+00 | 1.57E-02 | 4.44E-01 | 7.61E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.62E+02 | 4.50E+02 | 2.95E+03 | 3.03E-02 | 1.89E-01 | 2.12E-01 | 3.24E+01 | 3.64E-04 | 1.17E-02 | 0.00E+00 | 2.73E-03 | 8.39E-01 | 1.62E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.35E+01 | 4.04E+01 | 4.08E+02 | 3.23E-03 | 1.10E-02 | 2.65E-02 | 4.50E+00 | 5.06E-05 | 9.83E-04 | 0.00E+00 | 2.91E-04 | 5.47E-01 | 2.51E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.99E+01 | 5.15E+01 | 7.26E+02 | 5.38E-03 | 2.24E-02 | 4.24E-02 | 8.01E+00 | 7.86E-05 | 1.60E-03 | 0.00E+00 | 4.86E-04 | 8.70E-01 | 3.05E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.20E-01 | 1.24E+00 | 3.30E+01 | 2.45E-04 | 1.02E-03 | 1.97E-03 | 3.63E-01 | 3.65E-06 | 7.37E-05 | 0.00E+00 | 2.21E-05 | 1.64E+00 | 5.90E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 15 | Constructi | U | P | NHH | P | Total | Total | Total | 5.87E+00 | 1.30E+01 | 6.16E+00 | 7.85E-05 | 4.12E-04 | 4.91E-04 | 6.74E-02 | 1.05E-06 | 1.92E-05 | 0.00E+00 | 7.08E-06 | 6.31E-02 | 1.61E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 25 | Constructi | U | P | NHH | P | Total | Total | Total | 1.76E+01 | 3.91E+01 | 2.85E+01 | 3.77E-04 | 1.29E-03 | 2.38E-03 | 3.13E-01 | 3.97E-06 | 8.90E-05 | 0.00E+00 | 3.40E-05 | 6.58E-02 | 2.03E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 7.68E+01 | 1.77E+02 | 2.50E+02 | 1.73E-03 | 1.95E-02 | 1.55E-02 | 2.74E+00 | 3.54E-05 | 1.73E-04 | 0.00E+00 | 1.56E-04 | 2.20E-01 | 4.01E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 2.36E+02 | 5.43E+02 | 1.90E+03 | 7.59E-03 | 1.26E-01 | 6.31E-02 | 2.09E+01 | 2.45E-04 | 1.08E-03 | 0.00E+00 | 6.85E-04 | 4.66E-01 | 9.04E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 5.46E+01 | 1.26E+02 | 8.04E+02 | 2.52E-03 | 4.73E-02 | 1.17E-02 | 8.85E+00 | 9.95E-05 | 3.18E-04 | 0.00E+00 | 2.27E-04 | 7.54E-01 | 1.59E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 4.69E+01 | 1.08E+02 | 9.17E+02 | 2.56E-03 | 1.85E-02 | 8.72E-03 | 1.01E+01 | 1.14E-04 | 2.36E-04 | 0.00E+00 | 2.31E-04 | 3.42E-01 | 2.11E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 1.04E+02 | 2.40E+02 | 3.38E+03 | 9.40E-03 | 6.62E-02 | 3.15E-02 | 3.74E+01 | 3.67E-04 | 8.66E-04 | 0.00E+00 | 8.48E-04 | 5.51E-01 | 3.05E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 1.12E+01 | 2.57E+01 | 7.13E+02 | 1.99E-03 | 1.40E-02 | 6.67E-03 | 7.89E+00 | 7.93E-05 | 1.83E-04 | 0.00E+00 | 1.79E-04 | 1.09E+00 | 6.18E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 1000 | Constructi | U | N | NHH | P | Total | Total | Total | 1.87E+01 | 4.30E+01 | 1.80E+03 | 5.25E-03 | 3.53E-02 | 8.56E-02 | 1.99E+01 | 2.01E-04 | 1.14E-03 | 0.00E+00 | 4.73E-04 | 1.64E+00 | 9.33E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.17E+01 | 8.31E+01 | 6.22E+01 | 8.23E-04 | 2.81E-03 | 5.20E-03 | 6.82E-01 | 8.66E-06 | 1.94E-04 | 0.00E+00 | 7.43E-05 | 6.76E-02 | 2.08E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.17E+02 | 3.17E+03 | 3.64E+03 | 6.08E-02 | 3.87E-01 | 2.95E-01 | 3.96E+01 | 5.12E-04 | 1.27E-02 | 0.00E+00 | 5.49E-03 | 2.44E-01 | 3.23E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.22E+03 | 8.61E+03 | 2.89E+04 | 2.51E-01 | 2.14E+00 | 1.60E+00 | 3.17E+02 | 3.71E-03 | 8.84E-02 | 0.00E+00 | 2.26E-02 | 4.97E-01 | 8.63E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.28E+03 | 1.66E+04 | 8.48E+04 | 5.83E-01 | 5.51E+00 | 3.21E+00 | 9.31E+02 | 1.05E-02 | 1.62E-01 | 0.00E+00 | 5.26E-02 | 6.63E-01 | 1.26E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.74E+03 | 6.75E+03 | 4.85E+04 | 2.79E-01 | 1.11E+00 | 1.52E+00 | 5.35E+02 | 6.02E-03 | 5.19E-02 | 0.00E+00 | 2.52E-02 | 3.27E-01 | 1.78E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.26E+03 | 4.87E+03 | 5.15E+04 | 2.92E-01 | 1.12E+00 | 1.47E+00 | 5.69E+02 | 5.58E-03 | 5.33E-02 | 0.00E+00 | 2.63E-02 | 4.59E-01 | 2.29E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.64E+00 | 2.19E+01 | 3.84E+02 | 2.17E-03 | 8.32E-03 | 1.11E-02 | 4.24E+00 | 4.26E-05 | 4.00E-04 | 0.00E+00 | 1.96E-04 | 7.60E-01 | 3.89E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.35E+00 | 3.81E+00 | 2.86E+00 | 3.78E-05 | 1.29E-04 | 2.39E-04 | 3.14E-02 | 3.98E-07 | 8.93E-06 | 0.00E+00 | 3.41E-06 | 6.78E-02 | 2.09E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.05E+01 | 3.27E+01 | 4.52E+01 | 6.92E-04 | 3.95E-03 | 3.64E-03 | 4.93E-01 | 6.37E-06 | 1.84E-04 | 0.00E+00 | 6.25E-05 | 2.42E-01 | 3.90E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.58E+01 | 5.69E+01 | 1.92E+02 | 1.49E-03 | 1.31E-02 | 1.17E-02 | 2.11E+00 | 2.47E-05 | 7.08E-04 | 0.00E+00 | 1.35E-04 | 4.61E-01 | 8.69E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.17E+00 | 1.87E+00 | 1.36E+01 | 8.06E-05 | 8.07E-04 | 6.11E-04 | 1.49E-01 | 1.68E-06 | 3.01E-05 | 0.00E+00 | 7.28E-06 | 8.65E-01 | 1.80E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.00E+02 | 2.47E+02 | 7.11E+01 | 9.06E-04 | 4.75E-03 | 5.68E-03 | 7.79E-01 | 1.21E-05 | 2.22E-04 | 0.00E+00 | 8.18E-05 | 3.86E-02 | 9.83E-05 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.70E+01 | 2.22E+01 | 1.77E+01 | 2.48E-04 | 8.21E-04 | 1.52E-03 | 1.95E-01 | 2.47E-06 | 6.44E-05 | 0.00E+00 | 2.24E-05 | 7.40E-02 | 2.23E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 1.99E+01 | 7.00E+01 | 7.49E+01 | 1.86E-03 | 8.47E-03 | 6.62E-03 | 8.10E-01 | 1.05E-05 | 4.22E-04 | 0.00E+00 | 1.68E-04 | 2.42E-01 | 2.99E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 2.19E+02 | 7.67E+02 | 1.76E+03 | 2.08E-02 | 1.32E-01 | 1.27E-01 | 1.92E+01 | 2.26E-04 | 9.20E-03 | 0.00E+00 | 1.88E-03 | 3.44E-01 | 5.88E-04 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 175 | Constructio | U | P | NHH | P | Total | Total | Total | 2.19E+02 | 7.67E+02 | 2.81E+03 | 2.48E-02 | 1.82E-01 | 1.56E-01 | 3.08E+01 | 3.47E-04 | 8.56E-03 | 0.00E+00 | 2.24E-03 | 4.75E-01 | 9.03E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 250 | Constructio | U | N | NHH | P | Total | Total | Total | 4.24E+02 | 1.49E+03 | 7.55E+03 | 5.24E-02 | 1.81E-01 | 3.68E-01 | 8.33E+01 | 9.38E-04 | 1.27E-02 | 0.00E+00 | 4.72E-03 | 2.44E-01 | 1.26E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 500 | Constructio | U | N | NHH | P | Total | Total | Total | 1.55E+02 | 5.45E+02 | 4.44E+03 | 2.96E-02 | 1.05E-01 | 1.92E-01 | 4.91E+01 | 4.81E-04 | 7.00E-03 | 0.00E+00 | 2.67E-03 | 3.84E-01 | 1.77E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 750 | Constructio | U | N | NHH | P | Total | Total | Total | 2.34E+01 | 8.21E+01 | 1.13E+03 | 7.54E-03 | 2.65E-02 | 5.01E-02 | 1.24E+01 | 1.25E-04 | 1.80E-03 | 0.00E+00 | 6.80E-04 | 6.45E-01 | 3.04E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 9999 | Constructio | U | N | NHH | P | Total | Total | Total | 2.94E+01 | 1.03E+02 | 4.53E+03 | 3.45E-02 | 1.13E-01 | 3.63E-01 | 5.00E+01 | 5.02E-04 | 9.25E-03 | 0.00E+00 | 3.11E-03 | 2.19E+00 | 9.75E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.21E+00 | 2.13E+01 | 2.71E+01 | 6.00E-04 | 2.94E-03 | 2.30E-03 | 2.93E-01 | 3.79E-06 | 1.32E-04 | 0.00E+00 | 5.41E-05 | 2.76E-01 | 3.56E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 5.48E+02 | 1.42E+03 | 4.87E+03 | 5.24E-02 | 3.62E-01 | 3.25E-01 | 5.33E+01 | 6.25E-04 | 2.21E-02 | 0.00E+00 | 4.73E-03 | 5.09E-01 | 8.79E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.87E+03 | 4.86E+03 | 2.74E+04 | 2.23E-01 | 1.77E+00 | 1.37E+00 | 3.01E+02 | 3.39E-03 | 7.36E-02 | 0.00E+00 | 2.01E-02 | 7.28E-01 | 1.39E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.16E+03 | 3.02E+03 | 2.35E+04 | 1.51E-01 | 5.55E-01 | 1.01E+00 | 2.59E+02 | 2.92E-03 | 3.46E-02 | 0.00E+00 | 1.36E-02 | 3.68E-01 | 1.93E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.29E+01 | 8.53E+01 | 8.86E+02 | 5.47E-03 | 2.12E-02 | 3.40E-02 | 9.78E+00 | 9.60E-05 | 1.23E-03 | 0.00E+00 | 4.94E-04 | 4.96E-01 | 2.25E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.60E-01 | 9.34E-01 | 2.05E+01 | 1.27E-04 | 4.90E-04 | 8.13E-04 | 2.27E-01 | 2.28E-06 | 2.90E-05 | 0.00E+00 | 1.15E-05 | 1.05E+00 | 4.88E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 3.81E+01 | 2.07E+02 | 1.18E+03 | 8.66E-03 | 7.79E-02 | 4.72E-02 | 1.29E+01 | 1.46E-04 | 2.42E-03 | 0.00E+00 | 7.81E-04 | 7.53E-01 | 1.41E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.82E+02 | 1.53E+03 | 1.15E+04 | 7.08E-02 | 2.68E-01 | 3.85E-01 | 1.27E+02 | 1.43E-03 | 1.32E-02 | 0.00E+00 | 6.39E-03 | 3.51E-01 | 1.87E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.97E+02 | 2.15E+03 | 2.65E+04 | 1.60E-01 | 5.86E-01 | 8.04E-01 | 2.93E+02 | 2.87E-03 | 2.94E-02 | 0.00E+00 | 1.44E-02 | 5.44E-01 | 2.67E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 7.55E+01 | 4.10E+02 | 8.19E+03 | 4.95E-02 | 1.81E-01 | 2.53E-01 | 9.05E+01 | 9.10E-04 | 9.14E-03 | 0.00E+00 | 4.47E-03 | 8.82E-01 | 4.44E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.54E+01 | 1.92E+02 | 5.43E+03 | 3.47E-02 | 1.24E-01 | 3.74E-01 | 6.00E+01 | 6.03E-04 | 8.67E-03 | 0.00E+00 | 3.13E-03 | 1.29E+00 | 6.28E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 50 | Constructio | U | P | NHH | P | Total | Total | Total | 9.39E+01 | 2.46E+02 | 4.97E+02 | 9.01E-03 | 4.96E-02 | 4.13E-02 | 5.40E+00 | 6.99E-05 | 2.22E-03 | 0.00E+00 | 8.13E-04 | 4.03E-01 | 5.69E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 120 | Constructio | U | P | NHH | P | Total | Total | Total | 2.65E+02 | 6.93E+02 | 2.63E+03 | 2.40E-02 | 1.89E-01 | 1.65E-01 | 2.88E+01 | 3.38E-04 | 1.05E-02 | 0.00E+00 | 2.16E-03 | 5.44E-01 | 9.74E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 175 | Constructio | U | P | NHH | P | Total | Total | Total | 1.12E+02 | 2.93E+02 | 2.23E+03 | 1.59E-02 | 1.40E-01 | 1.03E-01 | 2.45E+01 | 2.76E-04 | 5.39E-03 | 0.00E+00 | 1.43E-03 | 9.51E-01 | 1.88E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 250 | Constructio | U | N | NHH | P | Total | Total | Total | 1.11E+01 | 2.92E+01 | 3.23E+02 | 1.81E-03 | 7.06E-03 | 1.26E-02 | 3.57E+00 | 4.01E-05 | 4.11E-04 | 0.00E+00 | 1.64E-04 | 4.84E-01 | 2.75E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 500 | Constructio | U | N | NHH | P | Total | Total | Total | 6.28E+01 | 1.64E+02 | 2.78E+03 | 1.52E-02 | 5.82E-02 | 9.71E-02 | 3.07E+01 | 3.01E-04 | 3.41E-03 | 0.00E+00 | 1.37E-03 | 7.09E-01 | 3.66E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 750 | Constructio | U | N | NHH | P | Total | Total | Total | 6.00E-01 | 1.57E+00 | 4.19E+01 | 2.29E-04 | 8.77E-04 | 1.49E-03 | 4.62E-01 | 4.65E-06 | 5.15E-05 | 0.00E+00 | 2.06E-05 | 1.12E+00 | 5.92E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 9999 | Constructio | U | N | NHH | P | Total | Total | Total | 6.00E-01 | 1.57E+00 | 9.30E+01 | 5.96E-04 | 2.08E-03 | 6.68E-03 | 1.03E+00 | 1.03E-05 | 1.61E-04 | 0.00E+00 | 5.37E-05 | 2.65E+00 | 1.31E-02 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 6.51E+01 | 2.02E+02 | 3.14E+02 | 5.24E-03 | 3.20E-02 | 2.58E-02 | 3.41E+00 | 4.41E-05 | 1.23E-03 | 0.00E+00 | 4.73E-04 | 3.17E-01 | 4.37E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 3.12E+03 | 9.66E+03 | 2.75E+04 | 2.39E-01 | 2.00E+00 | 1.61E+00 | 3.01E+02 | 3.54E-03 | 9.50E-02 | 0.00E+00 | 2.16E-02 | 4.14E-01 | 7.32E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 3.99E+02 | 1.24E+03 | 7.04E+03 | 4.87E-02 | 4.47E-01 | 2.91E-01 | 7.72E+01 | 8.69E-04 | 1.52E-02 | 0.00E+00 | 4.39E-03 | 7.22E-01 | 1.40E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.23E+01 | 6.91E+01 | 5.34E+02 | 3.04E-03 | 1.19E-02 | 1.86E-02 | 5.89E+00 | 6.63E-05 | 6.29E-04 | 0.00E+00 | 2.74E-04 | 3.44E-01 | 1.92E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.47E+01 | 4.54E+01 | 5.27E+02 | 2.94E-03 | 1.12E-02 | 1.65E-02 | 5.82E+00 | 5.72E-05 | 6.02E-04 | 0.00E+00 | 2.66E-04 | 4.93E-01 | 2.52E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.21E+00 | 2.16E+01 | 1.66E+01 | 2.20E-04 | 7.50E-04 | 1.39E-03 | 1.82E-01 | 2.31E-06 | 5.19E-05 | 0.00E+00 | 1.98E-05 | 6.96E-02 | 2.15E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.60E+02 | 4.25E+02 | 6.10E+02 | 1.31E-02 | 6.54E-02 | 5.15E-02 | 6.62E+00 | 8.55E-05 | 2.90E-03 | 0.00E+00 | 1.18E-03 | 3.08E-01 | 4.02E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.34E+03 | 1.16E+04 | 3.11E+04 | 3.25E-01 | 2.30E+00 | 2.04E+00 | 3.40E+02 | 3.99E-03 | 1.37E-01 | 0.00E+00 | 2.93E-02 | 3.97E-01 | 6.90E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.45E+03 | 6.51E+03 | 3.15E+04 | 2.49E-01 | 2.02E+00 | 1.53E+00 | 3.46E+02 | 3.89E-03 | 8.23E-02 | 0.00E+00 | 2.25E-02 | 6.21E-01 | 1.20E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.43E+03 | 6.48E+03 | 4.37E+04 | 2.74E-01 | 1.02E+00 | 1.83E+00 | 4.82E+02 | 5.43E-03 | 6.28E-02 | 0.00E+00 | 2.48E-02 | 3.16E-01 | 1.67E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.01E+03 | 2.70E+03 | 2.89E+04 | 1.75E-01 | 6.76E-01 | 1.08E+00 | 3.19E+02 | 3.13E-03 | 3.92E-02 | 0.00E+00 | 1.58E-02 | 5.01E-01 | 2.32E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.45E+01 | 3.87E+01 | 8.49E+02 | 5.18E-03 | 1.98E-02 | 3.28E-02 | 9.38E+00 | 9.43E-05 | 1.17E-03 | 0.00E+00 | 4.67E-04 | 1.03E+00 | 4.88E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.56E+00 | 4.15E+00 | 1.12E+02 | 7.22E-04 | 2.73E-03 | 8.30E-03 | 1.23E+00 | 1.24E-05 | 2.04E-04 | 0.00E+00 | 6.52E-05 | 1.32E+00 | 5.97E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 5.87E+00 | 2.60E+01 | 1.54E+02 | 1.96E-03 | 1.06E-02 | 1.29E-02 | 1.68E+00 | 1.89E-05 | 7.30E-04 | 0.00E+00 | 1.77E-04 | 8.12E-01 | 1.46E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.44E+02 | 6.37E+02 | 5.31E+03 | 5.42E-02 | 1.68E-01 | 4.11E-01 | 5.84E+01 | 6.57E-04 | 1.64E-02 | 0.00E+00 | 4.89E-03 | 5.27E-01 | 2.06E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.21E+02 | 9.81E+02 | 1.18E+04 | 1.12E-01 | 4.55E-01 | 8.27E-01 | 1.30E+02 | 1.27E-03 | 3.30E-02 | 0.00E+00 | 1.01E-02 | 9.27E-01 | 2.60E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.60E+01 | 7.08E+01 | 1.28E+03 | 1.22E-02 | 4.93E-02 | 9.18E-02 | 1.41E+01 | 1.42E-04 | 3.62E-03 | 0.00E+00 | 1.10E-03 | 1.39E+00 | 4.01E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.08E+00 | 4.79E+00 | 1.29E+02 | 1.30E-03 | 5.38E-03 | 1.32E-02 | 1.42E+00 | 1.42E-05 | 4.00E-04 | 0.00E+00 | 1.17E-04 | 2.25E+00 | 5.95E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Tractors/Lo | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.65E+02 | 4.27E+02 | 3.08E+02 | 4.09E-03 | 1.39E-02 | 2.58E-02 | 3.39E+00 | 4.30E-05 | 9.72E-04 | 0.00E+00 | 3.69E-04 | 6.53E-02 | 2.01E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Tractors/Lo | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 9.88E+02 | 2.60E+03 | 3.62E+03 | 5.29E-02 | 3.59E-01 | 2.83E-01 | 3.94E+01 | 5.10E-04 | 1.13E-02 | 0.00E+00 | 4.78E-03 | 2.76E-01 | 3.92E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Tractors/Lo | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.32E+04 | 3.48E+04 | 8.20E+04 | 6.36E-01 | 5.91E+00 | 4.29E+00 | 8.99E+02 | 1.05E-02 | 2.24E-01 | 0.00E+00 | 5.74E-02 | 3.40E-01 | 6.06E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Tractors/Lo | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 9.87E+02 | 2.60E+03 | 1.20E+04 | 7.41E-02 | 7.58E-01 | 4.18E-01 | 1.32E+02 | 1.48E-03 | 2.06E-02 | 0.00E+00 | 6.69E-03 | 5.84E-01 | 1.14E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Tractors/Lo | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.19E+02 | 8.40E+02 | 6.52E+03 | 3.41E-02 | 1.45E-01 | 1.86E-01 | 7.21E+01 | 8.11E-04 | 6.34E-03 | 0.00E+00 | 3.08E-03 | 3.44E-01 | 1.93E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Tractors/Lo | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 5.15E+02 | 1.36E+03 | 2.11E+04 | 1.09E-01 | 4.50E-01 | 5.51E-01 | 2.34E+02 | 2.63E-03 | 1.99E-02 | 0.00E+00 | 9.81E-03 | 6.64E-01 | 3.88E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Tractors/Lo | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 7.26E+01 | 1.91E+02 | 4.47E+03 | 2.30E-02 | 9.51E-02 | 1.18E-01 | 4.94E+01 | 5.56E-04 | 4.23E-03 | 0.00E+00 | 2.08E-03 | 9.95E-01 | 5.82E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.21E+00 | 2.34E+01 | 2.69E+01 | 8.17E-04 | 3.24E-03 | 2.46E-03 | 2.91E-01 | 3.76E-06 | 1.75E-04 | 0.00E+00 | 7.37E-05 | 2.77E-01 | 3.21E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.66E+03 | 1.33E+04 | 3.99E+04 | 5.51E-01 | 3.07E+00 | 3.24E+00 | 4.36E+02 | 5.11E-03 | 2.46E-01 | 0.00E+00 | 4.97E-02 | 4.62E-01 | 7.71E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.58E+03 | 4.49E+03 | 2.48E+04 | 2.52E-01 | 1.64E+00 | 1.60E+00 | 2.72E+02 | 3.06E-03 | 8.93E-02 | 0.00E+00 | 2.27E-02 | 7.30E-01 | 1.36E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.36E+03 | 3.86E+03 | 2.90E+04 | 2.29E-01 | 7.64E-01 | 1.67E+00 | 3.20E+02 | 3.60E-03 | 6.08E-02 | 0.00E+00 | 2.07E-02 | 3.96E-01 | 1.87E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 9.29E+02 | 2.64E+03 | 3.10E+04 | 2.32E-01 | 8.80E-01 | 1.61E+00 | 3.42E+02 | 3.36E-03 | 6.01E-02 | 0.00E+00 | 2.10E-02 | 6.66E-01 | 2.54E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 9.61E+00 | 2.73E+01 | 5.75E+02 | 4.32E-03 | 1.63E-02 | 3.06E-02 | 6.34E+00 | 6.38E-05 | 1.13E-03 | 0.00E+00 | 3.90E-04 | 1.19E+00 | 4.67E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 1000 | Constructio | U | N | NHH | NP | Total | Total | Total | 9.61E+00 | 2.73E+01 | 8.14E+02 | 6.59E-03 | 2.52E-02 | 7.11E-02 | 8.97E+00 | 9.02E-05 | 1.94E-03 | 0.00E+00 | 5.95E-04 | 1.84E+00 | 6.61E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.13E+03 | 2.58E+03 | 1.62E+03 | 2.20E-02 | 7.39E-02 | 1.38E-01 | 1.77E+01 | 2.25E-04 | 5.60E-03 | 0.00E+00 | 1.99E-03 | 5.74E-02 | 1.75E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.02E+04 | 2.38E+04 | 2.78E+04 | 2.73E-01 | 2.39E+00 | 1.97E+00 | 3.03E+02 | 3.92E-03 | 5.14E-02 | 0.00E+00 | 2.47E-02 | 2.00E-01 | 3.30E-04 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | Activity (hr/day for total population) | Consumption (gal/day for total population) | ROG Exhaust (ton/day) | CO Exhaust (ton/day) | NOX Exhaust (ton/day) | CO2 Exhaust (ton/day) | SO2 Exhaust (ton/day) | PM Exhaust (ton/day) | N2O Exhaust (ton/day) | CH4 Exhaust (ton/day) | CO (lb/hr/equipment) | SOx (lb/hr/equipment) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2020 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.35E+03 | 1.25E+04 | 2.43E+04 | 1.36E-01 | 1.67E+00 | 1.03E+00 | 2.66E+02 | 3.13E-03 | 4.00E-02 | 0.00E+00 | 1.22E-02 | 2.67E-01 | 5.01E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.87E-01 | 1.78E+00 | 7.66E+00 | 1.30E-04 | 6.05E-04 | 7.51E-04 | 8.36E-02 | 9.80E-07 | 6.01E-05 | 0.00E+00 | 1.17E-05 | 6.78E-01 | 1.10E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 7.17E+02 | 2.18E+03 | 1.30E+04 | 1.59E-01 | 8.75E-01 | 1.06E+00 | 1.42E+02 | 1.60E-03 | 5.96E-02 | 0.00E+00 | 1.43E-02 | 8.02E-01 | 1.47E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.78E+02 | 2.06E+03 | 1.22E+04 | 1.18E-01 | 3.73E-01 | 9.11E-01 | 1.34E+02 | 1.51E-03 | 3.59E-02 | 0.00E+00 | 1.07E-02 | 3.61E-01 | 1.47E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.03E+01 | 1.83E+02 | 4.73E+03 | 4.29E-02 | 1.72E-01 | 3.26E-01 | 5.20E+01 | 5.23E-04 | 1.27E-02 | 0.00E+00 | 3.87E-03 | 1.88E+00 | 5.71E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.36E+00 | 1.93E+01 | 7.15E+02 | 6.89E-03 | 2.84E-02 | 7.17E-02 | 7.86E+00 | 7.91E-05 | 2.14E-03 | 0.00E+00 | 6.21E-04 | 2.94E+00 | 8.18E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Dumpers/T | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.41E+01 | 2.56E+01 | 8.87E+00 | 1.17E-04 | 4.01E-04 | 7.43E-04 | 9.73E-02 | 1.24E-06 | 2.83E-05 | 0.00E+00 | 1.06E-05 | 3.14E-02 | 9.67E-05 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.94E+02 | 3.67E+02 | 1.69E+02 | 2.16E-03 | 1.13E-02 | 1.35E-02 | 1.86E+00 | 2.89E-05 | 5.28E-04 | 0.00E+00 | 1.95E-04 | 6.17E-02 | 1.57E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.29E+01 | 6.22E+01 | 3.74E+01 | 4.95E-04 | 1.69E-03 | 3.13E-03 | 4.10E-01 | 5.21E-06 | 1.17E-04 | 0.00E+00 | 4.47E-05 | 5.44E-02 | 1.68E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.05E+01 | 9.67E+01 | 1.24E+02 | 1.59E-03 | 1.09E-02 | 9.45E-03 | 1.35E+00 | 1.75E-05 | 3.79E-04 | 0.00E+00 | 1.43E-04 | 2.26E-01 | 3.62E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.33E+01 | 1.60E+02 | 5.88E+02 | 4.00E-03 | 4.05E-02 | 3.06E-02 | 6.45E+00 | 7.56E-05 | 1.59E-03 | 0.00E+00 | 3.61E-04 | 5.08E-01 | 9.48E-04 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.15E+02 | 2.20E+02 | 1.07E+03 | 5.77E-03 | 6.45E-02 | 3.76E-02 | 1.17E+01 | 1.32E-04 | 1.81E-03 | 0.00E+00 | 5.21E-04 | 5.85E-01 | 1.20E-03 |
| 2020 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.67E+02 | 5.12E+02 | 5.88E+03 | 2.59E-02 | 1.19E-01 | 1.55E-01 | 6.50E+01 | 6.38E-04 | 5.43E-03 | 0.00E+00 | 2.33E-03 | 4.67E-01 | 2.49E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.92E+00 | 2.01E+01 | 1.71E+01 | 2.26E-04 | 7.71E-04 | 1.43E-03 | 1.87E-01 | 2.38E-06 | 5.47E-05 | 0.00E+00 | 2.04E-05 | 7.68E-02 | 2.37E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.19E+02 | 1.18E+03 | 1.53E+03 | 4.57E-02 | 1.77E-01 | 1.38E-01 | 1.65E+01 | 2.14E-04 | 9.93E-03 | 0.00E+00 | 4.12E-03 | 2.99E-01 | 3.62E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 6.12E+02 | 1.39E+03 | 4.41E+03 | 5.95E-02 | 3.33E-01 | 3.57E-01 | 4.82E+01 | 5.65E-04 | 2.72E-02 | 0.00E+00 | 5.37E-03 | 4.78E-01 | 8.11E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.80E+02 | 8.66E+02 | 5.06E+03 | 4.96E-02 | 3.28E-01 | 3.25E-01 | 5.55E+01 | 6.24E-04 | 1.82E-02 | 0.00E+00 | 4.48E-03 | 7.58E-01 | 1.44E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.58E+01 | 1.04E+02 | 9.18E+02 | 6.98E-03 | 2.40E-02 | 5.30E-02 | 1.01E+01 | 1.14E-04 | 1.93E-03 | 0.00E+00 | 6.29E-04 | 4.59E-01 | 2.19E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.70E+01 | 1.07E+02 | 1.13E+03 | 8.12E-03 | 3.25E-02 | 5.86E-02 | 1.25E+01 | 1.22E-04 | 2.20E-03 | 0.00E+00 | 7.32E-04 | 6.06E-01 | 2.29E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Plate Comp | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.92E+02 | 3.15E+02 | 6.20E+01 | 7.91E-04 | 4.15E-03 | 4.95E-03 | 6.79E-01 | 1.06E-05 | 1.93E-04 | 0.00E+00 | 7.13E-05 | 2.63E-02 | 6.71E-05 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.60E+02 | 6.86E+02 | 1.98E+02 | 2.52E-03 | 1.32E-02 | 1.58E-02 | 2.17E+00 | 3.37E-05 | 6.17E-04 | 0.00E+00 | 2.27E-04 | 3.86E-02 | 9.83E-05 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.51E+02 | 2.87E+02 | 1.74E+02 | 2.31E-03 | 7.87E-03 | 1.46E-02 | 1.91E+00 | 2.43E-05 | 5.45E-04 | 0.00E+00 | 2.08E-04 | 5.49E-02 | 1.69E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.68E+02 | 8.99E+02 | 1.07E+03 | 2.20E-02 | 1.07E-01 | 8.88E-02 | 1.17E+01 | 1.51E-04 | 5.10E-03 | 0.00E+00 | 1.99E-03 | 2.39E-01 | 3.36E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.51E+03 | 4.82E+03 | 1.30E+04 | 1.27E-01 | 9.29E-01 | 8.49E-01 | 1.42E+02 | 1.67E-03 | 5.72E-02 | 0.00E+00 | 1.15E-02 | 3.85E-01 | 6.91E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.01E+03 | 1.94E+03 | 9.55E+03 | 6.97E-02 | 5.92E-01 | 4.63E-01 | 1.05E+02 | 1.18E-03 | 2.46E-02 | 0.00E+00 | 6.28E-03 | 6.10E-01 | 1.22E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.43E+02 | 2.75E+02 | 1.91E+03 | 1.10E-02 | 4.34E-02 | 8.07E-02 | 2.10E+01 | 2.37E-04 | 2.76E-03 | 0.00E+00 | 9.92E-04 | 3.16E-01 | 1.72E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.01E+02 | 1.93E+02 | 1.91E+03 | 1.06E-02 | 4.33E-02 | 7.21E-02 | 2.11E+01 | 2.07E-04 | 2.61E-03 | 0.00E+00 | 9.57E-04 | 4.49E-01 | 2.15E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.32E+01 | 7.05E+01 | 3.02E+02 | 4.02E-03 | 2.32E-02 | 2.37E-02 | 3.31E+00 | 3.88E-05 | 1.76E-03 | 0.00E+00 | 3.63E-04 | 6.57E-01 | 1.10E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.12E+02 | 6.45E+02 | 4.35E+03 | 4.24E-02 | 2.87E-01 | 2.66E-01 | 4.77E+01 | 5.37E-04 | 1.48E-02 | 0.00E+00 | 3.83E-03 | 8.90E-01 | 1.66E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.07E+02 | 6.29E+02 | 5.96E+03 | 4.53E-02 | 1.55E-01 | 3.25E-01 | 6.58E+01 | 7.40E-04 | 1.17E-02 | 0.00E+00 | 4.09E-03 | 4.93E-01 | 2.35E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.70E+02 | 1.73E+03 | 2.52E+04 | 1.82E-01 | 7.06E-01 | 1.23E+00 | 2.78E+02 | 2.73E-03 | 4.59E-02 | 0.00E+00 | 1.64E-02 | 8.16E-01 | 3.15E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.91E+01 | 5.80E+01 | 1.46E+03 | 1.06E-02 | 4.08E-02 | 7.33E-02 | 1.61E+01 | 1.62E-04 | 2.70E-03 | 0.00E+00 | 9.54E-04 | 1.41E+00 | 5.58E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.55E+01 | 3.52E+01 | 2.02E+01 | 2.68E-04 | 9.13E-04 | 1.69E-03 | 2.22E-01 | 2.81E-06 | 6.32E-05 | 0.00E+00 | 2.41E-05 | 5.19E-02 | 1.60E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.31E+01 | 3.00E+01 | 3.31E+01 | 9.70E-04 | 3.78E-03 | 2.97E-03 | 3.58E-01 | 4.63E-06 | 2.14E-04 | 0.00E+00 | 8.75E-05 | 2.52E-01 | 3.09E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.89E+02 | 4.32E+02 | 1.08E+03 | 1.43E-02 | 8.07E-02 | 8.65E-02 | 1.18E+01 | 1.38E-04 | 6.63E-03 | 0.00E+00 | 1.29E-03 | 3.74E-01 | 6.39E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.86E+01 | 2.03E+02 | 9.34E+02 | 9.00E-03 | 6.01E-02 | 5.95E-02 | 1.02E+01 | 1.15E-04 | 3.33E-03 | 0.00E+00 | 8.12E-04 | 5.93E-01 | 1.14E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.50E+01 | 5.72E+01 | 3.17E+02 | 2.34E-03 | 8.08E-03 | 1.81E-02 | 3.49E+00 | 3.93E-05 | 6.48E-04 | 0.00E+00 | 2.11E-04 | 2.82E-01 | 1.37E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.19E+01 | 1.47E+01 | 9.53E+00 | 1.78E-04 | 8.60E-04 | 7.63E-04 | 1.04E-01 | 1.34E-06 | 4.18E-05 | 0.00E+00 | 1.61E-05 | 1.17E-01 | 1.82E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.38E+00 | 2.95E+00 | 8.56E+00 | 7.73E-05 | 5.90E-04 | 5.53E-04 | 9.38E-02 | 1.10E-06 | 3.56E-05 | 0.00E+00 | 6.97E-06 | 4.00E-01 | 7.47E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.78E+00 | 2.21E+00 | 8.62E+00 | 5.64E-05 | 5.14E-04 | 4.15E-04 | 9.46E-02 | 1.06E-06 | 2.08E-05 | 0.00E+00 | 5.08E-06 | 4.65E-01 | 9.64E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.57E+00 | 4.42E+00 | 2.69E+01 | 1.36E-04 | 5.99E-04 | 1.13E-03 | 2.98E-01 | 3.35E-06 | 3.75E-05 | 0.00E+00 | 1.23E-05 | 2.71E-01 | 1.52E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.97E+01 | 3.68E+01 | 3.68E+02 | 1.76E-03 | 8.46E-03 | 1.39E-02 | 4.07E+00 | 3.99E-05 | 4.80E-04 | 0.00E+00 | 1.59E-04 | 4.60E-01 | 2.17E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.65E+00 | 4.52E+00 | 7.09E+01 | 3.43E-04 | 1.63E-03 | 2.76E-03 | 7.83E-01 | 7.87E-06 | 9.39E-05 | 0.00E+00 | 3.09E-05 | 7.21E-01 | 3.49E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.67E+03 | 3.44E+03 | 9.70E+02 | 1.24E-02 | 6.48E-02 | 7.74E-02 | 1.06E+01 | 1.65E-04 | 3.02E-03 | 0.00E+00 | 1.11E-03 | 3.76E-02 | 9.59E-05 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.33E+00 | 1.22E+01 | 2.02E+01 | 2.78E-04 | 1.70E-03 | 1.56E-03 | 2.21E-01 | 2.86E-06 | 6.96E-05 | 0.00E+00 | 2.51E-05 | 2.79E-01 | 4.67E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.36E+02 | 2.00E+02 | 7.30E+02 | 5.12E-03 | 4.92E-02 | 4.07E-02 | 8.01E+00 | 9.39E-05 | 2.30E-03 | 0.00E+00 | 4.62E-04 | 4.93E-01 | 9.40E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.45E+01 | 1.24E+02 | 8.71E+02 | 4.68E-03 | 5.12E-02 | 3.44E-02 | 9.57E+00 | 1.08E-04 | 1.65E-03 | 0.00E+00 | 4.23E-04 | 8.27E-01 | 1.74E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.78E+01 | 2.62E+01 | 3.02E+02 | 1.27E-03 | 6.19E-03 | 9.98E-03 | 3.34E+00 | 3.76E-05 | 3.07E-04 | 0.00E+00 | 1.14E-04 | 4.73E-01 | 2.87E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.46E+01 | 7.56E+01 | 2.92E+01 | 3.72E-04 | 1.95E-03 | 2.33E-03 | 3.20E-01 | 4.97E-06 | 9.11E-05 | 0.00E+00 | 3.36E-05 | 5.16E-02 | 1.32E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.70E+01 | 7.96E+01 | 1.19E+02 | 1.58E-03 | 5.39E-03 | 9.98E-03 | 1.31E+00 | 1.66E-05 | 3.73E-04 | 0.00E+00 | 1.43E-04 | 1.35E-01 | 4.17E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.79E+03 | 3.08E+03 | 4.69E+03 | 1.42E-01 | 5.27E-01 | 4.20E-01 | 5.06E+01 | 6.54E-04 | 3.10E-02 | 0.00E+00 | 1.28E-02 | 3.42E-01 | 4.25E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.42E+03 | 4.17E+03 | 1.24E+04 | 1.66E-01 | 9.21E-01 | 1.02E+00 | 1.35E+02 | 1.59E-03 | 7.81E-02 | 0.00E+00 | 1.50E-02 | 4.42E-01 | 7.61E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.65E+02 | 4.57E+02 | 2.99E+03 | 2.90E-02 | 1.91E-01 | 1.98E-01 | 3.28E+01 | 3.69E-04 | 1.10E-02 | 0.00E+00 | 2.62E-03 | 8.37E-01 | 1.62E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.38E+01 | 4.09E+01 | 4.13E+02 | 3.10E-03 | 1.09E-02 | 2.47E-02 | 4.56E+00 | 5.13E-05 | 9.11E-04 | 0.00E+00 | 2.80E-04 | 5.32E-01 | 2.51E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.03E+01 | 5.22E+01 | 7.36E+02 | 5.19E-03 | 2.18E-02 | 3.95E-02 | 8.12E+00 | 7.97E-05 | 1.49E-03 | 0.00E+00 | 4.69E-04 | 8.36E-01 | 3.05E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.31E-01 | 1.26E+00 | 3.34E+01 | 2.37E-04 | 9.88E-04 | 1.84E-03 | 3.68E-01 | 3.70E-06 | 6.85E-05 | 0.00E+00 | 2.14E-05 | 1.57E+00 | 5.90E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 15 | Constructi | U | P | NHH | P | Total | Total | Total | 5.95E+00 | 1.32E+01 | 6.25E+00 | 7.96E-05 | 4.17E-04 | 4.98E-04 | 6.84E-02 | 1.06E-06 | 1.95E-05 | 0.00E+00 | 7.18E-06 | 6.31E-02 | 1.61E-04 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population Activity | gal/day for total population Consumption | ton/day ROG Exhaust | ton/day CO Exhaust | ton/day NOX Exhaust | ton/day CO2 Exhaust | ton/day SO2 Exhaust | ton/day PM Exhaust | ton/day N2O Exhaust | ton/day CH4 Exhaust | lb/hr/equipment CO | lb/hr/equipment SOx |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2021 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 25 | Constructio | U | P | NHH | P | Total | Total | Total | 1.78E+01 | 3.97E+01 | 2.89E+01 | 3.82E-04 | 1.31E-03 | 2.42E-03 | 3.17E-01 | 4.02E-06 | 9.03E-05 | 0.00E+00 | 3.45E-05 | 6.58E-02 | 2.03E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 50 | Constructio | U | P | NHH | P | Total | Total | Total | 7.79E+01 | 1.79E+02 | 2.54E+02 | 1.73E-03 | 1.97E-02 | 1.53E-02 | 2.78E+00 | 3.59E-05 | 1.30E-04 | 0.00E+00 | 1.56E-04 | 2.20E-01 | 4.01E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 120 | Constructio | U | P | NHH | P | Total | Total | Total | 2.39E+02 | 5.50E+02 | 1.93E+03 | 7.40E-03 | 1.28E-01 | 6.02E-02 | 2.12E+01 | 2.49E-04 | 8.12E-04 | 0.00E+00 | 6.68E-04 | 4.66E-01 | 9.04E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 175 | Constructio | U | P | NHH | P | Total | Total | Total | 5.53E+01 | 1.27E+02 | 8.16E+02 | 2.38E-03 | 4.80E-02 | 9.37E-03 | 8.97E+00 | 1.01E-04 | 2.46E-04 | 0.00E+00 | 2.14E-04 | 7.53E-01 | 1.59E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 250 | Constructio | U | N | NHH | P | Total | Total | Total | 4.76E+01 | 1.10E+02 | 9.30E+02 | 2.49E-03 | 1.87E-02 | 7.46E-03 | 1.03E+01 | 1.16E-04 | 2.25E-04 | 0.00E+00 | 2.25E-04 | 3.42E-01 | 2.11E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 500 | Constructio | U | N | NHH | P | Total | Total | Total | 1.06E+02 | 2.44E+02 | 3.43E+03 | 9.17E-03 | 6.71E-02 | 2.71E-02 | 3.79E+01 | 3.72E-04 | 8.26E-04 | 0.00E+00 | 8.28E-04 | 5.51E-01 | 3.05E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 750 | Constructio | U | N | NHH | P | Total | Total | Total | 1.13E+01 | 2.61E+01 | 7.24E+02 | 1.94E-03 | 1.42E-02 | 5.73E-03 | 8.01E+00 | 8.05E-05 | 1.74E-04 | 0.00E+00 | 1.75E-04 | 1.09E+00 | 6.18E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 1000 | Constructio | U | N | NHH | P | Total | Total | Total | 1.90E+01 | 4.37E+01 | 1.83E+03 | 5.08E-03 | 3.59E-02 | 8.63E-02 | 2.03E+01 | 2.04E-04 | 1.03E-03 | 0.00E+00 | 4.58E-04 | 1.64E+00 | 9.33E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.20E+01 | 8.43E+01 | 6.30E+01 | 8.35E-04 | 2.85E-03 | 5.28E-03 | 6.92E-01 | 8.78E-06 | 1.97E-04 | 0.00E+00 | 7.53E-05 | 6.76E-02 | 2.08E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.29E+02 | 3.21E+03 | 3.69E+03 | 5.71E-02 | 3.88E-01 | 2.89E-01 | 4.01E+01 | 5.19E-04 | 1.10E-02 | 0.00E+00 | 5.16E-03 | 2.42E-01 | 3.23E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.25E+03 | 8.72E+03 | 2.93E+04 | 2.37E-01 | 2.16E+00 | 1.49E+00 | 3.21E+02 | 3.76E-03 | 7.58E-02 | 0.00E+00 | 2.13E-02 | 4.96E-01 | 8.63E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.34E+03 | 1.68E+04 | 8.59E+04 | 5.51E-01 | 5.58E+00 | 2.84E+00 | 9.43E+02 | 1.06E-02 | 1.41E-01 | 0.00E+00 | 4.97E-02 | 6.63E-01 | 1.26E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.77E+03 | 6.84E+03 | 4.91E+04 | 2.68E-01 | 1.11E+00 | 1.33E+00 | 5.42E+02 | 6.10E-03 | 4.57E-02 | 0.00E+00 | 2.42E-02 | 3.26E-01 | 1.78E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.27E+03 | 4.94E+03 | 5.22E+04 | 2.80E-01 | 1.12E+00 | 1.30E+00 | 5.76E+02 | 5.66E-03 | 4.72E-02 | 0.00E+00 | 2.53E-02 | 4.56E-01 | 2.29E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 5.72E+00 | 2.22E+01 | 3.89E+02 | 2.09E-03 | 8.38E-03 | 9.80E-03 | 4.29E+00 | 4.32E-05 | 3.54E-04 | 0.00E+00 | 1.89E-04 | 7.55E-01 | 3.89E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Concrete/In | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.38E+00 | 3.86E+00 | 2.90E+00 | 3.84E-05 | 1.31E-04 | 2.42E-04 | 3.18E-02 | 4.03E-07 | 9.06E-06 | 0.00E+00 | 3.46E-06 | 6.78E-02 | 2.09E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Concrete/In | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.08E+01 | 3.31E+01 | 4.58E+01 | 6.35E-04 | 3.94E-03 | 3.57E-03 | 5.00E-01 | 6.46E-06 | 1.62E-04 | 0.00E+00 | 5.73E-05 | 2.38E-01 | 3.90E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Concrete/In | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 3.63E+01 | 5.77E+01 | 1.95E+02 | 1.39E-03 | 1.33E-02 | 1.10E-02 | 2.14E+00 | 2.51E-05 | 6.25E-04 | 0.00E+00 | 1.26E-04 | 4.59E-01 | 8.69E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Concrete/In | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.19E+00 | 1.89E+00 | 1.38E+01 | 7.63E-05 | 8.19E-04 | 5.48E-04 | 1.51E-01 | 1.70E-06 | 2.71E-05 | 0.00E+00 | 6.89E-06 | 8.65E-01 | 1.80E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Cement and | D | 15 | Constructio | U | P | NHH | NP | Total | Total | Total | 3.04E+02 | 2.50E+02 | 7.21E+01 | 9.19E-04 | 4.82E-03 | 5.76E-03 | 7.90E-01 | 1.23E-05 | 2.25E-04 | 0.00E+00 | 8.29E-05 | 3.86E-02 | 9.83E-05 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Cement and | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.74E+01 | 2.25E+01 | 1.80E+01 | 2.48E-04 | 8.27E-04 | 1.54E-03 | 1.97E-01 | 2.50E-06 | 6.26E-05 | 0.00E+00 | 2.23E-05 | 7.35E-02 | 2.23E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 50 | Constructio | U | P | NHH | P | Total | Total | Total | 2.02E+01 | 7.09E+01 | 7.58E+01 | 1.71E-03 | 8.42E-03 | 6.51E-03 | 8.22E-01 | 1.06E-05 | 3.78E-04 | 0.00E+00 | 1.54E-04 | 2.38E-01 | 2.99E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 120 | Constructio | U | P | NHH | P | Total | Total | Total | 2.22E+02 | 7.78E+02 | 1.78E+03 | 1.94E-02 | 1.33E-01 | 1.19E-01 | 1.95E+01 | 2.29E-04 | 8.15E-03 | 0.00E+00 | 1.75E-03 | 3.43E-01 | 5.88E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 175 | Constructio | U | P | NHH | P | Total | Total | Total | 2.22E+02 | 7.78E+02 | 2.85E+03 | 2.34E-02 | 1.85E-01 | 1.42E-01 | 3.12E+01 | 3.51E-04 | 7.66E-03 | 0.00E+00 | 2.11E-03 | 4.75E-01 | 9.03E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 250 | Constructio | U | N | NHH | P | Total | Total | Total | 4.30E+02 | 1.51E+03 | 7.65E+03 | 5.02E-02 | 1.81E-01 | 3.32E-01 | 8.45E+01 | 9.51E-04 | 1.15E-02 | 0.00E+00 | 4.53E-03 | 2.40E-01 | 1.26E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 500 | Constructio | U | N | NHH | P | Total | Total | Total | 1.58E+02 | 5.53E+02 | 4.50E+03 | 2.86E-02 | 1.03E-01 | 1.74E-01 | 4.97E+01 | 4.88E-04 | 6.37E-03 | 0.00E+00 | 2.58E-03 | 3.74E-01 | 1.77E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 750 | Constructio | U | N | NHH | P | Total | Total | Total | 2.37E+01 | 8.33E+01 | 1.14E+03 | 7.26E-03 | 2.62E-02 | 4.53E-02 | 1.26E+01 | 1.27E-04 | 1.64E-03 | 0.00E+00 | 6.55E-04 | 6.29E-01 | 3.04E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 9999 | Constructio | U | N | NHH | P | Total | Total | Total | 2.98E+01 | 1.05E+02 | 4.59E+03 | 3.33E-02 | 1.11E-01 | 3.50E-01 | 5.07E+01 | 5.09E-04 | 8.59E-03 | 0.00E+00 | 3.00E-03 | 2.13E+00 | 9.75E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.33E+00 | 2.16E+01 | 2.74E+01 | 5.57E-04 | 2.94E-03 | 2.26E-03 | 2.97E-01 | 3.84E-06 | 1.18E-04 | 0.00E+00 | 5.02E-05 | 2.72E-01 | 3.56E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 5.56E+02 | 1.44E+03 | 4.93E+03 | 4.93E-02 | 3.65E-01 | 3.06E-01 | 5.40E+01 | 6.34E-04 | 1.96E-02 | 0.00E+00 | 4.45E-03 | 5.06E-01 | 8.79E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.90E+03 | 4.93E+03 | 2.78E+04 | 2.10E-01 | 1.79E+00 | 1.23E+00 | 3.05E+02 | 3.43E-03 | 6.57E-02 | 0.00E+00 | 1.90E-02 | 7.27E-01 | 1.39E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.18E+03 | 3.06E+03 | 2.38E+04 | 1.45E-01 | 5.57E-01 | 9.10E-01 | 2.63E+02 | 2.96E-03 | 3.13E-02 | 0.00E+00 | 1.31E-02 | 3.64E-01 | 1.93E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.33E+01 | 8.65E+01 | 8.98E+02 | 5.28E-03 | 2.11E-02 | 3.07E-02 | 9.91E+00 | 9.73E-05 | 1.11E-03 | 0.00E+00 | 4.76E-04 | 4.87E-01 | 2.25E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.65E-01 | 9.47E-01 | 2.08E+01 | 1.23E-04 | 4.88E-04 | 7.33E-04 | 2.30E-01 | 2.31E-06 | 2.62E-05 | 0.00E+00 | 1.11E-05 | 1.03E+00 | 4.88E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 3.87E+01 | 2.10E+02 | 1.19E+03 | 8.19E-03 | 7.90E-02 | 4.19E-02 | 1.31E+01 | 1.47E-04 | 2.13E-03 | 0.00E+00 | 7.39E-04 | 7.53E-01 | 1.41E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.86E+02 | 1.55E+03 | 1.17E+04 | 6.80E-02 | 2.70E-01 | 3.39E-01 | 1.29E+02 | 1.45E-03 | 1.17E-02 | 0.00E+00 | 6.14E-03 | 3.49E-01 | 1.87E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 4.02E+02 | 2.18E+03 | 2.69E+04 | 1.54E-01 | 5.89E-01 | 7.13E-01 | 2.97E+02 | 2.91E-03 | 2.61E-02 | 0.00E+00 | 1.39E-02 | 5.40E-01 | 2.67E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 7.66E+01 | 4.16E+02 | 8.30E+03 | 4.77E-02 | 1.82E-01 | 2.24E-01 | 9.17E+01 | 9.22E-04 | 8.12E-03 | 0.00E+00 | 4.30E-03 | 8.76E-01 | 4.44E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.59E+01 | 1.95E+02 | 5.50E+03 | 3.33E-02 | 1.24E-01 | 3.60E-01 | 6.08E+01 | 6.11E-04 | 7.92E-03 | 0.00E+00 | 3.00E-03 | 1.28E+00 | 6.28E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 50 | Constructio | U | P | NHH | P | Total | Total | Total | 9.52E+01 | 2.49E+02 | 5.04E+02 | 8.31E-03 | 4.95E-02 | 4.06E-02 | 5.48E+00 | 7.09E-05 | 1.94E-03 | 0.00E+00 | 7.50E-04 | 3.97E-01 | 5.69E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 120 | Constructio | U | P | NHH | P | Total | Total | Total | 2.68E+02 | 7.03E+02 | 2.66E+03 | 2.25E-02 | 1.91E-01 | 1.54E-01 | 2.92E+01 | 3.42E-04 | 9.16E-03 | 0.00E+00 | 2.03E-03 | 5.43E-01 | 9.74E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 175 | Constructio | U | P | NHH | P | Total | Total | Total | 1.14E+02 | 2.98E+02 | 2.26E+03 | 1.51E-02 | 1.42E-01 | 9.25E-02 | 2.49E+01 | 2.80E-04 | 4.81E-03 | 0.00E+00 | 1.36E-03 | 9.51E-01 | 1.88E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 250 | Constructio | U | N | NHH | P | Total | Total | Total | 1.13E+01 | 2.96E+01 | 3.27E+02 | 1.75E-03 | 7.12E-03 | 1.12E-02 | 3.62E+00 | 4.07E-05 | 3.66E-04 | 0.00E+00 | 1.58E-04 | 4.81E-01 | 2.75E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 500 | Constructio | U | N | NHH | P | Total | Total | Total | 6.37E+01 | 1.67E+02 | 2.82E+03 | 1.47E-02 | 5.87E-02 | 8.62E-02 | 3.11E+01 | 3.05E-04 | 3.05E-03 | 0.00E+00 | 1.33E-03 | 7.04E-01 | 3.66E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 750 | Constructio | U | N | NHH | P | Total | Total | Total | 6.09E-01 | 1.59E+00 | 4.24E+01 | 2.21E-04 | 8.85E-04 | 1.33E-03 | 4.69E-01 | 4.71E-06 | 4.60E-05 | 0.00E+00 | 2.00E-05 | 1.11E+00 | 5.92E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 9999 | Constructio | U | N | NHH | P | Total | Total | Total | 6.09E-01 | 1.59E+00 | 9.43E+01 | 5.77E-04 | 2.08E-03 | 6.39E-03 | 1.04E+00 | 1.05E-05 | 1.48E-04 | 0.00E+00 | 5.20E-05 | 2.61E+00 | 1.31E-02 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 6.60E+01 | 2.05E+02 | 3.18E+02 | 4.90E-03 | 3.20E-02 | 2.53E-02 | 3.46E+00 | 4.47E-05 | 1.07E-03 | 0.00E+00 | 4.42E-04 | 3.13E-01 | 4.37E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 3.16E+03 | 9.80E+03 | 2.79E+04 | 2.26E-01 | 2.02E+00 | 1.50E+00 | 3.06E+02 | 3.59E-03 | 8.24E-02 | 0.00E+00 | 2.04E-02 | 4.13E-01 | 7.32E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.05E+02 | 1.26E+03 | 7.13E+03 | 4.62E-02 | 4.53E-01 | 2.59E-01 | 7.83E+01 | 8.81E-04 | 1.34E-02 | 0.00E+00 | 4.17E-03 | 7.22E-01 | 1.40E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.26E+01 | 7.00E+01 | 5.41E+02 | 2.91E-03 | 1.20E-02 | 1.63E-02 | 5.98E+00 | 6.72E-05 | 5.54E-04 | 0.00E+00 | 2.63E-04 | 3.42E-01 | 1.92E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.49E+01 | 4.61E+01 | 5.35E+02 | 2.83E-03 | 1.13E-02 | 1.46E-02 | 5.91E+00 | 5.80E-05 | 5.32E-04 | 0.00E+00 | 2.55E-04 | 4.90E-01 | 2.52E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.33E+00 | 2.19E+01 | 1.68E+01 | 2.23E-04 | 7.61E-04 | 1.41E-03 | 1.85E-01 | 2.35E-06 | 5.26E-05 | 0.00E+00 | 2.01E-05 | 6.96E-02 | 2.15E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.62E+02 | 4.31E+02 | 6.18E+02 | 1.21E-02 | 6.53E-02 | 5.06E-02 | 6.71E+00 | 8.67E-05 | 2.58E-03 | 0.00E+00 | 1.09E-03 | 3.03E-01 | 4.02E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.40E+03 | 1.17E+04 | 3.15E+04 | 3.04E-01 | 2.32E+00 | 1.91E+00 | 3.45E+02 | 4.04E-03 | 1.21E-01 | 0.00E+00 | 2.75E-02 | 3.96E-01 | 6.90E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.48E+03 | 6.60E+03 | 3.20E+04 | 2.35E-01 | 2.05E+00 | 1.38E+00 | 3.51E+02 | 3.95E-03 | 7.31E-02 | 0.00E+00 | 2.12E-02 | 6.21E-01 | 1.20E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.47E+03 | 6.57E+03 | 4.43E+04 | 2.64E-01 | 1.03E+00 | 1.64E+00 | 4.89E+02 | 5.50E-03 | 5.67E-02 | 0.00E+00 | 2.38E-02 | 3.13E-01 | 1.67E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.03E+03 | 2.73E+03 | 2.93E+04 | 1.69E-01 | 6.72E-01 | 9.75E-01 | 3.24E+02 | 3.18E-03 | 3.55E-02 | 0.00E+00 | 1.53E-02 | 4.92E-01 | 2.32E-03 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.47E+01 | 3.92E+01 | 8.61E+02 | 4.99E-03 | 1.97E-02 | 2.94E-02 | 9.51E+00 | 9.56E-05 | 1.06E-03 | 0.00E+00 | 4.50E-04 | 1.01E+00 | 4.88E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.58E+00 | 4.21E+00 | 1.13E+02 | 6.93E-04 | 2.69E-03 | 8.01E-03 | 1.25E+00 | 1.25E-05 | 1.88E-04 | 0.00E+00 | 6.25E-05 | 1.28E+00 | 5.97E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.95E+00 | 2.64E+01 | 1.56E+02 | 1.89E-03 | 1.07E-02 | 1.22E-02 | 1.71E+00 | 1.92E-05 | 6.88E-04 | 0.00E+00 | 1.70E-04 | 8.09E-01 | 1.46E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.46E+02 | 6.46E+02 | 5.38E+03 | 5.21E-02 | 1.65E-01 | 3.87E-01 | 5.92E+01 | 6.66E-04 | 1.53E-02 | 0.00E+00 | 4.70E-03 | 5.12E-01 | 2.06E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.24E+02 | 9.94E+02 | 1.19E+04 | 1.08E-01 | 4.38E-01 | 7.78E-01 | 1.32E+02 | 1.29E-03 | 3.09E-02 | 0.00E+00 | 9.78E-03 | 8.82E-01 | 2.60E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.62E+01 | 7.17E+01 | 1.30E+03 | 1.18E-02 | 4.75E-02 | 8.65E-02 | 1.43E+01 | 1.44E-04 | 3.39E-03 | 0.00E+00 | 1.07E-03 | 1.33E+00 | 4.01E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.10E+00 | 4.85E+00 | 1.30E+02 | 1.26E-03 | 5.18E-03 | 1.29E-02 | 1.43E+00 | 1.44E-05 | 3.79E-04 | 0.00E+00 | 1.13E-04 | 2.14E+00 | 5.95E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.68E+02 | 4.33E+02 | 3.13E+02 | 4.14E-03 | 1.41E-02 | 2.62E-02 | 3.43E+00 | 4.36E-05 | 9.80E-04 | 0.00E+00 | 3.74E-04 | 6.53E-02 | 2.01E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.00E+03 | 2.64E+03 | 3.67E+03 | 4.95E-02 | 3.60E-01 | 2.77E-01 | 4.00E+01 | 5.17E-04 | 9.65E-03 | 0.00E+00 | 4.47E-03 | 2.73E-01 | 3.92E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.34E+04 | 3.53E+04 | 8.31E+04 | 5.99E-01 | 5.98E+00 | 4.01E+00 | 9.11E+02 | 1.07E-02 | 1.89E-01 | 0.00E+00 | 5.41E-02 | 3.39E-01 | 6.06E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.00E+03 | 2.63E+03 | 1.21E+04 | 7.00E-02 | 7.68E-01 | 3.68E-01 | 1.33E+02 | 1.50E-03 | 1.78E-02 | 0.00E+00 | 6.31E-03 | 5.84E-01 | 1.14E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.24E+02 | 8.51E+02 | 6.61E+03 | 3.27E-02 | 1.46E-01 | 1.62E-01 | 7.30E+01 | 8.21E-04 | 5.56E-03 | 0.00E+00 | 2.95E-03 | 3.43E-01 | 1.93E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.22E+02 | 1.37E+03 | 2.14E+04 | 1.04E-01 | 4.53E-01 | 4.85E-01 | 2.37E+02 | 2.66E-03 | 1.75E-02 | 0.00E+00 | 9.43E-03 | 6.59E-01 | 3.88E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.37E+01 | 1.94E+02 | 4.53E+03 | 2.21E-02 | 9.57E-02 | 1.04E-01 | 5.01E+01 | 5.63E-04 | 3.72E-03 | 0.00E+00 | 1.99E-03 | 9.88E-01 | 5.82E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.33E+00 | 2.37E+01 | 2.73E+01 | 7.68E-04 | 3.22E-03 | 2.42E-03 | 2.94E-01 | 3.81E-06 | 1.61E-04 | 0.00E+00 | 6.93E-05 | 2.72E-01 | 3.21E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.73E+03 | 1.34E+04 | 4.04E+04 | 5.24E-01 | 3.09E+00 | 3.08E+00 | 4.42E+02 | 5.18E-03 | 2.26E-01 | 0.00E+00 | 4.72E-02 | 4.60E-01 | 7.71E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.60E+03 | 4.55E+03 | 2.51E+04 | 2.40E-01 | 1.66E+00 | 1.48E+00 | 2.75E+02 | 3.10E-03 | 8.22E-02 | 0.00E+00 | 2.16E-02 | 7.29E-01 | 1.36E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.37E+03 | 3.91E+03 | 2.94E+04 | 2.19E-01 | 7.58E-01 | 1.54E+00 | 3.24E+02 | 3.65E-03 | 5.56E-02 | 0.00E+00 | 1.98E-02 | 3.88E-01 | 1.87E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 9.42E+02 | 2.68E+03 | 3.14E+04 | 2.23E-01 | 8.63E-01 | 1.48E+00 | 3.47E+02 | 3.41E-03 | 5.52E-02 | 0.00E+00 | 2.02E-02 | 6.45E-01 | 2.54E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 9.74E+00 | 2.77E+01 | 5.82E+02 | 4.16E-03 | 1.60E-02 | 2.82E-02 | 6.43E+00 | 6.46E-05 | 1.04E-03 | 0.00E+00 | 3.75E-04 | 1.15E+00 | 4.67E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 9.74E+00 | 2.77E+01 | 8.24E+02 | 6.33E-03 | 2.45E-02 | 6.88E-02 | 9.09E+00 | 9.14E-05 | 1.82E-03 | 0.00E+00 | 5.71E-04 | 1.77E+00 | 6.61E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.14E+03 | 2.61E+03 | 1.64E+03 | 2.21E-02 | 7.46E-02 | 1.39E-01 | 1.80E+01 | 2.28E-04 | 5.54E-03 | 0.00E+00 | 2.00E-03 | 5.71E-02 | 1.75E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.04E+04 | 2.41E+04 | 2.81E+04 | 2.65E-01 | 2.41E+00 | 1.93E+00 | 3.08E+02 | 3.98E-03 | 4.30E-02 | 0.00E+00 | 2.39E-02 | 2.00E-01 | 3.30E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.43E+03 | 1.26E+04 | 2.46E+04 | 1.30E-01 | 1.69E+00 | 9.71E-01 | 2.70E+02 | 3.17E-03 | 3.32E-02 | 0.00E+00 | 1.18E-02 | 2.67E-01 | 5.01E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.95E-01 | 1.81E+00 | 7.76E+00 | 1.25E-04 | 6.10E-04 | 7.19E-04 | 8.47E-02 | 9.94E-07 | 5.66E-05 | 0.00E+00 | 1.12E-05 | 6.74E-01 | 1.10E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 7.28E+02 | 2.21E+03 | 1.32E+04 | 1.52E-01 | 8.84E-01 | 9.98E-01 | 1.44E+02 | 1.62E-03 | 5.61E-02 | 0.00E+00 | 1.38E-02 | 7.99E-01 | 1.47E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.88E+02 | 2.09E+03 | 1.24E+04 | 1.14E-01 | 3.66E-01 | 8.56E-01 | 1.36E+02 | 1.53E-03 | 3.34E-02 | 0.00E+00 | 1.03E-02 | 3.50E-01 | 1.47E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.11E+01 | 1.86E+02 | 4.79E+03 | 4.13E-02 | 1.67E-01 | 3.07E-01 | 5.27E+01 | 5.30E-04 | 1.19E-02 | 0.00E+00 | 3.73E-03 | 1.79E+00 | 5.71E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.45E+00 | 1.96E+01 | 7.24E+02 | 6.65E-03 | 2.74E-02 | 6.98E-02 | 7.97E+00 | 8.01E-05 | 2.03E-03 | 0.00E+00 | 6.00E-04 | 2.80E+00 | 8.18E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Dumpers/T | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.43E+01 | 2.59E+01 | 8.99E+00 | 1.19E-04 | 4.06E-04 | 7.53E-04 | 9.87E-02 | 1.25E-06 | 2.85E-05 | 0.00E+00 | 1.07E-05 | 3.14E-02 | 9.67E-05 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.97E+02 | 3.73E+02 | 1.72E+02 | 2.19E-03 | 1.15E-02 | 1.37E-02 | 1.88E+00 | 2.93E-05 | 5.36E-04 | 0.00E+00 | 1.98E-04 | 6.17E-02 | 1.57E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.33E+01 | 6.30E+01 | 3.79E+01 | 5.02E-04 | 1.71E-03 | 3.17E-03 | 4.16E-01 | 5.28E-06 | 1.19E-04 | 0.00E+00 | 4.53E-05 | 5.44E-02 | 1.68E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.12E+01 | 9.80E+01 | 1.26E+02 | 1.49E-03 | 1.10E-02 | 9.27E-03 | 1.37E+00 | 1.77E-05 | 3.26E-04 | 0.00E+00 | 1.34E-04 | 2.24E-01 | 3.62E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.45E+01 | 1.62E+02 | 5.96E+02 | 3.78E-03 | 4.10E-02 | 2.86E-02 | 6.54E+00 | 7.67E-05 | 1.37E-03 | 0.00E+00 | 3.41E-04 | 5.06E-01 | 9.48E-04 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.17E+02 | 2.23E+02 | 1.08E+03 | 5.48E-03 | 6.54E-02 | 3.32E-02 | 1.19E+01 | 1.34E-04 | 1.59E-03 | 0.00E+00 | 4.94E-04 | 5.85E-01 | 1.20E-03 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.71E+02 | 5.19E+02 | 5.96E+03 | 2.49E-02 | 1.21E-01 | 1.36E-01 | 6.59E+01 | 6.47E-04 | 4.78E-03 | 0.00E+00 | 2.25E-03 | 4.65E-01 | 2.49E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.05E+00 | 2.04E+01 | 1.73E+01 | 2.29E-04 | 7.82E-04 | 1.45E-03 | 1.90E-01 | 2.41E-06 | 5.50E-05 | 0.00E+00 | 2.07E-05 | 7.68E-02 | 2.37E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.26E+02 | 1.20E+03 | 1.55E+03 | 4.29E-02 | 1.76E-01 | 1.36E-01 | 1.67E+01 | 2.16E-04 | 9.19E-03 | 0.00E+00 | 3.88E-03 | 2.94E-01 | 3.62E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 6.20E+02 | 1.41E+03 | 4.46E+03 | 5.66E-02 | 3.35E-01 | 3.40E-01 | 4.88E+01 | 5.72E-04 | 2.51E-02 | 0.00E+00 | 5.11E-03 | 4.75E-01 | 8.11E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.85E+02 | 8.78E+02 | 5.13E+03 | 4.74E-02 | 3.32E-01 | 3.02E-01 | 5.62E+01 | 6.33E-04 | 1.69E-02 | 0.00E+00 | 4.28E-03 | 7.57E-01 | 1.44E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.64E+01 | 1.06E+02 | 9.31E+02 | 6.71E-03 | 2.38E-02 | 4.91E-02 | 1.03E+01 | 1.16E-04 | 1.78E-03 | 0.00E+00 | 6.06E-04 | 4.50E-01 | 2.19E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.76E+01 | 1.08E+02 | 1.15E+03 | 7.84E-03 | 3.18E-02 | 5.43E-02 | 1.26E+01 | 1.24E-04 | 2.03E-03 | 0.00E+00 | 7.07E-04 | 5.86E-01 | 2.29E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Plate Com | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.94E+02 | 3.20E+02 | 6.29E+01 | 8.02E-04 | 4.20E-03 | 5.02E-03 | 6.89E-01 | 1.07E-05 | 1.96E-04 | 0.00E+00 | 7.23E-05 | 2.63E-02 | 6.71E-05 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.65E+02 | 6.95E+02 | 2.01E+02 | 2.56E-03 | 1.34E-02 | 1.60E-02 | 2.20E+00 | 3.42E-05 | 6.25E-04 | 0.00E+00 | 2.31E-04 | 3.86E-02 | 9.83E-05 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.53E+02 | 2.91E+02 | 1.77E+02 | 2.34E-03 | 7.98E-03 | 1.48E-02 | 1.94E+00 | 2.46E-05 | 5.52E-04 | 0.00E+00 | 2.11E-04 | 5.49E-02 | 1.69E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.75E+02 | 9.11E+02 | 1.09E+03 | 2.02E-02 | 1.07E-01 | 8.75E-02 | 1.18E+01 | 1.53E-04 | 4.57E-03 | 0.00E+00 | 1.82E-03 | 2.34E-01 | 3.36E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.55E+03 | 4.89E+03 | 1.32E+04 | 1.19E-01 | 9.37E-01 | 7.99E-01 | 1.44E+02 | 1.69E-03 | 5.07E-02 | 0.00E+00 | 1.07E-02 | 3.83E-01 | 6.91E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.02E+03 | 1.97E+03 | 9.68E+03 | 6.57E-02 | 6.00E-01 | 4.19E-01 | 1.06E+02 | 1.20E-03 | 2.21E-02 | 0.00E+00 | 5.93E-03 | 6.10E-01 | 1.22E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.45E+02 | 2.79E+02 | 1.93E+03 | 1.06E-02 | 4.35E-02 | 7.27E-02 | 2.13E+01 | 2.40E-04 | 2.50E-03 | 0.00E+00 | 9.56E-04 | 3.12E-01 | 1.72E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.02E+02 | 1.96E+02 | 1.94E+03 | 1.03E-02 | 4.29E-02 | 6.54E-02 | 2.14E+01 | 2.10E-04 | 2.38E-03 | 0.00E+00 | 9.27E-04 | 4.39E-01 | 2.15E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.35E+01 | 7.14E+01 | 3.06E+02 | 3.82E-03 | 2.34E-02 | 2.25E-02 | 3.35E+00 | 3.93E-05 | 1.62E-03 | 0.00E+00 | 3.45E-04 | 6.54E-01 | 1.10E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.15E+02 | 6.54E+02 | 4.41E+03 | 4.03E-02 | 2.90E-01 | 2.46E-01 | 4.84E+01 | 5.44E-04 | 1.36E-02 | 0.00E+00 | 3.64E-03 | 8.89E-01 | 1.66E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.10E+02 | 6.37E+02 | 6.04E+03 | 4.36E-02 | 1.54E-01 | 3.00E-01 | 6.67E+01 | 7.50E-04 | 1.08E-02 | 0.00E+00 | 3.93E-03 | 4.84E-01 | 2.35E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.78E+02 | 1.75E+03 | 2.55E+04 | 1.76E-01 | 6.94E-01 | 1.14E+00 | 2.82E+02 | 2.76E-03 | 4.24E-02 | 0.00E+00 | 1.58E-02 | 7.91E-01 | 3.15E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.94E+01 | 5.88E+01 | 1.48E+03 | 1.02E-02 | 4.01E-02 | 6.77E-02 | 1.63E+01 | 1.64E-04 | 2.49E-03 | 0.00E+00 | 9.21E-04 | 1.37E+00 | 5.58E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Paving Eqt | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.57E+01 | 3.56E+01 | 2.05E+01 | 2.71E-04 | 9.26E-04 | 1.71E-03 | 2.25E-01 | 2.85E-06 | 6.41E-05 | 0.00E+00 | 2.45E-05 | 5.19E-02 | 1.60E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Paving Eqt | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.33E+01 | 3.04E+01 | 3.36E+01 | 9.07E-04 | 3.75E-03 | 2.93E-03 | 3.63E-01 | 4.69E-06 | 1.98E-04 | 0.00E+00 | 8.18E-05 | 2.47E-01 | 3.09E-04 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.91E+02 | 4.38E+02 | 1.09E+03 | 1.35E-02 | 8.13E-02 | 8.21E-02 | 1.19E+01 | 1.40E-04 | 6.09E-03 | 0.00E+00 | 1.22E-03 | 3.72E-01 | 6.39E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.99E+01 | 2.06E+02 | 9.46E+02 | 8.57E-03 | 6.09E-02 | 5.51E-02 | 1.04E+01 | 1.17E-04 | 3.08E-03 | 0.00E+00 | 7.73E-04 | 5.92E-01 | 1.14E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.53E+01 | 5.80E+01 | 3.21E+02 | 2.26E-03 | 8.02E-03 | 1.67E-02 | 3.54E+00 | 3.98E-05 | 5.97E-04 | 0.00E+00 | 2.04E-04 | 2.77E-01 | 1.37E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.21E+01 | 1.49E+01 | 9.65E+00 | 1.65E-04 | 8.57E-04 | 7.52E-04 | 1.05E-01 | 1.36E-06 | 3.79E-05 | 0.00E+00 | 1.49E-05 | 1.15E-01 | 1.82E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.41E+00 | 2.98E+00 | 8.67E+00 | 7.22E-05 | 5.95E-04 | 5.23E-04 | 9.51E-02 | 1.12E-06 | 3.20E-05 | 0.00E+00 | 6.51E-06 | 3.99E-01 | 7.47E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.81E+00 | 2.24E+00 | 8.73E+00 | 5.30E-05 | 5.20E-04 | 3.78E-04 | 9.59E-02 | 1.08E-06 | 1.89E-05 | 0.00E+00 | 4.79E-06 | 4.65E-01 | 9.64E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.62E+00 | 4.48E+00 | 2.73E+01 | 1.31E-04 | 6.00E-04 | 1.03E-03 | 3.02E-01 | 3.39E-06 | 3.43E-05 | 0.00E+00 | 1.18E-05 | 2.68E-01 | 1.52E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.02E+01 | 3.73E+01 | 3.73E+02 | 1.70E-03 | 8.37E-03 | 1.26E-02 | 4.12E+00 | 4.05E-05 | 4.40E-04 | 0.00E+00 | 1.54E-04 | 4.49E-01 | 2.17E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.70E+00 | 4.58E+00 | 7.18E+01 | 3.31E-04 | 1.61E-03 | 2.50E-03 | 7.94E-01 | 7.98E-06 | 8.60E-05 | 0.00E+00 | 2.98E-05 | 7.04E-01 | 3.49E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 15 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.70E+03 | 3.49E+03 | 9.83E+02 | 1.25E-02 | 6.57E-02 | 7.85E-02 | 1.08E+01 | 1.67E-04 | 3.07E-03 | 0.00E+00 | 1.13E-03 | 3.76E-02 | 9.59E-05 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.44E+00 | 1.24E+01 | 2.05E+01 | 2.58E-04 | 1.70E-03 | 1.53E-03 | 2.24E-01 | 2.90E-06 | 6.09E-05 | 0.00E+00 | 2.33E-05 | 2.75E-01 | 4.67E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.38E+02 | 2.03E+02 | 7.40E+02 | 4.82E-03 | 4.98E-02 | 3.81E-02 | 8.12E+00 | 9.52E-05 | 2.03E-03 | 0.00E+00 | 4.35E-04 | 4.91E-01 | 9.40E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.56E+01 | 1.26E+02 | 8.83E+02 | 4.44E-03 | 5.20E-02 | 3.07E-02 | 9.70E+00 | 1.09E-04 | 1.47E-03 | 0.00E+00 | 4.00E-04 | 8.27E-01 | 1.74E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.81E+01 | 2.65E+01 | 3.06E+02 | 1.22E-03 | 6.25E-03 | 8.79E-03 | 3.39E+00 | 3.81E-05 | 2.73E-04 | 0.00E+00 | 1.10E-04 | 4.71E-01 | 2.87E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 15 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.52E+01 | 7.67E+01 | 2.96E+01 | 3.77E-04 | 1.98E-03 | 2.36E-03 | 3.24E-01 | 5.04E-06 | 9.23E-05 | 0.00E+00 | 3.40E-05 | 5.16E-02 | 1.32E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.76E+01 | 8.07E+01 | 1.21E+02 | 1.60E-03 | 5.47E-03 | 1.01E-02 | 1.33E+00 | 1.68E-05 | 3.78E-04 | 0.00E+00 | 1.45E-04 | 1.35E-01 | 4.17E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.81E+03 | 3.12E+03 | 4.74E+03 | 1.33E-01 | 5.24E-01 | 4.14E-01 | 5.13E+01 | 6.63E-04 | 2.88E-02 | 0.00E+00 | 1.20E-02 | 3.36E-01 | 4.25E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.46E+03 | 4.23E+03 | 1.25E+04 | 1.59E-01 | 9.29E-01 | 9.77E-01 | 1.37E+02 | 1.61E-03 | 7.26E-02 | 0.00E+00 | 1.43E-02 | 4.39E-01 | 7.61E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.69E+02 | 4.63E+02 | 3.03E+03 | 2.78E-02 | 1.93E-01 | 1.84E-01 | 3.33E+01 | 3.74E-04 | 1.02E-02 | 0.00E+00 | 2.50E-03 | 8.35E-01 | 1.62E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.41E+01 | 4.15E+01 | 4.19E+02 | 2.99E-03 | 1.08E-02 | 2.29E-02 | 4.62E+00 | 5.20E-05 | 8.43E-04 | 0.00E+00 | 2.70E-04 | 5.20E-01 | 2.51E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.08E+01 | 5.29E+01 | 7.46E+02 | 5.02E-03 | 2.13E-02 | 3.67E-02 | 8.23E+00 | 8.08E-05 | 1.38E-03 | 0.00E+00 | 4.53E-04 | 8.06E-01 | 3.05E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 7.41E-01 | 1.27E+00 | 3.38E+01 | 2.29E-04 | 9.65E-04 | 1.71E-03 | 3.73E-01 | 3.75E-06 | 6.35E-05 | 0.00E+00 | 2.07E-05 | 1.52E+00 | 5.90E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 15 | Constructio | U | P | NHH | P | Total | Total | Total | 6.03E+00 | 1.34E+01 | 6.33E+00 | 8.07E-05 | 4.23E-04 | 5.05E-04 | 6.93E-02 | 1.08E-06 | 1.97E-05 | 0.00E+00 | 7.28E-06 | 6.31E-02 | 1.61E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 25 | Constructio | U | P | NHH | P | Total | Total | Total | 1.81E+01 | 4.02E+01 | 2.93E+01 | 3.88E-04 | 1.32E-03 | 2.45E-03 | 3.21E-01 | 4.08E-06 | 9.15E-05 | 0.00E+00 | 3.50E-05 | 6.58E-02 | 2.03E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 50 | Constructio | U | P | NHH | P | Total | Total | Total | 7.90E+01 | 1.82E+02 | 2.57E+02 | 1.74E-03 | 2.00E-02 | 1.53E-02 | 2.82E+00 | 3.65E-05 | 1.01E-04 | 0.00E+00 | 1.57E-04 | 2.20E-01 | 4.01E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 120 | Constructio | U | P | NHH | P | Total | Total | Total | 2.42E+02 | 5.58E+02 | 1.96E+03 | 7.29E-03 | 1.30E-01 | 5.83E-02 | 2.15E+01 | 2.52E-04 | 6.90E-04 | 0.00E+00 | 6.58E-04 | 4.66E-01 | 9.04E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 175 | Constructio | U | P | NHH | P | Total | Total | Total | 5.61E+01 | 1.29E+02 | 8.27E+02 | 2.27E-03 | 4.86E-02 | 7.61E-03 | 9.10E+00 | 1.02E-04 | 2.28E-04 | 0.00E+00 | 2.05E-04 | 7.53E-01 | 1.59E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 250 | Constructio | U | N | NHH | P | Total | Total | Total | 4.83E+01 | 1.11E+02 | 9.43E+02 | 2.45E-03 | 1.90E-02 | 6.55E-03 | 1.04E+01 | 1.17E-04 | 2.17E-04 | 0.00E+00 | 2.21E-04 | 3.42E-01 | 2.11E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 500 | Constructio | U | N | NHH | P | Total | Total | Total | 1.07E+02 | 2.47E+02 | 3.47E+03 | 9.02E-03 | 6.80E-02 | 2.39E-02 | 3.84E+01 | 3.77E-04 | 7.98E-04 | 0.00E+00 | 8.14E-04 | 5.51E-01 | 3.05E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 750 | Constructio | U | N | NHH | P | Total | Total | Total | 1.15E+01 | 2.64E+01 | 7.34E+02 | 1.91E-03 | 1.44E-02 | 5.04E-03 | 8.12E+00 | 8.17E-05 | 1.69E-04 | 0.00E+00 | 1.72E-04 | 1.09E+00 | 6.18E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 1000 | Constructio | U | N | NHH | P | Total | Total | Total | 1.93E+01 | 4.43E+01 | 1.86E+03 | 4.96E-03 | 3.64E-02 | 8.70E-02 | 2.05E+01 | 2.06E-04 | 9.46E-04 | 0.00E+00 | 4.47E-04 | 1.64E+00 | 9.33E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.23E+01 | 8.54E+01 | 6.39E+01 | 8.46E-04 | 2.89E-03 | 5.35E-03 | 7.02E-01 | 8.90E-06 | 2.00E-04 | 0.00E+00 | 7.64E-05 | 6.76E-02 | 2.08E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.40E+02 | 3.26E+03 | 3.74E+03 | 5.46E-02 | 3.91E-01 | 2.84E-01 | 4.07E+01 | 5.26E-04 | 9.41E-03 | 0.00E+00 | 4.92E-03 | 2.40E-01 | 3.23E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.28E+03 | 8.84E+03 | 2.97E+04 | 2.26E-01 | 2.19E+00 | 1.41E+00 | 3.25E+02 | 3.81E-03 | 6.54E-02 | 0.00E+00 | 2.04E-02 | 4.95E-01 | 8.63E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.40E+03 | 1.71E+04 | 8.71E+04 | 5.23E-01 | 5.65E+00 | 2.51E+00 | 9.56E+02 | 1.08E-02 | 1.24E-01 | 0.00E+00 | 4.72E-02 | 6.63E-01 | 1.26E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.79E+03 | 6.94E+03 | 4.98E+04 | 2.58E-01 | 1.12E+00 | 1.17E+00 | 5.50E+02 | 6.19E-03 | 4.02E-02 | 0.00E+00 | 2.32E-02 | 3.24E-01 | 1.78E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.29E+03 | 5.00E+03 | 5.29E+04 | 2.70E-01 | 1.13E+00 | 1.15E+00 | 5.84E+02 | 5.73E-03 | 4.16E-02 | 0.00E+00 | 2.44E-02 | 4.54E-01 | 2.29E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 5.80E+00 | 2.25E+01 | 3.94E+02 | 2.01E-03 | 8.45E-03 | 8.65E-03 | 4.35E+00 | 4.38E-05 | 3.12E-04 | 0.00E+00 | 1.82E-04 | 7.52E-01 | 3.89E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.41E+00 | 3.92E+00 | 2.94E+00 | 3.89E-05 | 1.33E-04 | 2.46E-04 | 3.22E-02 | 4.09E-07 | 9.18E-06 | 0.00E+00 | 3.51E-06 | 6.78E-02 | 2.09E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.11E+01 | 3.36E+01 | 4.64E+01 | 5.88E-04 | 3.94E-03 | 3.51E-03 | 5.07E-01 | 6.55E-06 | 1.41E-04 | 0.00E+00 | 5.31E-05 | 2.35E-01 | 3.90E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 3.68E+01 | 5.85E+01 | 1.98E+02 | 1.31E-03 | 1.34E-02 | 1.02E-02 | 2.17E+00 | 2.54E-05 | 5.50E-04 | 0.00E+00 | 1.18E-04 | 4.58E-01 | 8.69E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.21E+00 | 1.92E+00 | 1.40E+01 | 7.23E-05 | 8.30E-04 | 4.88E-04 | 1.54E-01 | 1.73E-06 | 2.41E-05 | 0.00E+00 | 6.53E-06 | 8.65E-01 | 1.80E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 15 | Constructio | U | P | NHH | NP | Total | Total | Total | 3.08E+02 | 2.54E+02 | 7.31E+01 | 9.32E-04 | 4.89E-03 | 5.84E-03 | 8.00E-01 | 1.25E-05 | 2.28E-04 | 0.00E+00 | 8.41E-05 | 3.86E-02 | 9.83E-05 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.77E+01 | 2.28E+01 | 1.82E+01 | 2.48E-04 | 8.34E-04 | 1.55E-03 | 2.00E-01 | 2.54E-06 | 6.20E-05 | 0.00E+00 | 2.24E-05 | 7.31E-02 | 2.23E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 50 | Constructio | U | P | NHH | P | Total | Total | Total | 2.05E+01 | 7.19E+01 | 7.68E+01 | 1.58E-03 | 8.40E-03 | 6.40E-03 | 8.33E-01 | 1.08E-05 | 3.37E-04 | 0.00E+00 | 1.42E-04 | 2.34E-01 | 2.99E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 120 | Constructio | U | P | NHH | P | Total | Total | Total | 2.25E+02 | 7.89E+02 | 1.81E+03 | 1.81E-02 | 1.34E-01 | 1.12E-01 | 1.98E+01 | 2.32E-04 | 7.18E-03 | 0.00E+00 | 1.63E-03 | 3.41E-01 | 5.88E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 175 | Constructio | U | P | NHH | P | Total | Total | Total | 2.25E+02 | 7.89E+02 | 2.89E+03 | 2.20E-02 | 1.87E-01 | 1.28E-01 | 3.17E+01 | 3.56E-04 | 6.84E-03 | 0.00E+00 | 1.99E-03 | 4.74E-01 | 9.03E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 250 | Constructio | U | N | NHH | P | Total | Total | Total | 4.36E+02 | 1.53E+03 | 7.76E+03 | 4.82E-02 | 1.82E-01 | 2.98E-01 | 8.57E+01 | 9.64E-04 | 1.03E-02 | 0.00E+00 | 4.35E-03 | 2.38E-01 | 1.26E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 500 | Constructio | U | N | NHH | P | Total | Total | Total | 1.60E+02 | 5.60E+02 | 4.56E+03 | 2.76E-02 | 1.03E-01 | 1.57E-01 | 5.04E+01 | 4.95E-04 | 5.79E-03 | 0.00E+00 | 2.49E-03 | 3.67E-01 | 1.77E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 750 | Constructio | U | N | NHH | P | Total | Total | Total | 2.41E+01 | 8.44E+01 | 1.16E+03 | 7.00E-03 | 2.60E-02 | 4.08E-02 | 1.28E+01 | 1.28E-04 | 1.48E-03 | 0.00E+00 | 6.32E-04 | 6.17E-01 | 3.04E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 9999 | Constructio | U | N | NHH | P | Total | Total | Total | 3.02E+01 | 1.06E+02 | 4.65E+03 | 3.21E-02 | 1.10E-01 | 3.37E-01 | 5.14E+01 | 5.16E-04 | 7.96E-03 | 0.00E+00 | 2.89E-03 | 2.07E+00 | 9.75E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.44E+00 | 2.19E+01 | 2.77E+01 | 5.19E-04 | 2.93E-03 | 2.22E-03 | 3.01E-01 | 3.90E-06 | 1.05E-04 | 0.00E+00 | 4.68E-05 | 2.68E-01 | 3.56E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 5.63E+02 | 1.46E+03 | 5.00E+03 | 4.64E-02 | 3.69E-01 | 2.88E-01 | 5.47E+01 | 6.42E-04 | 1.73E-02 | 0.00E+00 | 4.19E-03 | 5.05E-01 | 8.79E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.92E+03 | 4.99E+03 | 2.82E+04 | 1.98E-01 | 1.81E+00 | 1.11E+00 | 3.09E+02 | 3.48E-03 | 5.84E-02 | 0.00E+00 | 1.79E-02 | 7.27E-01 | 1.39E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.19E+03 | 3.10E+03 | 2.41E+04 | 1.39E-01 | 5.60E-01 | 8.17E-01 | 2.66E+02 | 3.00E-03 | 2.83E-02 | 0.00E+00 | 1.26E-02 | 3.61E-01 | 1.93E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.38E+01 | 8.76E+01 | 9.09E+02 | 5.10E-03 | 2.10E-02 | 2.77E-02 | 1.00E+01 | 9.86E-05 | 1.01E-03 | 0.00E+00 | 4.60E-04 | 4.79E-01 | 2.25E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.70E-01 | 9.59E-01 | 2.11E+01 | 1.19E-04 | 4.86E-04 | 6.60E-04 | 2.33E-01 | 2.34E-06 | 2.38E-05 | 0.00E+00 | 1.07E-05 | 1.01E+00 | 4.88E-03 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.92E+01 | 2.13E+02 | 1.21E+03 | 7.80E-03 | 8.01E-02 | 3.72E-02 | 1.33E+01 | 1.50E-04 | 1.87E-03 | 0.00E+00 | 7.04E-04 | 7.53E-01 | 1.41E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.90E+02 | 1.57E+03 | 1.18E+04 | 6.56E-02 | 2.73E-01 | 2.98E-01 | 1.31E+02 | 1.47E-03 | 1.03E-02 | 0.00E+00 | 5.91E-03 | 3.47E-01 | 1.87E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.08E+02 | 2.21E+03 | 2.72E+04 | 1.49E-01 | 5.94E-01 | 6.32E-01 | 3.01E+02 | 2.95E-03 | 2.31E-02 | 0.00E+00 | 1.34E-02 | 5.37E-01 | 2.67E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.76E+01 | 4.21E+02 | 8.41E+03 | 4.61E-02 | 1.84E-01 | 1.98E-01 | 9.29E+01 | 9.35E-04 | 7.19E-03 | 0.00E+00 | 4.16E-03 | 8.72E-01 | 4.44E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.64E+01 | 1.97E+02 | 5.58E+03 | 3.20E-02 | 1.25E-01 | 3.48E-01 | 6.16E+01 | 6.19E-04 | 7.24E-03 | 0.00E+00 | 2.89E-03 | 1.26E+00 | 6.28E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 9.65E+01 | 2.53E+02 | 5.10E+02 | 7.78E-03 | 4.97E-02 | 3.99E-02 | 5.56E+00 | 7.18E-05 | 1.69E-03 | 0.00E+00 | 7.02E-04 | 3.93E-01 | 5.69E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 2.72E+02 | 7.12E+02 | 2.70E+03 | 2.14E-02 | 1.93E-01 | 1.44E-01 | 2.96E+01 | 3.47E-04 | 8.02E-03 | 0.00E+00 | 1.93E-03 | 5.42E-01 | 9.74E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 1.15E+02 | 3.02E+02 | 2.30E+03 | 1.44E-02 | 1.44E-01 | 8.26E-02 | 2.52E+01 | 2.84E-04 | 4.26E-03 | 0.00E+00 | 1.30E-03 | 9.52E-01 | 1.88E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 1.15E+01 | 3.00E+01 | 3.32E+02 | 1.68E-03 | 7.19E-03 | 9.81E-03 | 3.67E+00 | 4.12E-05 | 3.23E-04 | 0.00E+00 | 1.52E-04 | 4.79E-01 | 2.75E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 6.45E+01 | 1.69E+02 | 2.85E+03 | 1.42E-02 | 5.93E-02 | 7.71E-02 | 3.15E+01 | 3.10E-04 | 2.70E-03 | 0.00E+00 | 1.28E-03 | 7.01E-01 | 3.66E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 6.17E-01 | 1.62E+00 | 4.30E+01 | 2.14E-04 | 8.93E-04 | 1.19E-03 | 4.75E-01 | 4.78E-06 | 4.07E-05 | 0.00E+00 | 1.93E-05 | 1.11E+00 | 5.92E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 9999 | Constructi | U | N | NHH | P | Total | Total | Total | 6.17E-01 | 1.62E+00 | 9.56E+01 | 5.59E-04 | 2.08E-03 | 6.15E-03 | 1.06E+00 | 1.06E-05 | 1.36E-04 | 0.00E+00 | 5.04E-05 | 2.58E+00 | 1.31E-02 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 6.69E+01 | 2.07E+02 | 3.22E+02 | 4.63E-03 | 3.21E-02 | 2.48E-02 | 3.51E+00 | 4.54E-05 | 9.17E-04 | 0.00E+00 | 4.18E-04 | 3.10E-01 | 4.37E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.21E+03 | 9.94E+03 | 2.83E+04 | 2.15E-01 | 2.05E+00 | 1.40E+00 | 3.10E+02 | 3.64E-03 | 7.14E-02 | 0.00E+00 | 1.94E-02 | 4.12E-01 | 7.32E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.11E+02 | 1.27E+03 | 7.23E+03 | 4.38E-02 | 4.60E-01 | 2.29E-01 | 7.94E+01 | 8.94E-04 | 1.17E-02 | 0.00E+00 | 3.95E-03 | 7.22E-01 | 1.40E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.29E+01 | 7.10E+01 | 5.48E+02 | 2.79E-03 | 1.21E-02 | 1.42E-02 | 6.06E+00 | 6.82E-05 | 4.85E-04 | 0.00E+00 | 2.52E-04 | 3.40E-01 | 1.92E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.51E+01 | 4.67E+01 | 5.42E+02 | 2.72E-03 | 1.14E-02 | 1.30E-02 | 5.99E+00 | 5.88E-05 | 4.67E-04 | 0.00E+00 | 2.45E-04 | 4.87E-01 | 2.52E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.44E+00 | 2.22E+01 | 1.71E+01 | 2.26E-04 | 7.72E-04 | 1.43E-03 | 1.87E-01 | 2.38E-06 | 5.34E-05 | 0.00E+00 | 2.04E-05 | 6.96E-02 | 2.15E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.64E+02 | 4.37E+02 | 6.25E+02 | 1.12E-02 | 6.52E-02 | 4.97E-02 | 6.79E+00 | 8.78E-05 | 2.28E-03 | 0.00E+00 | 1.01E-03 | 2.99E-01 | 4.02E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.46E+03 | 1.19E+04 | 3.19E+04 | 2.86E-01 | 2.34E+00 | 1.80E+00 | 3.49E+02 | 4.10E-03 | 1.06E-01 | 0.00E+00 | 2.58E-02 | 3.94E-01 | 6.90E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.51E+03 | 6.69E+03 | 3.24E+04 | 2.21E-01 | 2.07E+00 | 1.24E+00 | 3.55E+02 | 4.00E-03 | 6.47E-02 | 0.00E+00 | 2.00E-02 | 6.20E-01 | 1.20E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.50E+03 | 6.65E+03 | 4.48E+04 | 2.54E-01 | 1.03E+00 | 1.47E+00 | 4.95E+02 | 5.57E-03 | 5.11E-02 | 0.00E+00 | 2.29E-02 | 3.10E-01 | 1.67E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.04E+03 | 2.77E+03 | 2.97E+04 | 1.63E-01 | 6.69E-01 | 8.78E-01 | 3.28E+02 | 3.22E-03 | 3.21E-02 | 0.00E+00 | 1.47E-02 | 4.83E-01 | 2.32E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.49E+01 | 3.97E+01 | 8.72E+02 | 4.81E-03 | 1.97E-02 | 2.64E-02 | 9.64E+00 | 9.69E-05 | 9.55E-04 | 0.00E+00 | 4.34E-04 | 9.90E-01 | 4.88E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.60E+00 | 4.26E+00 | 1.15E+02 | 6.66E-04 | 2.67E-03 | 7.75E-03 | 1.27E+00 | 1.27E-05 | 1.73E-04 | 0.00E+00 | 6.01E-05 | 1.25E+00 | 5.97E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 6.03E+00 | 2.67E+01 | 1.58E+02 | 1.81E-03 | 1.08E-02 | 1.15E-02 | 1.73E+00 | 1.94E-05 | 6.48E-04 | 0.00E+00 | 1.64E-04 | 8.07E-01 | 1.46E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.48E+02 | 6.55E+02 | 5.45E+03 | 5.02E-02 | 1.63E-01 | 3.64E-01 | 6.00E+01 | 6.75E-04 | 1.43E-02 | 0.00E+00 | 4.53E-03 | 4.97E-01 | 2.06E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.27E+02 | 1.01E+03 | 1.21E+04 | 1.05E-01 | 4.24E-01 | 7.32E-01 | 1.33E+02 | 1.31E-03 | 2.89E-02 | 0.00E+00 | 9.45E-03 | 8.42E-01 | 2.60E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.64E+01 | 7.27E+01 | 1.31E+03 | 1.14E-02 | 4.60E-02 | 8.13E-02 | 1.45E+01 | 1.46E-04 | 3.17E-03 | 0.00E+00 | 1.03E-03 | 1.27E+00 | 4.01E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.11E+00 | 4.91E+00 | 1.32E+02 | 1.21E-03 | 5.01E-03 | 1.25E-02 | 1.45E+00 | 1.46E-05 | 3.60E-04 | 0.00E+00 | 1.10E-04 | 2.04E+00 | 5.95E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.70E+02 | 4.39E+02 | 3.17E+02 | 4.20E-03 | 1.43E-02 | 2.65E-02 | 3.48E+00 | 4.42E-05 | 9.91E-04 | 0.00E+00 | 3.79E-04 | 6.53E-02 | 2.01E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.02E+03 | 2.67E+03 | 3.71E+03 | 4.72E-02 | 3.62E-01 | 2.73E-01 | 4.05E+01 | 5.23E-04 | 8.22E-03 | 0.00E+00 | 4.26E-03 | 2.71E-01 | 3.92E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.36E+04 | 3.57E+04 | 8.42E+04 | 5.71E-01 | 6.04E+00 | 3.77E+00 | 9.23E+02 | 1.08E-02 | 1.61E-01 | 0.00E+00 | 5.15E-02 | 3.39E-01 | 6.06E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.01E+03 | 2.66E+03 | 1.23E+04 | 6.64E-02 | 7.77E-01 | 3.24E-01 | 1.35E+02 | 1.52E-03 | 1.54E-02 | 0.00E+00 | 5.99E-03 | 5.83E-01 | 1.14E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.28E+02 | 8.62E+02 | 6.69E+03 | 3.14E-02 | 1.47E-01 | 1.42E-01 | 7.39E+01 | 8.32E-04 | 4.87E-03 | 0.00E+00 | 2.83E-03 | 3.41E-01 | 1.93E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.30E+02 | 1.39E+03 | 2.17E+04 | 1.01E-01 | 4.56E-01 | 4.27E-01 | 2.40E+02 | 2.70E-03 | 1.54E-02 | 0.00E+00 | 9.07E-03 | 6.56E-01 | 3.88E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.47E+01 | 1.96E+02 | 4.59E+03 | 2.13E-02 | 9.65E-02 | 9.14E-02 | 5.07E+01 | 5.71E-04 | 3.27E-03 | 0.00E+00 | 1.92E-03 | 9.83E-01 | 5.82E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.44E+00 | 2.40E+01 | 2.76E+01 | 7.23E-04 | 3.21E-03 | 2.39E-03 | 2.98E-01 | 3.86E-06 | 1.48E-04 | 0.00E+00 | 6.52E-05 | 2.67E-01 | 3.21E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.79E+03 | 1.36E+04 | 4.10E+04 | 4.98E-01 | 3.12E+00 | 2.92E+00 | 4.48E+02 | 5.25E-03 | 2.07E-01 | 0.00E+00 | 4.49E-02 | 4.58E-01 | 7.71E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.62E+03 | 4.61E+03 | 2.55E+04 | 2.28E-01 | 1.68E+00 | 1.37E+00 | 2.79E+02 | 3.14E-03 | 7.56E-02 | 0.00E+00 | 2.06E-02 | 7.28E-01 | 1.36E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.39E+03 | 3.96E+03 | 2.98E+04 | 2.11E-01 | 7.54E-01 | 1.42E+00 | 3.29E+02 | 3.70E-03 | 5.10E-02 | 0.00E+00 | 1.90E-02 | 3.81E-01 | 1.87E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 9.55E+02 | 2.71E+03 | 3.19E+04 | 2.15E-01 | 8.50E-01 | 1.37E+00 | 3.52E+02 | 3.45E-03 | 5.07E-02 | 0.00E+00 | 1.94E-02 | 6.26E-01 | 2.54E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 9.87E+00 | 2.80E+01 | 5.90E+02 | 4.01E-03 | 1.57E-02 | 2.60E-02 | 6.51E+00 | 6.55E-05 | 9.53E-04 | 0.00E+00 | 3.62E-04 | 1.12E+00 | 4.67E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 9.87E+00 | 2.80E+01 | 8.35E+02 | 6.08E-03 | 2.39E-02 | 6.67E-02 | 9.21E+00 | 9.26E-05 | 1.70E-03 | 0.00E+00 | 5.49E-04 | 1.71E+00 | 6.61E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.16E+03 | 2.65E+03 | 1.66E+03 | 2.23E-02 | 7.54E-02 | 1.40E-01 | 1.82E+01 | 2.32E-04 | 5.52E-03 | 0.00E+00 | 2.01E-03 | 5.70E-02 | 1.75E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.05E+04 | 2.44E+04 | 2.85E+04 | 2.58E-01 | 2.43E+00 | 1.89E+00 | 3.12E+02 | 4.03E-03 | 3.59E-02 | 0.00E+00 | 2.32E-02 | 1.99E-01 | 3.30E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.50E+03 | 1.28E+04 | 2.49E+04 | 1.26E-01 | 1.71E+00 | 9.25E-01 | 2.74E+02 | 3.21E-03 | 2.73E-02 | 0.00E+00 | 1.14E-02 | 2.67E-01 | 5.01E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 6.03E-01 | 1.83E+00 | 7.86E+00 | 1.19E-04 | 6.15E-04 | 6.89E-04 | 8.58E-02 | 1.01E-06 | 5.31E-05 | 0.00E+00 | 1.08E-05 | 6.71E-01 | 1.10E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 7.38E+02 | 2.24E+03 | 1.33E+04 | 1.46E-01 | 8.94E-01 | 9.38E-01 | 1.46E+02 | 1.64E-03 | 5.27E-02 | 0.00E+00 | 1.32E-02 | 7.97E-01 | 1.47E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.97E+02 | 2.12E+03 | 1.25E+04 | 1.09E-01 | 3.61E-01 | 8.04E-01 | 1.38E+02 | 1.55E-03 | 3.11E-02 | 0.00E+00 | 9.86E-03 | 3.41E-01 | 1.47E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.20E+01 | 1.88E+02 | 4.85E+03 | 3.99E-02 | 1.61E-01 | 2.88E-01 | 5.34E+01 | 5.37E-04 | 1.11E-02 | 0.00E+00 | 3.60E-03 | 1.72E+00 | 5.71E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.54E+00 | 1.99E+01 | 7.33E+02 | 6.42E-03 | 2.65E-02 | 6.79E-02 | 8.08E+00 | 8.12E-05 | 1.92E-03 | 0.00E+00 | 5.79E-04 | 2.67E+00 | 8.18E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Dumpers/T | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.45E+01 | 2.63E+01 | 9.12E+00 | 1.21E-04 | 4.12E-04 | 7.63E-04 | 1.00E-01 | 1.27E-06 | 2.87E-05 | 0.00E+00 | 1.09E-05 | 3.14E-02 | 9.67E-05 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.00E+02 | 3.78E+02 | 1.74E+02 | 2.22E-03 | 1.16E-02 | 1.39E-02 | 1.91E+00 | 2.97E-05 | 5.43E-04 | 0.00E+00 | 2.00E-04 | 6.17E-02 | 1.57E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.38E+01 | 6.39E+01 | 3.84E+01 | 5.09E-04 | 1.74E-03 | 3.22E-03 | 4.22E-01 | 5.35E-06 | 1.20E-04 | 0.00E+00 | 4.59E-05 | 5.44E-02 | 1.68E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.19E+01 | 9.94E+01 | 1.27E+02 | 1.41E-03 | 1.10E-02 | 9.12E-03 | 1.39E+00 | 1.80E-05 | 2.79E-04 | 0.00E+00 | 1.27E-04 | 2.22E-01 | 3.62E-04 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.56E+01 | 1.64E+02 | 6.04E+02 | 3.61E-03 | 4.15E-02 | 2.69E-02 | 6.63E+00 | 7.78E-05 | 1.18E-03 | 0.00E+00 | 3.26E-04 | 5.06E-01 | 9.48E-04 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.18E+02 | 2.27E+02 | 1.10E+03 | 5.20E-03 | 6.63E-02 | 2.92E-02 | 1.21E+01 | 1.36E-04 | 1.39E-03 | 0.00E+00 | 4.70E-04 | 5.85E-01 | 1.20E-03 |
| 2022 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.74E+02 | 5.26E+02 | 6.04E+03 | 2.40E-02 | 1.22E-01 | 1.21E-01 | 6.68E+01 | 6.56E-04 | 4.19E-03 | 0.00E+00 | 2.17E-03 | 4.63E-01 | 2.49E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.17E+00 | 2.06E+01 | 1.75E+01 | 2.32E-04 | 7.92E-04 | 1.47E-03 | 1.92E-01 | 2.44E-06 | 5.53E-05 | 0.00E+00 | 2.10E-05 | 7.68E-02 | 2.37E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.33E+02 | 1.21E+03 | 1.57E+03 | 4.04E-02 | 1.75E-01 | 1.34E-01 | 1.70E+01 | 2.19E-04 | 8.47E-03 | 0.00E+00 | 3.64E-03 | 2.89E-01 | 3.62E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 6.29E+02 | 1.43E+03 | 4.52E+03 | 5.38E-02 | 3.38E-01 | 3.24E-01 | 4.95E+01 | 5.80E-04 | 2.31E-02 | 0.00E+00 | 4.85E-03 | 4.73E-01 | 8.11E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.91E+02 | 8.89E+02 | 5.20E+03 | 4.52E-02 | 3.36E-01 | 2.80E-01 | 5.70E+01 | 6.41E-04 | 1.55E-02 | 0.00E+00 | 4.08E-03 | 7.56E-01 | 1.44E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.71E+01 | 1.07E+02 | 9.43E+02 | 6.47E-03 | 2.37E-02 | 4.54E-02 | 1.04E+01 | 1.17E-04 | 1.64E-03 | 0.00E+00 | 5.84E-04 | 4.41E-01 | 2.19E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.83E+01 | 1.10E+02 | 1.16E+03 | 7.58E-03 | 3.12E-02 | 5.02E-02 | 1.28E+01 | 1.26E-04 | 1.87E-03 | 0.00E+00 | 6.84E-04 | 5.67E-01 | 2.29E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Plate Comp | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.97E+02 | 3.24E+02 | 6.38E+01 | 8.13E-04 | 4.26E-03 | 5.09E-03 | 6.98E-01 | 1.09E-05 | 1.99E-04 | 0.00E+00 | 7.33E-05 | 2.63E-02 | 6.71E-05 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.70E+02 | 7.05E+02 | 2.03E+02 | 2.59E-03 | 1.36E-02 | 1.62E-02 | 2.23E+00 | 3.46E-05 | 6.34E-04 | 0.00E+00 | 2.34E-04 | 3.86E-02 | 9.83E-05 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.55E+02 | 2.95E+02 | 1.79E+02 | 2.37E-03 | 8.09E-03 | 1.50E-02 | 1.96E+00 | 2.49E-05 | 5.60E-04 | 0.00E+00 | 2.14E-04 | 5.49E-02 | 1.69E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.81E+02 | 9.23E+02 | 1.10E+03 | 1.86E-02 | 1.07E-01 | 8.63E-02 | 1.20E+01 | 1.55E-04 | 4.07E-03 | 0.00E+00 | 1.68E-03 | 2.31E-01 | 3.36E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.58E+03 | 4.96E+03 | 1.33E+04 | 1.11E-01 | 9.46E-01 | 7.52E-01 | 1.46E+02 | 1.71E-03 | 4.47E-02 | 0.00E+00 | 1.00E-02 | 3.82E-01 | 6.91E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.04E+03 | 1.99E+03 | 9.80E+03 | 6.22E-02 | 6.07E-01 | 3.79E-01 | 1.08E+02 | 1.21E-03 | 1.98E-02 | 0.00E+00 | 5.61E-03 | 6.09E-01 | 1.22E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.47E+02 | 2.83E+02 | 1.96E+03 | 1.02E-02 | 4.36E-02 | 6.53E-02 | 2.16E+01 | 2.43E-04 | 2.27E-03 | 0.00E+00 | 9.21E-04 | 3.09E-01 | 1.72E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.03E+02 | 1.98E+02 | 1.96E+03 | 9.96E-03 | 4.27E-02 | 5.91E-02 | 2.17E+01 | 2.13E-04 | 2.16E-03 | 0.00E+00 | 8.98E-04 | 4.31E-01 | 2.15E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.38E+01 | 7.24E+01 | 3.10E+02 | 3.63E-03 | 2.36E-02 | 2.14E-02 | 3.39E+00 | 3.98E-05 | 1.48E-03 | 0.00E+00 | 3.28E-04 | 6.52E-01 | 1.10E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.18E+02 | 6.62E+02 | 4.47E+03 | 3.84E-02 | 2.94E-01 | 2.27E-01 | 4.90E+01 | 5.51E-04 | 1.25E-02 | 0.00E+00 | 3.46E-03 | 8.88E-01 | 1.66E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.13E+02 | 6.46E+02 | 6.12E+03 | 4.20E-02 | 1.54E-01 | 2.76E-01 | 6.76E+01 | 7.60E-04 | 9.95E-03 | 0.00E+00 | 3.79E-03 | 4.76E-01 | 2.35E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.86E+02 | 1.78E+03 | 2.59E+04 | 1.70E-01 | 6.84E-01 | 1.05E+00 | 2.85E+02 | 2.80E-03 | 3.91E-02 | 0.00E+00 | 1.53E-02 | 7.69E-01 | 3.15E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.96E+01 | 5.96E+01 | 1.50E+03 | 9.87E-03 | 3.95E-02 | 6.24E-02 | 1.65E+01 | 1.66E-04 | 2.30E-03 | 0.00E+00 | 8.91E-04 | 1.33E+00 | 5.58E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.59E+01 | 3.61E+01 | 2.08E+01 | 2.75E-04 | 9.39E-04 | 1.74E-03 | 2.28E-01 | 2.89E-06 | 6.49E-05 | 0.00E+00 | 2.48E-05 | 5.19E-02 | 1.60E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.35E+01 | 3.08E+01 | 3.40E+01 | 8.47E-04 | 3.74E-03 | 2.89E-03 | 3.68E-01 | 4.76E-06 | 1.81E-04 | 0.00E+00 | 7.64E-05 | 2.43E-01 | 3.09E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.94E+02 | 4.43E+02 | 1.10E+03 | 1.28E-02 | 8.20E-02 | 7.80E-02 | 1.21E+01 | 1.42E-04 | 5.56E-03 | 0.00E+00 | 1.15E-03 | 3.70E-01 | 6.39E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.11E+01 | 2.08E+02 | 9.59E+02 | 8.14E-03 | 6.16E-02 | 5.09E-02 | 1.05E+01 | 1.18E-04 | 2.82E-03 | 0.00E+00 | 7.35E-04 | 5.91E-01 | 1.14E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.57E+01 | 5.88E+01 | 3.25E+02 | 2.17E-03 | 7.99E-03 | 1.54E-02 | 3.59E+00 | 4.04E-05 | 5.49E-04 | 0.00E+00 | 1.96E-04 | 2.72E-01 | 1.37E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.22E+01 | 1.51E+01 | 9.78E+00 | 1.53E-04 | 8.56E-04 | 7.41E-04 | 1.07E-01 | 1.38E-06 | 3.42E-05 | 0.00E+00 | 1.38E-05 | 1.13E-01 | 1.82E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.45E+00 | 3.02E+00 | 8.79E+00 | 6.75E-05 | 6.01E-04 | 4.95E-04 | 9.63E-02 | 1.13E-06 | 2.86E-05 | 0.00E+00 | 6.09E-06 | 3.97E-01 | 7.47E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.83E+00 | 2.27E+00 | 8.85E+00 | 5.00E-05 | 5.27E-04 | 3.43E-04 | 9.72E-02 | 1.09E-06 | 1.70E-05 | 0.00E+00 | 4.51E-06 | 4.64E-01 | 9.64E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.67E+00 | 4.54E+00 | 2.77E+01 | 1.26E-04 | 6.01E-04 | 9.33E-04 | 3.06E-01 | 3.44E-06 | 3.13E-05 | 0.00E+00 | 1.14E-05 | 2.65E-01 | 1.52E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.06E+01 | 3.78E+01 | 3.78E+02 | 1.65E-03 | 8.30E-03 | 1.15E-02 | 4.18E+00 | 4.10E-05 | 4.03E-04 | 0.00E+00 | 1.49E-04 | 4.39E-01 | 2.17E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.75E+00 | 4.64E+00 | 7.28E+01 | 3.20E-04 | 1.60E-03 | 2.27E-03 | 8.04E-01 | 8.09E-06 | 7.87E-05 | 0.00E+00 | 2.88E-05 | 6.88E-01 | 3.49E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.72E+03 | 3.54E+03 | 9.97E+02 | 1.27E-02 | 6.66E-02 | 7.95E-02 | 1.09E+01 | 1.70E-04 | 3.11E-03 | 0.00E+00 | 1.15E-03 | 3.76E-02 | 9.59E-05 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.56E+00 | 1.26E+01 | 2.08E+01 | 2.41E-04 | 1.71E-03 | 1.50E-03 | 2.27E-01 | 2.93E-06 | 5.29E-05 | 0.00E+00 | 2.18E-05 | 2.72E-01 | 4.67E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.40E+02 | 2.05E+02 | 7.50E+02 | 4.57E-03 | 5.04E-02 | 3.58E-02 | 8.23E+00 | 9.65E-05 | 1.77E-03 | 0.00E+00 | 4.12E-04 | 4.91E-01 | 9.40E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.68E+01 | 1.27E+02 | 8.94E+02 | 4.22E-03 | 5.27E-02 | 2.77E-02 | 9.83E+00 | 1.11E-04 | 1.31E-03 | 0.00E+00 | 3.81E-04 | 8.27E-01 | 1.74E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.83E+01 | 2.69E+01 | 3.10E+02 | 1.18E-03 | 6.31E-03 | 7.81E-03 | 3.43E+00 | 3.86E-05 | 2.41E-04 | 0.00E+00 | 1.06E-04 | 4.69E-01 | 2.87E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.59E+01 | 7.77E+01 | 3.00E+01 | 3.82E-04 | 2.01E-03 | 2.40E-03 | 3.29E-01 | 5.11E-06 | 9.36E-05 | 0.00E+00 | 3.45E-05 | 5.16E-02 | 1.32E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.83E+01 | 8.19E+01 | 1.23E+02 | 1.62E-03 | 5.54E-03 | 1.03E-02 | 1.35E+00 | 1.71E-05 | 3.83E-04 | 0.00E+00 | 1.47E-04 | 1.35E-01 | 4.17E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.84E+03 | 3.16E+03 | 4.80E+03 | 1.26E-01 | 5.21E-01 | 4.09E-01 | 5.20E+01 | 6.72E-04 | 2.67E-02 | 0.00E+00 | 1.13E-02 | 3.30E-01 | 4.25E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.49E+03 | 4.28E+03 | 1.27E+04 | 1.51E-01 | 9.37E-01 | 9.32E-01 | 1.39E+02 | 1.63E-03 | 6.72E-02 | 0.00E+00 | 1.36E-02 | 4.37E-01 | 7.61E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.73E+02 | 4.69E+02 | 3.07E+03 | 2.65E-02 | 1.96E-01 | 1.72E-01 | 3.37E+01 | 3.79E-04 | 9.50E-03 | 0.00E+00 | 2.40E-03 | 8.34E-01 | 1.62E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.45E+01 | 4.21E+01 | 4.24E+02 | 2.88E-03 | 1.07E-02 | 2.13E-02 | 4.68E+00 | 5.27E-05 | 7.80E-04 | 0.00E+00 | 2.60E-04 | 5.09E-01 | 2.51E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.12E+01 | 5.36E+01 | 7.56E+02 | 4.86E-03 | 2.09E-02 | 3.41E-02 | 8.34E+00 | 8.18E-05 | 1.28E-03 | 0.00E+00 | 4.38E-04 | 7.79E-01 | 3.05E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.51E-01 | 1.29E+00 | 3.43E+01 | 2.21E-04 | 9.47E-04 | 1.59E-03 | 3.78E-01 | 3.80E-06 | 5.90E-05 | 0.00E+00 | 2.00E-05 | 1.47E+00 | 5.90E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 15 | Constructi | U | P | NHH | P | Total | Total | Total | 6.11E+00 | 1.36E+01 | 6.42E+00 | 8.18E-05 | 4.29E-04 | 5.12E-04 | 7.03E-02 | 1.09E-06 | 2.00E-05 | 0.00E+00 | 7.38E-06 | 6.31E-02 | 1.61E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 25 | Constructi | U | P | NHH | P | Total | Total | Total | 1.83E+01 | 4.08E+01 | 2.97E+01 | 3.93E-04 | 1.34E-03 | 2.48E-03 | 3.26E-01 | 4.13E-06 | 9.28E-05 | 0.00E+00 | 3.55E-05 | 6.58E-02 | 2.03E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 8.01E+01 | 1.84E+02 | 2.61E+02 | 1.76E-03 | 2.03E-02 | 1.54E-02 | 2.86E+00 | 3.69E-05 | 9.23E-05 | 0.00E+00 | 1.59E-04 | 2.20E-01 | 4.01E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 2.46E+02 | 5.66E+02 | 1.98E+03 | 7.24E-03 | 1.32E-01 | 5.70E-02 | 2.18E+01 | 2.56E-04 | 6.39E-04 | 0.00E+00 | 6.53E-04 | 4.66E-01 | 9.04E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 5.69E+01 | 1.31E+02 | 8.38E+02 | 2.20E-03 | 4.93E-02 | 6.31E-03 | 9.22E+00 | 1.04E-04 | 2.15E-04 | 0.00E+00 | 1.99E-04 | 7.53E-01 | 1.59E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 4.89E+01 | 1.13E+02 | 9.56E+02 | 2.43E-03 | 1.93E-02 | 5.95E-03 | 1.06E+01 | 1.19E-04 | 2.11E-04 | 0.00E+00 | 2.19E-04 | 3.42E-01 | 2.11E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 1.09E+02 | 2.50E+02 | 3.52E+03 | 8.95E-03 | 6.90E-02 | 2.18E-02 | 3.90E+01 | 3.82E-04 | 7.76E-04 | 0.00E+00 | 8.08E-04 | 5.51E-01 | 3.05E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 1.16E+01 | 2.68E+01 | 7.44E+02 | 1.89E-03 | 1.46E-02 | 4.60E-03 | 8.23E+00 | 8.27E-05 | 1.64E-04 | 0.00E+00 | 1.71E-04 | 1.09E+00 | 6.18E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 1000 | Constructi | U | N | NHH | P | Total | Total | Total | 1.95E+01 | 4.49E+01 | 1.88E+03 | 4.87E-03 | 3.68E-02 | 8.77E-02 | 2.08E+01 | 2.09E-04 | 8.84E-04 | 0.00E+00 | 4.40E-04 | 1.64E+00 | 9.33E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.26E+01 | 8.66E+01 | 6.48E+01 | 8.58E-04 | 2.93E-03 | 5.42E-03 | 7.11E-01 | 9.02E-06 | 2.03E-04 | 0.00E+00 | 7.74E-05 | 6.76E-02 | 2.08E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.52E+02 | 3.30E+03 | 3.79E+03 | 5.27E-02 | 3.93E-01 | 2.80E-01 | 4.12E+01 | 5.33E-04 | 8.06E-03 | 0.00E+00 | 4.76E-03 | 2.38E-01 | 3.23E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.31E+03 | 8.96E+03 | 3.01E+04 | 2.18E-01 | 2.22E+00 | 1.33E+00 | 3.30E+02 | 3.87E-03 | 5.66E-02 | 0.00E+00 | 1.97E-02 | 4.95E-01 | 8.63E-04 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.46E+03 | 1.73E+04 | 8.83E+04 | 4.99E-01 | 5.73E+00 | 2.22E+00 | 9.69E+02 | 1.09E-02 | 1.08E-01 | 0.00E+00 | 4.50E-02 | 6.63E-01 | 1.26E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.81E+03 | 7.03E+03 | 5.04E+04 | 2.48E-01 | 1.13E+00 | 1.02E+00 | 5.57E+02 | 6.27E-03 | 3.52E-02 | 0.00E+00 | 2.24E-02 | 3.23E-01 | 1.78E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.31E+03 | 5.07E+03 | 5.36E+04 | 2.61E-01 | 1.15E+00 | 1.02E+00 | 5.92E+02 | 5.81E-03 | 3.65E-02 | 0.00E+00 | 2.36E-02 | 4.52E-01 | 2.29E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.88E+00 | 2.28E+01 | 3.99E+02 | 1.95E-03 | 8.53E-03 | 7.68E-03 | 4.41E+00 | 4.43E-05 | 2.73E-04 | 0.00E+00 | 1.76E-04 | 7.49E-01 | 3.89E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.45E+00 | 3.97E+00 | 2.98E+00 | 3.94E-05 | 1.35E-04 | 2.49E-04 | 3.27E-02 | 4.15E-07 | 9.31E-06 | 0.00E+00 | 3.56E-06 | 6.78E-02 | 2.09E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.14E+01 | 3.40E+01 | 4.70E+01 | 5.48E-04 | 3.95E-03 | 3.45E-03 | 5.14E-01 | 6.64E-06 | 1.22E-04 | 0.00E+00 | 4.94E-05 | 2.32E-01 | 3.90E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.73E+01 | 5.93E+01 | 2.00E+02 | 1.24E-03 | 1.36E-02 | 9.58E-03 | 2.20E+00 | 2.58E-05 | 4.79E-04 | 0.00E+00 | 1.12E-04 | 4.57E-01 | 8.69E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.22E+00 | 1.94E+00 | 1.42E+01 | 6.87E-05 | 8.42E-04 | 4.38E-04 | 1.56E-01 | 1.75E-06 | 2.13E-05 | 0.00E+00 | 6.20E-06 | 8.65E-01 | 1.80E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.12E+02 | 2.57E+02 | 7.41E+01 | 9.45E-04 | 4.95E-03 | 5.92E-03 | 8.11E-01 | 1.26E-05 | 2.31E-04 | 0.00E+00 | 8.52E-05 | 3.86E-02 | 9.83E-05 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.81E+01 | 2.31E+01 | 1.85E+01 | 2.49E-04 | 8.42E-04 | 1.56E-03 | 2.03E-01 | 2.57E-06 | 6.17E-05 | 0.00E+00 | 2.25E-05 | 7.27E-02 | 2.23E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 2.08E+01 | 7.29E+01 | 7.77E+01 | 1.46E-03 | 8.39E-03 | 6.31E-03 | 8.44E-01 | 1.09E-05 | 2.99E-04 | 0.00E+00 | 1.32E-04 | 2.30E-01 | 2.99E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 2.28E+02 | 7.99E+02 | 1.83E+03 | 1.70E-02 | 1.36E-01 | 1.05E-01 | 2.00E+01 | 2.35E-04 | 6.32E-03 | 0.00E+00 | 1.53E-03 | 3.40E-01 | 5.88E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 2.28E+02 | 7.99E+02 | 2.92E+03 | 2.08E-02 | 1.90E-01 | 1.16E-01 | 3.21E+01 | 3.61E-04 | 6.13E-03 | 0.00E+00 | 1.88E-03 | 4.74E-01 | 9.03E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 4.42E+02 | 1.55E+03 | 7.86E+03 | 4.64E-02 | 1.82E-01 | 2.68E-01 | 8.68E+01 | 9.77E-04 | 9.32E-03 | 0.00E+00 | 4.19E-03 | 2.35E-01 | 1.26E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 1.62E+02 | 5.68E+02 | 4.63E+03 | 2.67E-02 | 1.02E-01 | 1.42E-01 | 5.11E+01 | 5.02E-04 | 5.25E-03 | 0.00E+00 | 2.41E-03 | 3.61E-01 | 1.77E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 2.44E+01 | 8.55E+01 | 1.17E+03 | 6.76E-03 | 2.59E-02 | 3.68E-02 | 1.29E+01 | 1.30E-04 | 1.34E-03 | 0.00E+00 | 6.10E-04 | 6.07E-01 | 3.04E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 9999 | Constructi | U | N | NHH | P | Total | Total | Total | 3.07E+01 | 1.07E+02 | 4.71E+03 | 3.09E-02 | 1.09E-01 | 3.26E-01 | 5.21E+01 | 5.23E-04 | 7.36E-03 | 0.00E+00 | 2.79E-03 | 2.03E+00 | 9.75E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.56E+00 | 2.22E+01 | 2.81E+01 | 4.86E-04 | 2.94E-03 | 2.19E-03 | 3.05E-01 | 3.95E-06 | 9.26E-05 | 0.00E+00 | 4.38E-05 | 2.65E-01 | 3.56E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.71E+02 | 1.48E+03 | 5.06E+03 | 4.38E-02 | 3.72E-01 | 2.72E-01 | 5.54E+01 | 6.50E-04 | 1.52E-02 | 0.00E+00 | 3.95E-03 | 5.03E-01 | 8.79E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.95E+03 | 5.06E+03 | 2.85E+04 | 1.87E-01 | 1.84E+00 | 1.00E+00 | 3.13E+02 | 3.52E-03 | 5.18E-02 | 0.00E+00 | 1.69E-02 | 7.26E-01 | 1.39E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.21E+03 | 3.14E+03 | 2.44E+04 | 1.34E-01 | 5.63E-01 | 7.32E-01 | 2.70E+02 | 3.04E-03 | 2.56E-02 | 0.00E+00 | 1.21E-02 | 3.59E-01 | 1.93E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.42E+01 | 8.88E+01 | 9.21E+02 | 4.93E-03 | 2.10E-02 | 2.50E-02 | 1.02E+01 | 9.99E-05 | 9.16E-04 | 0.00E+00 | 4.45E-04 | 4.72E-01 | 2.25E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.75E-01 | 9.72E-01 | 2.14E+01 | 1.15E-04 | 4.86E-04 | 5.93E-04 | 2.36E-01 | 2.37E-06 | 2.15E-05 | 0.00E+00 | 1.03E-05 | 9.99E-01 | 4.88E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.97E+01 | 2.16E+02 | 1.23E+03 | 7.45E-03 | 8.11E-02 | 3.30E-02 | 1.35E+01 | 1.52E-04 | 1.64E-03 | 0.00E+00 | 6.72E-04 | 7.53E-01 | 1.41E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.93E+02 | 1.59E+03 | 1.20E+04 | 6.33E-02 | 2.75E-01 | 2.63E-01 | 1.32E+02 | 1.49E-03 | 9.08E-03 | 0.00E+00 | 5.71E-03 | 3.46E-01 | 1.87E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.13E+02 | 2.24E+03 | 2.76E+04 | 1.44E-01 | 6.00E-01 | 5.62E-01 | 3.05E+02 | 2.99E-03 | 2.03E-02 | 0.00E+00 | 1.30E-02 | 5.35E-01 | 2.67E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.87E+01 | 4.27E+02 | 8.52E+03 | 4.46E-02 | 1.85E-01 | 1.76E-01 | 9.42E+01 | 9.47E-04 | 6.33E-03 | 0.00E+00 | 4.02E-03 | 8.68E-01 | 4.44E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.69E+01 | 2.00E+02 | 5.65E+03 | 3.09E-02 | 1.25E-01 | 3.39E-01 | 6.24E+01 | 6.28E-04 | 6.63E-03 | 0.00E+00 | 2.78E-03 | 1.25E+00 | 6.28E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 9.78E+01 | 2.56E+02 | 5.17E+02 | 7.33E-03 | 5.00E-02 | 3.93E-02 | 5.63E+00 | 7.28E-05 | 1.45E-03 | 0.00E+00 | 6.62E-04 | 3.90E-01 | 5.69E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 2.76E+02 | 7.22E+02 | 2.74E+03 | 2.04E-02 | 1.95E-01 | 1.35E-01 | 3.00E+01 | 3.52E-04 | 6.97E-03 | 0.00E+00 | 1.84E-03 | 5.41E-01 | 9.74E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 1.17E+02 | 3.06E+02 | 2.33E+03 | 1.37E-02 | 1.46E-01 | 7.44E-02 | 2.56E+01 | 2.87E-04 | 3.74E-03 | 0.00E+00 | 1.24E-03 | 9.53E-01 | 1.88E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 1.16E+01 | 3.04E+01 | 3.36E+02 | 1.62E-03 | 7.27E-03 | 8.70E-03 | 3.72E+00 | 4.18E-05 | 2.83E-04 | 0.00E+00 | 1.46E-04 | 4.78E-01 | 2.75E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 6.54E+01 | 1.71E+02 | 2.89E+03 | 1.37E-02 | 5.99E-02 | 6.91E-02 | 3.20E+01 | 3.14E-04 | 2.37E-03 | 0.00E+00 | 1.24E-03 | 7.00E-01 | 3.66E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 6.26E-01 | 1.64E+00 | 4.36E+01 | 2.07E-04 | 9.03E-04 | 1.06E-03 | 4.82E-01 | 4.84E-06 | 3.58E-05 | 0.00E+00 | 1.87E-05 | 1.10E+00 | 5.92E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 9999 | Constructi | U | N | NHH | P | Total | Total | Total | 6.26E-01 | 1.64E+00 | 9.69E+01 | 5.41E-04 | 2.09E-03 | 5.95E-03 | 1.07E+00 | 1.08E-05 | 1.25E-04 | 0.00E+00 | 4.89E-05 | 2.55E+00 | 1.31E-02 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 6.79E+01 | 2.10E+02 | 3.27E+02 | 4.41E-03 | 3.23E-02 | 2.44E-02 | 3.56E+00 | 4.60E-05 | 7.79E-04 | 0.00E+00 | 3.98E-04 | 3.07E-01 | 4.37E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.25E+03 | 1.01E+04 | 2.87E+04 | 2.05E-01 | 2.07E+00 | 1.32E+00 | 3.14E+02 | 3.69E-03 | 6.15E-02 | 0.00E+00 | 1.85E-02 | 4.11E-01 | 7.32E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.16E+02 | 1.29E+03 | 7.33E+03 | 4.16E-02 | 4.66E-01 | 2.05E-01 | 8.05E+01 | 9.06E-04 | 1.02E-02 | 0.00E+00 | 3.75E-03 | 7.22E-01 | 1.40E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.32E+01 | 7.20E+01 | 5.56E+02 | 2.67E-03 | 1.22E-02 | 1.25E-02 | 6.14E+00 | 6.91E-05 | 4.21E-04 | 0.00E+00 | 2.41E-04 | 3.39E-01 | 1.92E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.53E+01 | 4.74E+01 | 5.49E+02 | 2.61E-03 | 1.15E-02 | 1.15E-02 | 6.07E+00 | 5.96E-05 | 4.06E-04 | 0.00E+00 | 2.36E-04 | 4.86E-01 | 2.52E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.56E+00 | 2.25E+01 | 1.73E+01 | 2.29E-04 | 7.82E-04 | 1.45E-03 | 1.90E-01 | 2.41E-06 | 5.41E-05 | 0.00E+00 | 2.07E-05 | 6.96E-02 | 2.15E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.66E+02 | 4.42E+02 | 6.33E+02 | 1.05E-02 | 6.53E-02 | 4.90E-02 | 6.88E+00 | 8.90E-05 | 2.01E-03 | 0.00E+00 | 9.48E-04 | 2.95E-01 | 4.02E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.52E+03 | 1.20E+04 | 3.23E+04 | 2.70E-01 | 2.36E+00 | 1.70E+00 | 3.54E+02 | 4.15E-03 | 9.23E-02 | 0.00E+00 | 2.43E-02 | 3.93E-01 | 6.90E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.55E+03 | 6.78E+03 | 3.28E+04 | 2.09E-01 | 2.10E+00 | 1.12E+00 | 3.60E+02 | 4.05E-03 | 5.73E-02 | 0.00E+00 | 1.89E-02 | 6.20E-01 | 1.20E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.53E+03 | 6.74E+03 | 4.54E+04 | 2.44E-01 | 1.04E+00 | 1.31E+00 | 5.02E+02 | 5.65E-03 | 4.59E-02 | 0.00E+00 | 2.20E-02 | 3.08E-01 | 1.67E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.05E+03 | 2.81E+03 | 3.01E+04 | 1.58E-01 | 6.68E-01 | 7.90E-01 | 3.32E+02 | 3.26E-03 | 2.90E-02 | 0.00E+00 | 1.43E-02 | 4.76E-01 | 2.32E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.51E+01 | 4.03E+01 | 8.84E+02 | 4.65E-03 | 1.96E-02 | 2.37E-02 | 9.77E+00 | 9.82E-05 | 8.61E-04 | 0.00E+00 | 4.20E-04 | 9.75E-01 | 4.88E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.63E+00 | 4.32E+00 | 1.16E+02 | 6.41E-04 | 2.65E-03 | 7.52E-03 | 1.28E+00 | 1.29E-05 | 1.60E-04 | 0.00E+00 | 5.79E-05 | 1.23E+00 | 5.97E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 6.11E+00 | 2.71E+01 | 1.60E+02 | 1.74E-03 | 1.09E-02 | 1.08E-02 | 1.75E+00 | 1.97E-05 | 6.09E-04 | 0.00E+00 | 1.57E-04 | 8.05E-01 | 1.46E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.50E+02 | 6.63E+02 | 5.52E+03 | 4.84E-02 | 1.61E-01 | 3.42E-01 | 6.08E+01 | 6.84E-04 | 1.33E-02 | 0.00E+00 | 4.37E-03 | 4.84E-01 | 2.06E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.30E+02 | 1.02E+03 | 1.23E+04 | 1.01E-01 | 4.12E-01 | 6.87E-01 | 1.35E+02 | 1.33E-03 | 2.69E-02 | 0.00E+00 | 9.14E-03 | 8.07E-01 | 2.60E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.66E+01 | 7.36E+01 | 1.33E+03 | 1.10E-02 | 4.47E-02 | 7.64E-02 | 1.47E+01 | 1.48E-04 | 2.96E-03 | 0.00E+00 | 9.96E-04 | 1.21E+00 | 4.01E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.13E+00 | 4.98E+00 | 1.34E+02 | 1.18E-03 | 4.85E-03 | 1.22E-02 | 1.47E+00 | 1.48E-05 | 3.41E-04 | 0.00E+00 | 1.06E-04 | 1.95E+00 | 5.95E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.72E+02 | 4.45E+02 | 3.21E+02 | 4.26E-03 | 1.45E-02 | 2.69E-02 | 3.53E+00 | 4.48E-05 | 1.00E-03 | 0.00E+00 | 3.84E-04 | 6.53E-02 | 2.01E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.03E+03 | 2.70E+03 | 3.76E+03 | 4.57E-02 | 3.65E-01 | 2.69E-01 | 4.10E+01 | 5.30E-04 | 6.98E-03 | 0.00E+00 | 4.12E-03 | 2.70E-01 | 3.92E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.38E+04 | 3.62E+04 | 8.52E+04 | 5.50E-01 | 6.12E+00 | 3.57E+00 | 9.35E+02 | 1.10E-02 | 1.38E-01 | 0.00E+00 | 4.96E-02 | 3.38E-01 | 6.06E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.03E+03 | 2.70E+03 | 1.24E+04 | 6.32E-02 | 7.88E-01 | 2.85E-01 | 1.37E+02 | 1.54E-03 | 1.33E-02 | 0.00E+00 | 5.70E-03 | 5.83E-01 | 1.14E-03 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.33E+02 | 8.73E+02 | 6.78E+03 | 3.02E-02 | 1.49E-01 | 1.24E-01 | 7.49E+01 | 8.43E-04 | 4.26E-03 | 0.00E+00 | 2.73E-03 | 3.40E-01 | 1.93E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.37E+02 | 1.41E+03 | 2.20E+04 | 9.70E-02 | 4.60E-01 | 3.77E-01 | 2.43E+02 | 2.73E-03 | 1.35E-02 | 0.00E+00 | 8.75E-03 | 6.53E-01 | 3.88E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.57E+01 | 1.99E+02 | 4.65E+03 | 2.05E-02 | 9.74E-02 | 8.06E-02 | 5.14E+01 | 5.78E-04 | 2.87E-03 | 0.00E+00 | 1.85E-03 | 9.80E-01 | 5.82E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.56E+00 | 2.43E+01 | 2.79E+01 | 6.81E-04 | 3.20E-03 | 2.35E-03 | 3.02E-01 | 3.91E-06 | 1.35E-04 | 0.00E+00 | 6.14E-05 | 2.63E-01 | 3.21E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.86E+03 | 1.38E+04 | 4.15E+04 | 4.74E-01 | 3.15E+00 | 2.78E+00 | 4.54E+02 | 5.32E-03 | 1.89E-01 | 0.00E+00 | 4.27E-02 | 4.56E-01 | 7.71E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.64E+03 | 4.67E+03 | 2.58E+04 | 2.17E-01 | 1.70E+00 | 1.26E+00 | 2.83E+02 | 3.18E-03 | 6.92E-02 | 0.00E+00 | 1.96E-02 | 7.27E-01 | 1.36E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.41E+03 | 4.01E+03 | 3.02E+04 | 2.03E-01 | 7.52E-01 | 1.31E+00 | 3.33E+02 | 3.75E-03 | 4.68E-02 | 0.00E+00 | 1.83E-02 | 3.75E-01 | 1.87E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 9.68E+02 | 2.75E+03 | 3.23E+04 | 2.08E-01 | 8.40E-01 | 1.26E+00 | 3.56E+02 | 3.50E-03 | 4.66E-02 | 0.00E+00 | 1.88E-02 | 6.11E-01 | 2.54E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.00E+01 | 2.84E+01 | 5.97E+02 | 3.87E-03 | 1.55E-02 | 2.39E-02 | 6.59E+00 | 6.63E-05 | 8.76E-04 | 0.00E+00 | 3.49E-04 | 1.09E+00 | 4.67E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.00E+01 | 2.84E+01 | 8.46E+02 | 5.85E-03 | 2.35E-02 | 6.48E-02 | 9.33E+00 | 9.38E-05 | 1.59E-03 | 0.00E+00 | 5.28E-04 | 1.65E+00 | 6.61E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.17E+03 | 2.68E+03 | 1.69E+03 | 2.25E-02 | 7.63E-02 | 1.42E-01 | 1.85E+01 | 2.35E-04 | 5.52E-03 | 0.00E+00 | 2.03E-03 | 5.68E-02 | 1.75E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.06E+04 | 2.48E+04 | 2.89E+04 | 2.52E-01 | 2.46E+00 | 1.87E+00 | 3.16E+02 | 4.08E-03 | 2.95E-02 | 0.00E+00 | 2.28E-02 | 1.98E-01 | 3.30E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.58E+03 | 1.30E+04 | 2.53E+04 | 1.22E-01 | 1.73E+00 | 8.84E-01 | 2.77E+02 | 3.25E-03 | 2.21E-02 | 0.00E+00 | 1.10E-02 | 2.67E-01 | 5.01E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 6.11E-01 | 1.86E+00 | 7.96E+00 | 1.15E-04 | 6.20E-04 | 6.60E-04 | 8.70E-02 | 1.02E-06 | 4.97E-05 | 0.00E+00 | 1.03E-05 | 6.67E-01 | 1.10E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 7.48E+02 | 2.27E+03 | 1.35E+04 | 1.40E-01 | 9.04E-01 | 8.81E-01 | 1.48E+02 | 1.67E-03 | 4.94E-02 | 0.00E+00 | 1.27E-02 | 7.95E-01 | 1.47E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.07E+02 | 2.15E+03 | 1.27E+04 | 1.05E-01 | 3.56E-01 | 7.53E-01 | 1.40E+02 | 1.57E-03 | 2.89E-02 | 0.00E+00 | 9.49E-03 | 3.32E-01 | 1.47E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.28E+01 | 1.91E+02 | 4.91E+03 | 3.85E-02 | 1.57E-01 | 2.70E-01 | 5.41E+01 | 5.44E-04 | 1.03E-02 | 0.00E+00 | 3.47E-03 | 1.65E+00 | 5.71E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.63E+00 | 2.01E+01 | 7.43E+02 | 6.20E-03 | 2.57E-02 | 6.61E-02 | 8.18E+00 | 8.23E-05 | 1.82E-03 | 0.00E+00 | 5.59E-04 | 2.56E+00 | 8.18E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Dumpers/T | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.47E+01 | 2.66E+01 | 9.24E+00 | 1.22E-04 | 4.18E-04 | 7.73E-04 | 1.01E-01 | 1.29E-06 | 2.90E-05 | 0.00E+00 | 1.10E-05 | 3.14E-02 | 9.67E-05 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.02E+02 | 3.83E+02 | 1.77E+02 | 2.25E-03 | 1.18E-02 | 1.41E-02 | 1.93E+00 | 3.01E-05 | 5.51E-04 | 0.00E+00 | 2.03E-04 | 6.17E-02 | 1.57E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.42E+01 | 6.48E+01 | 3.90E+01 | 5.16E-04 | 1.76E-03 | 3.26E-03 | 4.28E-01 | 5.43E-06 | 1.22E-04 | 0.00E+00 | 4.66E-05 | 5.44E-02 | 1.68E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.26E+01 | 1.01E+02 | 1.29E+02 | 1.35E-03 | 1.11E-02 | 8.98E-03 | 1.41E+00 | 1.82E-05 | 2.36E-04 | 0.00E+00 | 1.21E-04 | 2.21E-01 | 3.62E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.68E+01 | 1.66E+02 | 6.13E+02 | 3.46E-03 | 4.20E-02 | 2.54E-02 | 6.72E+00 | 7.89E-05 | 1.01E-03 | 0.00E+00 | 3.12E-04 | 5.05E-01 | 9.48E-04 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.20E+02 | 2.30E+02 | 1.11E+03 | 4.96E-03 | 6.72E-02 | 2.59E-02 | 1.22E+01 | 1.38E-04 | 1.20E-03 | 0.00E+00 | 4.48E-04 | 5.85E-01 | 1.20E-03 |
| 2023 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.78E+02 | 5.33E+02 | 6.13E+03 | 2.31E-02 | 1.23E-01 | 1.07E-01 | 6.77E+01 | 6.65E-04 | 3.64E-03 | 0.00E+00 | 2.09E-03 | 4.62E-01 | 2.49E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.29E+00 | 2.09E+01 | 1.78E+01 | 2.35E-04 | 8.03E-04 | 1.49E-03 | 1.95E-01 | 2.47E-06 | 5.58E-05 | 0.00E+00 | 2.12E-05 | 7.68E-02 | 2.37E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.40E+02 | 1.23E+03 | 1.59E+03 | 3.79E-02 | 1.75E-01 | 1.32E-01 | 1.72E+01 | 2.22E-04 | 7.77E-03 | 0.00E+00 | 3.42E-03 | 2.84E-01 | 3.62E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 6.37E+02 | 1.45E+03 | 4.58E+03 | 5.11E-02 | 3.41E-01 | 3.08E-01 | 5.01E+01 | 5.88E-04 | 2.11E-02 | 0.00E+00 | 4.61E-03 | 4.71E-01 | 8.11E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.96E+02 | 9.01E+02 | 5.26E+03 | 4.30E-02 | 3.40E-01 | 2.59E-01 | 5.77E+01 | 6.50E-04 | 1.43E-02 | 0.00E+00 | 3.88E-03 | 7.55E-01 | 1.44E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.77E+01 | 1.09E+02 | 9.55E+02 | 6.24E-03 | 2.36E-02 | 4.19E-02 | 1.05E+01 | 1.19E-04 | 1.51E-03 | 0.00E+00 | 5.63E-04 | 4.34E-01 | 2.19E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.90E+01 | 1.11E+02 | 1.18E+03 | 7.34E-03 | 3.07E-02 | 4.63E-02 | 1.30E+01 | 1.27E-04 | 1.73E-03 | 0.00E+00 | 6.62E-04 | 5.51E-01 | 2.29E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Plate Comp | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.00E+02 | 3.28E+02 | 6.46E+01 | 8.23E-04 | 4.32E-03 | 5.16E-03 | 7.07E-01 | 1.10E-05 | 2.02E-04 | 0.00E+00 | 7.43E-05 | 2.63E-02 | 6.71E-05 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.75E+02 | 7.14E+02 | 2.06E+02 | 2.63E-03 | 1.38E-02 | 1.64E-02 | 2.26E+00 | 3.51E-05 | 6.43E-04 | 0.00E+00 | 2.37E-04 | 3.86E-02 | 9.83E-05 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.57E+02 | 2.99E+02 | 1.81E+02 | 2.40E-03 | 8.20E-03 | 1.52E-02 | 1.99E+00 | 2.53E-05 | 5.67E-04 | 0.00E+00 | 2.17E-04 | 5.49E-02 | 1.69E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.88E+02 | 9.35E+02 | 1.11E+03 | 1.73E-02 | 1.07E-01 | 8.51E-02 | 1.21E+01 | 1.57E-04 | 3.62E-03 | 0.00E+00 | 1.56E-03 | 2.28E-01 | 3.36E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.62E+03 | 5.02E+03 | 1.35E+04 | 1.05E-01 | 9.56E-01 | 7.10E-01 | 1.48E+02 | 1.74E-03 | 3.94E-02 | 0.00E+00 | 9.46E-03 | 3.81E-01 | 6.91E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.05E+03 | 2.02E+03 | 9.93E+03 | 5.92E-02 | 6.15E-01 | 3.42E-01 | 1.09E+02 | 1.23E-03 | 1.78E-02 | 0.00E+00 | 5.34E-03 | 6.09E-01 | 1.22E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.49E+02 | 2.86E+02 | 1.98E+03 | 9.85E-03 | 4.38E-02 | 5.86E-02 | 2.19E+01 | 2.46E-04 | 2.04E-03 | 0.00E+00 | 8.89E-04 | 3.06E-01 | 1.72E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.05E+02 | 2.01E+02 | 1.99E+03 | 9.65E-03 | 4.26E-02 | 5.35E-02 | 2.20E+01 | 2.16E-04 | 1.96E-03 | 0.00E+00 | 8.70E-04 | 4.24E-01 | 2.15E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.42E+01 | 7.33E+01 | 3.14E+02 | 3.45E-03 | 2.38E-02 | 2.03E-02 | 3.44E+00 | 4.03E-05 | 1.35E-03 | 0.00E+00 | 3.12E-04 | 6.49E-01 | 1.10E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.21E+02 | 6.71E+02 | 4.53E+03 | 3.65E-02 | 2.97E-01 | 2.09E-01 | 4.96E+01 | 5.59E-04 | 1.14E-02 | 0.00E+00 | 3.30E-03 | 8.87E-01 | 1.66E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.16E+02 | 6.54E+02 | 6.20E+03 | 4.06E-02 | 1.54E-01 | 2.54E-01 | 6.85E+01 | 7.70E-04 | 9.15E-03 | 0.00E+00 | 3.66E-03 | 4.70E-01 | 2.35E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.94E+02 | 1.80E+03 | 2.62E+04 | 1.65E-01 | 6.75E-01 | 9.64E-01 | 2.89E+02 | 2.84E-03 | 3.60E-02 | 0.00E+00 | 1.49E-02 | 7.50E-01 | 3.15E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.99E+01 | 6.03E+01 | 1.52E+03 | 9.57E-03 | 3.90E-02 | 5.74E-02 | 1.67E+01 | 1.68E-04 | 2.12E-03 | 0.00E+00 | 8.63E-04 | 1.29E+00 | 5.58E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.61E+01 | 3.66E+01 | 2.10E+01 | 2.79E-04 | 9.51E-04 | 1.76E-03 | 2.31E-01 | 2.93E-06 | 6.58E-05 | 0.00E+00 | 2.51E-05 | 5.19E-02 | 1.60E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.36E+01 | 3.12E+01 | 3.44E+01 | 7.91E-04 | 3.72E-03 | 2.86E-03 | 3.73E-01 | 4.82E-06 | 1.66E-04 | 0.00E+00 | 7.14E-05 | 2.39E-01 | 3.09E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.96E+02 | 4.49E+02 | 1.12E+03 | 1.21E-02 | 8.28E-02 | 7.40E-02 | 1.22E+01 | 1.44E-04 | 5.05E-03 | 0.00E+00 | 1.09E-03 | 3.68E-01 | 6.39E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.23E+01 | 2.11E+02 | 9.72E+02 | 7.73E-03 | 6.23E-02 | 4.68E-02 | 1.07E+01 | 1.20E-04 | 2.57E-03 | 0.00E+00 | 6.98E-04 | 5.90E-01 | 1.14E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.60E+01 | 5.95E+01 | 3.29E+02 | 2.10E-03 | 7.98E-03 | 1.41E-02 | 3.64E+00 | 4.09E-05 | 5.05E-04 | 0.00E+00 | 1.89E-04 | 2.68E-01 | 1.37E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.24E+01 | 1.53E+01 | 9.90E+00 | 1.42E-04 | 8.55E-04 | 7.32E-04 | 1.08E-01 | 1.40E-06 | 3.07E-05 | 0.00E+00 | 1.28E-05 | 1.12E-01 | 1.82E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.48E+00 | 3.06E+00 | 8.90E+00 | 6.33E-05 | 6.06E-04 | 4.69E-04 | 9.76E-02 | 1.15E-06 | 2.55E-05 | 0.00E+00 | 5.71E-06 | 3.96E-01 | 7.47E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.86E+00 | 2.30E+00 | 8.96E+00 | 4.73E-05 | 5.33E-04 | 3.11E-04 | 9.85E-02 | 1.11E-06 | 1.53E-05 | 0.00E+00 | 4.27E-06 | 4.64E-01 | 9.64E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.72E+00 | 4.60E+00 | 2.80E+01 | 1.21E-04 | 6.03E-04 | 8.43E-04 | 3.10E-01 | 3.48E-06 | 2.85E-05 | 0.00E+00 | 1.09E-05 | 2.62E-01 | 1.52E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.10E+01 | 3.83E+01 | 3.83E+02 | 1.60E-03 | 8.25E-03 | 1.04E-02 | 4.23E+00 | 4.15E-05 | 3.69E-04 | 0.00E+00 | 1.44E-04 | 4.31E-01 | 2.17E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.80E+00 | 4.70E+00 | 7.37E+01 | 3.09E-04 | 1.59E-03 | 2.06E-03 | 8.15E-01 | 8.20E-06 | 7.18E-05 | 0.00E+00 | 2.79E-05 | 6.75E-01 | 3.49E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.74E+03 | 3.59E+03 | 1.01E+03 | 1.29E-02 | 6.75E-02 | 8.06E-02 | 1.11E+01 | 1.72E-04 | 3.15E-03 | 0.00E+00 | 1.16E-03 | 3.76E-02 | 9.59E-05 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.68E+00 | 1.27E+01 | 2.10E+01 | 2.27E-04 | 1.72E-03 | 1.48E-03 | 2.30E-01 | 2.97E-06 | 4.63E-05 | 0.00E+00 | 2.05E-05 | 2.70E-01 | 4.67E-04 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.42E+02 | 2.08E+02 | 7.60E+02 | 4.34E-03 | 5.10E-02 | 3.40E-02 | 8.34E+00 | 9.78E-05 | 1.55E-03 | 0.00E+00 | 3.92E-04 | 4.90E-01 | 9.40E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.80E+01 | 1.29E+02 | 9.06E+02 | 4.03E-03 | 5.34E-02 | 2.50E-02 | 9.97E+00 | 1.12E-04 | 1.15E-03 | 0.00E+00 | 3.63E-04 | 8.28E-01 | 1.74E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.86E+01 | 2.73E+01 | 3.15E+02 | 1.14E-03 | 6.38E-03 | 6.94E-03 | 3.48E+00 | 3.91E-05 | 2.11E-04 | 0.00E+00 | 1.02E-04 | 4.68E-01 | 2.87E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.65E+01 | 7.88E+01 | 3.04E+01 | 3.88E-04 | 2.03E-03 | 2.43E-03 | 3.33E-01 | 5.18E-06 | 9.49E-05 | 0.00E+00 | 3.50E-05 | 5.16E-02 | 1.32E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.90E+01 | 8.30E+01 | 1.24E+02 | 1.65E-03 | 5.62E-03 | 1.04E-02 | 1.36E+00 | 1.73E-05 | 3.89E-04 | 0.00E+00 | 1.48E-04 | 1.35E-01 | 4.17E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.86E+03 | 3.20E+03 | 4.86E+03 | 1.18E-01 | 5.19E-01 | 4.04E-01 | 5.27E+01 | 6.81E-04 | 2.47E-02 | 0.00E+00 | 1.07E-02 | 3.24E-01 | 4.25E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.53E+03 | 4.34E+03 | 1.29E+04 | 1.44E-01 | 9.45E-01 | 8.89E-01 | 1.41E+02 | 1.65E-03 | 6.20E-02 | 0.00E+00 | 1.30E-02 | 4.35E-01 | 7.61E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.76E+02 | 4.75E+02 | 3.11E+03 | 2.54E-02 | 1.98E-01 | 1.59E-01 | 3.41E+01 | 3.84E-04 | 8.80E-03 | 0.00E+00 | 2.29E-03 | 8.33E-01 | 1.62E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.48E+01 | 4.26E+01 | 4.30E+02 | 2.78E-03 | 1.07E-02 | 1.98E-02 | 4.74E+00 | 5.34E-05 | 7.22E-04 | 0.00E+00 | 2.51E-04 | 5.00E-01 | 2.51E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.16E+01 | 5.43E+01 | 7.65E+02 | 4.71E-03 | 2.06E-02 | 3.17E-02 | 8.45E+00 | 8.29E-05 | 1.19E-03 | 0.00E+00 | 4.25E-04 | 7.57E-01 | 3.05E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.61E-01 | 1.31E+00 | 3.47E+01 | 2.15E-04 | 9.31E-04 | 1.48E-03 | 3.83E-01 | 3.85E-06 | 5.47E-05 | 0.00E+00 | 1.94E-05 | 1.43E+00 | 5.90E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 15 | Constructi | U | P | NHH | P | Total | Total | Total | 6.20E+00 | 1.38E+01 | 6.51E+00 | 8.29E-05 | 4.35E-04 | 5.19E-04 | 7.12E-02 | 1.11E-06 | 2.03E-05 | 0.00E+00 | 7.48E-06 | 6.31E-02 | 1.61E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 25 | Constructi | U | P | NHH | P | Total | Total | Total | 1.86E+01 | 4.13E+01 | 3.01E+01 | 3.98E-04 | 1.36E-03 | 2.52E-03 | 3.30E-01 | 4.19E-06 | 9.41E-05 | 0.00E+00 | 3.59E-05 | 6.58E-02 | 2.03E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 8.12E+01 | 1.87E+02 | 2.64E+02 | 1.78E-03 | 2.05E-02 | 1.55E-02 | 2.90E+00 | 3.74E-05 | 8.63E-05 | 0.00E+00 | 1.60E-04 | 2.20E-01 | 4.01E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 2.49E+02 | 5.73E+02 | 2.01E+03 | 7.24E-03 | 1.33E-01 | 5.64E-02 | 2.21E+01 | 2.59E-04 | 6.04E-04 | 0.00E+00 | 6.53E-04 | 4.66E-01 | 9.04E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 5.76E+01 | 1.33E+02 | 8.49E+02 | 2.17E-03 | 5.00E-02 | 5.48E-03 | 9.34E+00 | 1.05E-04 | 2.06E-04 | 0.00E+00 | 1.95E-04 | 7.54E-01 | 1.59E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 4.96E+01 | 1.14E+02 | 9.69E+02 | 2.45E-03 | 1.95E-02 | 5.78E-03 | 1.07E+01 | 1.21E-04 | 2.07E-04 | 0.00E+00 | 2.21E-04 | 3.42E-01 | 2.11E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 1.10E+02 | 2.54E+02 | 3.57E+03 | 9.00E-03 | 6.99E-02 | 2.12E-02 | 3.95E+01 | 3.87E-04 | 7.61E-04 | 0.00E+00 | 8.12E-04 | 5.51E-01 | 3.05E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 1.18E+01 | 2.71E+01 | 7.53E+02 | 1.90E-03 | 1.48E-02 | 4.48E-03 | 8.34E+00 | 8.38E-05 | 1.61E-04 | 0.00E+00 | 1.72E-04 | 1.09E+00 | 6.18E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 1000 | Constructi | U | N | NHH | P | Total | Total | Total | 1.98E+01 | 4.55E+01 | 1.91E+03 | 4.84E-03 | 3.73E-02 | 8.86E-02 | 2.11E+01 | 2.12E-04 | 8.46E-04 | 0.00E+00 | 4.36E-04 | 1.64E+00 | 9.33E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.29E+01 | 8.78E+01 | 6.57E+01 | 8.70E-04 | 2.97E-03 | 5.49E-03 | 7.21E-01 | 9.15E-06 | 2.05E-04 | 0.00E+00 | 7.85E-05 | 6.76E-02 | 2.08E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.63E+02 | 3.34E+03 | 3.84E+03 | 5.13E-02 | 3.97E-01 | 2.77E-01 | 4.18E+01 | 5.40E-04 | 6.91E-03 | 0.00E+00 | 4.63E-03 | 2.37E-01 | 3.23E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.34E+03 | 9.08E+03 | 3.05E+04 | 2.11E-01 | 2.24E+00 | 1.26E+00 | 3.34E+02 | 3.92E-03 | 4.90E-02 | 0.00E+00 | 1.91E-02 | 4.94E-01 | 8.63E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.52E+03 | 1.75E+04 | 8.94E+04 | 4.78E-01 | 5.81E+00 | 1.97E+00 | 9.82E+02 | 1.11E-02 | 9.37E-02 | 0.00E+00 | 4.31E-02 | 6.63E-01 | 1.26E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.84E+03 | 7.13E+03 | 5.11E+04 | 2.40E-01 | 1.15E+00 | 9.04E-01 | 5.65E+02 | 6.36E-03 | 3.07E-02 | 0.00E+00 | 2.17E-02 | 3.22E-01 | 1.78E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.33E+03 | 5.14E+03 | 5.43E+04 | 2.53E-01 | 1.16E+00 | 9.04E-01 | 6.00E+02 | 5.89E-03 | 3.18E-02 | 0.00E+00 | 2.28E-02 | 4.50E-01 | 2.29E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.96E+00 | 2.31E+01 | 4.04E+02 | 1.89E-03 | 8.62E-03 | 6.82E-03 | 4.47E+00 | 4.49E-05 | 2.39E-04 | 0.00E+00 | 1.70E-04 | 7.46E-01 | 3.89E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Concrete/Ir | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.48E+00 | 4.02E+00 | 3.02E+00 | 4.00E-05 | 1.36E-04 | 2.52E-04 | 3.31E-02 | 4.20E-07 | 9.43E-06 | 0.00E+00 | 3.61E-06 | 6.78E-02 | 2.09E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Concrete/Ir | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.17E+01 | 3.45E+01 | 4.76E+01 | 5.15E-04 | 3.97E-03 | 3.39E-03 | 5.21E-01 | 6.73E-06 | 1.06E-04 | 0.00E+00 | 4.64E-05 | 2.30E-01 | 3.90E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Concrete/Ir | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.78E+01 | 6.01E+01 | 2.03E+02 | 1.18E-03 | 1.37E-02 | 9.07E-03 | 2.23E+00 | 2.61E-05 | 4.15E-04 | 0.00E+00 | 1.06E-04 | 4.56E-01 | 8.69E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Concrete/Ir | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.24E+00 | 1.97E+00 | 1.43E+01 | 6.54E-05 | 8.53E-04 | 3.94E-04 | 1.58E-01 | 1.77E-06 | 1.86E-05 | 0.00E+00 | 5.90E-06 | 8.65E-01 | 1.80E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.17E+02 | 2.60E+02 | 7.51E+01 | 9.57E-04 | 5.02E-03 | 6.00E-03 | 8.22E-01 | 1.28E-05 | 2.34E-04 | 0.00E+00 | 8.64E-05 | 3.86E-02 | 9.83E-05 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.85E+01 | 2.34E+01 | 1.87E+01 | 2.51E-04 | 8.50E-04 | 1.58E-03 | 2.06E-01 | 2.61E-06 | 6.16E-05 | 0.00E+00 | 2.26E-05 | 7.25E-02 | 2.23E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 2.11E+01 | 7.38E+01 | 7.87E+01 | 1.38E-03 | 8.40E-03 | 6.22E-03 | 8.55E-01 | 1.11E-05 | 2.64E-04 | 0.00E+00 | 1.24E-04 | 2.28E-01 | 2.99E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 2.31E+02 | 8.10E+02 | 1.85E+03 | 1.61E-02 | 1.37E-01 | 9.95E-02 | 2.03E+01 | 2.38E-04 | 5.57E-03 | 0.00E+00 | 1.46E-03 | 3.39E-01 | 5.88E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 2.31E+02 | 8.10E+02 | 2.96E+03 | 1.98E-02 | 1.92E-01 | 1.04E-01 | 3.25E+01 | 3.66E-04 | 5.49E-03 | 0.00E+00 | 1.79E-03 | 4.74E-01 | 9.03E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 4.48E+02 | 1.57E+03 | 7.96E+03 | 4.48E-02 | 1.83E-01 | 2.40E-01 | 8.80E+01 | 9.90E-04 | 8.38E-03 | 0.00E+00 | 4.04E-03 | 2.33E-01 | 1.26E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 1.64E+02 | 5.75E+02 | 4.69E+03 | 2.58E-02 | 1.03E-01 | 1.28E-01 | 5.18E+01 | 5.08E-04 | 4.73E-03 | 0.00E+00 | 2.33E-03 | 3.56E-01 | 1.77E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 2.47E+01 | 8.67E+01 | 1.19E+03 | 6.54E-03 | 2.60E-02 | 3.32E-02 | 1.31E+01 | 1.32E-04 | 1.21E-03 | 0.00E+00 | 5.91E-04 | 5.99E-01 | 3.04E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 9999 | Constructi | U | N | NHH | P | Total | Total | Total | 3.11E+01 | 1.09E+02 | 4.78E+03 | 2.98E-02 | 1.09E-01 | 3.16E-01 | 5.27E+01 | 5.30E-04 | 6.81E-03 | 0.00E+00 | 2.69E-03 | 2.00E+00 | 9.75E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.68E+00 | 2.25E+01 | 2.84E+01 | 4.58E-04 | 2.94E-03 | 2.16E-03 | 3.09E-01 | 4.00E-06 | 8.16E-05 | 0.00E+00 | 4.13E-05 | 2.62E-01 | 3.56E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.79E+02 | 1.50E+03 | 5.13E+03 | 4.15E-02 | 3.76E-01 | 2.57E-01 | 5.62E+01 | 6.59E-04 | 1.33E-02 | 0.00E+00 | 3.74E-03 | 5.02E-01 | 8.79E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.98E+03 | 5.12E+03 | 2.89E+04 | 1.77E-01 | 1.86E+00 | 8.99E-01 | 3.17E+02 | 3.57E-03 | 4.59E-02 | 0.00E+00 | 1.60E-02 | 7.26E-01 | 1.39E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.23E+03 | 3.18E+03 | 2.47E+04 | 1.30E-01 | 5.67E-01 | 6.56E-01 | 2.73E+02 | 3.08E-03 | 2.31E-02 | 0.00E+00 | 1.17E-02 | 3.57E-01 | 1.93E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.47E+01 | 8.99E+01 | 9.33E+02 | 4.79E-03 | 2.10E-02 | 2.25E-02 | 1.03E+01 | 1.01E-04 | 8.30E-04 | 0.00E+00 | 4.32E-04 | 4.66E-01 | 2.25E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.80E-01 | 9.85E-01 | 2.16E+01 | 1.11E-04 | 4.86E-04 | 5.33E-04 | 2.39E-01 | 2.40E-06 | 1.94E-05 | 0.00E+00 | 1.00E-05 | 9.86E-01 | 4.88E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.03E+01 | 2.18E+02 | 1.24E+03 | 7.14E-03 | 8.22E-02 | 2.94E-02 | 1.36E+01 | 1.54E-04 | 1.43E-03 | 0.00E+00 | 6.45E-04 | 7.53E-01 | 1.41E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.97E+02 | 1.61E+03 | 1.21E+04 | 6.13E-02 | 2.78E-01 | 2.32E-01 | 1.34E+02 | 1.51E-03 | 7.93E-03 | 0.00E+00 | 5.53E-03 | 3.44E-01 | 1.87E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.19E+02 | 2.27E+03 | 2.80E+04 | 1.40E-01 | 6.05E-01 | 5.01E-01 | 3.09E+02 | 3.03E-03 | 1.78E-02 | 0.00E+00 | 1.26E-02 | 5.33E-01 | 2.67E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.98E+01 | 4.33E+02 | 8.64E+03 | 4.32E-02 | 1.87E-01 | 1.57E-01 | 9.55E+01 | 9.60E-04 | 5.54E-03 | 0.00E+00 | 3.90E-03 | 8.64E-01 | 4.44E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.74E+01 | 2.03E+02 | 5.72E+03 | 2.99E-02 | 1.26E-01 | 3.32E-01 | 6.32E+01 | 6.36E-04 | 6.09E-03 | 0.00E+00 | 2.69E-03 | 1.25E+00 | 6.28E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 9.91E+01 | 2.60E+02 | 5.24E+02 | 6.98E-03 | 5.03E-02 | 3.87E-02 | 5.71E+00 | 7.38E-05 | 1.26E-03 | 0.00E+00 | 6.30E-04 | 3.88E-01 | 5.69E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 2.79E+02 | 7.32E+02 | 2.77E+03 | 1.95E-02 | 1.98E-01 | 1.28E-01 | 3.04E+01 | 3.57E-04 | 6.04E-03 | 0.00E+00 | 1.76E-03 | 5.40E-01 | 9.74E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 1.18E+02 | 3.10E+02 | 2.36E+03 | 1.31E-02 | 1.48E-01 | 6.71E-02 | 2.59E+01 | 2.91E-04 | 3.25E-03 | 0.00E+00 | 1.18E-03 | 9.54E-01 | 1.88E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 1.18E+01 | 3.08E+01 | 3.41E+02 | 1.57E-03 | 7.35E-03 | 7.72E-03 | 3.77E+00 | 4.24E-05 | 2.45E-04 | 0.00E+00 | 1.41E-04 | 4.77E-01 | 2.75E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 6.63E+01 | 1.74E+02 | 2.93E+03 | 1.33E-02 | 6.06E-02 | 6.14E-02 | 3.24E+01 | 3.18E-04 | 2.05E-03 | 0.00E+00 | 1.20E-03 | 6.98E-01 | 3.66E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 6.34E-01 | 1.66E+00 | 4.42E+01 | 2.01E-04 | 9.14E-04 | 9.45E-04 | 4.88E-01 | 4.91E-06 | 3.10E-05 | 0.00E+00 | 1.81E-05 | 1.10E+00 | 5.92E-03 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | hr/day for total population | gal/day for total population | | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 9999 | Constructio | U | N | NHH | P | Total | Total | Total | 6.34E-01 | 1.66E+00 | 9.82E+01 | 5.24E-04 | 2.09E-03 | 5.78E-03 | 1.08E+00 | 1.09E-05 | 1.14E-04 | 0.00E+00 | 4.73E-05 | 2.52E+00 | 1.31E-02 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 6.88E+01 | 2.13E+02 | 3.31E+02 | 4.24E-03 | 3.25E-02 | 2.40E-02 | 3.61E+00 | 4.66E-05 | 6.71E-04 | 0.00E+00 | 3.83E-04 | 3.05E-01 | 4.37E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 3.29E+03 | 1.02E+04 | 2.91E+04 | 1.97E-01 | 2.10E+00 | 1.25E+00 | 3.18E+02 | 3.74E-03 | 5.29E-02 | 0.00E+00 | 1.78E-02 | 4.11E-01 | 7.32E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.22E+02 | 1.31E+03 | 7.43E+03 | 3.96E-02 | 4.72E-01 | 1.83E-01 | 8.16E+01 | 9.18E-04 | 8.76E-03 | 0.00E+00 | 3.57E-03 | 7.22E-01 | 1.40E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.35E+01 | 7.30E+01 | 5.63E+02 | 2.57E-03 | 1.23E-02 | 1.10E-02 | 6.23E+00 | 7.01E-05 | 3.62E-04 | 0.00E+00 | 2.32E-04 | 3.38E-01 | 1.92E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.55E+01 | 4.80E+01 | 5.57E+02 | 2.51E-03 | 1.16E-02 | 1.02E-02 | 6.15E+00 | 6.04E-05 | 3.50E-04 | 0.00E+00 | 2.27E-04 | 4.84E-01 | 2.52E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.68E+00 | 2.28E+01 | 1.75E+01 | 2.32E-04 | 7.93E-04 | 1.47E-03 | 1.93E-01 | 2.44E-06 | 5.48E-05 | 0.00E+00 | 2.10E-05 | 6.96E-02 | 2.15E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.69E+02 | 4.48E+02 | 6.41E+02 | 9.92E-03 | 6.55E-02 | 4.84E-02 | 6.97E+00 | 9.02E-05 | 1.77E-03 | 0.00E+00 | 8.95E-04 | 2.92E-01 | 4.02E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.58E+03 | 1.22E+04 | 3.27E+04 | 2.56E-01 | 2.39E+00 | 1.61E+00 | 3.59E+02 | 4.21E-03 | 8.06E-02 | 0.00E+00 | 2.31E-02 | 3.92E-01 | 6.90E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.58E+03 | 6.87E+03 | 3.32E+04 | 1.99E-01 | 2.13E+00 | 1.00E+00 | 3.65E+02 | 4.10E-03 | 5.08E-02 | 0.00E+00 | 1.79E-02 | 6.20E-01 | 1.20E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.57E+03 | 6.83E+03 | 4.60E+04 | 2.36E-01 | 1.04E+00 | 1.17E+00 | 5.08E+02 | 5.72E-03 | 4.12E-02 | 0.00E+00 | 2.13E-02 | 3.06E-01 | 1.67E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.07E+03 | 2.84E+03 | 3.05E+04 | 1.53E-01 | 6.68E-01 | 7.11E-01 | 3.37E+02 | 3.30E-03 | 2.62E-02 | 0.00E+00 | 1.38E-02 | 4.70E-01 | 2.32E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.53E+01 | 4.08E+01 | 8.96E+02 | 4.51E-03 | 1.96E-02 | 2.13E-02 | 9.90E+00 | 9.95E-05 | 7.75E-04 | 0.00E+00 | 4.07E-04 | 9.63E-01 | 4.88E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.65E+00 | 4.38E+00 | 1.18E+02 | 6.19E-04 | 2.64E-03 | 7.32E-03 | 1.30E+00 | 1.31E-05 | 1.47E-04 | 0.00E+00 | 5.58E-05 | 1.21E+00 | 5.97E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 6.20E+00 | 2.74E+01 | 1.62E+02 | 1.68E-03 | 1.10E-02 | 1.02E-02 | 1.77E+00 | 2.00E-05 | 5.71E-04 | 0.00E+00 | 1.51E-04 | 8.03E-01 | 1.46E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.52E+02 | 6.72E+02 | 5.59E+03 | 4.67E-02 | 1.59E-01 | 3.21E-01 | 6.16E+01 | 6.93E-04 | 1.24E-02 | 0.00E+00 | 4.22E-03 | 4.72E-01 | 2.06E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.34E+02 | 1.03E+03 | 1.24E+04 | 9.81E-02 | 4.01E-01 | 6.45E-01 | 1.37E+02 | 1.34E-03 | 2.51E-02 | 0.00E+00 | 8.85E-03 | 7.76E-01 | 2.60E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.69E+01 | 7.46E+01 | 1.35E+03 | 1.07E-02 | 4.35E-02 | 7.17E-02 | 1.49E+01 | 1.49E-04 | 2.76E-03 | 0.00E+00 | 9.65E-04 | 1.17E+00 | 4.01E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.14E+00 | 5.04E+00 | 1.35E+02 | 1.14E-03 | 4.71E-03 | 1.19E-02 | 1.49E+00 | 1.50E-05 | 3.23E-04 | 0.00E+00 | 1.03E-04 | 1.87E+00 | 5.95E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Tractors/Lo | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.75E+02 | 4.51E+02 | 3.26E+02 | 4.32E-03 | 1.47E-02 | 2.73E-02 | 3.58E+00 | 4.54E-05 | 1.02E-03 | 0.00E+00 | 3.89E-04 | 6.53E-02 | 2.01E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Tractors/Lo | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.04E+03 | 2.74E+03 | 3.81E+03 | 4.46E-02 | 3.68E-01 | 2.65E-01 | 4.15E+01 | 5.37E-04 | 5.94E-03 | 0.00E+00 | 4.02E-03 | 2.68E-01 | 3.92E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Tractors/Lo | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.40E+04 | 3.66E+04 | 8.63E+04 | 5.33E-01 | 6.19E+00 | 3.40E+00 | 9.47E+02 | 1.11E-02 | 1.19E-01 | 0.00E+00 | 4.81E-02 | 3.38E-01 | 6.06E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Tractors/Lo | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.04E+03 | 2.73E+03 | 1.26E+04 | 6.04E-02 | 7.98E-01 | 2.52E-01 | 1.38E+02 | 1.56E-03 | 1.15E-02 | 0.00E+00 | 5.45E-03 | 5.83E-01 | 1.14E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Tractors/Lo | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.37E+02 | 8.84E+02 | 6.86E+03 | 2.92E-02 | 1.50E-01 | 1.09E-01 | 7.59E+01 | 8.54E-04 | 3.73E-03 | 0.00E+00 | 2.63E-03 | 3.39E-01 | 1.93E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Tractors/Lo | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 5.44E+02 | 1.43E+03 | 2.22E+04 | 9.39E-02 | 4.65E-01 | 3.35E-01 | 2.46E+02 | 2.77E-03 | 1.18E-02 | 0.00E+00 | 8.47E-03 | 6.52E-01 | 3.88E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Tractors/Lo | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 7.67E+01 | 2.01E+02 | 4.71E+03 | 1.99E-02 | 9.84E-02 | 7.16E-02 | 5.20E+01 | 5.85E-04 | 2.51E-03 | 0.00E+00 | 1.79E-03 | 9.77E-01 | 5.82E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.68E+00 | 2.46E+01 | 2.83E+01 | 6.42E-04 | 3.20E-03 | 2.32E-03 | 3.06E-01 | 3.96E-06 | 1.23E-04 | 0.00E+00 | 5.80E-05 | 2.60E-01 | 3.21E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.92E+03 | 1.40E+04 | 4.20E+04 | 4.51E-01 | 3.18E+00 | 2.64E+00 | 4.60E+02 | 5.39E-03 | 1.72E-01 | 0.00E+00 | 4.07E-02 | 4.55E-01 | 7.71E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.67E+03 | 4.73E+03 | 2.61E+04 | 2.07E-01 | 1.72E+00 | 1.16E+00 | 2.86E+02 | 3.22E-03 | 6.33E-02 | 0.00E+00 | 1.86E-02 | 7.26E-01 | 1.36E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.43E+03 | 4.07E+03 | 3.06E+04 | 1.96E-01 | 7.52E-01 | 1.20E+00 | 3.37E+02 | 3.80E-03 | 4.29E-02 | 0.00E+00 | 1.77E-02 | 3.70E-01 | 1.87E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 9.81E+02 | 2.79E+03 | 3.27E+04 | 2.02E-01 | 8.33E-01 | 1.15E+00 | 3.61E+02 | 3.54E-03 | 4.29E-02 | 0.00E+00 | 1.82E-02 | 5.98E-01 | 2.54E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.01E+01 | 2.88E+01 | 6.05E+02 | 3.75E-03 | 1.54E-02 | 2.20E-02 | 6.68E+00 | 6.72E-05 | 8.06E-04 | 0.00E+00 | 3.39E-04 | 1.07E+00 | 4.67E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 1000 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.01E+01 | 2.87E+01 | 8.56E+02 | 5.64E-03 | 2.30E-02 | 6.30E-02 | 9.45E+00 | 9.50E-05 | 1.49E-03 | 0.00E+00 | 5.09E-04 | 1.60E+00 | 6.61E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.19E+03 | 2.72E+03 | 1.71E+03 | 2.27E-02 | 7.72E-02 | 1.44E-01 | 1.87E+01 | 2.38E-04 | 5.53E-03 | 0.00E+00 | 2.05E-03 | 5.68E-02 | 1.75E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.08E+04 | 2.51E+04 | 2.92E+04 | 2.48E-01 | 2.48E+00 | 1.85E+00 | 3.20E+02 | 4.13E-03 | 2.38E-02 | 0.00E+00 | 2.24E-02 | 1.98E-01 | 3.30E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 5.65E+03 | 1.31E+04 | 2.56E+04 | 1.19E-01 | 1.75E+00 | 8.51E-01 | 2.81E+02 | 3.29E-03 | 1.76E-02 | 0.00E+00 | 1.07E-02 | 2.66E-01 | 5.01E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 6.20E-01 | 1.88E+00 | 8.07E+00 | 1.10E-04 | 6.25E-04 | 6.32E-04 | 8.81E-02 | 1.03E-06 | 4.65E-05 | 0.00E+00 | 9.92E-06 | 6.64E-01 | 1.10E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 7.58E+02 | 2.30E+03 | 1.37E+04 | 1.35E-01 | 9.14E-01 | 8.26E-01 | 1.50E+02 | 1.69E-03 | 4.62E-02 | 0.00E+00 | 1.22E-02 | 7.94E-01 | 1.47E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 7.16E+02 | 2.18E+03 | 1.29E+04 | 1.01E-01 | 3.53E-01 | 7.05E-01 | 1.42E+02 | 1.59E-03 | 2.69E-02 | 0.00E+00 | 9.15E-03 | 3.24E-01 | 1.47E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 6.36E+01 | 1.93E+02 | 4.97E+03 | 3.72E-02 | 1.53E-01 | 2.53E-01 | 5.48E+01 | 5.51E-04 | 9.63E-03 | 0.00E+00 | 3.36E-03 | 1.59E+00 | 5.71E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructio | U | N | NHH | NP | Total | Total | Total | 6.72E+00 | 2.04E+01 | 7.52E+02 | 5.99E-03 | 2.50E-02 | 6.44E-02 | 8.29E+00 | 8.33E-05 | 1.72E-03 | 0.00E+00 | 5.41E-04 | 2.45E+00 | 8.18E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Dumpers/T | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.49E+01 | 2.70E+01 | 9.37E+00 | 1.24E-04 | 4.23E-04 | 7.84E-04 | 1.03E-01 | 1.30E-06 | 2.93E-05 | 0.00E+00 | 1.12E-05 | 3.14E-02 | 9.67E-05 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 15 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.05E+02 | 3.88E+02 | 1.79E+02 | 2.28E-03 | 1.20E-02 | 1.43E-02 | 1.96E+00 | 3.05E-05 | 5.58E-04 | 0.00E+00 | 2.06E-04 | 6.17E-02 | 1.57E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 3.47E+01 | 6.57E+01 | 3.95E+01 | 5.23E-04 | 1.78E-03 | 3.30E-03 | 4.34E-01 | 5.50E-06 | 1.23E-04 | 0.00E+00 | 4.72E-05 | 5.44E-02 | 1.68E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 5.33E+01 | 1.02E+02 | 1.31E+02 | 1.30E-03 | 1.12E-02 | 8.86E-03 | 1.43E+00 | 1.85E-05 | 2.03E-04 | 0.00E+00 | 1.17E-04 | 2.20E-01 | 3.62E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.80E+01 | 1.69E+02 | 6.21E+02 | 3.34E-03 | 4.25E-02 | 2.42E-02 | 6.81E+00 | 7.99E-05 | 8.68E-04 | 0.00E+00 | 3.02E-04 | 5.04E-01 | 9.48E-04 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.21E+02 | 2.33E+02 | 1.13E+03 | 4.74E-03 | 6.81E-02 | 2.30E-02 | 1.24E+01 | 1.39E-04 | 1.04E-03 | 0.00E+00 | 4.27E-04 | 5.85E-01 | 1.20E-03 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.82E+02 | 5.41E+02 | 6.21E+03 | 2.24E-02 | 1.25E-01 | 9.42E-02 | 6.86E+01 | 6.74E-04 | 3.15E-03 | 0.00E+00 | 2.02E-03 | 4.61E-01 | 2.49E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 9.42E+00 | 2.12E+01 | 1.80E+01 | 2.38E-04 | 8.14E-04 | 1.51E-03 | 1.98E-01 | 2.51E-06 | 5.64E-05 | 0.00E+00 | 2.15E-05 | 7.68E-02 | 2.37E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 5.48E+02 | 1.25E+03 | 1.61E+03 | 3.57E-02 | 1.74E-01 | 1.31E-01 | 1.74E+01 | 2.25E-04 | 7.11E-03 | 0.00E+00 | 3.22E-03 | 2.80E-01 | 3.62E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 6.45E+02 | 1.47E+03 | 4.64E+03 | 4.86E-02 | 3.44E-01 | 2.94E-01 | 5.08E+01 | 5.95E-04 | 1.93E-02 | 0.00E+00 | 4.38E-03 | 4.69E-01 | 8.11E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.01E+02 | 9.13E+02 | 5.33E+03 | 4.10E-02 | 3.44E-01 | 2.39E-01 | 5.85E+01 | 6.58E-04 | 1.31E-02 | 0.00E+00 | 3.70E-03 | 7.54E-01 | 1.44E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 4.83E+01 | 1.10E+02 | 9.67E+02 | 6.02E-03 | 2.36E-02 | 3.86E-02 | 1.07E+01 | 1.20E-04 | 1.40E-03 | 0.00E+00 | 5.44E-04 | 4.28E-01 | 2.19E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 4.96E+01 | 1.13E+02 | 1.19E+03 | 7.12E-03 | 3.03E-02 | 4.27E-02 | 1.31E+01 | 1.29E-04 | 1.60E-03 | 0.00E+00 | 6.42E-04 | 5.37E-01 | 2.29E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Plate Comp | D | 15 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.02E+02 | 3.33E+02 | 6.55E+01 | 8.34E-04 | 4.38E-03 | 5.23E-03 | 7.17E-01 | 1.12E-05 | 2.04E-04 | 0.00E+00 | 7.53E-05 | 2.63E-02 | 6.71E-05 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 15 | Constructio | U | P | NHH | NP | Total | Total | Total | 3.80E+02 | 7.24E+02 | 2.09E+02 | 2.66E-03 | 1.40E-02 | 1.67E-02 | 2.29E+00 | 3.56E-05 | 6.51E-04 | 0.00E+00 | 2.40E-04 | 3.86E-02 | 9.83E-05 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.59E+02 | 3.03E+02 | 1.84E+02 | 2.43E-03 | 8.31E-03 | 1.54E-02 | 2.02E+00 | 2.56E-05 | 5.75E-04 | 0.00E+00 | 2.20E-04 | 5.49E-02 | 1.69E-04 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.94E+02 | 9.47E+02 | 1.13E+03 | 1.63E-02 | 1.07E-01 | 8.41E-02 | 1.23E+01 | 1.59E-04 | 3.20E-03 | 0.00E+00 | 1.47E-03 | 2.26E-01 | 3.36E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.65E+03 | 5.09E+03 | 1.37E+04 | 9.97E-02 | 9.66E-01 | 6.73E-01 | 1.50E+02 | 1.76E-03 | 3.48E-02 | 0.00E+00 | 8.99E-03 | 3.80E-01 | 6.91E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.07E+03 | 2.05E+03 | 1.01E+04 | 5.65E-02 | 6.23E-01 | 3.10E-01 | 1.10E+02 | 1.24E-03 | 1.59E-02 | 0.00E+00 | 5.10E-03 | 6.09E-01 | 1.22E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.51E+02 | 2.90E+02 | 2.01E+03 | 9.51E-03 | 4.40E-02 | 5.26E-02 | 2.22E+01 | 2.50E-04 | 1.83E-03 | 0.00E+00 | 8.58E-04 | 3.03E-01 | 1.72E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.06E+02 | 2.03E+02 | 2.01E+03 | 9.35E-03 | 4.26E-02 | 4.83E-02 | 2.23E+01 | 2.19E-04 | 1.77E-03 | 0.00E+00 | 8.43E-04 | 4.19E-01 | 2.15E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.45E+01 | 7.43E+01 | 3.18E+02 | 3.29E-03 | 2.40E-02 | 1.94E-02 | 3.48E+00 | 4.09E-05 | 1.22E-03 | 0.00E+00 | 2.97E-04 | 6.47E-01 | 1.10E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.24E+02 | 6.80E+02 | 4.58E+03 | 3.48E-02 | 3.01E-01 | 1.92E-01 | 5.03E+01 | 5.66E-04 | 1.04E-02 | 0.00E+00 | 3.14E-03 | 8.86E-01 | 1.66E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.19E+02 | 6.63E+02 | 6.28E+03 | 3.93E-02 | 1.54E-01 | 2.33E-01 | 6.93E+01 | 7.80E-04 | 8.42E-03 | 0.00E+00 | 3.54E-03 | 4.64E-01 | 2.35E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 6.02E+02 | 1.82E+03 | 2.65E+04 | 1.60E-01 | 6.68E-01 | 8.86E-01 | 2.93E+02 | 2.87E-03 | 3.32E-02 | 0.00E+00 | 1.44E-02 | 7.33E-01 | 3.15E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.02E+01 | 6.11E+01 | 1.54E+03 | 9.29E-03 | 3.86E-02 | 5.27E-02 | 1.70E+01 | 1.70E-04 | 1.95E-03 | 0.00E+00 | 8.38E-04 | 1.26E+00 | 5.58E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.63E+01 | 3.71E+01 | 2.13E+01 | 2.82E-04 | 9.64E-04 | 1.78E-03 | 2.34E-01 | 2.97E-06 | 6.67E-05 | 0.00E+00 | 2.55E-05 | 5.19E-02 | 1.60E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.38E+01 | 3.16E+01 | 3.48E+01 | 7.40E-04 | 3.72E-03 | 2.82E-03 | 3.78E-01 | 4.88E-06 | 1.51E-04 | 0.00E+00 | 6.68E-05 | 2.35E-01 | 3.09E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.99E+02 | 4.55E+02 | 1.13E+03 | 1.14E-02 | 8.35E-02 | 7.03E-02 | 1.24E+01 | 1.45E-04 | 4.56E-03 | 0.00E+00 | 1.03E-03 | 3.67E-01 | 6.39E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 9.36E+01 | 2.14E+02 | 9.84E+02 | 7.35E-03 | 6.31E-02 | 4.30E-02 | 1.08E+01 | 1.22E-04 | 2.34E-03 | 0.00E+00 | 6.63E-04 | 5.89E-01 | 1.14E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.64E+01 | 6.03E+01 | 3.34E+02 | 2.02E-03 | 7.98E-03 | 1.29E-02 | 3.68E+00 | 4.15E-05 | 4.63E-04 | 0.00E+00 | 1.83E-04 | 2.65E-01 | 1.37E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.26E+01 | 1.55E+01 | 1.00E+01 | 1.33E-04 | 8.56E-04 | 7.24E-04 | 1.09E-01 | 1.41E-06 | 2.75E-05 | 0.00E+00 | 1.20E-05 | 1.10E-01 | 1.82E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.51E+00 | 3.10E+00 | 9.01E+00 | 5.97E-05 | 6.12E-04 | 4.45E-04 | 9.89E-02 | 1.16E-06 | 2.26E-05 | 0.00E+00 | 5.39E-06 | 3.95E-01 | 7.47E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.88E+00 | 2.33E+00 | 9.08E+00 | 4.49E-05 | 5.40E-04 | 2.82E-04 | 9.97E-02 | 1.12E-06 | 1.38E-05 | 0.00E+00 | 4.05E-06 | 4.64E-01 | 9.64E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.77E+00 | 4.66E+00 | 2.84E+01 | 1.17E-04 | 6.06E-04 | 7.62E-04 | 3.14E-01 | 3.53E-06 | 2.59E-05 | 0.00E+00 | 1.06E-05 | 2.60E-01 | 1.52E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.14E+01 | 3.88E+01 | 3.88E+02 | 1.55E-03 | 8.21E-03 | 9.48E-03 | 4.29E+00 | 4.21E-05 | 3.36E-04 | 0.00E+00 | 1.40E-04 | 4.23E-01 | 2.17E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.85E+00 | 4.76E+00 | 7.47E+01 | 3.00E-04 | 1.58E-03 | 1.86E-03 | 8.26E-01 | 8.30E-06 | 6.54E-05 | 0.00E+00 | 2.70E-05 | 6.64E-01 | 3.49E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 15 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.77E+03 | 3.64E+03 | 1.02E+03 | 1.30E-02 | 6.84E-02 | 8.17E-02 | 1.12E+01 | 1.74E-04 | 3.19E-03 | 0.00E+00 | 1.18E-03 | 3.76E-02 | 9.59E-05 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.79E+00 | 1.29E+01 | 2.13E+01 | 2.14E-04 | 1.73E-03 | 1.46E-03 | 2.33E-01 | 3.01E-06 | 4.04E-05 | 0.00E+00 | 1.93E-05 | 2.68E-01 | 4.67E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.44E+02 | 2.11E+02 | 7.70E+02 | 4.15E-03 | 5.16E-02 | 3.24E-02 | 8.45E+00 | 9.91E-05 | 1.33E-03 | 0.00E+00 | 3.74E-04 | 4.89E-01 | 9.40E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.92E+01 | 1.31E+02 | 9.18E+02 | 3.83E-03 | 5.42E-02 | 2.24E-02 | 1.01E+01 | 1.14E-04 | 9.91E-04 | 0.00E+00 | 3.46E-04 | 8.28E-01 | 1.74E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.88E+01 | 2.76E+01 | 3.19E+02 | 1.10E-03 | 6.45E-03 | 6.12E-03 | 3.52E+00 | 3.97E-05 | 1.82E-04 | 0.00E+00 | 9.89E-05 | 4.67E-01 | 2.87E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 15 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.71E+01 | 7.98E+01 | 3.08E+01 | 3.93E-04 | 2.06E-03 | 2.46E-03 | 3.37E-01 | 5.25E-06 | 9.61E-05 | 0.00E+00 | 3.54E-05 | 5.16E-02 | 1.32E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.96E+01 | 8.41E+01 | 1.26E+02 | 1.67E-03 | 5.69E-03 | 1.05E-02 | 1.38E+00 | 1.75E-05 | 3.94E-04 | 0.00E+00 | 1.50E-04 | 1.35E-01 | 4.17E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.89E+03 | 3.24E+03 | 4.92E+03 | 1.11E-01 | 5.18E-01 | 4.00E-01 | 5.33E+01 | 6.90E-04 | 2.28E-02 | 0.00E+00 | 1.00E-02 | 3.19E-01 | 4.25E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.56E+03 | 4.40E+03 | 1.30E+04 | 1.37E-01 | 9.53E-01 | 8.48E-01 | 1.43E+02 | 1.67E-03 | 5.69E-02 | 0.00E+00 | 1.24E-02 | 4.34E-01 | 7.61E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.80E+02 | 4.81E+02 | 3.15E+03 | 2.42E-02 | 2.00E-01 | 1.48E-01 | 3.46E+01 | 3.89E-04 | 8.12E-03 | 0.00E+00 | 2.19E-03 | 8.32E-01 | 1.62E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.51E+01 | 4.32E+01 | 4.35E+02 | 2.69E-03 | 1.06E-02 | 1.83E-02 | 4.81E+00 | 5.41E-05 | 6.67E-04 | 0.00E+00 | 2.42E-04 | 4.92E-01 | 2.51E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.20E+01 | 5.50E+01 | 7.75E+02 | 4.57E-03 | 2.03E-02 | 2.93E-02 | 8.56E+00 | 8.40E-05 | 1.10E-03 | 0.00E+00 | 4.12E-04 | 7.36E-01 | 3.05E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 7.71E-01 | 1.32E+00 | 3.51E+01 | 2.08E-04 | 9.18E-04 | 1.37E-03 | 3.88E-01 | 3.90E-06 | 5.06E-05 | 0.00E+00 | 1.88E-05 | 1.39E+00 | 5.90E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 15 | Constructio | U | P | NHH | P | Total | Total | Total | 6.28E+00 | 1.40E+01 | 6.59E+00 | 8.40E-05 | 4.41E-04 | 5.26E-04 | 7.22E-02 | 1.12E-06 | 2.06E-05 | 0.00E+00 | 7.58E-06 | 6.31E-02 | 1.61E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 25 | Constructio | U | P | NHH | P | Total | Total | Total | 1.88E+01 | 4.19E+01 | 3.05E+01 | 4.04E-04 | 1.38E-03 | 2.55E-03 | 3.35E-01 | 4.25E-06 | 9.53E-05 | 0.00E+00 | 3.64E-05 | 6.58E-02 | 2.03E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 50 | Constructio | U | P | NHH | P | Total | Total | Total | 8.23E+01 | 1.89E+02 | 2.68E+02 | 1.80E-03 | 2.08E-02 | 1.57E-02 | 2.93E+00 | 3.79E-05 | 8.19E-05 | 0.00E+00 | 1.62E-04 | 2.20E-01 | 4.01E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 120 | Constructio | U | P | NHH | P | Total | Total | Total | 2.52E+02 | 5.80E+02 | 2.04E+03 | 7.30E-03 | 1.35E-01 | 5.67E-02 | 2.24E+01 | 2.62E-04 | 5.79E-04 | 0.00E+00 | 6.59E-04 | 4.66E-01 | 9.04E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 175 | Constructio | U | P | NHH | P | Total | Total | Total | 5.84E+01 | 1.34E+02 | 8.60E+02 | 2.17E-03 | 5.06E-02 | 5.28E-03 | 9.46E+00 | 1.06E-04 | 1.99E-04 | 0.00E+00 | 1.96E-04 | 7.54E-01 | 1.59E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 250 | Constructio | U | N | NHH | P | Total | Total | Total | 5.02E+01 | 1.16E+02 | 9.81E+02 | 2.46E-03 | 1.98E-02 | 5.66E-03 | 1.09E+01 | 1.22E-04 | 2.03E-04 | 0.00E+00 | 2.22E-04 | 3.42E-01 | 2.11E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 500 | Constructio | U | N | NHH | P | Total | Total | Total | 1.12E+02 | 2.57E+02 | 3.61E+03 | 9.07E-03 | 7.08E-02 | 2.08E-02 | 4.00E+01 | 3.92E-04 | 7.48E-04 | 0.00E+00 | 8.18E-04 | 5.51E-01 | 3.05E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 750 | Constructio | U | N | NHH | P | Total | Total | Total | 1.19E+01 | 2.75E+01 | 7.63E+02 | 1.92E-03 | 1.49E-02 | 4.40E-03 | 8.44E+00 | 8.49E-05 | 1.58E-04 | 0.00E+00 | 1.73E-04 | 1.09E+00 | 6.18E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 1000 | Constructio | U | N | NHH | P | Total | Total | Total | 2.00E+01 | 4.60E+01 | 1.93E+03 | 4.86E-03 | 3.78E-02 | 8.95E-02 | 2.13E+01 | 2.15E-04 | 8.38E-04 | 0.00E+00 | 4.39E-04 | 1.64E+00 | 9.33E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.32E+01 | 8.89E+01 | 6.65E+01 | 8.81E-04 | 3.01E-03 | 5.57E-03 | 7.30E-01 | 9.27E-06 | 2.08E-04 | 0.00E+00 | 7.95E-05 | 6.76E-02 | 2.08E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.75E+02 | 3.39E+03 | 3.89E+03 | 5.03E-02 | 4.00E-01 | 2.74E-01 | 4.23E+01 | 5.47E-04 | 5.96E-03 | 0.00E+00 | 4.54E-03 | 2.36E-01 | 3.23E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.38E+03 | 9.20E+03 | 3.09E+04 | 2.06E-01 | 2.27E+00 | 1.21E+00 | 3.38E+02 | 3.97E-03 | 4.24E-02 | 0.00E+00 | 1.86E-02 | 4.94E-01 | 8.63E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 4.58E+03 | 1.78E+04 | 9.06E+04 | 4.59E-01 | 5.88E+00 | 1.76E+00 | 9.95E+02 | 1.12E-02 | 8.10E-02 | 0.00E+00 | 4.14E-02 | 6.63E-01 | 1.26E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.86E+03 | 7.22E+03 | 5.18E+04 | 2.33E-01 | 1.16E+00 | 8.01E-01 | 5.72E+02 | 6.44E-03 | 2.67E-02 | 0.00E+00 | 2.11E-02 | 3.21E-01 | 1.78E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.34E+03 | 5.21E+03 | 5.50E+04 | 2.46E-01 | 1.17E+00 | 8.04E-01 | 6.08E+02 | 5.97E-03 | 2.78E-02 | 0.00E+00 | 2.22E-02 | 4.49E-01 | 2.29E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 6.04E+00 | 2.34E+01 | 4.10E+02 | 1.83E-03 | 8.71E-03 | 6.07E-03 | 4.53E+00 | 4.55E-05 | 2.08E-04 | 0.00E+00 | 1.65E-04 | 7.44E-01 | 3.89E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.51E+00 | 4.08E+00 | 3.06E+00 | 4.05E-05 | 1.38E-04 | 2.56E-04 | 3.36E-02 | 4.26E-07 | 9.56E-06 | 0.00E+00 | 3.65E-06 | 6.78E-02 | 2.09E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.20E+01 | 3.50E+01 | 4.82E+01 | 4.88E-04 | 3.99E-03 | 3.33E-03 | 5.27E-01 | 6.82E-06 | 9.23E-05 | 0.00E+00 | 4.40E-05 | 2.28E-01 | 3.90E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 3.83E+01 | 6.09E+01 | 2.06E+02 | 1.12E-03 | 1.39E-02 | 8.64E-03 | 2.26E+00 | 2.65E-05 | 3.57E-04 | 0.00E+00 | 1.01E-04 | 4.56E-01 | 8.69E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Concrete/I | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.26E+00 | 2.00E+00 | 1.45E+01 | 6.21E-05 | 8.64E-04 | 3.51E-04 | 1.60E-01 | 1.80E-06 | 1.60E-05 | 0.00E+00 | 5.61E-06 | 8.65E-01 | 1.80E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 15 | Constructio | U | P | NHH | NP | Total | Total | Total | 3.21E+02 | 2.64E+02 | 7.61E+01 | 9.70E-04 | 5.09E-03 | 6.08E-03 | 8.33E-01 | 1.30E-05 | 2.37E-04 | 0.00E+00 | 8.75E-05 | 3.86E-02 | 9.83E-05 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Cement an | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.89E+01 | 2.38E+01 | 1.90E+01 | 2.53E-04 | 8.60E-04 | 1.60E-03 | 2.08E-01 | 2.64E-06 | 6.16E-05 | 0.00E+00 | 2.28E-05 | 7.23E-02 | 2.23E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 50 | Constructio | U | P | NHH | P | Total | Total | Total | 2.13E+01 | 7.48E+01 | 7.97E+01 | 1.31E-03 | 8.43E-03 | 6.14E-03 | 8.67E-01 | 1.12E-05 | 2.33E-04 | 0.00E+00 | 1.18E-04 | 2.25E-01 | 2.99E-04 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 2.34E+02 | 8.21E+02 | 1.88E+03 | 1.54E-02 | 1.39E-01 | 9.42E-02 | 2.06E+01 | 2.41E-04 | 4.93E-03 | 0.00E+00 | 1.39E-03 | 3.38E-01 | 5.88E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 2.34E+02 | 8.21E+02 | 3.00E+03 | 1.90E-02 | 1.95E-01 | 9.43E-02 | 3.29E+01 | 3.71E-04 | 4.92E-03 | 0.00E+00 | 1.71E-03 | 4.74E-01 | 9.03E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 4.54E+02 | 1.59E+03 | 8.07E+03 | 4.32E-02 | 1.84E-01 | 2.15E-01 | 8.91E+01 | 1.00E-03 | 7.50E-03 | 0.00E+00 | 3.90E-03 | 2.31E-01 | 1.26E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 1.66E+02 | 5.83E+02 | 4.75E+03 | 2.50E-02 | 1.03E-01 | 1.16E-01 | 5.25E+01 | 5.15E-04 | 4.25E-03 | 0.00E+00 | 2.25E-03 | 3.53E-01 | 1.77E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 2.51E+01 | 8.78E+01 | 1.20E+03 | 6.34E-03 | 2.61E-02 | 2.99E-02 | 1.33E+01 | 1.34E-04 | 1.09E-03 | 0.00E+00 | 5.72E-04 | 5.94E-01 | 3.04E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 9999 | Constructi | U | N | NHH | P | Total | Total | Total | 3.15E+01 | 1.10E+02 | 4.84E+03 | 2.87E-02 | 1.09E-01 | 3.07E-01 | 5.34E+01 | 5.37E-04 | 6.31E-03 | 0.00E+00 | 2.59E-03 | 1.97E+00 | 9.75E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.79E+00 | 2.28E+01 | 2.88E+01 | 4.34E-04 | 2.96E-03 | 2.13E-03 | 3.13E-01 | 4.05E-06 | 7.18E-05 | 0.00E+00 | 3.92E-05 | 2.60E-01 | 3.56E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.86E+02 | 1.52E+03 | 5.19E+03 | 3.96E-02 | 3.80E-01 | 2.44E-01 | 5.69E+01 | 6.67E-04 | 1.16E-02 | 0.00E+00 | 3.57E-03 | 5.00E-01 | 8.79E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.00E+03 | 5.19E+03 | 2.93E+04 | 1.69E-01 | 1.88E+00 | 8.08E-01 | 3.21E+02 | 3.61E-03 | 4.06E-02 | 0.00E+00 | 1.52E-02 | 7.25E-01 | 1.39E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.24E+03 | 3.22E+03 | 2.51E+04 | 1.26E-01 | 5.71E-01 | 5.87E-01 | 2.77E+02 | 3.12E-03 | 2.08E-02 | 0.00E+00 | 1.13E-02 | 3.55E-01 | 1.93E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.52E+01 | 9.11E+01 | 9.45E+02 | 4.65E-03 | 2.10E-02 | 2.03E-02 | 1.04E+01 | 1.02E-04 | 7.52E-04 | 0.00E+00 | 4.20E-04 | 4.61E-01 | 2.25E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.85E-01 | 9.98E-01 | 2.19E+01 | 1.08E-04 | 4.86E-04 | 4.80E-04 | 2.42E-01 | 2.43E-06 | 1.76E-05 | 0.00E+00 | 9.75E-06 | 9.75E-01 | 4.88E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.08E+01 | 2.21E+02 | 1.26E+03 | 6.87E-03 | 8.33E-02 | 2.63E-02 | 1.38E+01 | 1.56E-04 | 1.24E-03 | 0.00E+00 | 6.20E-04 | 7.53E-01 | 1.41E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.01E+02 | 1.63E+03 | 1.23E+04 | 5.96E-02 | 2.80E-01 | 2.06E-01 | 1.36E+02 | 1.53E-03 | 6.91E-03 | 0.00E+00 | 5.38E-03 | 3.43E-01 | 1.87E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.24E+02 | 2.30E+03 | 2.83E+04 | 1.36E-01 | 6.12E-01 | 4.46E-01 | 3.13E+02 | 3.07E-03 | 1.55E-02 | 0.00E+00 | 1.23E-02 | 5.31E-01 | 2.67E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 8.08E+01 | 4.38E+02 | 8.75E+03 | 4.21E-02 | 1.89E-01 | 1.40E-01 | 9.67E+01 | 9.72E-04 | 4.84E-03 | 0.00E+00 | 3.80E-03 | 8.62E-01 | 4.44E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.79E+01 | 2.05E+02 | 5.80E+03 | 2.90E-02 | 1.27E-01 | 3.26E-01 | 6.41E+01 | 6.44E-04 | 5.60E-03 | 0.00E+00 | 2.61E-03 | 1.24E+00 | 6.28E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 1.00E+02 | 2.63E+02 | 5.31E+02 | 6.68E-03 | 5.07E-02 | 3.81E-02 | 5.78E+00 | 7.48E-05 | 1.09E-03 | 0.00E+00 | 6.03E-04 | 3.86E-01 | 5.69E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 2.83E+02 | 7.42E+02 | 2.81E+03 | 1.87E-02 | 2.00E-01 | 1.22E-01 | 3.08E+01 | 3.61E-04 | 5.18E-03 | 0.00E+00 | 1.69E-03 | 5.40E-01 | 9.74E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 1.20E+02 | 3.14E+02 | 2.39E+03 | 1.25E-02 | 1.50E-01 | 6.01E-02 | 2.62E+01 | 2.95E-04 | 2.78E-03 | 0.00E+00 | 1.12E-03 | 9.55E-01 | 1.88E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 1.19E+01 | 3.12E+01 | 3.45E+02 | 1.51E-03 | 7.44E-03 | 6.80E-03 | 3.82E+00 | 4.29E-05 | 2.09E-04 | 0.00E+00 | 1.36E-04 | 4.76E-01 | 2.75E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 6.72E+01 | 1.76E+02 | 2.97E+03 | 1.28E-02 | 6.13E-02 | 5.42E-02 | 3.28E+01 | 3.22E-04 | 1.76E-03 | 0.00E+00 | 1.16E-03 | 6.97E-01 | 3.66E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 6.42E-01 | 1.68E+00 | 4.48E+01 | 1.94E-04 | 9.25E-04 | 8.33E-04 | 4.95E-01 | 4.98E-06 | 2.66E-05 | 0.00E+00 | 1.75E-05 | 1.10E+00 | 5.92E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 9999 | Constructi | U | N | NHH | P | Total | Total | Total | 6.42E-01 | 1.68E+00 | 9.94E+01 | 5.06E-04 | 2.10E-03 | 5.63E-03 | 1.10E+00 | 1.10E-05 | 1.04E-04 | 0.00E+00 | 4.56E-05 | 2.50E+00 | 1.31E-02 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 6.97E+01 | 2.16E+02 | 3.35E+02 | 4.11E-03 | 3.28E-02 | 2.37E-02 | 3.65E+00 | 4.72E-05 | 5.78E-04 | 0.00E+00 | 3.71E-04 | 3.04E-01 | 4.37E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.34E+03 | 1.03E+04 | 2.94E+04 | 1.91E-01 | 2.12E+00 | 1.20E+00 | 3.23E+02 | 3.79E-03 | 4.52E-02 | 0.00E+00 | 1.72E-02 | 4.10E-01 | 7.32E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.28E+02 | 1.33E+03 | 7.53E+03 | 3.77E-02 | 4.79E-01 | 1.62E-01 | 8.27E+01 | 9.30E-04 | 7.44E-03 | 0.00E+00 | 3.40E-03 | 7.22E-01 | 1.40E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.39E+01 | 7.39E+01 | 5.71E+02 | 2.48E-03 | 1.25E-02 | 9.70E-03 | 6.31E+00 | 7.10E-05 | 3.09E-04 | 0.00E+00 | 2.24E-04 | 3.37E-01 | 1.92E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.57E+01 | 4.86E+01 | 5.64E+02 | 2.43E-03 | 1.18E-02 | 8.95E-03 | 6.24E+00 | 6.12E-05 | 2.99E-04 | 0.00E+00 | 2.19E-04 | 4.83E-01 | 2.52E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.79E+00 | 2.31E+01 | 1.78E+01 | 2.35E-04 | 8.03E-04 | 1.49E-03 | 1.95E-01 | 2.48E-06 | 5.56E-05 | 0.00E+00 | 2.12E-05 | 6.96E-02 | 2.15E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.71E+02 | 4.54E+02 | 6.49E+02 | 9.47E-03 | 6.58E-02 | 4.78E-02 | 7.06E+00 | 9.13E-05 | 1.55E-03 | 0.00E+00 | 8.54E-04 | 2.90E-01 | 4.02E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.64E+03 | 1.23E+04 | 3.31E+04 | 2.45E-01 | 2.41E+00 | 1.53E+00 | 3.63E+02 | 4.26E-03 | 7.07E-02 | 0.00E+00 | 2.21E-02 | 3.91E-01 | 6.90E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.62E+03 | 6.95E+03 | 3.36E+04 | 1.90E-01 | 2.15E+00 | 9.01E-01 | 3.69E+02 | 4.16E-03 | 4.50E-02 | 0.00E+00 | 1.71E-02 | 6.19E-01 | 1.20E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.60E+03 | 6.92E+03 | 4.66E+04 | 2.28E-01 | 1.05E+00 | 1.05E+00 | 5.15E+02 | 5.79E-03 | 3.70E-02 | 0.00E+00 | 2.06E-02 | 3.04E-01 | 1.67E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.08E+03 | 2.88E+03 | 3.08E+04 | 1.49E-01 | 6.69E-01 | 6.41E-01 | 3.41E+02 | 3.34E-03 | 2.35E-02 | 0.00E+00 | 1.34E-02 | 4.65E-01 | 2.32E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.55E+01 | 4.13E+01 | 9.07E+02 | 4.37E-03 | 1.97E-02 | 1.91E-02 | 1.00E+01 | 1.01E-04 | 6.97E-04 | 0.00E+00 | 3.95E-04 | 9.52E-01 | 4.88E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.67E+00 | 4.43E+00 | 1.19E+02 | 5.98E-04 | 2.64E-03 | 7.15E-03 | 1.32E+00 | 1.32E-05 | 1.36E-04 | 0.00E+00 | 5.40E-05 | 1.19E+00 | 5.97E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 6.28E+00 | 2.78E+01 | 1.64E+02 | 1.61E-03 | 1.11E-02 | 9.57E-03 | 1.80E+00 | 2.02E-05 | 5.35E-04 | 0.00E+00 | 1.46E-04 | 8.01E-01 | 1.46E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.54E+02 | 6.81E+02 | 5.66E+03 | 4.52E-02 | 1.57E-01 | 3.01E-01 | 6.24E+01 | 7.02E-04 | 1.15E-02 | 0.00E+00 | 4.08E-03 | 4.62E-01 | 2.06E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.37E+02 | 1.05E+03 | 1.26E+04 | 9.51E-02 | 3.92E-01 | 6.04E-01 | 1.39E+02 | 1.36E-03 | 2.35E-02 | 0.00E+00 | 8.58E-03 | 7.48E-01 | 2.60E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.71E+01 | 7.56E+01 | 1.37E+03 | 1.04E-02 | 4.25E-02 | 6.72E-02 | 1.51E+01 | 1.51E-04 | 2.58E-03 | 0.00E+00 | 9.35E-04 | 1.13E+00 | 4.01E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.16E+00 | 5.11E+00 | 1.37E+02 | 1.10E-03 | 4.58E-03 | 1.16E-02 | 1.51E+00 | 1.52E-05 | 3.07E-04 | 0.00E+00 | 9.95E-05 | 1.79E+00 | 5.95E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.77E+02 | 4.57E+02 | 3.30E+02 | 4.37E-03 | 1.49E-02 | 2.76E-02 | 3.62E+00 | 4.60E-05 | 1.03E-03 | 0.00E+00 | 3.95E-04 | 6.53E-02 | 2.01E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.06E+03 | 2.78E+03 | 3.86E+03 | 4.38E-02 | 3.71E-01 | 2.63E-01 | 4.21E+01 | 5.44E-04 | 5.08E-03 | 0.00E+00 | 3.96E-03 | 2.68E-01 | 3.92E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.42E+04 | 3.71E+04 | 8.75E+04 | 5.21E-01 | 6.27E+00 | 3.27E+00 | 9.59E+02 | 1.13E-02 | 1.02E-01 | 0.00E+00 | 4.70E-02 | 3.38E-01 | 6.06E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.06E+03 | 2.77E+03 | 1.28E+04 | 5.81E-02 | 8.08E-01 | 2.23E-01 | 1.40E+02 | 1.58E-03 | 9.96E-03 | 0.00E+00 | 5.24E-03 | 5.83E-01 | 1.14E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.42E+02 | 8.96E+02 | 6.95E+03 | 2.83E-02 | 1.52E-01 | 9.65E-02 | 7.69E+01 | 8.65E-04 | 3.26E-03 | 0.00E+00 | 2.56E-03 | 3.39E-01 | 1.93E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.51E+02 | 1.45E+03 | 2.25E+04 | 9.12E-02 | 4.70E-01 | 2.98E-01 | 2.49E+02 | 2.80E-03 | 1.04E-02 | 0.00E+00 | 8.23E-03 | 6.50E-01 | 3.88E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.77E+01 | 2.04E+02 | 4.77E+03 | 1.93E-02 | 9.94E-02 | 6.37E-02 | 5.27E+01 | 5.93E-04 | 2.20E-03 | 0.00E+00 | 1.74E-03 | 9.75E-01 | 5.82E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.79E+00 | 2.50E+01 | 2.86E+01 | 6.07E-04 | 3.20E-03 | 2.30E-03 | 3.10E-01 | 4.01E-06 | 1.12E-04 | 0.00E+00 | 5.48E-05 | 2.56E-01 | 3.21E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.99E+03 | 1.42E+04 | 4.25E+04 | 4.30E-01 | 3.21E+00 | 2.52E+00 | 4.65E+02 | 5.46E-03 | 1.56E-01 | 0.00E+00 | 3.88E-02 | 4.53E-01 | 7.71E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.69E+03 | 4.79E+03 | 2.64E+04 | 1.97E-01 | 1.74E+00 | 1.06E+00 | 2.90E+02 | 3.26E-03 | 5.76E-02 | 0.00E+00 | 1.78E-02 | 7.26E-01 | 1.36E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.45E+03 | 4.12E+03 | 3.09E+04 | 1.90E-01 | 7.53E-01 | 1.10E+00 | 3.42E+02 | 3.84E-03 | 3.95E-02 | 0.00E+00 | 1.72E-02 | 3.66E-01 | 1.87E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 9.94E+02 | 2.82E+03 | 3.31E+04 | 1.96E-01 | 8.28E-01 | 1.06E+00 | 3.65E+02 | 3.59E-03 | 3.95E-02 | 0.00E+00 | 1.77E-02 | 5.87E-01 | 2.54E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.03E+01 | 2.91E+01 | 6.13E+02 | 3.65E-03 | 1.53E-02 | 2.02E-02 | 6.76E+00 | 6.80E-05 | 7.42E-04 | 0.00E+00 | 3.29E-04 | 1.05E+00 | 4.67E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.03E+01 | 2.91E+01 | 8.67E+02 | 5.45E-03 | 2.27E-02 | 6.13E-02 | 9.57E+00 | 9.62E-05 | 1.39E-03 | 0.00E+00 | 4.92E-04 | 1.56E+00 | 6.61E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.21E+03 | 2.76E+03 | 1.73E+03 | 2.30E-02 | 7.82E-02 | 1.45E-01 | 1.90E+01 | 2.41E-04 | 5.56E-03 | 0.00E+00 | 2.07E-03 | 5.67E-02 | 1.75E-04 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.09E+04 | 2.54E+04 | 2.96E+04 | 2.46E-01 | 2.51E+00 | 1.83E+00 | 3.24E+02 | 4.19E-03 | 1.92E-02 | 0.00E+00 | 2.22E-02 | 1.98E-01 | 3.30E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.73E+03 | 1.33E+04 | 2.59E+04 | 1.16E-01 | 1.77E+00 | 8.25E-01 | 2.84E+02 | 3.34E-03 | 1.47E-02 | 0.00E+00 | 1.05E-02 | 2.66E-01 | 5.01E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 6.28E-01 | 1.91E+00 | 8.17E+00 | 1.06E-04 | 6.30E-04 | 6.06E-04 | 8.93E-02 | 1.05E-06 | 4.33E-05 | 0.00E+00 | 9.52E-06 | 6.61E-01 | 1.10E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 7.68E+02 | 2.33E+03 | 1.39E+04 | 1.29E-01 | 9.24E-01 | 7.73E-01 | 1.52E+02 | 1.71E-03 | 4.31E-02 | 0.00E+00 | 1.17E-02 | 7.92E-01 | 1.47E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.26E+02 | 2.20E+03 | 1.30E+04 | 9.80E-02 | 3.50E-01 | 6.59E-01 | 1.44E+02 | 1.62E-03 | 2.49E-02 | 0.00E+00 | 8.84E-03 | 3.18E-01 | 1.47E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.45E+01 | 1.96E+02 | 5.04E+03 | 3.61E-02 | 1.50E-01 | 2.36E-01 | 5.55E+01 | 5.58E-04 | 8.97E-03 | 0.00E+00 | 3.26E-03 | 1.53E+00 | 5.71E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.81E+00 | 2.06E+01 | 7.62E+02 | 5.80E-03 | 2.43E-02 | 6.28E-02 | 8.39E+00 | 8.44E-05 | 1.63E-03 | 0.00E+00 | 5.23E-04 | 2.36E+00 | 8.18E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Dumpers/T | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.51E+01 | 2.74E+01 | 9.49E+00 | 1.26E-04 | 4.29E-04 | 7.94E-04 | 1.04E-01 | 1.32E-06 | 2.97E-05 | 0.00E+00 | 1.13E-05 | 3.14E-02 | 9.67E-05 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.08E+02 | 3.93E+02 | 1.81E+02 | 2.31E-03 | 1.21E-02 | 1.45E-02 | 1.99E+00 | 3.09E-05 | 5.66E-04 | 0.00E+00 | 2.09E-04 | 6.17E-02 | 1.57E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.52E+01 | 6.65E+01 | 4.00E+01 | 5.30E-04 | 1.81E-03 | 3.35E-03 | 4.39E-01 | 5.57E-06 | 1.25E-04 | 0.00E+00 | 4.78E-05 | 5.44E-02 | 1.68E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.40E+01 | 1.04E+02 | 1.32E+02 | 1.26E-03 | 1.13E-02 | 8.76E-03 | 1.45E+00 | 1.87E-05 | 1.75E-04 | 0.00E+00 | 1.14E-04 | 2.19E-01 | 3.62E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.92E+01 | 1.71E+02 | 6.29E+02 | 3.24E-03 | 4.31E-02 | 2.33E-02 | 6.90E+00 | 8.10E-05 | 7.40E-04 | 0.00E+00 | 2.92E-04 | 5.04E-01 | 9.48E-04 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.23E+02 | 2.36E+02 | 1.14E+03 | 4.53E-03 | 6.90E-02 | 2.04E-02 | 1.26E+01 | 1.41E-04 | 8.80E-04 | 0.00E+00 | 4.09E-04 | 5.85E-01 | 1.20E-03 |
| 2025 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.86E+02 | 5.48E+02 | 6.29E+03 | 2.17E-02 | 1.26E-01 | 8.30E-02 | 6.96E+01 | 6.83E-04 | 2.72E-03 | 0.00E+00 | 1.95E-03 | 4.60E-01 | 2.49E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.54E+00 | 2.15E+01 | 1.82E+01 | 2.42E-04 | 8.25E-04 | 1.53E-03 | 2.00E-01 | 2.54E-06 | 5.70E-05 | 0.00E+00 | 2.18E-05 | 7.68E-02 | 2.37E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.55E+02 | 1.26E+03 | 1.63E+03 | 3.37E-02 | 1.74E-01 | 1.29E-01 | 1.76E+01 | 2.28E-04 | 6.48E-03 | 0.00E+00 | 3.04E-03 | 2.76E-01 | 3.62E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 6.54E+02 | 1.49E+03 | 4.70E+03 | 4.62E-02 | 3.48E-01 | 2.80E-01 | 5.14E+01 | 6.03E-04 | 1.75E-02 | 0.00E+00 | 4.17E-03 | 4.67E-01 | 8.11E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.07E+02 | 9.24E+02 | 5.40E+03 | 3.91E-02 | 3.48E-01 | 2.20E-01 | 5.92E+01 | 6.67E-04 | 1.19E-02 | 0.00E+00 | 3.52E-03 | 7.53E-01 | 1.44E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.90E+01 | 1.11E+02 | 9.80E+02 | 5.83E-03 | 2.36E-02 | 3.54E-02 | 1.08E+01 | 1.22E-04 | 1.28E-03 | 0.00E+00 | 5.26E-04 | 4.23E-01 | 2.19E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Pavers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 5.03E+01 | 1.14E+02 | 1.21E+03 | 6.91E-03 | 3.00E-02 | 3.93E-02 | 1.33E+01 | 1.31E-04 | 1.48E-03 | 0.00E+00 | 6.24E-04 | 5.24E-01 | 2.29E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Plate Comp | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.05E+02 | 3.37E+02 | 6.63E+01 | 8.45E-04 | 4.43E-03 | 5.29E-03 | 7.26E-01 | 1.13E-05 | 2.07E-04 | 0.00E+00 | 7.63E-05 | 2.63E-02 | 6.71E-05 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.85E+02 | 7.33E+02 | 2.12E+02 | 2.70E-03 | 1.41E-02 | 1.69E-02 | 2.32E+00 | 3.60E-05 | 6.60E-04 | 0.00E+00 | 2.43E-04 | 3.86E-02 | 9.83E-05 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.61E+02 | 3.07E+02 | 1.86E+02 | 2.47E-03 | 8.42E-03 | 1.56E-02 | 2.04E+00 | 2.59E-05 | 5.82E-04 | 0.00E+00 | 2.23E-04 | 5.49E-02 | 1.69E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.01E+02 | 9.60E+02 | 1.14E+03 | 1.55E-02 | 1.07E-01 | 8.31E-02 | 1.25E+01 | 1.61E-04 | 2.82E-03 | 0.00E+00 | 1.40E-03 | 2.24E-01 | 3.36E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.69E+03 | 5.15E+03 | 1.38E+04 | 9.54E-02 | 9.76E-01 | 6.40E-01 | 1.52E+02 | 1.78E-03 | 3.07E-02 | 0.00E+00 | 8.61E-03 | 3.79E-01 | 6.91E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.08E+03 | 2.07E+03 | 1.02E+04 | 5.41E-02 | 6.31E-01 | 2.80E-01 | 1.12E+02 | 1.26E-03 | 1.42E-02 | 0.00E+00 | 4.88E-03 | 6.09E-01 | 1.22E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.53E+02 | 2.94E+02 | 2.03E+03 | 9.19E-03 | 4.43E-02 | 4.72E-02 | 2.25E+01 | 2.53E-04 | 1.64E-03 | 0.00E+00 | 8.29E-04 | 3.01E-01 | 1.72E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rollers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.08E+02 | 2.06E+02 | 2.04E+03 | 9.05E-03 | 4.27E-02 | 4.36E-02 | 2.26E+01 | 2.21E-04 | 1.58E-03 | 0.00E+00 | 8.17E-04 | 4.15E-01 | 2.15E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.48E+01 | 7.52E+01 | 3.22E+02 | 3.14E-03 | 2.42E-02 | 1.85E-02 | 3.53E+00 | 4.14E-05 | 1.10E-03 | 0.00E+00 | 2.83E-04 | 6.45E-01 | 1.10E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.27E+02 | 6.88E+02 | 4.64E+03 | 3.32E-02 | 3.05E-01 | 1.76E-01 | 5.09E+01 | 5.73E-04 | 9.48E-03 | 0.00E+00 | 3.00E-03 | 8.85E-01 | 1.66E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.21E+02 | 6.71E+02 | 6.36E+03 | 3.81E-02 | 1.54E-01 | 2.13E-01 | 7.02E+01 | 7.90E-04 | 7.74E-03 | 0.00E+00 | 3.44E-03 | 4.59E-01 | 2.35E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.09E+02 | 1.85E+03 | 2.69E+04 | 1.56E-01 | 6.62E-01 | 8.14E-01 | 2.97E+02 | 2.91E-03 | 3.06E-02 | 0.00E+00 | 1.40E-02 | 7.17E-01 | 3.15E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Scrapers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.04E+01 | 6.19E+01 | 1.55E+03 | 9.04E-03 | 3.83E-02 | 4.83E-02 | 1.72E+01 | 1.73E-04 | 1.79E-03 | 0.00E+00 | 8.16E-04 | 1.24E+00 | 5.58E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.65E+01 | 3.76E+01 | 2.16E+01 | 2.86E-04 | 9.77E-04 | 1.81E-03 | 2.37E-01 | 3.01E-06 | 6.76E-05 | 0.00E+00 | 2.58E-05 | 5.19E-02 | 1.60E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.40E+01 | 3.20E+01 | 3.52E+01 | 6.95E-04 | 3.71E-03 | 2.79E-03 | 3.83E-01 | 4.95E-06 | 1.36E-04 | 0.00E+00 | 6.27E-05 | 2.32E-01 | 3.09E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.02E+02 | 4.61E+02 | 1.15E+03 | 1.08E-02 | 8.43E-02 | 6.68E-02 | 1.26E+01 | 1.47E-04 | 4.10E-03 | 0.00E+00 | 9.78E-04 | 3.65E-01 | 6.39E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.48E+01 | 2.17E+02 | 9.97E+02 | 6.99E-03 | 6.38E-02 | 3.94E-02 | 1.09E+01 | 1.23E-04 | 2.12E-03 | 0.00E+00 | 6.30E-04 | 5.89E-01 | 1.14E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Paving Equ | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.67E+01 | 6.11E+01 | 3.38E+02 | 1.96E-03 | 7.99E-03 | 1.18E-02 | 3.73E+00 | 4.20E-05 | 4.24E-04 | 0.00E+00 | 1.77E-04 | 2.61E-01 | 1.37E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.27E+01 | 1.57E+01 | 1.01E+01 | 1.25E-04 | 8.59E-04 | 7.16E-04 | 1.11E-01 | 1.43E-06 | 2.45E-05 | 0.00E+00 | 1.13E-05 | 1.09E-01 | 1.82E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.54E+00 | 3.14E+00 | 9.13E+00 | 5.67E-05 | 6.19E-04 | 4.24E-04 | 1.00E-01 | 1.17E-06 | 2.01E-05 | 0.00E+00 | 5.11E-06 | 3.94E-01 | 7.47E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.91E+00 | 2.36E+00 | 9.19E+00 | 4.29E-05 | 5.46E-04 | 2.56E-04 | 1.01E-01 | 1.14E-06 | 1.24E-05 | 0.00E+00 | 3.87E-06 | 4.64E-01 | 9.64E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.82E+00 | 4.71E+00 | 2.87E+01 | 1.13E-04 | 6.09E-04 | 6.87E-04 | 3.18E-01 | 3.57E-06 | 2.35E-05 | 0.00E+00 | 1.02E-05 | 2.58E-01 | 1.52E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.18E+01 | 3.93E+01 | 3.93E+02 | 1.51E-03 | 8.19E-03 | 8.61E-03 | 4.34E+00 | 4.26E-05 | 3.06E-04 | 0.00E+00 | 1.36E-04 | 4.17E-01 | 2.17E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Surfacing I | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.90E+00 | 4.82E+00 | 7.56E+01 | 2.91E-04 | 1.58E-03 | 1.69E-03 | 8.36E-01 | 8.41E-06 | 5.95E-05 | 0.00E+00 | 2.62E-05 | 6.54E-01 | 3.49E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.79E+03 | 3.68E+03 | 1.04E+03 | 1.32E-02 | 6.93E-02 | 8.27E-02 | 1.14E+01 | 1.77E-04 | 3.23E-03 | 0.00E+00 | 1.19E-03 | 3.76E-02 | 9.59E-05 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.91E+00 | 1.31E+01 | 2.16E+01 | 2.03E-04 | 1.74E-03 | 1.44E-03 | 2.36E-01 | 3.05E-06 | 3.47E-05 | 0.00E+00 | 1.83E-05 | 2.67E-01 | 4.67E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.46E+02 | 2.14E+02 | 7.80E+02 | 3.96E-03 | 5.22E-02 | 3.09E-02 | 8.56E+00 | 1.00E-04 | 1.13E-03 | 0.00E+00 | 3.57E-04 | 4.89E-01 | 9.40E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 9.03E+01 | 1.33E+02 | 9.30E+02 | 3.64E-03 | 5.49E-02 | 1.99E-02 | 1.02E+01 | 1.15E-04 | 8.37E-04 | 0.00E+00 | 3.28E-04 | 8.29E-01 | 1.74E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Signal Boa | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.91E+01 | 2.80E+01 | 3.23E+02 | 1.06E-03 | 6.53E-03 | 5.34E-03 | 3.57E+00 | 4.02E-05 | 1.55E-04 | 0.00E+00 | 9.54E-05 | 4.67E-01 | 2.87E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.77E+01 | 8.09E+01 | 3.12E+01 | 3.98E-04 | 2.09E-03 | 2.49E-03 | 3.42E-01 | 5.32E-06 | 9.74E-05 | 0.00E+00 | 3.59E-05 | 5.16E-02 | 1.32E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.03E+01 | 8.52E+01 | 1.28E+02 | 1.69E-03 | 5.77E-03 | 1.07E-02 | 1.40E+00 | 1.78E-05 | 3.99E-04 | 0.00E+00 | 1.52E-04 | 1.35E-01 | 4.17E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.91E+03 | 3.29E+03 | 4.98E+03 | 1.05E-01 | 5.17E-01 | 3.96E-01 | 5.40E+01 | 6.98E-04 | 2.09E-02 | 0.00E+00 | 9.47E-03 | 3.15E-01 | 4.25E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.59E+03 | 4.45E+03 | 1.32E+04 | 1.31E-01 | 9.62E-01 | 8.11E-01 | 1.44E+02 | 1.69E-03 | 5.21E-02 | 0.00E+00 | 1.18E-02 | 4.32E-01 | 7.61E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.84E+02 | 4.87E+02 | 3.19E+03 | 2.32E-02 | 2.02E-01 | 1.37E-01 | 3.50E+01 | 3.94E-04 | 7.47E-03 | 0.00E+00 | 2.09E-03 | 8.31E-01 | 1.62E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.54E+01 | 4.37E+01 | 4.41E+02 | 2.60E-03 | 1.06E-02 | 1.69E-02 | 4.87E+00 | 5.48E-05 | 6.16E-04 | 0.00E+00 | 2.35E-04 | 4.85E-01 | 2.51E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.24E+01 | 5.57E+01 | 7.85E+02 | 4.43E-03 | 2.00E-02 | 2.71E-02 | 8.67E+00 | 8.51E-05 | 1.02E-03 | 0.00E+00 | 4.00E-04 | 7.18E-01 | 3.05E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Trenchers | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 7.81E-01 | 1.34E+00 | 3.56E+01 | 2.02E-04 | 9.06E-04 | 1.26E-03 | 3.93E-01 | 3.95E-06 | 4.68E-05 | 0.00E+00 | 1.82E-05 | 1.35E+00 | 5.90E-03 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 15 | Constructi | U | P | NHH | P | Total | Total | Total | 6.36E+00 | 1.41E+01 | 6.68E+00 | 8.51E-05 | 4.46E-04 | 5.33E-04 | 7.31E-02 | 1.14E-06 | 2.08E-05 | 0.00E+00 | 7.68E-06 | 6.31E-02 | 1.61E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 25 | Constructi | U | P | NHH | P | Total | Total | Total | 1.91E+01 | 4.24E+01 | 3.09E+01 | 4.09E-04 | 1.40E-03 | 2.58E-03 | 3.39E-01 | 4.30E-06 | 9.66E-05 | 0.00E+00 | 3.69E-05 | 6.58E-02 | 2.03E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 8.33E+01 | 1.92E+02 | 2.71E+02 | 1.82E-03 | 2.11E-02 | 1.59E-02 | 2.97E+00 | 3.84E-05 | 7.88E-05 | 0.00E+00 | 1.64E-04 | 2.20E-01 | 4.01E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 2.56E+02 | 5.88E+02 | 2.06E+03 | 7.37E-03 | 1.37E-01 | 5.71E-02 | 2.26E+01 | 2.66E-04 | 5.60E-04 | 0.00E+00 | 6.65E-04 | 4.66E-01 | 9.04E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 5.92E+01 | 1.36E+02 | 8.71E+02 | 2.19E-03 | 5.12E-02 | 5.16E-03 | 9.59E+00 | 1.08E-04 | 1.93E-04 | 0.00E+00 | 1.97E-04 | 7.54E-01 | 1.59E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 5.09E+01 | 1.17E+02 | 9.94E+02 | 2.48E-03 | 2.00E-02 | 5.59E-03 | 1.10E+01 | 1.24E-04 | 2.01E-04 | 0.00E+00 | 2.24E-04 | 3.42E-01 | 2.11E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 1.13E+02 | 2.60E+02 | 3.66E+03 | 9.14E-03 | 7.17E-02 | 2.06E-02 | 4.05E+01 | 3.97E-04 | 7.40E-04 | 0.00E+00 | 8.25E-04 | 5.51E-01 | 3.05E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 1.21E+01 | 2.78E+01 | 7.73E+02 | 1.93E-03 | 1.51E-02 | 4.35E-03 | 8.55E+00 | 8.60E-05 | 1.56E-04 | 0.00E+00 | 1.74E-04 | 1.09E+00 | 6.18E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Bore/Drill | D | 1000 | Constructi | U | N | NHH | P | Total | Total | Total | 2.03E+01 | 4.66E+01 | 1.95E+03 | 4.90E-03 | 3.83E-02 | 9.05E-02 | 2.16E+01 | 2.17E-04 | 8.35E-04 | 0.00E+00 | 4.42E-04 | 1.64E+00 | 9.33E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.35E+01 | 9.01E+01 | 6.74E+01 | 8.93E-04 | 3.05E-03 | 5.64E-03 | 7.40E-01 | 9.39E-06 | 2.11E-04 | 0.00E+00 | 8.05E-05 | 6.76E-02 | 2.08E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.86E+02 | 3.43E+03 | 3.94E+03 | 4.95E-02 | 4.04E-01 | 2.71E-01 | 4.29E+01 | 5.55E-04 | 5.17E-03 | 0.00E+00 | 4.46E-03 | 2.35E-01 | 3.23E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.41E+03 | 9.32E+03 | 3.13E+04 | 2.02E-01 | 2.30E+00 | 1.17E+00 | 3.43E+02 | 4.02E-03 | 3.67E-02 | 0.00E+00 | 1.82E-02 | 4.93E-01 | 8.63E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.64E+03 | 1.80E+04 | 9.18E+04 | 4.43E-01 | 5.96E+00 | 1.56E+00 | 1.01E+03 | 1.13E-02 | 6.97E-02 | 0.00E+00 | 4.00E-02 | 6.63E-01 | 1.26E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.89E+03 | 7.31E+03 | 5.25E+04 | 2.28E-01 | 1.17E+00 | 7.12E-01 | 5.80E+02 | 6.52E-03 | 2.34E-02 | 0.00E+00 | 2.05E-02 | 3.20E-01 | 1.78E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.36E+03 | 5.28E+03 | 5.57E+04 | 2.40E-01 | 1.18E+00 | 7.16E-01 | 6.16E+02 | 6.05E-03 | 2.43E-02 | 0.00E+00 | 2.17E-02 | 4.48E-01 | 2.29E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Excavators | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 6.12E+00 | 2.37E+01 | 4.15E+02 | 1.79E-03 | 8.80E-03 | 5.40E-03 | 4.59E+00 | 4.61E-05 | 1.83E-04 | 0.00E+00 | 1.62E-04 | 7.43E-01 | 3.89E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Concrete/In | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.54E+00 | 4.13E+00 | 3.10E+00 | 4.10E-05 | 1.40E-04 | 2.59E-04 | 3.40E-02 | 4.31E-07 | 9.69E-06 | 0.00E+00 | 3.70E-06 | 6.78E-02 | 2.09E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Concrete/In | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.23E+01 | 3.54E+01 | 4.89E+01 | 4.64E-04 | 4.01E-03 | 3.28E-03 | 5.34E-01 | 6.91E-06 | 7.92E-05 | 0.00E+00 | 4.19E-05 | 2.27E-01 | 3.90E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Concrete/In | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.88E+01 | 6.17E+01 | 2.08E+02 | 1.08E-03 | 1.40E-02 | 8.25E-03 | 2.29E+00 | 2.68E-05 | 3.01E-04 | 0.00E+00 | 9.72E-05 | 4.55E-01 | 8.69E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Concrete/In | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.27E+00 | 2.02E+00 | 1.47E+01 | 5.90E-05 | 8.76E-04 | 3.11E-04 | 1.62E-01 | 1.82E-06 | 1.35E-05 | 0.00E+00 | 5.33E-06 | 8.66E-01 | 1.80E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Cement and | D | 15 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.25E+02 | 2.67E+02 | 7.71E+01 | 9.83E-04 | 5.16E-03 | 6.15E-03 | 8.44E-01 | 1.31E-05 | 2.41E-04 | 0.00E+00 | 8.87E-05 | 3.86E-02 | 9.83E-05 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Cement and | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.93E+01 | 2.41E+01 | 1.92E+01 | 2.55E-04 | 8.70E-04 | 1.62E-03 | 2.11E-01 | 2.68E-06 | 6.18E-05 | 0.00E+00 | 2.30E-05 | 7.23E-02 | 2.23E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 2.16E+01 | 7.58E+01 | 8.07E+01 | 1.25E-03 | 8.47E-03 | 6.07E-03 | 8.78E-01 | 1.13E-05 | 2.05E-04 | 0.00E+00 | 1.13E-04 | 2.24E-01 | 2.99E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 2.37E+02 | 8.31E+02 | 1.90E+03 | 1.49E-02 | 1.40E-01 | 8.96E-02 | 2.08E+01 | 2.44E-04 | 4.37E-03 | 0.00E+00 | 1.34E-03 | 3.38E-01 | 5.88E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 2.37E+02 | 8.31E+02 | 3.04E+03 | 1.82E-02 | 1.97E-01 | 8.53E-02 | 3.34E+01 | 3.75E-04 | 4.39E-03 | 0.00E+00 | 1.64E-03 | 4.74E-01 | 9.03E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 4.60E+02 | 1.61E+03 | 8.17E+03 | 4.18E-02 | 1.85E-01 | 1.93E-01 | 9.03E+01 | 1.02E-03 | 6.67E-03 | 0.00E+00 | 3.77E-03 | 2.30E-01 | 1.26E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 1.69E+02 | 5.91E+02 | 4.81E+03 | 2.42E-02 | 1.04E-01 | 1.05E-01 | 5.31E+01 | 5.22E-04 | 3.79E-03 | 0.00E+00 | 2.19E-03 | 3.51E-01 | 1.77E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 2.54E+01 | 8.89E+01 | 1.22E+03 | 6.15E-03 | 2.63E-02 | 2.70E-02 | 1.35E+01 | 1.35E-04 | 9.69E-04 | 0.00E+00 | 5.55E-04 | 5.91E-01 | 3.04E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Cranes | D | 9999 | Constructi | U | N | NHH | P | Total | Total | Total | 3.19E+01 | 1.12E+02 | 4.90E+03 | 2.78E-02 | 1.09E-01 | 2.99E-01 | 5.41E+01 | 5.44E-04 | 5.85E-03 | 0.00E+00 | 2.51E-03 | 1.95E+00 | 9.75E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.91E+00 | 2.31E+01 | 2.91E+01 | 4.16E-04 | 2.97E-03 | 2.11E-03 | 3.17E-01 | 4.10E-06 | 6.31E-05 | 0.00E+00 | 3.76E-05 | 2.58E-01 | 3.56E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 5.94E+02 | 1.54E+03 | 5.25E+03 | 3.80E-02 | 3.84E-01 | 2.33E-01 | 5.76E+01 | 6.76E-04 | 1.02E-02 | 0.00E+00 | 3.43E-03 | 5.00E-01 | 8.79E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.03E+03 | 5.25E+03 | 2.96E+04 | 1.62E-01 | 1.91E+00 | 7.27E-01 | 3.25E+02 | 3.66E-03 | 3.61E-02 | 0.00E+00 | 1.46E-02 | 7.25E-01 | 1.39E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.26E+03 | 3.26E+03 | 2.54E+04 | 1.22E-01 | 5.75E-01 | 5.27E-01 | 2.80E+02 | 3.15E-03 | 1.88E-02 | 0.00E+00 | 1.10E-02 | 3.53E-01 | 1.93E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.56E+01 | 9.22E+01 | 9.57E+02 | 4.53E-03 | 2.10E-02 | 1.84E-02 | 1.06E+01 | 1.04E-04 | 6.80E-04 | 0.00E+00 | 4.09E-04 | 4.56E-01 | 2.25E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Graders | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.90E-01 | 1.01E+00 | 2.22E+01 | 1.05E-04 | 4.87E-04 | 4.33E-04 | 2.45E-01 | 2.47E-06 | 1.59E-05 | 0.00E+00 | 9.50E-06 | 9.65E-01 | 4.88E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.14E+01 | 2.24E+02 | 1.28E+03 | 6.63E-03 | 8.44E-02 | 2.34E-02 | 1.40E+01 | 1.58E-04 | 1.07E-03 | 0.00E+00 | 5.98E-04 | 7.53E-01 | 1.41E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.05E+02 | 1.66E+03 | 1.25E+04 | 5.81E-02 | 2.84E-01 | 1.83E-01 | 1.38E+02 | 1.55E-03 | 6.02E-03 | 0.00E+00 | 5.24E-03 | 3.42E-01 | 1.87E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 4.30E+02 | 2.33E+03 | 2.87E+04 | 1.33E-01 | 6.18E-01 | 3.97E-01 | 3.17E+02 | 3.11E-03 | 1.36E-02 | 0.00E+00 | 1.20E-02 | 5.30E-01 | 2.67E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructi | U | N | NHH | NP | Total | Total | Total | 8.19E+01 | 4.44E+02 | 8.86E+03 | 4.11E-02 | 1.91E-01 | 1.24E-01 | 9.80E+01 | 9.85E-04 | 4.23E-03 | 0.00E+00 | 3.71E-03 | 8.60E-01 | 4.44E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructi | U | N | NHH | NP | Total | Total | Total | 3.84E+01 | 2.08E+02 | 5.87E+03 | 2.82E-02 | 1.28E-01 | 3.21E-01 | 6.49E+01 | 6.53E-04 | 5.17E-03 | 0.00E+00 | 2.54E-03 | 1.23E+00 | 6.28E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 50 | Constructi | U | P | NHH | P | Total | Total | Total | 1.02E+02 | 2.67E+02 | 5.37E+02 | 6.42E-03 | 5.11E-02 | 3.75E-02 | 5.86E+00 | 7.58E-05 | 9.33E-04 | 0.00E+00 | 5.79E-04 | 3.83E-01 | 5.69E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 120 | Constructi | U | P | NHH | P | Total | Total | Total | 2.87E+02 | 7.51E+02 | 2.85E+03 | 1.80E-02 | 2.03E-01 | 1.16E-01 | 3.12E+01 | 3.66E-04 | 4.37E-03 | 0.00E+00 | 1.62E-03 | 5.40E-01 | 9.74E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 175 | Constructi | U | P | NHH | P | Total | Total | Total | 1.22E+02 | 3.18E+02 | 2.42E+03 | 1.18E-02 | 1.52E-01 | 5.33E-02 | 2.66E+01 | 2.99E-04 | 2.33E-03 | 0.00E+00 | 1.07E-03 | 9.55E-01 | 1.88E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 250 | Constructi | U | N | NHH | P | Total | Total | Total | 1.21E+01 | 3.17E+01 | 3.50E+02 | 1.45E-03 | 7.53E-03 | 5.93E-03 | 3.87E+00 | 4.35E-05 | 1.77E-04 | 0.00E+00 | 1.31E-04 | 4.76E-01 | 2.75E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 500 | Constructi | U | N | NHH | P | Total | Total | Total | 6.81E+01 | 1.78E+02 | 3.01E+03 | 1.24E-02 | 6.21E-02 | 4.73E-02 | 3.33E+01 | 3.27E-04 | 1.49E-03 | 0.00E+00 | 1.12E-03 | 6.96E-01 | 3.66E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 750 | Constructi | U | N | NHH | P | Total | Total | Total | 6.51E-01 | 1.70E+00 | 4.53E+01 | 1.87E-04 | 9.36E-04 | 7.25E-04 | 5.01E-01 | 5.04E-06 | 2.25E-05 | 0.00E+00 | 1.69E-05 | 1.10E+00 | 5.92E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Crushing/P | D | 9999 | Constructi | U | N | NHH | P | Total | Total | Total | 6.51E-01 | 1.70E+00 | 1.01E+02 | 4.86E-04 | 2.11E-03 | 5.50E-03 | 1.11E+00 | 1.12E-05 | 9.44E-05 | 0.00E+00 | 4.38E-05 | 2.48E+00 | 1.31E-02 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 7.06E+01 | 2.19E+02 | 3.39E+02 | 4.00E-03 | 3.31E-02 | 2.34E-02 | 3.70E+00 | 4.78E-05 | 4.93E-04 | 0.00E+00 | 3.61E-04 | 3.03E-01 | 4.37E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 3.38E+03 | 1.05E+04 | 2.98E+04 | 1.85E-01 | 2.15E+00 | 1.15E+00 | 3.27E+02 | 3.83E-03 | 3.82E-02 | 0.00E+00 | 1.67E-02 | 4.10E-01 | 7.32E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.33E+02 | 1.34E+03 | 7.62E+03 | 3.60E-02 | 4.85E-01 | 1.43E-01 | 8.38E+01 | 9.42E-04 | 6.24E-03 | 0.00E+00 | 3.25E-03 | 7.22E-01 | 1.40E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.42E+01 | 7.49E+01 | 5.78E+02 | 2.40E-03 | 1.26E-02 | 8.48E-03 | 6.39E+00 | 7.19E-05 | 2.64E-04 | 0.00E+00 | 2.16E-04 | 3.37E-01 | 1.92E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rough Ter | D | 500 | Constructi | U | N | NHH | NP | Total | Total | Total | 1.59E+01 | 4.93E+01 | 5.71E+02 | 2.35E-03 | 1.19E-02 | 7.83E-03 | 6.32E+00 | 6.20E-05 | 2.56E-04 | 0.00E+00 | 2.12E-04 | 4.83E-01 | 2.52E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 25 | Constructi | U | P | NHH | NP | Total | Total | Total | 8.91E+00 | 2.34E+01 | 1.80E+01 | 2.38E-04 | 8.14E-04 | 1.51E-03 | 1.98E-01 | 2.51E-06 | 5.63E-05 | 0.00E+00 | 2.15E-05 | 6.96E-02 | 2.15E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 50 | Constructi | U | P | NHH | NP | Total | Total | Total | 1.73E+02 | 4.60E+02 | 6.57E+02 | 9.12E-03 | 6.62E-02 | 4.74E-02 | 7.15E+00 | 9.24E-05 | 1.36E-03 | 0.00E+00 | 8.23E-04 | 2.88E-01 | 4.02E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 120 | Constructi | U | P | NHH | NP | Total | Total | Total | 4.70E+03 | 1.25E+04 | 3.35E+04 | 2.36E-01 | 2.44E+00 | 1.46E+00 | 3.68E+02 | 4.31E-03 | 6.21E-02 | 0.00E+00 | 2.13E-02 | 3.91E-01 | 6.90E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructi | U | P | NHH | NP | Total | Total | Total | 2.65E+03 | 7.04E+03 | 3.41E+04 | 1.82E-01 | 2.18E+00 | 8.10E-01 | 3.74E+02 | 4.21E-03 | 4.00E-02 | 0.00E+00 | 1.64E-02 | 6.19E-01 | 1.20E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructi | U | N | NHH | NP | Total | Total | Total | 2.64E+03 | 7.00E+03 | 4.72E+04 | 2.22E-01 | 1.06E+00 | 9.41E-01 | 5.21E+02 | 5.86E-03 | 3.31E-02 | 0.00E+00 | 2.00E-02 | 3.02E-01 | 1.67E-03 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population Activity | gal/day for total population Consumption | ton/day ROG Exhaust | ton/day CO Exhaust | ton/day NOX Exhaust | ton/day CO2 Exhaust | ton/day SO2 Exhaust | ton/day PM Exhaust | ton/day N2O Exhaust | ton/day CH4 Exhaust | lb/hr/equipment CO | lb/hr/equipment SOx |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.10E+03 | 2.91E+03 | 3.12E+04 | 1.45E-01 | 6.72E-01 | 5.78E-01 | 3.45E+02 | 3.39E-03 | 2.12E-02 | 0.00E+00 | 1.30E-02 | 4.61E-01 | 2.32E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.57E+01 | 4.18E+01 | 9.18E+02 | 4.26E-03 | 1.97E-02 | 1.73E-02 | 1.01E+01 | 1.02E-04 | 6.27E-04 | 0.00E+00 | 3.84E-04 | 9.44E-01 | 4.88E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.69E+00 | 4.49E+00 | 1.21E+02 | 5.80E-04 | 2.65E-03 | 7.01E-03 | 1.33E+00 | 1.34E-05 | 1.26E-04 | 0.00E+00 | 5.24E-05 | 1.18E+00 | 5.97E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 6.36E+00 | 2.81E+01 | 1.66E+02 | 1.55E-03 | 1.13E-02 | 8.97E-03 | 1.82E+00 | 2.05E-05 | 5.01E-04 | 0.00E+00 | 1.40E-04 | 8.00E-01 | 1.46E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.56E+02 | 6.89E+02 | 5.73E+03 | 4.38E-02 | 1.56E-01 | 2.81E-01 | 6.32E+01 | 7.11E-04 | 1.07E-02 | 0.00E+00 | 3.95E-03 | 4.53E-01 | 2.06E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.40E+02 | 1.06E+03 | 1.27E+04 | 9.24E-02 | 3.84E-01 | 5.65E-01 | 1.40E+02 | 1.38E-03 | 2.19E-02 | 0.00E+00 | 8.34E-03 | 7.24E-01 | 2.60E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.73E+01 | 7.65E+01 | 1.38E+03 | 1.01E-02 | 4.17E-02 | 6.30E-02 | 1.52E+01 | 1.53E-04 | 2.41E-03 | 0.00E+00 | 9.09E-04 | 1.09E+00 | 4.01E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Rubber Tir | D | 1000 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.17E+00 | 5.17E+00 | 1.39E+02 | 1.07E-03 | 4.47E-03 | 1.13E-02 | 1.53E+00 | 1.54E-05 | 2.91E-04 | 0.00E+00 | 9.65E-05 | 1.73E+00 | 5.95E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.79E+02 | 4.63E+02 | 3.34E+02 | 4.43E-03 | 1.51E-02 | 2.80E-02 | 3.67E+00 | 4.66E-05 | 1.05E-03 | 0.00E+00 | 4.00E-04 | 6.53E-02 | 2.01E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.07E+03 | 2.81E+03 | 3.91E+03 | 4.33E-02 | 3.75E-01 | 2.61E-01 | 4.26E+01 | 5.51E-04 | 4.38E-03 | 0.00E+00 | 3.91E-03 | 2.67E-01 | 3.92E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.43E+04 | 3.76E+04 | 8.86E+04 | 5.11E-01 | 6.34E+00 | 3.16E+00 | 9.72E+02 | 1.14E-02 | 8.85E-02 | 0.00E+00 | 4.61E-02 | 3.37E-01 | 6.06E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.07E+03 | 2.81E+03 | 1.29E+04 | 5.60E-02 | 8.19E-01 | 1.98E-01 | 1.42E+02 | 1.60E-03 | 8.60E-03 | 0.00E+00 | 5.05E-03 | 5.83E-01 | 1.14E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 3.46E+02 | 9.08E+02 | 7.04E+03 | 2.76E-02 | 1.53E-01 | 8.61E-02 | 7.79E+01 | 8.76E-04 | 2.87E-03 | 0.00E+00 | 2.49E-03 | 3.38E-01 | 1.93E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 5.59E+02 | 1.46E+03 | 2.28E+04 | 8.91E-02 | 4.75E-01 | 2.67E-01 | 2.52E+02 | 2.84E-03 | 9.14E-03 | 0.00E+00 | 8.04E-03 | 6.49E-01 | 3.88E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Tractors/L | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 7.87E+01 | 2.07E+02 | 4.83E+03 | 1.88E-02 | 1.00E-01 | 5.70E-02 | 5.34E+01 | 6.00E-04 | 1.94E-03 | 0.00E+00 | 1.70E-03 | 9.73E-01 | 5.82E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 8.91E+00 | 2.53E+01 | 2.89E+01 | 5.75E-04 | 3.20E-03 | 2.27E-03 | 3.14E-01 | 4.06E-06 | 1.02E-04 | 0.00E+00 | 5.19E-05 | 2.53E-01 | 3.21E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 5.05E+03 | 1.43E+04 | 4.31E+04 | 4.11E-01 | 3.24E+00 | 2.40E+00 | 4.71E+02 | 5.53E-03 | 1.41E-01 | 0.00E+00 | 3.71E-02 | 4.52E-01 | 7.71E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.71E+03 | 4.85E+03 | 2.68E+04 | 1.88E-01 | 1.76E+00 | 9.76E-01 | 2.94E+02 | 3.30E-03 | 5.24E-02 | 0.00E+00 | 1.70E-02 | 7.25E-01 | 1.36E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.47E+03 | 4.17E+03 | 3.13E+04 | 1.85E-01 | 7.56E-01 | 1.01E+00 | 3.46E+02 | 3.89E-03 | 3.63E-02 | 0.00E+00 | 1.67E-02 | 3.63E-01 | 1.87E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.01E+03 | 2.86E+03 | 3.35E+04 | 1.91E-01 | 8.25E-01 | 9.74E-01 | 3.70E+02 | 3.63E-03 | 3.64E-02 | 0.00E+00 | 1.72E-02 | 5.77E-01 | 2.54E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.04E+01 | 2.95E+01 | 6.20E+02 | 3.55E-03 | 1.53E-02 | 1.85E-02 | 6.85E+00 | 6.88E-05 | 6.83E-04 | 0.00E+00 | 3.20E-04 | 1.03E+00 | 4.67E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Crawler Tr | D | 1000 | Constructio | U | N | NHH | NP | Total | Total | Total | 1.04E+01 | 2.95E+01 | 8.78E+02 | 5.28E-03 | 2.24E-02 | 5.98E-02 | 9.69E+00 | 9.74E-05 | 1.30E-03 | 0.00E+00 | 4.76E-04 | 1.52E+00 | 6.61E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.22E+03 | 2.79E+03 | 1.75E+03 | 2.32E-02 | 7.93E-02 | 1.47E-01 | 1.92E+01 | 2.44E-04 | 5.59E-03 | 0.00E+00 | 2.10E-03 | 5.67E-02 | 1.75E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.11E+04 | 2.57E+04 | 3.00E+04 | 2.45E-01 | 2.54E+00 | 1.84E+00 | 3.28E+02 | 4.24E-03 | 1.67E-02 | 0.00E+00 | 2.21E-02 | 1.97E-01 | 3.30E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Skid Steer | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 5.81E+03 | 1.35E+04 | 2.62E+04 | 1.14E-01 | 1.79E+00 | 8.04E-01 | 2.88E+02 | 3.38E-03 | 1.29E-02 | 0.00E+00 | 1.03E-02 | 2.66E-01 | 5.01E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 6.36E-01 | 1.93E+00 | 8.27E+00 | 1.01E-04 | 6.36E-04 | 5.81E-04 | 9.04E-02 | 1.06E-06 | 4.03E-05 | 0.00E+00 | 9.14E-06 | 6.59E-01 | 1.10E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 7.78E+02 | 2.36E+03 | 1.40E+04 | 1.24E-01 | 9.34E-01 | 7.23E-01 | 1.54E+02 | 1.73E-03 | 4.02E-02 | 0.00E+00 | 1.12E-02 | 7.91E-01 | 1.47E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 250 | Constructio | U | N | NHH | NP | Total | Total | Total | 7.35E+02 | 2.23E+03 | 1.32E+04 | 9.48E-02 | 3.48E-01 | 6.15E-01 | 1.45E+02 | 1.64E-03 | 2.32E-02 | 0.00E+00 | 8.55E-03 | 3.12E-01 | 1.47E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 750 | Constructio | U | N | NHH | NP | Total | Total | Total | 6.53E+01 | 1.98E+02 | 5.10E+03 | 3.50E-02 | 1.47E-01 | 2.21E-01 | 5.62E+01 | 5.65E-04 | 8.35E-03 | 0.00E+00 | 3.16E-03 | 1.49E+00 | 5.71E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Off-Highw | D | 1000 | Constructio | U | N | NHH | NP | Total | Total | Total | 6.90E+00 | 2.09E+01 | 7.71E+02 | 5.61E-03 | 2.38E-02 | 6.13E-02 | 8.50E+00 | 8.55E-05 | 1.54E-03 | 0.00E+00 | 5.06E-04 | 2.28E+00 | 8.18E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Dumpers/T | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.53E+01 | 2.77E+01 | 9.62E+00 | 1.27E-04 | 4.35E-04 | 8.05E-04 | 1.06E-01 | 1.34E-06 | 3.01E-05 | 0.00E+00 | 1.15E-05 | 3.14E-02 | 9.67E-05 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 15 | Constructio | U | P | NHH | NP | Total | Total | Total | 2.11E+02 | 3.98E+02 | 1.84E+02 | 2.34E-03 | 1.23E-02 | 1.47E-02 | 2.01E+00 | 3.13E-05 | 5.73E-04 | 0.00E+00 | 2.11E-04 | 6.17E-02 | 1.57E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 25 | Constructio | U | P | NHH | NP | Total | Total | Total | 3.56E+01 | 6.74E+01 | 4.05E+01 | 5.37E-04 | 1.83E-03 | 3.39E-03 | 4.45E-01 | 5.65E-06 | 1.27E-04 | 0.00E+00 | 4.84E-05 | 5.44E-02 | 1.68E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 50 | Constructio | U | P | NHH | NP | Total | Total | Total | 5.47E+01 | 1.05E+02 | 1.34E+02 | 1.23E-03 | 1.14E-02 | 8.67E-03 | 1.47E+00 | 1.90E-05 | 1.49E-04 | 0.00E+00 | 1.11E-04 | 2.18E-01 | 3.62E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 120 | Constructio | U | P | NHH | NP | Total | Total | Total | 9.03E+01 | 1.73E+02 | 6.37E+02 | 3.15E-03 | 4.36E-02 | 2.25E-02 | 6.99E+00 | 8.20E-05 | 6.25E-04 | 0.00E+00 | 2.84E-04 | 5.04E-01 | 9.48E-04 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 175 | Constructio | U | P | NHH | NP | Total | Total | Total | 1.25E+02 | 2.39E+02 | 1.16E+03 | 4.34E-03 | 6.99E-02 | 1.80E-02 | 1.27E+01 | 1.43E-04 | 7.42E-04 | 0.00E+00 | 3.91E-04 | 5.85E-01 | 1.20E-03 |
| 2026 | Annual | Mon-Sun | 2.27E+09 | Other Cons | D | 500 | Constructio | U | N | NHH | NP | Total | Total | Total | 2.89E+02 | 5.55E+02 | 6.37E+03 | 2.11E-02 | 1.28E-01 | 7.32E-02 | 7.04E+01 | 6.91E-04 | 2.36E-03 | 0.00E+00 | 1.90E-03 | 4.60E-01 | 2.49E-03 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial F | U | N | NHH | NP | Los Angele | SC | SC | 3.54E+00 | 1.21E+01 | 1.19E+01 | 7.55E-05 | 1.20E-02 | 3.34E-04 | 6.23E-02 | 0.00E+00 | 4.10E-05 | 0.00E+00 | 6.33E-04 | 1.97E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial F | U | N | NHH | NP | Orange | SC | SC | 1.03E+00 | 3.52E+00 | 3.45E+00 | 2.19E-05 | 3.47E-03 | 9.68E-05 | 1.81E-02 | 0.00E+00 | 1.19E-05 | 0.00E+00 | 1.84E-04 | 1.97E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial F | U | N | NHH | NP | Riverside | MD | SC | 4.21E-04 | 1.44E-03 | 1.41E-03 | 8.93E-09 | 1.42E-06 | 3.96E-08 | 7.40E-06 | 0.00E+00 | 4.86E-09 | 0.00E+00 | 7.48E-08 | 1.97E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial F | U | N | NHH | NP | Riverside | SC | SC | 1.61E-01 | 5.51E-01 | 5.40E-01 | 3.40E-06 | 5.41E-04 | 1.51E-05 | 2.83E-03 | 0.00E+00 | 1.86E-06 | 0.00E+00 | 2.85E-05 | 1.97E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial F | U | N | NHH | NP | Riverside | SS | SC | 3.76E-02 | 1.29E-01 | 1.26E-01 | 7.97E-07 | 1.27E-04 | 3.53E-06 | 6.61E-04 | 0.00E+00 | 4.34E-07 | 0.00E+00 | 6.68E-06 | 1.97E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial F | U | N | NHH | NP | San Bernar | SC | SC | 2.57E-01 | 8.80E-01 | 8.63E-01 | 5.46E-06 | 8.66E-04 | 2.42E-05 | 4.52E-03 | 0.00E+00 | 2.97E-06 | 0.00E+00 | 4.58E-05 | 1.97E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial F | U | N | NHH | NP | Los Angele | SC | SC | 2.40E+03 | 1.18E+04 | 1.58E+04 | 1.49E-02 | 1.74E+00 | 6.42E-01 | 1.08E+02 | 0.00E+00 | 9.64E-03 | 0.00E+00 | 1.25E-01 | 2.94E-01 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial F | U | N | NHH | NP | Orange | SC | SC | 6.96E+02 | 3.44E+03 | 4.59E+03 | 4.31E-03 | 5.04E-01 | 1.86E-01 | 3.14E+01 | 0.00E+00 | 2.80E-03 | 0.00E+00 | 3.61E-02 | 2.94E-01 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial F | U | N | NHH | NP | Riverside | MD | SC | 2.85E-01 | 1.41E+00 | 1.88E+00 | 1.72E-06 | 2.05E-04 | 7.47E-05 | 1.29E-02 | 0.00E+00 | 1.14E-06 | 0.00E+00 | 1.44E-05 | 2.91E-01 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial F | U | N | NHH | NP | Riverside | SC | SC | 1.09E+02 | 5.37E+02 | 7.18E+02 | 6.49E-04 | 7.81E-02 | 2.83E-02 | 4.91E+00 | 0.00E+00 | 4.37E-04 | 0.00E+00 | 5.44E-03 | 2.91E-01 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial F | U | N | NHH | NP | Riverside | SS | SC | 2.54E+01 | 1.26E+02 | 1.68E+02 | 1.53E-04 | 1.83E-02 | 6.67E-03 | 1.15E+00 | 0.00E+00 | 1.02E-04 | 0.00E+00 | 1.28E-03 | 2.91E-01 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial F | U | N | NHH | NP | San Bernar | SC | SC | 1.74E+02 | 8.59E+02 | 1.15E+03 | 1.06E-03 | 1.25E-01 | 4.59E-02 | 7.85E+00 | 0.00E+00 | 6.98E-04 | 0.00E+00 | 8.86E-03 | 2.92E-01 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial F | U | N | NHH | NP | Los Angele | SC | SC | 8.43E+03 | 4.16E+04 | 9.91E+04 | 9.09E-02 | 2.93E+01 | 3.87E+00 | 6.49E+02 | 0.00E+00 | 5.78E-02 | 0.00E+00 | 7.62E-01 | 1.41E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial F | U | N | NHH | NP | Orange | SC | SC | 2.44E+03 | 1.21E+04 | 2.88E+04 | 2.63E-02 | 8.50E+00 | 1.12E+00 | 1.88E+02 | 0.00E+00 | 1.68E-02 | 0.00E+00 | 2.21E-01 | 1.41E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial F | U | N | NHH | NP | Riverside | MD | SC | 1.00E+00 | 4.94E+00 | 1.18E+01 | 1.05E-05 | 3.46E-03 | 4.50E-04 | 7.71E-02 | 0.00E+00 | 6.86E-06 | 0.00E+00 | 8.78E-05 | 1.40E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial F | U | N | NHH | NP | Riverside | SC | SC | 3.82E+02 | 1.89E+03 | 4.49E+03 | 3.96E-03 | 1.32E+00 | 1.71E-01 | 2.94E+01 | 0.00E+00 | 2.62E-03 | 0.00E+00 | 3.32E-02 | 1.40E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial F | U | N | NHH | NP | Riverside | SS | SC | 8.93E+01 | 4.41E+02 | 1.05E+03 | 9.35E-04 | 3.08E-01 | 4.02E-02 | 6.88E+00 | 0.00E+00 | 6.12E-04 | 0.00E+00 | 7.84E-03 | 1.40E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial F | U | N | NHH | NP | San Bernar | SC | SC | 6.10E+02 | 3.01E+03 | 7.18E+03 | 6.45E-03 | 2.11E+00 | 2.77E-01 | 4.71E+01 | 0.00E+00 | 4.18E-03 | 0.00E+00 | 5.41E-02 | 1.40E+00 | 0.00E+00 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Activity | Consumption | ROG Exhaust | CO Exhaust | NOX Exhaust | CO2 Exhaust | SO2 Exhaust | PM Exhaust | N2O Exhaust | CH4 Exhaust | CO | SOx |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | Los Angele | SC | SC | 3.08E+02 | 1.52E+03 | 7.44E+03 | 4.71E-03 | 1.72E+00 | 2.29E-01 | 4.96E+01 | 0.00E+00 | 4.41E-03 | 0.00E+00 | 3.95E-02 | 2.26E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | Orange | SC | SC | 8.94E+01 | 4.41E+02 | 2.16E+03 | 1.37E-03 | 4.98E-01 | 6.64E-02 | 1.44E+01 | 0.00E+00 | 1.28E-03 | 0.00E+00 | 1.14E-02 | 2.26E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | Riverside | MD | SC | 3.66E-02 | 1.81E-01 | 8.83E-01 | 5.45E-07 | 2.03E-04 | 2.66E-05 | 5.89E-03 | 0.00E+00 | 5.24E-07 | 0.00E+00 | 4.57E-06 | 2.24E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | Riverside | SC | SC | 1.40E+01 | 6.90E+01 | 3.37E+02 | 2.06E-04 | 7.72E-02 | 1.01E-02 | 2.25E+00 | 0.00E+00 | 2.00E-04 | 0.00E+00 | 1.73E-03 | 2.24E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | Riverside | SS | SC | 3.27E+00 | 1.61E+01 | 7.88E+01 | 4.86E-05 | 1.81E-02 | 2.37E-03 | 5.25E-01 | 0.00E+00 | 4.67E-05 | 0.00E+00 | 4.08E-04 | 2.24E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | San Bernar | SC | SC | 2.23E+01 | 1.10E+02 | 5.39E+02 | 3.35E-04 | 1.24E-01 | 1.63E-02 | 3.59E+00 | 0.00E+00 | 3.19E-04 | 0.00E+00 | 2.81E-03 | 2.25E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 120 | Light Com | U | N | NHH | P | Los Angele | SC | SC | 5.73E+01 | 1.80E+01 | 1.13E+02 | 1.05E-04 | 2.38E-02 | 6.90E-03 | 7.57E-01 | 0.00E+00 | 6.73E-05 | 0.00E+00 | 8.84E-04 | 2.65E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 120 | Light Com | U | N | NHH | P | Orange | SC | SC | 2.09E+01 | 6.56E+00 | 4.12E+01 | 3.64E-05 | 8.65E-03 | 2.40E-03 | 2.75E-01 | 0.00E+00 | 2.45E-05 | 0.00E+00 | 3.06E-04 | 2.64E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 120 | Light Com | U | N | NHH | P | Riverside | MD | SC | 1.37E-02 | 4.30E-03 | 2.70E-02 | 2.45E-08 | 5.68E-06 | 1.60E-06 | 1.80E-04 | 0.00E+00 | 1.60E-08 | 0.00E+00 | 2.05E-07 | 2.64E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 120 | Light Com | U | N | NHH | P | Riverside | SC | SC | 5.89E+00 | 1.85E+00 | 1.16E+01 | 9.67E-06 | 2.44E-03 | 6.39E-04 | 7.77E-02 | 0.00E+00 | 6.91E-06 | 0.00E+00 | 8.11E-05 | 2.63E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 120 | Light Com | U | N | NHH | P | Riverside | SS | SC | 1.24E+00 | 3.91E-01 | 2.46E+00 | 2.22E-06 | 5.16E-04 | 1.46E-04 | 1.64E-02 | 0.00E+00 | 1.46E-06 | 0.00E+00 | 1.86E-05 | 2.64E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 120 | Light Com | U | N | NHH | P | San Bernar | SC | SC | 6.42E+00 | 2.02E+00 | 1.27E+01 | 1.12E-05 | 2.67E-03 | 7.33E-04 | 8.48E-02 | 0.00E+00 | 7.55E-06 | 0.00E+00 | 9.35E-05 | 2.64E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 175 | Light Com | U | N | NHH | P | Los Angele | SC | SC | 4.75E+01 | 1.49E+01 | 1.64E+02 | 1.22E-04 | 2.86E-02 | 1.00E-02 | 1.10E+00 | 0.00E+00 | 9.81E-05 | 0.00E+00 | 1.02E-03 | 3.82E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 175 | Light Com | U | N | NHH | P | Orange | SC | SC | 1.73E+01 | 5.44E+00 | 5.95E+01 | 4.21E-05 | 1.04E-02 | 3.47E-03 | 4.02E-01 | 0.00E+00 | 3.57E-05 | 0.00E+00 | 3.53E-04 | 3.81E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 175 | Light Com | U | N | NHH | P | Riverside | MD | SC | 1.13E-02 | 3.56E-03 | 3.90E-02 | 2.82E-08 | 6.80E-06 | 2.33E-06 | 2.63E-04 | 0.00E+00 | 2.34E-08 | 0.00E+00 | 2.37E-07 | 3.82E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 175 | Light Com | U | N | NHH | P | Riverside | SC | SC | 4.88E+00 | 1.54E+00 | 1.68E+01 | 1.12E-05 | 2.92E-03 | 9.25E-04 | 1.13E-01 | 0.00E+00 | 1.01E-05 | 0.00E+00 | 9.39E-05 | 3.80E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 175 | Light Com | U | N | NHH | P | Riverside | SS | SC | 1.03E+00 | 3.24E-01 | 3.55E+00 | 2.57E-06 | 6.19E-04 | 2.12E-04 | 2.39E-02 | 0.00E+00 | 2.13E-06 | 0.00E+00 | 2.15E-05 | 3.82E+00 | 0.00E+00 |
| 2011 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 175 | Light Com | U | N | NHH | P | San Bernar | SC | SC | 5.33E+00 | 1.68E+00 | 1.83E+01 | 1.29E-05 | 3.19E-03 | 1.06E-03 | 1.24E-01 | 0.00E+00 | 1.10E-05 | 0.00E+00 | 1.08E-04 | 3.81E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial I | U | N | NHH | NP | Los Angele | SC | SC | 3.74E+00 | 1.28E+01 | 1.26E+01 | 7.96E-05 | 1.26E-02 | 3.52E-04 | 6.58E-02 | 0.00E+00 | 4.33E-05 | 0.00E+00 | 6.67E-04 | 1.97E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial I | U | N | NHH | NP | Orange | SC | SC | 1.08E+00 | 3.69E+00 | 3.62E+00 | 2.29E-05 | 3.63E-03 | 1.01E-04 | 1.89E-02 | 0.00E+00 | 1.25E-05 | 0.00E+00 | 1.92E-04 | 1.97E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial I | U | N | NHH | NP | Riverside | MD | SC | 4.74E-04 | 1.63E-03 | 1.59E-03 | 1.00E-08 | 1.60E-06 | 4.46E-08 | 8.34E-06 | 0.00E+00 | 5.47E-09 | 0.00E+00 | 8.42E-08 | 1.97E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial I | U | N | NHH | NP | Riverside | SC | SC | 1.83E-01 | 6.29E-01 | 6.16E-01 | 3.89E-06 | 6.18E-04 | 1.73E-05 | 3.23E-03 | 0.00E+00 | 2.12E-06 | 0.00E+00 | 3.26E-05 | 1.97E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial I | U | N | NHH | NP | Riverside | SS | SC | 4.23E-02 | 1.45E-01 | 1.42E-01 | 8.96E-07 | 1.43E-04 | 3.98E-06 | 7.44E-04 | 0.00E+00 | 4.88E-07 | 0.00E+00 | 7.51E-06 | 1.97E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial I | U | N | NHH | NP | San Bernar | SC | SC | 2.79E-01 | 9.56E-01 | 9.37E-01 | 5.94E-06 | 9.41E-04 | 2.63E-05 | 4.91E-03 | 0.00E+00 | 3.23E-06 | 0.00E+00 | 4.98E-05 | 1.97E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial I | U | N | NHH | NP | Los Angele | SC | SC | 2.53E+03 | 1.25E+04 | 1.67E+04 | 1.14E-02 | 1.83E+00 | 4.99E-01 | 1.14E+02 | 0.00E+00 | 1.02E-02 | 0.00E+00 | 9.57E-02 | 2.93E-01 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial I | U | N | NHH | NP | Orange | SC | SC | 7.30E+02 | 3.60E+03 | 4.81E+03 | 3.30E-03 | 5.29E-01 | 1.44E-01 | 3.29E+01 | 0.00E+00 | 2.93E-03 | 0.00E+00 | 2.76E-02 | 2.94E-01 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial I | U | N | NHH | NP | Riverside | MD | SC | 3.21E-01 | 1.59E+00 | 2.12E+00 | 1.42E-06 | 2.31E-04 | 6.26E-05 | 1.45E-02 | 0.00E+00 | 1.29E-06 | 0.00E+00 | 1.19E-05 | 2.91E-01 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial I | U | N | NHH | NP | Riverside | SC | SC | 1.24E+02 | 6.13E+02 | 8.19E+02 | 5.47E-04 | 8.92E-02 | 2.42E-02 | 5.61E+00 | 0.00E+00 | 4.99E-04 | 0.00E+00 | 4.58E-03 | 2.91E-01 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial I | U | N | NHH | NP | Riverside | SS | SC | 2.87E+01 | 1.41E+02 | 1.89E+02 | 1.26E-04 | 2.06E-02 | 5.59E-03 | 1.29E+00 | 0.00E+00 | 1.15E-04 | 0.00E+00 | 1.06E-03 | 2.91E-01 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial I | U | N | NHH | NP | San Bernar | SC | SC | 1.89E+02 | 9.33E+02 | 1.24E+03 | 8.45E-04 | 1.36E-01 | 3.71E-02 | 8.53E+00 | 0.00E+00 | 7.59E-04 | 0.00E+00 | 7.08E-03 | 2.93E-01 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial I | U | N | NHH | NP | Los Angele | SC | SC | 8.89E+03 | 4.39E+04 | 1.04E+05 | 6.78E-02 | 3.09E+01 | 3.21E+00 | 6.85E+02 | 0.00E+00 | 6.09E-02 | 0.00E+00 | 5.68E-01 | 1.41E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial I | U | N | NHH | NP | Orange | SC | SC | 2.56E+03 | 1.26E+04 | 3.01E+04 | 1.96E-02 | 8.91E+00 | 9.27E-01 | 1.97E+02 | 0.00E+00 | 1.76E-02 | 0.00E+00 | 1.64E-01 | 1.41E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial I | U | N | NHH | NP | Riverside | MD | SC | 1.13E+00 | 5.56E+00 | 1.32E+01 | 8.42E-06 | 3.89E-03 | 4.02E-04 | 8.69E-02 | 0.00E+00 | 7.73E-06 | 0.00E+00 | 7.06E-05 | 1.40E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial I | U | N | NHH | NP | Riverside | SC | SC | 4.36E+02 | 2.15E+03 | 5.12E+03 | 3.25E-03 | 1.50E+00 | 1.55E-01 | 3.36E+01 | 0.00E+00 | 2.99E-03 | 0.00E+00 | 2.72E-02 | 1.40E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial I | U | N | NHH | NP | Riverside | SS | SC | 1.01E+02 | 4.96E+02 | 1.18E+03 | 7.52E-04 | 3.47E-01 | 3.58E-02 | 7.75E+00 | 0.00E+00 | 6.90E-04 | 0.00E+00 | 6.30E-03 | 1.40E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial I | U | N | NHH | NP | San Bernar | SC | SC | 6.63E+02 | 3.27E+03 | 7.79E+03 | 5.02E-03 | 2.30E+00 | 2.38E-01 | 5.11E+01 | 0.00E+00 | 4.55E-03 | 0.00E+00 | 4.21E-02 | 1.41E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | Los Angele | SC | SC | 3.25E+02 | 1.61E+03 | 7.84E+03 | 3.31E-03 | 1.81E+00 | 1.65E-01 | 5.23E+01 | 0.00E+00 | 4.65E-03 | 0.00E+00 | 2.77E-02 | 2.26E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | Orange | SC | SC | 9.37E+01 | 4.63E+02 | 2.26E+03 | 9.55E-04 | 5.22E-01 | 4.75E-02 | 1.51E+01 | 0.00E+00 | 1.34E-03 | 0.00E+00 | 8.01E-03 | 2.26E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | Riverside | MD | SC | 4.12E-02 | 2.04E-01 | 9.94E-01 | 4.10E-07 | 2.28E-04 | 2.07E-05 | 6.63E-03 | 0.00E+00 | 5.90E-07 | 0.00E+00 | 3.44E-06 | 2.24E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | Riverside | SC | SC | 1.60E+01 | 7.88E+01 | 3.85E+02 | 1.58E-04 | 8.82E-02 | 7.99E-03 | 2.57E+00 | 0.00E+00 | 2.28E-04 | 0.00E+00 | 1.33E-03 | 2.24E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | Riverside | SS | SC | 3.68E+00 | 1.82E+01 | 8.87E+01 | 3.66E-05 | 2.04E-02 | 1.85E-03 | 5.92E-01 | 0.00E+00 | 5.26E-05 | 0.00E+00 | 3.07E-04 | 2.24E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | San Bernar | SC | SC | 2.43E+01 | 1.20E+02 | 5.85E+02 | 2.45E-04 | 1.35E-01 | 1.22E-02 | 3.90E+00 | 0.00E+00 | 3.47E-04 | 0.00E+00 | 2.05E-03 | 2.25E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 120 | Light Com | U | N | NHH | P | Los Angele | SC | SC | 5.66E+01 | 1.78E+01 | 1.12E+02 | 6.15E-05 | 2.35E-02 | 4.12E-03 | 7.48E-01 | 0.00E+00 | 6.65E-05 | 0.00E+00 | 5.16E-04 | 2.64E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 120 | Light Com | U | N | NHH | P | Orange | SC | SC | 2.14E+01 | 6.74E+00 | 4.22E+01 | 2.23E-05 | 8.88E-03 | 1.50E-03 | 2.83E-01 | 0.00E+00 | 2.52E-05 | 0.00E+00 | 1.87E-04 | 2.64E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 120 | Light Com | U | N | NHH | P | Riverside | MD | SC | 1.42E-02 | 4.47E-03 | 2.80E-02 | 1.49E-08 | 5.88E-06 | 1.00E-06 | 1.88E-04 | 0.00E+00 | 1.67E-08 | 0.00E+00 | 1.25E-07 | 2.63E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 120 | Light Com | U | N | NHH | P | Riverside | SC | SC | 6.15E+00 | 1.93E+00 | 1.21E+01 | 6.20E-06 | 2.55E-03 | 4.19E-04 | 8.12E-02 | 0.00E+00 | 7.22E-06 | 0.00E+00 | 5.20E-05 | 2.63E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 120 | Light Com | U | N | NHH | P | Riverside | SS | SC | 1.29E+00 | 4.06E-01 | 2.55E+00 | 1.36E-06 | 5.35E-04 | 9.13E-05 | 1.71E-02 | 0.00E+00 | 1.52E-06 | 0.00E+00 | 1.14E-05 | 2.63E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 120 | Light Com | U | N | NHH | P | San Bernar | SC | SC | 6.69E+00 | 2.10E+00 | 1.32E+01 | 6.92E-06 | 2.77E-03 | 4.66E-04 | 8.83E-02 | 0.00E+00 | 7.85E-06 | 0.00E+00 | 5.80E-05 | 2.63E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 175 | Light Com | U | N | NHH | P | Los Angele | SC | SC | 4.69E+01 | 1.48E+01 | 1.61E+02 | 6.98E-05 | 2.82E-02 | 5.87E-03 | 1.09E+00 | 0.00E+00 | 9.70E-05 | 0.00E+00 | 5.85E-04 | 3.81E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 175 | Light Com | U | N | NHH | P | Orange | SC | SC | 1.78E+01 | 5.59E+00 | 6.10E+01 | 2.53E-05 | 1.06E-02 | 2.13E-03 | 4.13E-01 | 0.00E+00 | 3.67E-05 | 0.00E+00 | 2.12E-04 | 3.81E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 175 | Light Com | U | N | NHH | P | Riverside | MD | SC | 1.18E-02 | 3.70E-03 | 4.05E-02 | 1.69E-08 | 7.05E-06 | 1.43E-06 | 2.73E-04 | 0.00E+00 | 2.43E-08 | 0.00E+00 | 1.42E-07 | 3.81E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 175 | Light Com | U | N | NHH | P | Riverside | SC | SC | 5.10E+00 | 1.60E+00 | 1.75E+01 | 7.06E-06 | 3.05E-03 | 5.93E-04 | 1.18E-01 | 0.00E+00 | 1.05E-05 | 0.00E+00 | 5.92E-05 | 3.81E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 175 | Light Com | U | N | NHH | P | Riverside | SS | SC | 1.07E+00 | 3.37E-01 | 3.68E+00 | 1.54E-06 | 6.42E-04 | 1.30E-04 | 2.49E-02 | 0.00E+00 | 2.21E-06 | 0.00E+00 | 1.29E-05 | 3.81E+00 | 0.00E+00 |
| 2016 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 175 | Light Com | U | N | NHH | P | San Bernar | SC | SC | 5.54E+00 | 1.74E+00 | 1.90E+01 | 7.86E-06 | 3.32E-03 | 6.62E-04 | 1.29E-01 | 0.00E+00 | 1.15E-05 | 0.00E+00 | 6.59E-05 | 3.81E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial I | U | N | NHH | NP | Los Angele | SC | SC | 4.05E+00 | 1.39E+01 | 1.36E+01 | 8.63E-05 | 1.37E-02 | 3.82E-04 | 7.13E-02 | 0.00E+00 | 4.69E-05 | 0.00E+00 | 7.24E-04 | 1.97E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial I | U | N | NHH | NP | Orange | SC | SC | 1.16E+00 | 3.99E+00 | 3.91E+00 | 2.48E-05 | 3.92E-03 | 1.10E-04 | 2.05E-02 | 0.00E+00 | 1.35E-05 | 0.00E+00 | 2.08E-04 | 1.97E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial I | U | N | NHH | NP | Riverside | MD | SC | 5.72E-04 | 1.96E-03 | 1.92E-03 | 1.21E-08 | 1.93E-06 | 5.38E-08 | 1.01E-05 | 0.00E+00 | 6.61E-09 | 0.00E+00 | 1.02E-07 | 1.97E+00 | 0.00E+00 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| CY | Season | AvgDays | Code | Equipment | Fuel | MaxHP | Class | C/R | Pre | Hand | Port | County | Air Basin | Air Dist. | Population | hr/day for total population Activity | gal/day for total population Consumption | ton/day ROG Exhaust | ton/day CO Exhaust | ton/day NOX Exhaust | ton/day CO2 Exhaust | ton/day SO2 Exhaust | ton/day PM Exhaust | ton/day N2O Exhaust | ton/day CH4 Exhaust | lb/hr/equipment CO | lb/hr/equipment SOx |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial I | U | N | NHH | NP | Riverside | SC | SC | 2.27E-01 | 7.77E-01 | 7.62E-01 | 4.81E-06 | 7.64E-04 | 2.13E-05 | 3.99E-03 | 0.00E+00 | 2.62E-06 | 0.00E+00 | 4.03E-05 | 1.97E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial I | U | N | NHH | NP | Riverside | SS | SC | 5.11E-02 | 1.75E-01 | 1.72E-01 | 1.08E-06 | 1.72E-04 | 4.80E-06 | 8.98E-04 | 0.00E+00 | 5.90E-07 | 0.00E+00 | 9.08E-06 | 1.97E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial I | U | N | NHH | NP | San Bernar | SC | SC | 3.19E-01 | 1.09E+00 | 1.07E+00 | 6.78E-06 | 1.08E-03 | 3.00E-05 | 5.61E-03 | 0.00E+00 | 3.69E-06 | 0.00E+00 | 5.69E-05 | 1.97E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial I | U | N | NHH | NP | Los Angele | SC | SC | 2.75E+03 | 1.36E+04 | 1.81E+04 | 1.20E-02 | 1.99E+00 | 5.20E-01 | 1.24E+02 | 0.00E+00 | 1.10E-02 | 0.00E+00 | 1.00E-01 | 2.94E-01 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial I | U | N | NHH | NP | Orange | SC | SC | 7.88E+02 | 3.89E+03 | 5.19E+03 | 3.44E-03 | 5.71E-01 | 1.49E-01 | 3.56E+01 | 0.00E+00 | 3.16E-03 | 0.00E+00 | 2.88E-02 | 2.94E-01 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial I | U | N | NHH | NP | Riverside | MD | SC | 3.88E-01 | 1.91E+00 | 2.55E+00 | 1.66E-06 | 2.79E-04 | 7.30E-05 | 1.75E-02 | 0.00E+00 | 1.56E-06 | 0.00E+00 | 1.39E-05 | 2.91E-01 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial I | U | N | NHH | NP | Riverside | SC | SC | 1.54E+02 | 7.58E+02 | 1.01E+03 | 6.55E-04 | 1.10E-01 | 2.89E-02 | 6.94E+00 | 0.00E+00 | 6.17E-04 | 0.00E+00 | 5.49E-03 | 2.91E-01 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial I | U | N | NHH | NP | Riverside | SS | SC | 3.46E+01 | 1.71E+02 | 2.28E+02 | 1.48E-04 | 2.49E-02 | 6.51E-03 | 1.56E+00 | 0.00E+00 | 1.39E-04 | 0.00E+00 | 1.24E-03 | 2.91E-01 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial I | U | N | NHH | NP | San Bernar | SC | SC | 2.16E+02 | 1.07E+03 | 1.42E+03 | 9.31E-04 | 1.56E-01 | 4.07E-02 | 9.75E+00 | 0.00E+00 | 8.67E-04 | 0.00E+00 | 7.80E-03 | 2.92E-01 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial I | U | N | NHH | NP | Los Angele | SC | SC | 9.64E+03 | 4.76E+04 | 1.13E+05 | 7.10E-02 | 3.35E+01 | 3.36E+00 | 7.43E+02 | 0.00E+00 | 6.61E-02 | 0.00E+00 | 5.95E-01 | 1.41E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial I | U | N | NHH | NP | Orange | SC | SC | 2.77E+03 | 1.36E+04 | 3.25E+04 | 2.04E-02 | 9.62E+00 | 9.65E-01 | 2.13E+02 | 0.00E+00 | 1.90E-02 | 0.00E+00 | 1.71E-01 | 1.41E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial I | U | N | NHH | NP | Riverside | MD | SC | 1.36E+00 | 6.72E+00 | 1.60E+01 | 9.87E-06 | 4.70E-03 | 4.70E-04 | 1.05E-01 | 0.00E+00 | 9.33E-06 | 0.00E+00 | 8.27E-05 | 1.40E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial I | U | N | NHH | NP | Riverside | SC | SC | 5.39E+02 | 2.66E+03 | 6.33E+03 | 3.89E-03 | 1.86E+00 | 1.86E-01 | 4.16E+01 | 0.00E+00 | 3.70E-03 | 0.00E+00 | 3.26E-02 | 1.40E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial I | U | N | NHH | NP | Riverside | SS | SC | 1.21E+02 | 5.99E+02 | 1.43E+03 | 8.80E-04 | 4.19E-01 | 4.19E-02 | 9.36E+00 | 0.00E+00 | 8.32E-04 | 0.00E+00 | 7.38E-03 | 1.40E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial I | U | N | NHH | NP | San Bernar | SC | SC | 7.58E+02 | 3.74E+03 | 8.90E+03 | 5.52E-03 | 2.62E+00 | 2.63E-01 | 5.84E+01 | 0.00E+00 | 5.19E-03 | 0.00E+00 | 4.63E-02 | 1.40E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | Los Angele | SC | SC | 3.53E+02 | 1.74E+03 | 8.50E+03 | 3.26E-03 | 1.96E+00 | 1.67E-01 | 5.67E+01 | 0.00E+00 | 5.04E-03 | 0.00E+00 | 2.73E-02 | 2.26E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | Orange | SC | SC | 1.01E+02 | 5.00E+02 | 2.44E+03 | 9.35E-04 | 5.64E-01 | 4.80E-02 | 1.63E+01 | 0.00E+00 | 1.45E-03 | 0.00E+00 | 7.84E-03 | 2.26E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | Riverside | MD | SC | 4.98E-02 | 2.46E-01 | 1.20E+00 | 4.54E-07 | 2.76E-04 | 2.35E-05 | 8.00E-03 | 0.00E+00 | 7.12E-07 | 0.00E+00 | 3.80E-06 | 2.24E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | Riverside | SC | SC | 1.97E+01 | 9.74E+01 | 4.75E+02 | 1.79E-04 | 1.09E-01 | 9.31E-03 | 3.17E+00 | 0.00E+00 | 2.82E-04 | 0.00E+00 | 1.50E-03 | 2.24E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | Riverside | SS | SC | 4.44E+00 | 2.19E+01 | 1.07E+02 | 4.05E-05 | 2.46E-02 | 2.10E-03 | 7.14E-01 | 0.00E+00 | 6.35E-05 | 0.00E+00 | 3.39E-04 | 2.24E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | San Bernar | SC | SC | 2.77E+01 | 1.37E+02 | 6.68E+02 | 2.54E-04 | 1.54E-01 | 1.31E-02 | 4.46E+00 | 0.00E+00 | 3.97E-04 | 0.00E+00 | 2.13E-03 | 2.25E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Generator | C4 | 120 | Light Com | U | N | NHH | P | Los Angele | SC | SC | 5.64E+01 | 1.78E+01 | 1.11E+02 | 3.22E-05 | 2.35E-02 | 2.42E-03 | 7.45E-01 | 0.00E+00 | 6.63E-05 | 0.00E+00 | 2.70E-04 | 2.64E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Generator | C4 | 120 | Light Com | U | N | NHH | P | Orange | SC | SC | 2.27E+01 | 7.15E+00 | 4.47E+01 | 1.24E-05 | 9.42E-03 | 9.50E-04 | 3.00E-01 | 0.00E+00 | 2.67E-05 | 0.00E+00 | 1.04E-04 | 2.63E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Generator | C4 | 120 | Light Com | U | N | NHH | P | Riverside | MD | SC | 1.49E-02 | 4.68E-03 | 2.93E-02 | 8.22E-09 | 6.17E-06 | 6.25E-07 | 1.96E-04 | 0.00E+00 | 1.75E-08 | 0.00E+00 | 6.89E-08 | 2.64E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Generator | C4 | 120 | Light Com | U | N | NHH | P | Riverside | SC | SC | 6.83E+00 | 2.15E+00 | 1.34E+01 | 3.63E-06 | 2.82E-03 | 2.80E-04 | 9.02E-02 | 0.00E+00 | 8.02E-06 | 0.00E+00 | 3.04E-05 | 2.63E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Generator | C4 | 120 | Light Com | U | N | NHH | P | Riverside | SS | SC | 1.35E+00 | 4.26E-01 | 2.66E+00 | 7.47E-07 | 5.61E-04 | 5.69E-05 | 1.79E-02 | 0.00E+00 | 1.59E-06 | 0.00E+00 | 6.26E-06 | 2.64E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Generator | C4 | 120 | Light Com | U | N | NHH | P | San Bernar | SC | SC | 7.36E+00 | 2.31E+00 | 1.45E+01 | 3.97E-06 | 3.05E-03 | 3.05E-04 | 9.72E-02 | 0.00E+00 | 8.64E-06 | 0.00E+00 | 3.33E-05 | 2.63E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Generator | C4 | 175 | Light Com | U | N | NHH | P | Los Angele | SC | SC | 4.68E+01 | 1.47E+01 | 1.61E+02 | 3.57E-05 | 2.81E-02 | 3.33E-03 | 1.09E+00 | 0.00E+00 | 9.67E-05 | 0.00E+00 | 3.00E-04 | 3.82E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Generator | C4 | 175 | Light Com | U | N | NHH | P | Orange | SC | SC | 1.88E+01 | 5.93E+00 | 6.47E+01 | 1.39E-05 | 1.13E-02 | 1.30E-03 | 4.38E-01 | 0.00E+00 | 3.89E-05 | 0.00E+00 | 1.16E-04 | 3.81E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Generator | C4 | 175 | Light Com | U | N | NHH | P | Riverside | MD | SC | 1.23E-02 | 3.88E-03 | 4.23E-02 | 9.14E-09 | 7.40E-06 | 8.57E-07 | 2.87E-04 | 0.00E+00 | 2.55E-08 | 0.00E+00 | 7.66E-08 | 3.81E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Generator | C4 | 175 | Light Com | U | N | NHH | P | Riverside | SC | SC | 5.66E+00 | 1.78E+00 | 1.94E+01 | 4.05E-06 | 3.39E-03 | 3.83E-04 | 1.31E-01 | 0.00E+00 | 1.17E-05 | 0.00E+00 | 3.40E-05 | 3.80E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Generator | C4 | 175 | Light Com | U | N | NHH | P | Riverside | SS | SC | 1.12E+00 | 3.53E-01 | 3.85E+00 | 8.31E-07 | 6.73E-04 | 7.79E-05 | 2.61E-02 | 0.00E+00 | 2.32E-06 | 0.00E+00 | 6.97E-06 | 3.81E+00 | 0.00E+00 |
| 2024 | Annual | Mon-Sun | 2.27E+09 | Generator | C4 | 175 | Light Com | U | N | NHH | P | San Bernar | SC | SC | 6.10E+00 | 1.92E+00 | 2.09E+01 | 4.43E-06 | 3.65E-03 | 4.18E-04 | 1.42E-01 | 0.00E+00 | 1.26E-05 | 0.00E+00 | 3.71E-05 | 3.81E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial I | U | N | NHH | NP | Los Angele | SC | SC | 3.93E+00 | 1.35E+01 | 1.32E+01 | 8.39E-05 | 1.33E-02 | 3.70E-04 | 6.91E-02 | 0.00E+00 | 4.55E-05 | 0.00E+00 | 7.04E-04 | 1.97E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial I | U | N | NHH | NP | Orange | SC | SC | 1.13E+00 | 3.88E+00 | 3.80E+00 | 2.41E-05 | 3.81E-03 | 1.07E-04 | 1.99E-02 | 0.00E+00 | 1.31E-05 | 0.00E+00 | 2.02E-04 | 1.97E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial I | U | N | NHH | NP | Riverside | MD | SC | 5.33E-04 | 1.83E-03 | 1.79E-03 | 1.14E-08 | 1.80E-06 | 5.02E-08 | 9.38E-06 | 0.00E+00 | 6.17E-09 | 0.00E+00 | 9.52E-08 | 1.97E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial I | U | N | NHH | NP | Riverside | SC | SC | 2.10E-01 | 7.19E-01 | 7.05E-01 | 4.44E-06 | 7.07E-04 | 1.97E-05 | 3.69E-03 | 0.00E+00 | 2.42E-06 | 0.00E+00 | 3.72E-05 | 1.97E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial I | U | N | NHH | NP | Riverside | SS | SC | 4.76E-02 | 1.63E-01 | 1.60E-01 | 1.01E-06 | 1.61E-04 | 4.48E-06 | 8.37E-04 | 0.00E+00 | 5.51E-07 | 0.00E+00 | 8.50E-06 | 1.97E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 25 | Industrial I | U | N | NHH | NP | San Bernar | SC | SC | 3.04E-01 | 1.04E+00 | 1.02E+00 | 6.42E-06 | 1.02E-03 | 2.85E-05 | 5.34E-03 | 0.00E+00 | 3.50E-06 | 0.00E+00 | 5.38E-05 | 1.96E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial I | U | N | NHH | NP | Los Angele | SC | SC | 2.66E+03 | 1.31E+04 | 1.75E+04 | 1.16E-02 | 1.93E+00 | 5.05E-01 | 1.20E+02 | 0.00E+00 | 1.07E-02 | 0.00E+00 | 9.74E-02 | 2.94E-01 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial I | U | N | NHH | NP | Orange | SC | SC | 7.66E+02 | 3.78E+03 | 5.05E+03 | 3.34E-03 | 5.55E-01 | 1.45E-01 | 3.46E+01 | 0.00E+00 | 3.08E-03 | 0.00E+00 | 2.80E-02 | 2.93E-01 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial I | U | N | NHH | NP | Riverside | MD | SC | 3.61E-01 | 1.78E+00 | 2.38E+00 | 1.55E-06 | 2.60E-04 | 6.81E-05 | 1.63E-02 | 0.00E+00 | 1.45E-06 | 0.00E+00 | 1.30E-05 | 2.92E-01 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial I | U | N | NHH | NP | Riverside | SC | SC | 1.42E+02 | 7.02E+02 | 9.37E+02 | 6.05E-04 | 1.02E-01 | 2.67E-02 | 6.42E+00 | 0.00E+00 | 5.71E-04 | 0.00E+00 | 5.07E-03 | 2.90E-01 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial I | U | N | NHH | NP | Riverside | SS | SC | 3.23E+01 | 1.59E+02 | 2.12E+02 | 1.39E-04 | 2.32E-02 | 6.08E-03 | 1.46E+00 | 0.00E+00 | 1.29E-04 | 0.00E+00 | 1.16E-03 | 2.92E-01 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 50 | Industrial I | U | N | NHH | NP | San Bernar | SC | SC | 2.06E+02 | 1.02E+03 | 1.36E+03 | 8.83E-04 | 1.48E-01 | 3.87E-02 | 9.29E+00 | 0.00E+00 | 8.26E-04 | 0.00E+00 | 7.40E-03 | 2.92E-01 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial I | U | N | NHH | NP | Los Angele | SC | SC | 9.34E+03 | 4.61E+04 | 1.10E+05 | 6.90E-02 | 3.25E+01 | 3.26E+00 | 7.20E+02 | 0.00E+00 | 6.40E-02 | 0.00E+00 | 5.78E-01 | 1.41E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial I | U | N | NHH | NP | Orange | SC | SC | 2.69E+03 | 1.33E+04 | 3.16E+04 | 1.98E-02 | 9.35E+00 | 9.38E-01 | 2.07E+02 | 0.00E+00 | 1.84E-02 | 0.00E+00 | 1.66E-01 | 1.41E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial I | U | N | NHH | NP | Riverside | MD | SC | 1.27E+00 | 6.26E+00 | 1.49E+01 | 9.22E-06 | 4.39E-03 | 4.39E-04 | 9.78E-02 | 0.00E+00 | 8.69E-06 | 0.00E+00 | 7.73E-05 | 1.40E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial I | U | N | NHH | NP | Riverside | SC | SC | 4.99E+02 | 2.46E+03 | 5.86E+03 | 3.59E-03 | 1.72E+00 | 1.72E-01 | 3.85E+01 | 0.00E+00 | 3.42E-03 | 0.00E+00 | 3.01E-02 | 1.39E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial I | U | N | NHH | NP | Riverside | SS | SC | 1.13E+02 | 5.59E+02 | 1.33E+03 | 8.23E-04 | 3.91E-01 | 3.92E-02 | 8.73E+00 | 0.00E+00 | 7.76E-04 | 0.00E+00 | 6.90E-03 | 1.40E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 120 | Industrial I | U | N | NHH | NP | San Bernar | SC | SC | 7.22E+02 | 3.56E+03 | 8.48E+03 | 5.24E-03 | 2.49E+00 | 2.50E-01 | 5.56E+01 | 0.00E+00 | 4.95E-03 | 0.00E+00 | 4.39E-02 | 1.40E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | Los Angele | SC | SC | 3.42E+02 | 1.69E+03 | 8.24E+03 | 3.16E-03 | 1.91E+00 | 1.62E-01 | 5.50E+01 | 0.00E+00 | 4.89E-03 | 0.00E+00 | 2.65E-02 | 2.26E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | Orange | SC | SC | 9.84E+01 | 4.86E+02 | 2.37E+03 | 9.08E-04 | 5.48E-01 | 4.67E-02 | 1.58E+01 | 0.00E+00 | 1.41E-03 | 0.00E+00 | 7.61E-03 | 2.26E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | Riverside | MD | SC | 4.64E-02 | 2.29E-01 | 1.12E+00 | 4.24E-07 | 2.57E-04 | 2.19E-05 | 7.46E-03 | 0.00E+00 | 6.64E-07 | 0.00E+00 | 3.55E-06 | 2.25E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | Riverside | SC | SC | 1.83E+01 | 9.01E+01 | 4.40E+02 | 1.65E-04 | 1.01E-01 | 8.61E-03 | 2.94E+00 | 0.00E+00 | 2.61E-04 | 0.00E+00 | 1.39E-03 | 2.24E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | Riverside | SS | SC | 4.14E+00 | 2.04E+01 | 9.98E+01 | 3.78E-05 | 2.30E-02 | 1.96E-03 | 6.66E-01 | 0.00E+00 | 5.92E-05 | 0.00E+00 | 3.17E-04 | 2.25E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Forklifts | C4 | 175 | Industrial I | U | N | NHH | NP | San Bernar | SC | SC | 2.64E+01 | 1.30E+02 | 6.36E+02 | 2.41E-04 | 1.46E-01 | 1.25E-02 | 4.25E+00 | 0.00E+00 | 3.78E-04 | 0.00E+00 | 2.02E-03 | 2.24E+00 | 0.00E+00 |

**Table C.19 CARB Offroad 2007 output**

used to calculate CO and SOx because Offroad2011 does not calculate CO and SOx

| | | | | | | | | | | | | | | | | hr/day for total population | gal/day for total population | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | ton/day | | lb/hr/equipment | lb/hr/equipment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CY** | **Season** | **AvgDays** | **Code** | **Equipment** | **Fuel** | **MaxHP** | **Class** | **C/R** | **Pre** | **Hand** | **Port** | **County** | **Air Basin** | **Air Dist.** | **Population** | **Activity** | **Consumption** | **ROG Exhaust** | **CO Exhaust** | **NOX Exhaust** | **CO2 Exhaust** | **SO2 Exhaust** | **PM Exhaust** | **N2O Exhaust** | **CH4 Exhaust** | | **CO** | **SOx** |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 120 | Light Com | U | N | NHH | P | Los Angele | SC | SC | 5.68E+01 | 1.79E+01 | 1.12E+02 | 3.83E-05 | 2.36E-02 | 2.78E-03 | 7.50E-01 | 0.00E+00 | 6.67E-05 | 0.00E+00 | 3.21E-04 | | 2.64E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 120 | Light Com | U | N | NHH | P | Orange | SC | SC | 2.24E+01 | 7.04E+00 | 4.41E+01 | 1.43E-05 | 9.27E-03 | 1.06E-03 | 2.96E-01 | 0.00E+00 | 2.63E-05 | 0.00E+00 | 1.20E-04 | | 2.63E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 120 | Light Com | U | N | NHH | P | Riverside | MD | SC | 1.47E-02 | 4.62E-03 | 2.89E-02 | 9.50E-09 | 6.08E-06 | 6.98E-07 | 1.94E-04 | 0.00E+00 | 1.72E-08 | 0.00E+00 | 7.96E-08 | | 2.63E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 120 | Light Com | U | N | NHH | P | Riverside | SC | SC | 6.66E+00 | 2.10E+00 | 1.31E+01 | 4.09E-06 | 2.75E-03 | 3.05E-04 | 8.79E-02 | 0.00E+00 | 7.82E-06 | 0.00E+00 | 3.43E-05 | | 2.63E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 120 | Light Com | U | N | NHH | P | Riverside | SS | SC | 1.34E+00 | 4.20E-01 | 2.63E+00 | 8.64E-07 | 5.53E-04 | 6.35E-05 | 1.76E-02 | 0.00E+00 | 1.57E-06 | 0.00E+00 | 7.24E-06 | | 2.63E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 120 | Light Com | U | N | NHH | P | San Bernar | SC | SC | 7.17E+00 | 2.26E+00 | 1.41E+01 | 4.52E-06 | 2.97E-03 | 3.35E-04 | 9.48E-02 | 0.00E+00 | 8.43E-06 | 0.00E+00 | 3.79E-05 | | 2.63E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 175 | Light Com | U | N | NHH | P | Los Angele | SC | SC | 4.71E+01 | 1.48E+01 | 1.62E+02 | 4.30E-05 | 2.82E-02 | 3.87E-03 | 1.09E+00 | 0.00E+00 | 9.72E-05 | 0.00E+00 | 3.60E-04 | | 3.81E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 175 | Light Com | U | N | NHH | P | Orange | SC | SC | 1.86E+01 | 5.84E+00 | 6.37E+01 | 1.62E-05 | 1.11E-02 | 1.47E-03 | 4.31E-01 | 0.00E+00 | 3.83E-05 | 0.00E+00 | 1.35E-04 | | 3.81E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 175 | Light Com | U | N | NHH | P | Riverside | MD | SC | 1.22E-02 | 3.83E-03 | 4.18E-02 | 1.07E-08 | 7.29E-06 | 9.70E-07 | 2.83E-04 | 0.00E+00 | 2.51E-08 | 0.00E+00 | 8.96E-08 | | 3.81E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 175 | Light Com | U | N | NHH | P | Riverside | SC | SC | 5.52E+00 | 1.74E+00 | 1.90E+01 | 4.63E-06 | 3.30E-03 | 4.23E-04 | 1.28E-01 | 0.00E+00 | 1.14E-05 | 0.00E+00 | 3.88E-05 | | 3.80E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 175 | Light Com | U | N | NHH | P | Riverside | SS | SC | 1.11E+00 | 3.48E-01 | 3.80E+00 | 9.72E-07 | 6.63E-04 | 8.83E-05 | 2.57E-02 | 0.00E+00 | 2.29E-06 | 0.00E+00 | 8.15E-06 | | 3.81E+00 | 0.00E+00 |
| 2021 | Annual | Mon-Sun | 2.27E+09 | Generator S | C4 | 175 | Light Com | U | N | NHH | P | San Bernar | SC | SC | 5.95E+00 | 1.87E+00 | 2.04E+01 | 5.09E-06 | 3.56E-03 | 4.65E-04 | 1.38E-01 | 0.00E+00 | 1.23E-05 | 0.00E+00 | 4.27E-05 | | 3.80E+00 | 0.00E+00 |

**Table C.20 CARB EMFAC 2011 output**

**offsite transit**

unmitigated - used for worker vehicles during construction and operations and for delivery trucks during operation; for trucks during construction, CAAP is required as project condition.

EMFAC 2011
2011 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2011 | Annual | LDA | GAS | AllMYr | AllSpeeds | 3432809.297 | 1.14E+08 | 2.16E+07 | 9.806668338 | 0 | 8.604815583 | 18.41148392 |
| Los Angele | 2011 | Annual | LDA | DSL | AllMYr | AllSpeeds | 12305.80843 | 345697.8411 | 69210.91386 | 0.040185029 | 0 | 0 | 0.040185029 |
| Los Angele | 2011 | Annual | LDT1 | GAS | AllMYr | AllSpeeds | 380782.8435 | 1.27E+07 | 2322656.398 | 2.824349864 | 0 | 1.709126456 | 4.53347632 |
| Los Angele | 2011 | Annual | LDT1 | DSL | AllMYr | AllSpeeds | 565.952667 | 16216.95978 | 2974.67764 | 0.002763848 | 0 | 0 | 0.002763848 |
| Los Angele | 2011 | Annual | T6 instate heavy | DSL | AllMYr | AllSpeeds | 9438.661932 | 524764.8404 | 0 | 0.24473344 | 0.0043988 | 0 | 0.24913224 |
| Los Angele | 2011 | Annual | LDA/LDT1 | GAS&DSI | AllMYr | AllSpeeds | 3826463.902 | 127372466.7 | 23992175.43 | 12.67396708 | 0 | 10.31394204 | 22.98790912 |

EMFAC 2011
2013 Estimated Annual Emission Rates
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | LDA | GAS | AllMYr | AllSpeeds | 3468117.5 | 1.16E+08 | 2.18E+07 | 7.16021536 | 0 | 6.372940714 | 13.53315607 |
| Los Angele | 2013 | Annual | LDA | DSL | AllMYr | AllSpeeds | 12432.38094 | 378377.9968 | 71454.51036 | 0.029345996 | 0 | 0 | 0.029345996 |
| Los Angele | 2013 | Annual | LDT1 | GAS | AllMYr | AllSpeeds | 381381.5782 | 1.28E+07 | 2320501.249 | 2.169621042 | 0 | 1.423122042 | 3.592743084 |
| Los Angele | 2013 | Annual | LDT1 | DSL | AllMYr | AllSpeeds | 566.842614 | 17205.74963 | 2967.77334 | 0.002327559 | 0 | 0 | 0.002327559 |
| Los Angele | 2013 | Annual | T6 instate heavy | DSL | AllMYr | AllSpeeds | 10508.75605 | 570311.1304 | 0 | 0.193907076 | 0.003536991 | 0 | 0.197444067 |
| Los Angele | 2013 | Annual | LDA/LDT1 | GAS&DSI | AllMYr | AllSpeeds | 3862498.302 | 128728378.8 | 24243008.02 | 9.361509957 | 0 | 7.796062756 | 17.15757271 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | GAS | AllMYr | AllSpeeds | 3482857.315 | 1.16E+08 | 2.20E+07 | 6.01302799 | 0 | 5.462981748 | 11.47600974 |
| Los Angele | 2014 | Annual | LDA | DSL | AllMYr | AllSpeeds | 12485.21805 | 387550.4452 | 72558.51227 | 0.025186369 | 0 | 0 | 0.025186369 |
| Los Angele | 2014 | Annual | LDT1 | GAS | AllMYr | AllSpeeds | 381804.9854 | 1.28E+07 | 2319766.572 | 1.876344305 | 0 | 1.295465582 | 3.171809887 |
| Los Angele | 2014 | Annual | LDT1 | DSL | AllMYr | AllSpeeds | 567.471762 | 17653.03086 | 2988.91864 | 0.002110803 | 0 | 0 | 0.002110803 |
| Los Angele | 2014 | Annual | T6 instate heavy | DSL | AllMYr | AllSpeeds | 11040.89103 | 595239.5558 | 0 | 0.124463122 | 0.002574032 | 0 | 0.127037154 |
| Los Angele | 2014 | Annual | LDA/LDT1 | GAS&DSI | AllMYr | AllSpeeds | 3877714.99 | 129190083 | 24347376.82 | 7.916669468 | 0 | 6.75844733 | 14.6751168 |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed | Pop | VMT | Trips | ROG_RUNEX | ROG_IDLEX | ROG_STREX | ROG_TOTEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**Table C.20 CARB EMFAC 2011 outpu**

**offsite transit**
unmitigated - used for worker vehicles during const
EMFAC 2011
2011 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2011 | Annual | LDA | 2.519402279 | 4.975491688 | 12.68485584 | 1.819335979 | 40.41056971 | 12.80866554 | 0 | 9.201049626 | 22.00971517 |
| Los Angele | 2011 | Annual | LDA | 0 | 0 | 0 | 0 | 0.040185029 | 0.045747982 | 0 | 0 | 0.045747982 |
| Los Angele | 2011 | Annual | LDT1 | 0.577829814 | 1.012403644 | 3.909773563 | 0.40107196 | 10.4345553 | 3.49657462 | 0 | 1.827271923 | 5.323846543 |
| Los Angele | 2011 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0.002763848 | 0.003146457 | 0 | 0 | 0.003146457 |
| Los Angele | 2011 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.24913224 | 0.278610392 | 0.005007699 | 0 | 0.283618092 |
| Los Angele | 2011 | Annual | LDA/LDT1 | 3.097232093 | 5.987895332 | 16.5946294 | 2.220407939 | 50.88807389 | 16.3541346 | 0 | 11.02832155 | 27.38245615 |

EMFAC 2011
2013 Estimated Annual Emission Rates
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | LDA | 2.013513212 | 4.292374915 | 10.13904375 | 1.573319393 | 31.55140735 | 9.595894908 | 0 | 6.813763654 | 16.40965856 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 0 | 0 | 0.029345996 | 0.033408464 | 0 | 0 | 0.033408464 |
| Los Angele | 2013 | Annual | LDT1 | 0.531991129 | 0.950186799 | 3.52144545 | 0.383008386 | 8.979374848 | 2.741639748 | 0 | 1.521036631 | 4.262676379 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0.002327559 | 0.002649771 | 0 | 0 | 0.002649771 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.197444067 | 0.220748446 | 0.004026595 | 0 | 0.22477504 |
| Los Angele | 2013 | Annual | LDA/LDT1 | 2.545504341 | 5.242561715 | 13.6604892 | 1.956327779 | 40.56245575 | 12.37359289 | 0 | 8.334800285 | 20.70839318 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | 1.800576792 | 3.966056198 | 9.049865605 | 1.461504664 | 27.754013 | 8.217431606 | 0 | 5.840076054 | 14.05750766 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0 | 0 | 0.025186369 | 0.028673006 | 0 | 0 | 0.028673006 |
| Los Angele | 2014 | Annual | LDT1 | 0.511450647 | 0.920585671 | 3.337204026 | 0.375516137 | 8.316566369 | 2.404312694 | 0 | 1.38434597 | 3.788658664 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0.002110803 | 0.002403009 | 0 | 0 | 0.002403009 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.127037154 | 0.14169179 | 0.002930339 | 0 | 0.144622129 |
| Los Angele | 2014 | Annual | LDA/LDT1 | 2.312027439 | 4.886641868 | 12.38706963 | 1.837020801 | 36.09787654 | 10.65282031 | 0 | 7.224422024 | 17.87724234 |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN | ROG_HTSK | ROG_RUNLS | ROG_RESTL | ROG_TOTAL | TOG_RUNEX | TOG_IDLEX | TOG_STREX | TOG_TOTEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

**Table C.20 CARB EMFAC 2011 outpu**

**offsite transit**

unmitigated - used for worker vehicles during const

EMFAC 2011
2011 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2011 | Annual | LDA | 2.519402279 | 4.975491688 | 12.68485584 | 1.819335979 | 44.00880095 | 264.0364601 | 0 | 93.8600166 | 357.8964767 |
| Los Angele | 2011 | Annual | LDA | 0 | 0 | 0 | 0 | 0.045747982 | 0.17911873 | 0 | 0 | 0.17911873 |
| Los Angele | 2011 | Annual | LDT1 | 0.577829814 | 1.012403644 | 3.909773563 | 0.40107196 | 11.22492552 | 73.5613958 | 0 | 20.87943448 | 94.44083028 |
| Los Angele | 2011 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0.003146457 | 0.011874517 | 0 | 0 | 0.011874517 |
| Los Angele | 2011 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.283618092 | 0.888365885 | 0.035786924 | 0 | 0.924152808 |
| Los Angele | 2011 | Annual | LDA/LDT1 | 3.097232093 | 5.987895332 | 16.5946294 | 2.220407939 | 55.28262092 | 337.7888491 | 0 | 114.7394511 | 452.5283002 |

EMFAC 2011
2013 Estimated Annual Emission Rates
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | LDA | 2.013513212 | 4.292374915 | 10.13904375 | 1.573319393 | 34.42790983 | 209.5706994 | 0 | 73.6751407 | 283.2458401 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 0 | 0 | 0.033408464 | 0.139383652 | 0 | 0 | 0.139383652 |
| Los Angele | 2013 | Annual | LDT1 | 0.531991129 | 0.950186799 | 3.52144545 | 0.383008386 | 9.649308142 | 60.93062425 | 0 | 17.75514617 | 78.68577042 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0.002649771 | 0.010186138 | 0 | 0 | 0.010186138 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.22477504 | 0.716538695 | 0.030784188 | 0 | 0.747322883 |
| Los Angele | 2013 | Annual | LDA/LDT1 | 2.545504341 | 5.242561715 | 13.6604892 | 1.956327779 | 44.11327621 | 270.6508935 | 0 | 91.43028687 | 362.0811803 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | 1.800576792 | 3.966056198 | 9.049865605 | 1.461504664 | 30.33551092 | 186.3524024 | 0 | 65.2920003 | 251.6444027 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0 | 0 | 0.028673006 | 0.123318289 | 0 | 0 | 0.123318289 |
| Los Angele | 2014 | Annual | LDT1 | 0.511450647 | 0.920585671 | 3.337204026 | 0.375516137 | 8.933415146 | 55.3914896 | 0 | 16.36656238 | 71.75805198 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0.002403009 | 0.009304201 | 0 | 0 | 0.009304201 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.144622129 | 0.458645905 | 0.022445788 | 0 | 0.481091694 |
| Los Angele | 2014 | Annual | LDA/LDT1 | 2.312027439 | 4.886641868 | 12.38706963 | 1.837020801 | 39.30000208 | 241.8765145 | 0 | 81.65856268 | 323.5350772 |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN | TOG_HTSK | TOG_RUNLS | TOG_RESTL | TOG_TOTAL | CO_RUNEX | CO_IDLEX | CO_STREX | CO_TOTEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

**Table C.20 CARB EMFAC 2011 outpu**

**offsite transit**
unmitigated - used for worker vehicles during const
EMFAC 2011
2011 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2011 | Annual | LDA | 23.43370493 | 0 | 6.463173495 | 29.89687842 | 46516.92097 | 0 | 1749.388359 | 48266.30933 | 45486.17429 |
| Los Angele | 2011 | Annual | LDA | 0.299116712 | 0 | 0 | 0.299116712 | 130.2563172 | 0 | 0 | 130.2563172 | 125.9597062 |
| Los Angele | 2011 | Annual | LDT1 | 6.949248788 | 0 | 1.156471358 | 8.105720146 | 5954.482087 | 0 | 215.5732175 | 6170.055305 | 5852.07419 |
| Los Angele | 2011 | Annual | LDT1 | 0.018329649 | 0 | 0 | 0.018329649 | 6.435160176 | 0 | 0 | 6.435160176 | 6.280202962 |
| Los Angele | 2011 | Annual | T6 instate heavy | 5.019070587 | 0.103156747 | 0 | 5.122227334 | 660.3902641 | 7.09628692 | 0 | 667.486551 | 658.7392885 |
| Los Angele | 2011 | Annual | LDA/LDT1 | 30.70040008 | 0 | 7.619644853 | 38.32004493 | 52608.09454 | 0 | 1964.961576 | 54573.05611 | 51470.48839 |

EMFAC 2011
2013 Estimated Annual Emission Rates
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | LDA | 18.3522692 | 0 | 5.042270129 | 23.39453933 | 47143.3137 | 0 | 1772.244301 | 48915.558 | 43422.46843 |
| Los Angele | 2013 | Annual | LDA | 0.247494157 | 0 | 0 | 0.247494157 | 139.1846493 | 0 | 0 | 139.1846493 | 125.0266108 |
| Los Angele | 2013 | Annual | LDT1 | 5.803184204 | 0 | 0.993386023 | 6.796570227 | 5981.883352 | 0 | 215.2912129 | 6197.174565 | 5621.372297 |
| Los Angele | 2013 | Annual | LDT1 | 0.015927692 | 0 | 0 | 0.015927692 | 6.642533762 | 0 | 0 | 6.642533762 | 6.125076778 |
| Los Angele | 2013 | Annual | T6 instate heavy | 4.767269973 | 0.110987559 | 0 | 4.878257532 | 718.1478676 | 8.099751409 | 0 | 726.247619 | 710.9663889 |
| Los Angele | 2013 | Annual | LDA/LDT1 | 24.41887526 | 0 | 6.035656152 | 30.45453141 | 53271.02423 | 0 | 1987.535514 | 55258.55975 | 49174.99242 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | 16.30578914 | 0 | 4.429637336 | 20.73542648 | 47345.68824 | 0 | 1781.890573 | 49127.57881 | 42298.83745 |
| Los Angele | 2014 | Annual | LDA | 0.226683583 | 0 | 0 | 0.226683583 | 141.4086501 | 0 | 0 | 141.4086501 | 123.1244887 |
| Los Angele | 2014 | Annual | LDT1 | 5.317959196 | 0 | 0.920340021 | 6.238299218 | 5991.68699 | 0 | 215.2277525 | 6206.914742 | 5499.475956 |
| Los Angele | 2014 | Annual | LDT1 | 0.014804645 | 0 | 0 | 0.014804645 | 6.734538702 | 0 | 0 | 6.734538702 | 6.024109613 |
| Los Angele | 2014 | Annual | T6 instate heavy | 4.631009045 | 0.115188073 | 0 | 4.746197118 | 751.9960119 | 8.638438816 | 0 | 760.6344507 | 740.7160717 |
| Los Angele | 2014 | Annual | LDA/LDT1 | 21.86523657 | 0 | 5.349977357 | 27.21521393 | 53485.51842 | 0 | 1997.118326 | 55482.63674 | 47927.462 |

EMFAC 2011
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EMFAC 2011 Vehicle Categories
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South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX | NOX_IDLEX | NOX_STREX | NOX_TOTEX | CO2_RUNEX | CO2_IDLEX | CO2_STREX | CO2_TOTEX | CO2_RUNEX(Pavl |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

**Table C.20 CARB EMFAC 2011 outpu**

**offsite transit**

unmitigated - used for worker vehicles during const

EMFAC 2011
2011 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2011 | Annual | LDA | 0 | 1721.378097 | 47207.55239 | 0.42613094 | 0 | 0.095695995 | 0.521826935 | 1.007750673 | 4.629355176 |
| Los Angele | 2011 | Annual | LDA | 0 | 0 | 125.9597062 | 0.030754429 | 0 | 0 | 0.030754429 | 0.003048533 | 0.014004201 |
| Los Angele | 2011 | Annual | LDT1 | 0 | 212.7001948 | 6064.774384 | 0.110343755 | 0 | 0.019146443 | 0.129490198 | 0.11229073 | 0.51583563 |
| Los Angele | 2011 | Annual | LDT1 | 0 | 0 | 6.280202962 | 0.00236145 | 0 | 0 | 0.00236145 | 1.43E-04 | 6.57E-04 |
| Los Angele | 2011 | Annual | T6 instate heavy | 7.078546202 | 0 | 665.8178347 | 0.18507707 | 0.001391337 | 0 | 0.186468407 | 0.006941451 | 0.075395723 |
| Los Angele | 2011 | Annual | LDA/LDT1 | 0 | 1934.078292 | 53404.56669 | 0.569590574 | 0 | 0.114842438 | 0.684433012 | 1.123232946 | 5.159851956 |

EMFAC 2011
2013 Estimated Annual Emission Rates
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | LDA | 0 | 1663.689201 | 45086.15763 | 0.327537971 | 0 | 0.076727877 | 0.404265849 | 1.019249438 | 4.682177476 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 125.0266108 | 0.022251641 | 0 | 0 | 0.022251641 | 0.003336723 | 0.015328073 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 204.6221772 | 5825.994474 | 0.092503848 | 0 | 0.016188039 | 0.108691887 | 0.112452219 | 0.516577454 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 6.125076778 | 0.001965712 | 0 | 0 | 0.001965712 | 1.52E-04 | 6.97E-04 |
| Los Angele | 2013 | Annual | T6 instate heavy | 8.018753895 | 0 | 718.9851428 | 0.141345898 | 0.001025378 | 0 | 0.142371276 | 0.007543925 | 0.081939598 |
| Los Angele | 2013 | Annual | LDA/LDT1 | 0 | 1868.311378 | 51043.3038 | 0.444259173 | 0 | 0.092915916 | 0.537175089 | 1.135190109 | 5.214780008 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | 0 | 1629.238317 | 43928.07577 | 0.296607443 | 0 | 0.071776816 | 0.368384258 | 1.023153471 | 4.700112048 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 123.1244887 | 0.019005907 | 0 | 0 | 0.019005907 | 0.00341761 | 0.015699648 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 200.2748117 | 5699.750767 | 0.085386159 | 0 | 0.015097522 | 0.100483681 | 0.112534743 | 0.516956549 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 6.024109613 | 0.001771738 | 0 | 0 | 0.001771738 | 1.56E-04 | 7.15E-04 |
| Los Angele | 2014 | Annual | T6 instate heavy | 8.508862234 | 0 | 749.2249339 | 0.082456651 | 6.45E-04 | 0 | 0.083101401 | 0.007873672 | 0.085521196 |
| Los Angele | 2014 | Annual | LDA/LDT1 | 0 | 1829.513129 | 49756.97513 | 0.402771246 | 0 | 0.086874338 | 0.489645584 | 1.139261496 | 5.233483369 |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle | CO2_STREX(Pavle | CO2_TOTEX(Pavl | PM10_RUNEX | PM10_IDLEX | PM10_STREX | PM10_TOTEX | PM10_PMTW | PM10_PMBW |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

**Table C.20 CARB EMFAC 2011 outpu**

**offsite transit**

unmitigated - used for worker vehicles during const

EMFAC 2011
2011 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2011 | Annual | LDA | 6.158932785 | 0.38634057 | 0 | 0.086545331 | 0.472885902 | 0.251937668 | 1.98400923 | 2.7088328 | 0.468838561 |
| Los Angele | 2011 | Annual | LDA | 0.047807163 | 0.028294075 | 0 | 0 | 0.028294075 | 7.62E-04 | 0.0060018 | 0.035058008 | 0.001243508 |
| Los Angele | 2011 | Annual | LDT1 | 0.757616559 | 0.100102155 | 0 | 0.017372551 | 0.117474706 | 0.028072682 | 0.221072398 | 0.366619787 | 0.060693141 |
| Los Angele | 2011 | Annual | LDT1 | 0.003161408 | 0.002172534 | 0 | 0 | 0.002172534 | 3.58E-05 | 2.82E-04 | 0.002489836 | 6.14E-05 |
| Los Angele | 2011 | Annual | T6 instate heavy | 0.268805581 | 0.170270905 | 0.00128003 | 0 | 0.171550935 | 0.001735363 | 0.032312453 | 0.20559875 | 0.006300432 |
| Los Angele | 2011 | Annual | LDA/LDT1 | 6.967517914 | 0.516909335 | 0 | 0.103917882 | 0.620827217 | 0.280808236 | 2.211364978 | 3.113000431 | 0.530836643 |

EMFAC 2011
2013 Estimated Annual Emission Rates
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | LDA | 6.105692763 | 0.297642253 | 0 | 0.0696386 | 0.367280852 | 0.254812347 | 2.006647386 | 2.628740586 | 0.474141887 |
| Los Angele | 2013 | Annual | LDA | 0.040916437 | 0.020471511 | 0 | 0 | 0.020471511 | 8.34E-04 | 0.006569174 | 0.027874865 | 0.001328743 |
| Los Angele | 2013 | Annual | LDT1 | 0.737721559 | 0.084330556 | 0 | 0.014764935 | 0.099095491 | 0.028113055 | 0.221390324 | 0.348598869 | 0.06074615 |
| Los Angele | 2013 | Annual | LDT1 | 0.002814445 | 0.001808455 | 0 | 0 | 0.001808455 | 3.79E-05 | 2.99E-04 | 0.002145104 | 6.34E-05 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.231854798 | 0.130038226 | 9.43E-04 | 0 | 0.130981574 | 0.001885981 | 0.03511697 | 0.167984525 | 0.006851466 |
| Los Angele | 2013 | Annual | LDA/LDT1 | 6.887145205 | 0.404252775 | 0 | 0.084403534 | 0.488656309 | 0.283797515 | 2.2349056 | 3.007359424 | 0.536280194 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
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| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | 6.091649777 | 0.270294055 | 0 | 0.065379758 | 0.335673813 | 0.255788376 | 2.014333423 | 2.605795612 | 0.475757025 |
| Los Angele | 2014 | Annual | LDA | 0.038123165 | 0.017485436 | 0 | 0 | 0.017485436 | 8.54E-04 | 0.00672842 | 0.025068258 | 0.001349975 |
| Los Angele | 2014 | Annual | LDT1 | 0.729974973 | 0.078080662 | 0 | 0.013814201 | 0.091894863 | 0.028133686 | 0.221552792 | 0.341581341 | 0.060747121 |
| Los Angele | 2014 | Annual | LDT1 | 0.002642534 | 0.001629999 | 0 | 0 | 0.001629999 | 3.89E-05 | 3.06E-04 | 0.001975398 | 6.43E-05 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.176496268 | 0.075860119 | 5.93E-04 | 0 | 0.076453289 | 0.001968418 | 0.036651941 | 0.115073648 | 0.007174393 |
| Los Angele | 2014 | Annual | LDA/LDT1 | 6.862390449 | 0.367490152 | 0 | 0.079193959 | 0.446684111 | 0.284815382 | 2.242921116 | 2.974420609 | 0.537918413 |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL | PM2_5_RUNEX | PM2_5_IDLEX | PM2_5_STREX | PM2_5_TOTEX | PM2_5_PMTW | PM2_5_PMBW | PM2_5_TOTAL | SOX_RUNEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

**Table C.20 CARB EMFAC 2011 outpu**

**offsite transit**
unmitigated - used for worker vehicles during const
EMFAC 2011
2011 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2011 | Annual | LDA | 0 | 0.019207972 | 0.488046533 | 5205.724794 | 0 | 7.07E-04 | 6.26E-03 | 5.23E-04 | 9.13E-06 | 9.87E-05 | 8.28E-06 | 3.91E-05 | 8.54E-06 |
| Los Angele | 2011 | Annual | LDA | 0 | 0 | 0.001243508 | 0 | 11.72306908 | 2.32E-04 | 1.04E-03 | 1.73E-03 | 1.78E-04 | 9.87E-05 | 1.64E-04 | 3.91E-05 | 7.19E-06 |
| Los Angele | 2011 | Annual | LDT1 | 0 | 0.002533672 | 0.063226813 | 674.4057909 | 0 | 1.64E-03 | 1.48E-02 | 1.27E-03 | 2.03E-05 | 9.87E-05 | 1.85E-05 | 3.91E-05 | 9.93E-06 |
| Los Angele | 2011 | Annual | LDT1 | 0 | 0 | 6.14E-05 | 0 | 0.579164452 | 3.41E-04 | 1.46E-03 | 2.26E-03 | 2.91E-04 | 9.87E-05 | 2.68E-04 | 3.91E-05 | 7.58E-06 |
| Los Angele | 2011 | Annual | T6 instate heavy | 6.77E-05 | 0 | 0.006368134 | 0 | 60.07378959 | 9.50E-04 | 3.52E-03 | 1.95E-02 | 7.11E-04 | 3.14E-04 | 6.54E-04 | 1.30E-04 | 2.43E-05 |
| Los Angele | 2011 | Annual | LDA/LDT1 | 0 | 0.021741644 | 0.552578287 | 5880.130585 | 12.30223354 | 7.99E-04 | 7.11E-03 | 6.02E-04 | 1.07E-05 | 9.87E-05 | 9.75E-06 | 3.91E-05 | 8.68E-06 |

EMFAC 2011
2013 Estimated Annual Emission Rates
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | LDA | 0 | 0.019048483 | 0.49319037 | 5260.591709 | 0 | 5.46E-04 | 4.90E-03 | 4.05E-04 | 7.00E-06 | 9.87E-05 | 6.36E-06 | 3.91E-05 | 8.53E-06 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 0.001328743 | 0 | 12.52661932 | 1.55E-04 | 7.37E-04 | 1.31E-03 | 1.18E-04 | 9.87E-05 | 1.08E-04 | 3.91E-05 | 7.02E-06 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0.002472741 | 0.063218891 | 674.32128 | 0 | 1.41E-03 | 1.23E-02 | 1.07E-03 | 1.70E-05 | 9.87E-05 | 1.55E-05 | 3.91E-05 | 9.92E-06 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 6.34E-05 | 0 | 0.597828042 | 2.71E-04 | 1.18E-03 | 1.85E-03 | 2.28E-04 | 9.87E-05 | 2.10E-04 | 3.91E-05 | 7.37E-06 |
| Los Angele | 2013 | Annual | T6 instate heavy | 7.73E-05 | 0 | 0.006928742 | 0 | 65.36228571 | 6.92E-04 | 2.62E-03 | 1.71E-02 | 4.99E-04 | 3.14E-04 | 4.59E-04 | 1.30E-04 | 2.43E-05 |
| Los Angele | 2013 | Annual | LDA/LDT1 | 0 | 0.021521224 | 0.557801418 | 5934.912989 | 13.12444736 | 6.30E-04 | 5.63E-03 | 4.73E-04 | 8.35E-06 | 9.87E-05 | 7.59E-06 | 3.91E-05 | 8.67E-06 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | 0 | 0.018984309 | 0.494741334 | 5277.135048 | 0 | 4.78E-04 | 4.34E-03 | 3.57E-04 | 6.35E-06 | 9.87E-05 | 5.79E-06 | 3.91E-05 | 8.53E-06 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0.001349975 | 0 | 12.72677887 | 1.30E-04 | 6.36E-04 | 1.17E-03 | 9.81E-05 | 9.87E-05 | 9.02E-05 | 3.91E-05 | 6.97E-06 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0.002446261 | 0.063193382 | 674.0492145 | 0 | 1.30E-03 | 1.12E-02 | 9.78E-04 | 1.57E-05 | 9.87E-05 | 1.44E-05 | 3.91E-05 | 9.90E-06 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 6.43E-05 | 0 | 0.606108461 | 2.39E-04 | 1.05E-03 | 1.68E-03 | 2.01E-04 | 9.87E-05 | 1.85E-04 | 3.91E-05 | 7.28E-06 |
| Los Angele | 2014 | Annual | T6 instate heavy | 8.24E-05 | 0 | 0.007256808 | 0 | 68.45710056 | 4.27E-04 | 1.62E-03 | 1.59E-02 | 2.79E-04 | 3.14E-04 | 2.57E-04 | 1.30E-04 | 2.44E-05 |
| Los Angele | 2014 | Annual | LDA/LDT1 | 0 | 0.02143057 | 0.559348983 | 5951.184263 | 13.33288733 | 5.59E-04 | 5.01E-03 | 4.21E-04 | 7.58E-06 | 9.87E-05 | 6.92E-06 | 3.91E-05 | 8.66E-06 |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX | SOX_STREX | SOX_TOTEX | FUEL_GAS | FUEL_DSL | exhaust ROG | exhaust CO | exhaust NOx | exhaust PM10 | tire wear a PM10 | exaust PM2.5 | tire wear a PM2.5 | exaust SOx |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**Table C.20 CARB EMFAC 2011 outpu**

**offsite transit**
unmitigated - used for worker vehicles during const

EMFAC 2011
2011 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2011 | Annual | LDA | 4.13E-04 |
| Los Angele | 2011 | Annual | LDA | 3.64E-04 |
| Los Angele | 2011 | Annual | LDT1 | 4.76E-04 |
| Los Angele | 2011 | Annual | LDT1 | 3.87E-04 |
| Los Angele | 2011 | Annual | T6 instate heavy | 1.27E-03 |
| Los Angele | 2011 | Annual | LDA/LDT1 | 4.19E-04 |

EMFAC 2011
2013 Estimated Annual Emission Rates
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2013 | Annual | LDA | 3.90E-04 |
| Los Angele | 2013 | Annual | LDA | 3.30E-04 |
| Los Angele | 2013 | Annual | LDT1 | 4.57E-04 |
| Los Angele | 2013 | Annual | LDT1 | 3.56E-04 |
| Los Angele | 2013 | Annual | T6 instate heavy | 1.26E-03 |
| Los Angele | 2013 | Annual | LDA/LDT1 | 3.97E-04 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | 3.79E-04 |
| Los Angele | 2014 | Annual | LDA | 3.18E-04 |
| Los Angele | 2014 | Annual | LDT1 | 4.47E-04 |
| Los Angele | 2014 | Annual | LDT1 | 3.41E-04 |
| Los Angele | 2014 | Annual | T6 instate heavy | 1.26E-03 |
| Los Angele | 2014 | Annual | LDA/LDT1 | 3.85E-04 |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 |
|---|---|---|---|---|

| | | | | | | (Miles/hr) | (Vehicles) | (Miles/day) | (Trips/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | LDA | GAS | AllMYr | AllSpeeds | 3501386.042 | 1.17E+08 | 2.21E+07 | 5.084998045 | 0 | 4.697267714 | 9.782265759 |
| Los Angele | 2015 | Annual | LDA | DSL | AllMYr | AllSpeeds | 12551.63943 | 395369.6822 | 73788.41643 | 0.021641756 | 0 | 0 | 0.021641756 |
| Los Angele | 2015 | Annual | LDT1 | GAS | AllMYr | AllSpeeds | 383076.3878 | 1.28E+07 | 2324273.827 | 1.619890005 | 0 | 1.178607585 | 2.79849759 |
| Los Angele | 2015 | Annual | LDT1 | DSL | AllMYr | AllSpeeds | 569.36148 | 18089.76555 | 3031.38505 | 0.001909419 | 0 | 0 | 0.001909419 |
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | AllMYr | AllSpeeds | 11394.37984 | 615283.3223 | 0 | 0.083122129 | 0.00176213 | 0 | 0.084884259 |
| Los Angele | 2015 | Annual | LDA/LDT1 | GAS&DSI | AllMYr | AllSpeeds | 3897583.431 | 129836242.5 | 24477529.14 | 6.728439225 | 0 | 5.875875299 | 12.60431452 |

EMFAC 2011
2016 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed | Pop | VMT | Trips | ROG_RUNEX | ROG_IDLEX | ROG_STREX | ROG_TOTEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | (Miles/hr) | (Vehicles) | (Miles/day) | (Trips/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) |
| Los Angele | 2016 | Annual | LDA | GAS | AllMYr | AllSpeeds | 3518438.309 | 1.17E+08 | 2.22E+07 | 4.320397237 | 0 | 4.064790799 | 8.385188036 |
| Los Angele | 2016 | Annual | LDA | DSL | AllMYr | AllSpeeds | 12612.7667 | 399872.7886 | 74943.12473 | 0.018521504 | 0 | 0 | 0.018521504 |
| Los Angele | 2016 | Annual | LDT1 | GAS | AllMYr | AllSpeeds | 384382.6841 | 1.28E+07 | 2328572.021 | 1.395586674 | 0 | 1.074219345 | 2.46980602 |
| Los Angele | 2016 | Annual | LDT1 | DSL | AllMYr | AllSpeeds | 571.302991 | 18725.63629 | 3106.25578 | 0.001658042 | 0 | 0 | 0.001658042 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | AllMYr | AllSpeeds | 11472.97056 | 624127.5372 | 0 | 0.070481164 | 0.001670166 | 0 | 0.072151331 |
| Los Angele | 2016 | Annual | LDA/LDT1 | GAS&DSI | AllMYr | AllSpeeds | 3916005.063 | 130360444.8 | 24593143.22 | 5.736163457 | 0 | 5.139010144 | 10.8751736 |

EMFAC 2011
2017 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
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| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed | Pop | VMT | Trips | ROG_RUNEX | ROG_IDLEX | ROG_STREX | ROG_TOTEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | (Miles/hr) | (Vehicles) | (Miles/day) | (Trips/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) |
| Los Angele | 2017 | Annual | LDA | GAS | AllMYr | AllSpeeds | 3535572.866 | 1.18E+08 | 2.23E+07 | 3.57713703 | 0 | 3.522167205 | 7.099304235 |
| Los Angele | 2017 | Annual | LDA | DSL | AllMYr | AllSpeeds | 12674.19132 | 403728.496 | 76065.87044 | 0.015926345 | 0 | 0 | 0.015926345 |
| Los Angele | 2017 | Annual | LDT1 | GAS | AllMYr | AllSpeeds | 385693.4081 | 1.29E+07 | 2333186.486 | 1.18907712 | 0 | 0.978307687 | 2.167384808 |
| Los Angele | 2017 | Annual | LDT1 | DSL | AllMYr | AllSpeeds | 573.251066 | 18878.33086 | 3154.36268 | 0.001517128 | 0 | 0 | 0.001517128 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | AllMYr | AllSpeeds | 11470.91099 | 629930.1334 | 0 | 0.065061438 | 0.00165245 | 0 | 0.066713887 |
| Los Angele | 2017 | Annual | LDA/LDT1 | GAS&DSI | AllMYr | AllSpeeds | 3934513.716 | 130934804.1 | 24711322.87 | 4.783657624 | 0 | 4.500474892 | 9.284132516 |

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EMFAC 2011 Vehicle Categories
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| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed | Pop | VMT | Trips | ROG_RUNEX | ROG_IDLEX | ROG_STREX | ROG_TOTEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | (Miles/hr) | (Vehicles) | (Miles/day) | (Trips/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) |
| Los Angele | 2018 | Annual | LDA | GAS | AllMYr | AllSpeeds | 3551306.043 | 1.18E+08 | 2.24E+07 | 2.929479723 | 0 | 3.072971164 | 6.002450887 |
| Los Angele | 2018 | Annual | LDA | DSL | AllMYr | AllSpeeds | 12730.5916 | 405388.018 | 77019.66342 | 0.013708929 | 0 | 0 | 0.013708929 |
| Los Angele | 2018 | Annual | LDT1 | GAS | AllMYr | AllSpeeds | 386804.2273 | 1.29E+07 | 2336859.545 | 1.008653233 | 0 | 0.891557019 | 1.900210252 |
| Los Angele | 2018 | Annual | LDT1 | DSL | AllMYr | AllSpeeds | 574.902039 | 19077.15583 | 3205.85017 | 0.001357224 | 0 | 0 | 0.001357224 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | AllMYr | AllSpeeds | 11369.74923 | 628364.8151 | 0 | 0.065191505 | 0.001686641 | 0 | 0.066878146 |
| Los Angele | 2018 | Annual | LDA/LDT1 | GAS&DSI | AllMYr | AllSpeeds | 3951415.764 | 131437502.8 | 24817818.49 | 3.95319911 | 0 | 3.964528183 | 7.917727293 |

EMFAC 2011
2019 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories

| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | LDA | 1.618499922 | 3.668957322 | 8.231872189 | 1.360725092 | 24.66232028 | 7.104145843 | 0 | 5.020719943 | 12.12486579 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 0.021641756 | 0.0246377 | 0 | 0 | 0.0246377 |
| Los Angele | 2015 | Annual | LDT1 | 0.49209876 | 0.893082637 | 3.198756661 | 0.368436208 | 7.750871855 | 2.109396978 | 0 | 1.25922748 | 3.368624458 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0.001909419 | 0.002173747 | 0 | 0 | 0.002173747 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.084884259 | 0.094628217 | 0.00200605 | 0 | 0.096634267 |
| Los Angele | 2015 | Annual | LDA/LDT1 | 2.110598681 | 4.562039959 | 11.43062885 | 1.7291613 | 32.43674331 | 9.240354267 | 0 | 6.279947423 | 15.52030169 |

EMFAC 2011
2016 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | LDA | 1.465577292 | 3.396327158 | 7.548771497 | 1.270685005 | 22.06654899 | 6.181625076 | 0 | 4.343980697 | 10.52560577 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 0.018521504 | 0.0210855 | 0 | 0 | 0.0210855 |
| Los Angele | 2016 | Annual | LDT1 | 0.474808862 | 0.866938109 | 3.06830724 | 0.362427688 | 7.242287919 | 1.850216184 | 0 | 1.147488818 | 2.997705002 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0.001658042 | 0.001887571 | 0 | 0 | 0.001887571 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.072151331 | 0.08023744 | 0.001901357 | 0 | 0.082138798 |
| Los Angele | 2016 | Annual | LDA/LDT1 | 1.940386153 | 4.263265267 | 10.61707874 | 1.633112693 | 29.32901645 | 8.054814331 | 0 | 5.491469515 | 13.54628385 |

EMFAC 2011
2017 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | LDA | 1.328410786 | 3.126234833 | 6.881677419 | 1.18267391 | 19.61830118 | 5.300506805 | 0 | 3.763101806 | 9.063608611 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 0.015926345 | 0.018131084 | 0 | 0 | 0.018131084 |
| Los Angele | 2017 | Annual | LDT1 | 0.457641685 | 0.839772377 | 2.940224681 | 0.355593403 | 6.760616955 | 1.611592825 | 0 | 1.044829951 | 2.656422776 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0.001517128 | 0.00172715 | 0 | 0 | 0.00172715 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.066713887 | 0.074067494 | 0.001881188 | 0 | 0.075948682 |
| Los Angele | 2017 | Annual | LDA/LDT1 | 1.786052472 | 3.96600721 | 9.8219021 | 1.538267313 | 26.39636161 | 6.931957863 | 0 | 4.807931757 | 11.73988962 |

EMFAC 2011
2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | LDA | 1.21117634 | 2.875138134 | 6.28623499 | 1.102696024 | 17.47769637 | 4.537307412 | 0 | 3.282129943 | 7.819437355 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 0.013708929 | 0.015606704 | 0 | 0 | 0.015606704 |
| Los Angele | 2018 | Annual | LDT1 | 0.440964726 | 0.81274018 | 2.818411707 | 0.348452987 | 6.320779852 | 1.402128299 | 0 | 0.951995715 | 2.354124014 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0.001357224 | 0.001545109 | 0 | 0 | 0.001545109 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.066878146 | 0.074215566 | 0.001920112 | 0 | 0.076135678 |
| Los Angele | 2018 | Annual | LDA/LDT1 | 1.652141065 | 3.687878314 | 9.104646697 | 1.451149011 | 23.81354238 | 5.956587525 | 0 | 4.234125658 | 10.19071318 |

EMFAC 2011
2019 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories

| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | LDA | 1.618499922 | 3.668957322 | 8.231872189 | 1.360725092 | 27.00492031 | 167.1741036 | 0 | 58.0931507 | 225.2672543 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 0.0246377 | 0.10943447 | 0 | 0 | 0.10943447 |
| Los Angele | 2015 | Annual | LDT1 | 0.49209876 | 0.893082637 | 3.198756661 | 0.368436208 | 8.320998724 | 50.52120283 | 0 | 15.09138039 | 65.61258323 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0.002173747 | 0.008514806 | 0 | 0 | 0.008514806 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.096634267 | 0.32494477 | 0.01917552 | 0 | 0.344120289 |
| Los Angele | 2015 | Annual | LDA/LDT1 | 2.110598681 | 4.562039959 | 11.43062885 | 1.7291613 | 35.35273048 | 217.8132557 | 0 | 73.18453109 | 290.9977868 |

EMFAC 2011
2016 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN | TOG_HTSK | TOG_RUNLS | TOG_RESTL | TOG_TOTAL | CO_RUNEX | CO_IDLEX | CO_STREX | CO_TOTEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) |
| Los Angele | 2016 | Annual | LDA | 1.465577292 | 3.396327158 | 7.548771497 | 1.270685005 | 24.20696672 | 150.8716957 | 0 | 51.9379761 | 202.8096718 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 0.0210855 | 0.097303111 | 0 | 0 | 0.097303111 |
| Los Angele | 2016 | Annual | LDT1 | 0.474808862 | 0.866938109 | 3.06830724 | 0.362427688 | 7.770186901 | 46.17107903 | 0 | 13.93507273 | 60.10615176 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0.001887571 | 0.007572611 | 0 | 0 | 0.007572611 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.082138798 | 0.282686102 | 0.019153516 | 0 | 0.301839618 |
| Los Angele | 2016 | Annual | LDA/LDT1 | 1.940386153 | 4.263265267 | 10.61707874 | 1.633112693 | 32.0001267 | 197.1476504 | 0 | 65.87304883 | 263.0206992 |

EMFAC 2011
2017 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN | TOG_HTSK | TOG_RUNLS | TOG_RESTL | TOG_TOTAL | CO_RUNEX | CO_IDLEX | CO_STREX | CO_TOTEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) |
| Los Angele | 2017 | Annual | LDA | 1.328410786 | 3.126234833 | 6.881677419 | 1.18267391 | 21.58260556 | 135.8442389 | 0 | 46.5757653 | 182.4200042 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 0.018131084 | 0.086473748 | 0 | 0 | 0.086473748 |
| Los Angele | 2017 | Annual | LDT1 | 0.457641685 | 0.839772377 | 2.940224681 | 0.355593403 | 7.249654923 | 42.15497652 | 0 | 12.86551736 | 55.02049389 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0.00172715 | 0.00695834 | 0 | 0 | 0.00695834 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.075948682 | 0.264377175 | 0.019213297 | 0 | 0.283590471 |
| Los Angele | 2017 | Annual | LDA/LDT1 | 1.786052472 | 3.96600721 | 9.8219021 | 1.538267313 | 28.85211872 | 178.0926476 | 0 | 59.44128266 | 237.5339302 |

EMFAC 2011
2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN | TOG_HTSK | TOG_RUNLS | TOG_RESTL | TOG_TOTAL | CO_RUNEX | CO_IDLEX | CO_STREX | CO_TOTEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) |
| Los Angele | 2018 | Annual | LDA | 1.21117634 | 2.875138134 | 6.28623499 | 1.102696024 | 19.29468284 | 122.8776277 | 0 | 42.0201335 | 164.8977612 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 0.015606704 | 0.077245797 | 0 | 0 | 0.077245797 |
| Los Angele | 2018 | Annual | LDT1 | 0.440964726 | 0.81274018 | 2.818411707 | 0.348452987 | 6.774693614 | 38.51675896 | 0 | 11.87968685 | 50.39644581 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0.001545109 | 0.006321989 | 0 | 0 | 0.006321989 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.076135678 | 0.266028905 | 0.019676782 | 0 | 0.285705687 |
| Los Angele | 2018 | Annual | LDA/LDT1 | 1.652141065 | 3.687878314 | 9.104646697 | 1.451149011 | 26.08652827 | 161.4779545 | 0 | 53.89982035 | 215.3777748 |

EMFAC 2011
2019 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories

| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | LDA | 14.62965892 | 0 | 3.890057355 | 18.51971628 | 47713.20191 | 0 | 1793.589174 | 49506.79109 | 41042.46155 |
| Los Angele | 2015 | Annual | LDA | 0.208107239 | 0 | 0 | 0.208107239 | 143.2134611 | 0 | 0 | 143.2134611 | 120.2242781 |
| Los Angele | 2015 | Annual | LDT1 | 4.887623395 | 0 | 0.852331857 | 5.739955252 | 6032.32545 | 0 | 215.7162352 | 6248.041686 | 5369.607732 |
| Los Angele | 2015 | Annual | LDT1 | 0.013779255 | 0 | 0 | 0.013779255 | 6.82681625 | 0 | 0 | 6.82681625 | 5.88327811 |
| Los Angele | 2015 | Annual | T6 instate heavy | 4.051714907 | 0.111757703 | 0 | 4.163472611 | 775.3911563 | 9.124532758 | 0 | 784.5156891 | 756.0063774 |
| Los Angele | 2015 | Annual | LDA/LDT1 | 19.73916881 | 0 | 4.742389212 | 24.48155802 | 53895.56764 | 0 | 2009.305409 | 55904.87305 | 46538.17683 |

EMFAC 2011
2016 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | LDA | 13.2457198 | 0 | 3.421419098 | 16.6671389 | 47931.9998 | 0 | 1804.335083 | 49736.33488 | 39634.51782 |
| Los Angele | 2016 | Annual | LDA | 0.19197564 | 0 | 0 | 0.19197564 | 144.0141045 | 0 | 0 | 144.0141045 | 116.7684737 |
| Los Angele | 2016 | Annual | LDT1 | 4.502910749 | 0 | 0.789227277 | 5.292138026 | 6056.298972 | 0 | 216.2538444 | 6272.552816 | 5223.329622 |
| Los Angele | 2016 | Annual | LDT1 | 0.012546604 | 0 | 0 | 0.012546604 | 6.976099844 | 0 | 0 | 6.976099844 | 5.74072968 |
| Los Angele | 2016 | Annual | T6 instate heavy | 3.555687827 | 0.104954897 | 0 | 3.660642723 | 785.4993713 | 9.273118115 | 0 | 794.7724894 | 758.0068933 |
| Los Angele | 2016 | Annual | LDA/LDT1 | 17.95315279 | 0 | 4.210646375 | 22.16379917 | 54139.28898 | 0 | 2020.588927 | 56159.8779 | 44980.35665 |

EMFAC 2011
2017 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | LDA | 12.0197187 | 0 | 3.013730497 | 15.0334492 | 48166.07148 | 0 | 1814.563483 | 49980.63496 | 38140.63369 |
| Los Angele | 2017 | Annual | LDA | 0.178068256 | 0 | 0 | 0.178068256 | 144.7028769 | 0 | 0 | 144.7028769 | 112.8876714 |
| Los Angele | 2017 | Annual | LDT1 | 4.14561148 | 0 | 0.730018026 | 4.875629506 | 6080.645035 | 0 | 216.8318803 | 6297.476915 | 5059.114818 |
| Los Angele | 2017 | Annual | LDT1 | 0.01183547 | 0 | 0 | 0.01183547 | 6.985523841 | 0 | 0 | 6.985523841 | 5.542572569 |
| Los Angele | 2017 | Annual | T6 instate heavy | 3.228914615 | 0.101966505 | 0 | 3.33088112 | 791.8390348 | 9.312741319 | 0 | 801.1517761 | 752.247083 |
| Los Angele | 2017 | Annual | LDA/LDT1 | 16.35523391 | 0 | 3.743748523 | 20.09898243 | 54398.40491 | 0 | 2031.395363 | 56429.80028 | 43318.17875 |

EMFAC 2011
2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | LDA | 10.98893335 | 0 | 2.668268923 | 13.65720228 | 48372.8541 | 0 | 1823.70025 | 50196.55435 | 36729.61795 |
| Los Angele | 2018 | Annual | LDA | 0.166584842 | 0 | 0 | 0.166584842 | 144.7676788 | 0 | 0 | 144.7676788 | 108.9314012 |
| Los Angele | 2018 | Annual | LDT1 | 3.816957399 | 0 | 0.674948659 | 4.491906057 | 6099.222982 | 0 | 217.3447539 | 6316.567736 | 4899.518597 |
| Los Angele | 2018 | Annual | LDT1 | 0.011137763 | 0 | 0 | 0.011137763 | 7.014613068 | 0 | 0 | 7.014613068 | 5.36113104 |
| Los Angele | 2018 | Annual | T6 instate heavy | 2.925801375 | 0.098895079 | 0 | 3.024696454 | 788.7392369 | 9.262133128 | 0 | 798.00137 | 737.4711865 |
| Los Angele | 2018 | Annual | LDA/LDT1 | 14.98361336 | 0 | 3.343217582 | 18.32683094 | 54623.85937 | 0 | 2041.045004 | 56664.90438 | 41743.42908 |

EMFAC 2011
2019 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) |
| Los Angele | 2015 | Annual | LDA | 0 | 1585.193427 | 42627.65497 | 0.278509204 | 0 | 0.069851894 | 0.348361097 | 1.028364044 | 4.724047981 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 120.2242781 | 0.016212132 | 0 | 0 | 0.016212132 | 0.003486564 | 0.016016405 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 195.1148168 | 5564.722549 | 0.079816042 | 0 | 0.014273945 | 0.094089987 | 0.112949564 | 0.51886214 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 5.88327811 | 0.00159814 | 0 | 0 | 0.00159814 | 1.60E-04 | 7.33E-04 |
| Los Angele | 2015 | Annual | T6 instate heavy | 8.896419439 | 0 | 764.9027968 | 0.048267899 | 2.85E-04 | 0 | 0.048552835 | 0.008138805 | 0.088400989 |
| Los Angele | 2015 | Annual | LDA/LDT1 | 0 | 1780.308244 | 48318.48508 | 0.376135518 | 0 | 0.084125838 | 0.460261356 | 1.144959696 | 5.259659342 |

EMFAC 2011
2016 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle | CO2_STREX(Pavle | CO2_TOTEX(Pavl | PM10_RUNEX | PM10_IDLEX | PM10_STREX | PM10_TOTEX | PM10_PMTW | PM10_PMBW |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) |
| Los Angele | 2016 | Annual | LDA | 0 | 1538.267273 | 41172.7851 | 0.268146886 | 0 | 0.07027061 | 0.338417495 | 1.032591714 | 4.743468909 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 116.7684737 | 0.013742982 | 0 | 0 | 0.013742982 | 0.003526274 | 0.016198825 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 189.8760007 | 5413.205622 | 0.074917633 | 0 | 0.013658702 | 0.088576334 | 0.113299231 | 0.520468415 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 5.74072968 | 0.00138152 | 0 | 0 | 0.00138152 | 1.65E-04 | 7.59E-04 |
| Los Angele | 2016 | Annual | T6 instate heavy | 8.948558981 | 0 | 766.9554523 | 0.038431652 | 1.83E-04 | 0 | 0.038614479 | 0.008255794 | 0.089671684 |
| Los Angele | 2016 | Annual | LDA/LDT1 | 0 | 1728.143274 | 46708.49992 | 0.35818902 | 0 | 0.083929311 | 0.442118332 | 1.149582352 | 5.280894724 |

EMFAC 2011
2017 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle | CO2_STREX(Pavle | CO2_TOTEX(Pavl | PM10_RUNEX | PM10_IDLEX | PM10_STREX | PM10_TOTEX | PM10_PMTW | PM10_PMBW |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) |
| Los Angele | 2017 | Annual | LDA | 0 | 1484.282303 | 39624.91599 | 0.263131731 | 0 | 0.072211755 | 0.335343487 | 1.037259885 | 4.764913327 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 112.8876714 | 0.011656567 | 0 | 0 | 0.011656567 | 0.003560276 | 0.016355021 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 183.8422004 | 5242.957018 | 0.070600751 | 0 | 0.013181929 | 0.08378268 | 0.113660763 | 0.522129216 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 5.542572569 | 0.001248128 | 0 | 0 | 0.001248128 | 1.66E-04 | 7.65E-04 |
| Los Angele | 2017 | Annual | T6 instate heavy | 8.847104253 | 0 | 761.0941873 | 0.033098479 | 1.48E-04 | 0 | 0.033246577 | 0.008332549 | 0.090505373 |
| Los Angele | 2017 | Annual | LDA/LDT1 | 0 | 1668.124503 | 44986.30325 | 0.346637178 | 0 | 0.085393684 | 0.432030862 | 1.154647402 | 5.304162324 |

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| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle | CO2_STREX(Pavle | CO2_TOTEX(Pavl | PM10_RUNEX | PM10_IDLEX | PM10_STREX | PM10_TOTEX | PM10_PMTW | PM10_PMBW |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) |
| Los Angele | 2018 | Annual | LDA | 0 | 1431.400486 | 38161.01844 | 0.262186109 | 0 | 0.075341607 | 0.337527716 | 1.041411288 | 4.783983564 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 108.9314012 | 0.009967338 | 0 | 0 | 0.009967338 | 0.00357491 | 0.016422247 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 177.9714616 | 5077.490059 | 0.066741575 | 0 | 0.012812211 | 0.079553786 | 0.113926041 | 0.523347849 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 5.36113104 | 0.001118524 | 0 | 0 | 0.001118524 | 1.68E-04 | 7.73E-04 |
| Los Angele | 2018 | Annual | T6 instate heavy | 8.660094474 | 0 | 746.131281 | 0.032904185 | 1.43E-04 | 0 | 0.033046779 | 0.008311844 | 0.090280476 |
| Los Angele | 2018 | Annual | LDA/LDT1 | 0 | 1609.371948 | 43352.80103 | 0.340013547 | 0 | 0.088153818 | 0.428167364 | 1.159080472 | 5.324526475 |

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EMFAC 2011 Vehicle Categories

| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | LDA | 6.100773122 | 0.254621594 | 0 | 0.063873944 | 0.318495538 | 0.257091008 | 2.024591914 | 2.60017846 | 0.479091721 |
| Los Angele | 2015 | Annual | LDA | 0.035715101 | 0.014915163 | 0 | 0 | 0.014915163 | 8.72E-04 | 0.006864173 | 0.022650977 | 0.001367205 |
| Los Angele | 2015 | Annual | LDT1 | 0.725901691 | 0.073225385 | 0 | 0.013103971 | 0.086329357 | 0.028237391 | 0.222369474 | 0.336936222 | 0.061067625 |
| Los Angele | 2015 | Annual | LDT1 | 0.00249048 | 0.001470289 | 0 | 0 | 0.001470289 | 3.99E-05 | 3.14E-04 | 0.001824234 | 6.52E-05 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.145092629 | 0.044406467 | 2.62E-04 | 0 | 0.044668608 | 0.002034701 | 0.037886138 | 0.084589448 | 0.007397594 |
| Los Angele | 2015 | Annual | LDA/LDT1 | 6.864880395 | 0.344232432 | 0 | 0.076977915 | 0.421210347 | 0.286239921 | 2.254139625 | 2.961589892 | 0.541591723 |

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| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | LDA | 6.114478119 | 0.245944444 | 0 | 0.06449457 | 0.310439013 | 0.258147935 | 2.032915189 | 2.601502136 | 0.480992742 |
| Los Angele | 2016 | Annual | LDA | 0.033468082 | 0.012643544 | 0 | 0 | 0.012643544 | 8.82E-04 | 0.006942354 | 0.020467466 | 0.001374848 |
| Los Angele | 2016 | Annual | LDT1 | 0.722343981 | 0.068944029 | 0 | 0.012577872 | 0.081521901 | 0.028324808 | 0.223057882 | 0.33290459 | 0.061231007 |
| Los Angele | 2016 | Annual | LDT1 | 0.002305226 | 0.001270999 | 0 | 0 | 0.001270999 | 4.13E-05 | 3.25E-04 | 0.001637385 | 6.66E-05 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.136541957 | 0.03535712 | 1.68E-04 | 0 | 0.035525321 | 0.002063949 | 0.038430722 | 0.076019991 | 0.007494031 |
| Los Angele | 2016 | Annual | LDA/LDT1 | 6.872595407 | 0.328803015 | 0 | 0.077072441 | 0.405875456 | 0.287395594 | 2.263240527 | 2.956511578 | 0.543665195 |

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2017 Estimated Annual Emissions
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| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | LDA | 6.137516699 | 0.242311401 | 0 | 0.066548006 | 0.308859407 | 0.259314962 | 2.04210545 | 2.610279819 | 0.483067399 |
| Los Angele | 2017 | Annual | LDA | 0.031571864 | 0.010724043 | 0 | 0 | 0.010724043 | 8.90E-04 | 0.007009294 | 0.018623406 | 0.001381423 |
| Los Angele | 2017 | Annual | LDT1 | 0.719572659 | 0.065182018 | 0 | 0.01217644 | 0.077358459 | 0.028415191 | 0.223769652 | 0.329543302 | 0.061403955 |
| Los Angele | 2017 | Annual | LDT1 | 0.002179366 | 0.001148278 | 0 | 0 | 0.001148278 | 4.16E-05 | 3.28E-04 | 0.001517651 | 6.67E-05 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.1320845 | 0.030450601 | 1.36E-04 | 0 | 0.030586851 | 0.002083137 | 0.038788017 | 0.071458006 | 0.007554515 |
| Los Angele | 2017 | Annual | LDA/LDT1 | 6.890840588 | 0.31936574 | 0 | 0.078724446 | 0.398090186 | 0.288661841 | 2.27321215 | 2.959964177 | 0.545919465 |

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| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | LDA | 6.162922568 | 0.242365877 | 0 | 0.069682305 | 0.312048182 | 0.260352815 | 2.050278558 | 2.622679554 | 0.484905498 |
| Los Angele | 2018 | Annual | LDA | 0.029964496 | 0.009169952 | 0 | 0 | 0.009169952 | 8.94E-04 | 0.007038106 | 0.017101785 | 0.001382042 |
| Los Angele | 2018 | Annual | LDT1 | 0.716827676 | 0.061806984 | 0 | 0.011867733 | 0.073674716 | 0.028481511 | 0.224291924 | 0.32644815 | 0.06152612 |
| Los Angele | 2018 | Annual | LDT1 | 0.002059571 | 0.001029042 | 0 | 0 | 0.001029042 | 4.21E-05 | 3.31E-04 | 0.001402307 | 6.70E-05 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.131639099 | 0.03027185 | 1.31E-04 | 0 | 0.030403037 | 0.002077961 | 0.038691633 | 0.071172631 | 0.007524941 |
| Los Angele | 2018 | Annual | LDA/LDT1 | 6.911774311 | 0.314371855 | 0 | 0.081550038 | 0.395921893 | 0.289770111 | 2.281939793 | 2.967631797 | 0.547880626 |

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| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (1000 Gallons) | (1000 Gallons) | lb/mile | lb/mile | lb/mile | lb/mile | lb/mile | lb/mile | lb/mile | lb/mile |
| Los Angele | 2015 | Annual | LDA | 0 | 0.018963787 | 0.498055508 | 5312.485561 | 0 | 4.23E-04 | 3.86E-03 | 3.18E-04 | 5.97E-06 | 9.87E-05 | 5.46E-06 | 3.91E-05 | 8.54E-06 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0.001367205 | 0 | 12.88921252 | 1.09E-04 | 5.54E-04 | 1.05E-03 | 8.20E-05 | 9.87E-05 | 7.54E-05 | 3.91E-05 | 6.92E-06 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0.002427413 | 0.063495038 | 677.2668149 | 0 | 1.21E-03 | 1.02E-02 | 8.96E-04 | 1.47E-05 | 9.87E-05 | 1.35E-05 | 3.91E-05 | 9.91E-06 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 6.52E-05 | 0 | 0.61441348 | 2.11E-04 | 9.41E-04 | 1.52E-03 | 1.77E-04 | 9.87E-05 | 1.63E-04 | 3.91E-05 | 7.21E-06 |
| Los Angele | 2015 | Annual | T6 instate heavy | 8.71E-05 | 0 | 0.007484646 | 0 | 70.60641202 | 2.76E-04 | 1.12E-03 | 1.35E-02 | 1.58E-04 | 3.14E-04 | 1.45E-04 | 1.30E-04 | 2.43E-05 |
| Los Angele | 2015 | Annual | LDA/LDT1 | 0 | 0.0213912 | 0.562982923 | 5989.752376 | 13.503626 | 5.00E-04 | 4.48E-03 | 3.77E-04 | 7.09E-06 | 9.87E-05 | 6.49E-06 | 3.91E-05 | 8.67E-06 |

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| Area | CalYr | Season | Veh | SOX_IDLEX | SOX_STREX | SOX_TOTEX | FUEL_GAS | FUEL_DSL | exhaust ROG | exhaust CO | exhaust NOx | exhaust PM10 | tire wear a PM10 | exaust PM2.5 | tire wear a PM2.5 | exaust SOx |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (1000 Gallons) | (1000 Gallons) | lb/mile | lb/mile | lb/mile | lb/mile | lb/mile | lb/mile | lb/mile | lb/mile |
| Los Angele | 2016 | Annual | LDA | 0 | 0.01895437 | 0.499947112 | 5332.662154 | 0 | 3.77E-04 | 3.46E-03 | 2.85E-04 | 5.78E-06 | 9.87E-05 | 5.30E-06 | 3.91E-05 | 8.54E-06 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0.001374848 | 0 | 12.96126827 | 9.26E-05 | 4.87E-04 | 9.60E-04 | 6.87E-05 | 9.87E-05 | 6.32E-05 | 3.91E-05 | 6.88E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0.002411318 | 0.063642325 | 678.8378551 | 0 | 1.13E-03 | 9.36E-03 | 8.24E-04 | 1.38E-05 | 9.87E-05 | 1.27E-05 | 3.91E-05 | 9.91E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 6.66E-05 | 0 | 0.627848986 | 1.77E-04 | 8.09E-04 | 1.34E-03 | 1.48E-04 | 9.87E-05 | 1.36E-04 | 3.91E-05 | 7.11E-06 |
| Los Angele | 2016 | Annual | T6 instate heavy | 8.85E-05 | 0 | 0.007582501 | 0 | 71.52952404 | 2.31E-04 | 9.67E-04 | 1.17E-02 | 1.24E-04 | 3.14E-04 | 1.14E-04 | 1.30E-04 | 2.43E-05 |
| Los Angele | 2016 | Annual | LDA/LDT1 | 0 | 0.021365688 | 0.565030883 | 6011.500009 | 13.58911725 | 4.50E-04 | 4.04E-03 | 3.40E-04 | 6.78E-06 | 9.87E-05 | 6.23E-06 | 3.91E-05 | 8.67E-06 |

EMFAC 2011
2017 Estimated Annual Emissions
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Los Angeles COUNTY
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| Area | CalYr | Season | Veh | SOX_IDLEX | SOX_STREX | SOX_TOTEX | FUEL_GAS | FUEL_DSL | exhaust ROG | exhaust CO | exhaust NOx | exhaust PM10 | tire wear a PM10 | exaust PM2.5 | tire wear a PM2.5 | exaust SOx |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (1000 Gallons) | (1000 Gallons) | lb/mile | lb/mile | lb/mile | lb/mile | lb/mile | lb/mile | lb/mile | lb/mile |
| Los Angele | 2017 | Annual | LDA | 0 | 0.01895508 | 0.502022478 | 5354.79889 | 0 | 3.34E-04 | 3.10E-03 | 2.56E-04 | 5.70E-06 | 9.87E-05 | 5.25E-06 | 3.91E-05 | 8.54E-06 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0.001381423 | 0 | 13.02325974 | 7.89E-05 | 4.28E-04 | 8.82E-04 | 5.77E-05 | 9.87E-05 | 5.31E-05 | 3.91E-05 | 6.84E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0.002397257 | 0.063801212 | 680.5326003 | 0 | 1.05E-03 | 8.54E-03 | 7.57E-04 | 1.30E-05 | 9.87E-05 | 1.20E-05 | 3.91E-05 | 9.90E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 6.67E-05 | 0 | 0.628697203 | 1.61E-04 | 7.37E-04 | 1.25E-03 | 1.32E-04 | 9.87E-05 | 1.22E-04 | 3.91E-05 | 7.07E-06 |
| Los Angele | 2017 | Annual | T6 instate heavy | 8.88E-05 | 0 | 0.007643362 | 0 | 72.10365985 | 2.12E-04 | 9.00E-04 | 1.06E-02 | 1.06E-04 | 3.14E-04 | 9.71E-05 | 1.30E-04 | 2.43E-05 |
| Los Angele | 2017 | Annual | LDA/LDT1 | 0 | 0.021352337 | 0.567271802 | 6035.33149 | 13.65195694 | 4.03E-04 | 3.63E-03 | 3.07E-04 | 6.60E-06 | 9.87E-05 | 6.08E-06 | 3.91E-05 | 8.66E-06 |

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| Area | CalYr | Season | Veh | SOX_IDLEX | SOX_STREX | SOX_TOTEX | FUEL_GAS | FUEL_DSL | exhaust ROG | exhaust CO | exhaust NOx | exhaust PM10 | tire wear a PM10 | exaust PM2.5 | tire wear a PM2.5 | exaust SOx |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (1000 Gallons) | (1000 Gallons) | lb/mile | lb/mile | lb/mile | lb/mile | lb/mile | lb/mile | lb/mile | lb/mile |
| Los Angele | 2018 | Annual | LDA | 0 | 0.018960515 | 0.503866012 | 5374.463019 | 0 | 2.96E-04 | 2.79E-03 | 2.31E-04 | 5.72E-06 | 9.87E-05 | 5.28E-06 | 3.91E-05 | 8.53E-06 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0.001382042 | 0 | 13.02909035 | 6.76E-05 | 3.81E-04 | 8.22E-04 | 4.92E-05 | 9.87E-05 | 4.52E-05 | 3.91E-05 | 6.82E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0.002384152 | 0.063910272 | 681.6959187 | 0 | 9.79E-04 | 7.80E-03 | 6.95E-04 | 1.23E-05 | 9.87E-05 | 1.14E-05 | 3.91E-05 | 9.89E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 6.70E-05 | 0 | 0.631315215 | 1.42E-04 | 6.63E-04 | 1.17E-03 | 1.17E-04 | 9.87E-05 | 1.08E-04 | 3.91E-05 | 7.02E-06 |
| Los Angele | 2018 | Annual | T6 instate heavy | 8.84E-05 | 0 | 0.007613306 | 0 | 71.8201233 | 2.13E-04 | 9.09E-04 | 9.63E-03 | 1.05E-04 | 3.14E-04 | 9.68E-05 | 1.30E-04 | 2.42E-05 |
| Los Angele | 2018 | Annual | LDA/LDT1 | 0 | 0.021344667 | 0.569225292 | 6056.158938 | 13.66040556 | 3.62E-04 | 3.28E-03 | 2.79E-04 | 6.52E-06 | 9.87E-05 | 6.02E-06 | 3.91E-05 | 8.66E-06 |

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| | | | | ton/mile |
|---|---|---|---|---|
| Los Angele | 2015 | Annual | LDA | 3.66E-04 |
| Los Angele | 2015 | Annual | LDA | 3.04E-04 |
| Los Angele | 2015 | Annual | LDT1 | 4.34E-04 |
| Los Angele | 2015 | Annual | LDT1 | 3.25E-04 |
| Los Angele | 2015 | Annual | T6 instate heavy | 1.24E-03 |
| Los Angele | 2015 | Annual | LDA/LDT1 | 3.72E-04 |

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| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2016 | Annual | LDA | 3.52E-04 |
| Los Angele | 2016 | Annual | LDA | 2.92E-04 |
| Los Angele | 2016 | Annual | LDT1 | 4.21E-04 |
| Los Angele | 2016 | Annual | LDT1 | 3.07E-04 |
| Los Angele | 2016 | Annual | T6 instate heavy | 1.23E-03 |
| Los Angele | 2016 | Annual | LDA/LDT1 | 3.58E-04 |

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| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2017 | Annual | LDA | 3.37E-04 |
| Los Angele | 2017 | Annual | LDA | 2.80E-04 |
| Los Angele | 2017 | Annual | LDT1 | 4.07E-04 |
| Los Angele | 2017 | Annual | LDT1 | 2.94E-04 |
| Los Angele | 2017 | Annual | T6 instate heavy | 1.21E-03 |
| Los Angele | 2017 | Annual | LDA/LDT1 | 3.44E-04 |

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| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2018 | Annual | LDA | 3.23E-04 |
| Los Angele | 2018 | Annual | LDA | 2.69E-04 |
| Los Angele | 2018 | Annual | LDT1 | 3.93E-04 |
| Los Angele | 2018 | Annual | LDT1 | 2.81E-04 |
| Los Angele | 2018 | Annual | T6 instate heavy | 1.19E-03 |
| Los Angele | 2018 | Annual | LDA/LDT1 | 3.30E-04 |

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| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDA | GAS | AllMYr | AllSpeeds | 3567855.171 | 1.19E+08 | 2.25E+07 | 2.429675569 | 0 | 2.72186307 | 5.151538639 |
| Los Angele | 2019 | Annual | LDA | DSL | AllMYr | AllSpeeds | 12789.91564 | 406383.6895 | 77908.90733 | 0.01168923 | 0 | 0 | 0.01168923 |
| Los Angele | 2019 | Annual | LDT1 | GAS | AllMYr | AllSpeeds | 388030.3952 | 1.29E+07 | 2340479.437 | 0.906018174 | 0 | 0.820789872 | 1.726808047 |
| Los Angele | 2019 | Annual | LDT1 | DSL | AllMYr | AllSpeeds | 576.724497 | 19394.51835 | 3269.28245 | 0.001182834 | 0 | 0 | 0.001182834 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | AllMYr | AllSpeeds | 11359.65126 | 630361.7022 | 0 | 0.064089308 | 0.001726825 | 0 | 0.065816133 |
| Los Angele | 2019 | Annual | LDA/LDT1 | GAS&DSI | AllMYr | AllSpeeds | 3969252.206 | 131965104.4 | 24926450.77 | 3.348565807 | 0 | 3.542652942 | 6.89121875 |

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| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | LDA | GAS | AllMYr | AllSpeeds | 3584481.251 | 1.19E+08 | 2.26E+07 | 2.256314464 | 0 | 2.466326069 | 4.722640533 |
| Los Angele | 2020 | Annual | LDA | DSL | AllMYr | AllSpeeds | 12849.51645 | 405604.2468 | 78652.14439 | 0.010209751 | 0 | 0 | 0.010209751 |
| Los Angele | 2020 | Annual | LDT1 | GAS | AllMYr | AllSpeeds | 389260.4246 | 1.30E+07 | 2344831.01 | 0.829002813 | 0 | 0.755707161 | 1.584709975 |
| Los Angele | 2020 | Annual | LDT1 | DSL | AllMYr | AllSpeeds | 578.55275 | 19518.17747 | 3317.336232 | 0.001066953 | 0 | 0 | 0.001066953 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | AllMYr | AllSpeeds | 11416.43544 | 635392.9847 | 0 | 0.063662012 | 0.001899306 | 0 | 0.065561318 |
| Los Angele | 2020 | Annual | LDA/LDT1 | GAS&DSI | AllMYr | AllSpeeds | 3987169.745 | 132464764.3 | 25031114.11 | 3.096593981 | 0 | 3.22203323 | 6.318627211 |

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| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDA | GAS | AllMYr | AllSpeeds | 3586158.974 | 1.19E+08 | 2.26E+07 | 2.126982475 | 0 | 2.262296272 | 4.389278747 |
| Los Angele | 2021 | Annual | LDA | DSL | AllMYr | AllSpeeds | 12855.5308 | 402118.8702 | 78977.55307 | 0.008937007 | 0 | 0 | 0.008937007 |
| Los Angele | 2021 | Annual | LDT1 | GAS | AllMYr | AllSpeeds | 391058.826 | 1.30E+07 | 2353654.277 | 0.769894113 | 0 | 0.696931257 | 1.466825371 |
| Los Angele | 2021 | Annual | LDT1 | DSL | AllMYr | AllSpeeds | 581.22566 | 19441.80285 | 3345.015444 | 0.001008104 | 0 | 0 | 0.001008104 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | AllMYr | AllSpeeds | 11407.64691 | 638032.4948 | 0 | 0.067988192 | 0.002315694 | 0 | 0.070303886 |
| Los Angele | 2021 | Annual | LDA/LDT1 | GAS&DSI | AllMYr | AllSpeeds | 3990654.556 | 132252294 | 25042019.63 | 2.906821699 | 0 | 2.959227529 | 5.866049229 |

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| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | LDA | GAS | AllMYr | AllSpeeds | 3587837.337 | 1.19E+08 | 2.26E+07 | 2.013019541 | 0 | 2.097582849 | 4.11060239 |
| Los Angele | 2022 | Annual | LDA | DSL | AllMYr | AllSpeeds | 12861.5466 | 398576.8894 | 79209.02303 | 0.007872821 | 0 | 0 | 0.007872821 |
| Los Angele | 2022 | Annual | LDT1 | GAS | AllMYr | AllSpeeds | 392865.5214 | 1.31E+07 | 2363327.814 | 0.709038755 | 0 | 0.642033713 | 1.351072468 |
| Los Angele | 2022 | Annual | LDT1 | DSL | AllMYr | AllSpeeds | 583.91089 | 19307.61832 | 3362.311197 | 9.61E-04 | 0 | 0 | 9.61E-04 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | AllMYr | AllSpeeds | 11316.1726 | 638440.7338 | 0 | 0.07175839 | 0.002618385 | 0 | 0.074376774 |
| Los Angele | 2022 | Annual | LDA/LDT1 | GAS&DSI | AllMYr | AllSpeeds | 3994148.316 | 132185484.3 | 25056347.11 | 2.730891842 | 0 | 2.739616562 | 5.470508404 |

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| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDA | 1.111331732 | 2.657743611 | 5.92366825 | 1.025927241 | 15.87020947 | 3.938733759 | 0 | 2.906274268 | 6.845008027 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 0.01168923 | 0.01330741 | 0 | 0 | 0.01330741 |
| Los Angele | 2019 | Annual | LDT1 | 0.426974499 | 0.792078906 | 2.718680629 | 0.342267407 | 6.006809488 | 1.275844953 | 0 | 0.876380806 | 2.152225759 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0.001182834 | 0.001346577 | 0 | 0 | 0.001346577 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.065816133 | 0.072960799 | 0.001965859 | 0 | 0.074926658 |
| Los Angele | 2019 | Annual | LDA/LDT1 | 1.53830623 | 3.449822517 | 8.642348879 | 1.368194648 | 21.88989102 | 5.229232699 | 0 | 3.782655074 | 9.011887774 |

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| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | LDA | 1.039037489 | 2.484775556 | 5.676512801 | 0.968366266 | 14.89133265 | 3.707568265 | 0 | 2.63340203 | 6.340970295 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 0.010209751 | 0.011623122 | 0 | 0 | 0.011623122 |
| Los Angele | 2020 | Annual | LDT1 | 0.41259628 | 0.77042986 | 2.615653115 | 0.335397168 | 5.718786399 | 1.179009075 | 0 | 0.806875994 | 1.985885069 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0.001066953 | 0.001214655 | 0 | 0 | 0.001214655 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.065561318 | 0.072474355 | 0.002162215 | 0 | 0.07463657 |
| Los Angele | 2020 | Annual | LDA/LDT1 | 1.451633769 | 3.255205416 | 8.292165916 | 1.303763434 | 20.62139575 | 4.899415116 | 0 | 3.440278024 | 8.33969314 |

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| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDA | 0.976662108 | 2.327309267 | 5.459467659 | 0.915994559 | 14.06871234 | 3.533412428 | 0 | 2.415525817 | 5.948938245 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 0.008937007 | 0.010174188 | 0 | 0 | 0.010174188 |
| Los Angele | 2021 | Annual | LDT1 | 0.397599504 | 0.747450956 | 2.511320127 | 0.327119367 | 5.450315324 | 1.102898281 | 0 | 0.744117726 | 1.847016007 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0.001008104 | 0.001147659 | 0 | 0 | 0.001147659 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.070303886 | 0.077399381 | 0.002636242 | 0 | 0.080035623 |
| Los Angele | 2021 | Annual | LDA/LDT1 | 1.374261613 | 3.074760223 | 7.970787786 | 1.243113925 | 19.52897278 | 4.647632557 | 0 | 3.159643543 | 7.807276099 |

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| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | LDA | 0.919652827 | 2.205946511 | 5.25935428 | 0.868384158 | 13.36394017 | 3.378859353 | 0 | 2.239630873 | 5.618490226 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 0.007872821 | 0.008962684 | 0 | 0 | 0.008962684 |
| Los Angele | 2022 | Annual | LDT1 | 0.381442291 | 0.7220332 | 2.404512695 | 0.317270859 | 5.176331513 | 1.024991089 | 0 | 0.68550036 | 1.710491449 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.61E-04 | 0.001093721 | 0 | 0 | 0.001093721 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.074376774 | 0.081691464 | 0.002980832 | 0 | 0.084672296 |
| Los Angele | 2022 | Annual | LDA/LDT1 | 1.301095119 | 2.927979711 | 7.663866975 | 1.185655017 | 18.54910523 | 4.413906846 | 0 | 2.925131233 | 7.339038079 |

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| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDA | 1.111331732 | 2.657743611 | 5.92366825 | 1.025927241 | 17.56367886 | 112.2794834 | 0 | 38.2972215 | 150.5767049 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 0.01330741 | 0.068900647 | 0 | 0 | 0.068900647 |
| Los Angele | 2019 | Annual | LDT1 | 0.426974499 | 0.792078906 | 2.718680629 | 0.342267407 | 6.4322272 | 35.72581815 | 0 | 11.01045163 | 46.73626978 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0.001346577 | 0.005659455 | 0 | 0 | 0.005659455 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.074926658 | 0.265464407 | 0.020207874 | 0 | 0.285672281 |
| Los Angele | 2019 | Annual | LDA/LDT1 | 1.53830623 | 3.449822517 | 8.642348879 | 1.368194648 | 24.01056005 | 148.0798617 | 0 | 49.30767313 | 197.3875348 |

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| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | LDA | 1.039037489 | 2.484775556 | 5.676512801 | 0.968366266 | 16.50966241 | 106.2923515 | 0 | 35.283375 | 141.5757265 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 0.011623122 | 0.062798387 | 0 | 0 | 0.062798387 |
| Los Angele | 2020 | Annual | LDT1 | 0.41259628 | 0.77042986 | 2.615653115 | 0.335397168 | 6.119961493 | 33.30176948 | 0 | 10.18999473 | 43.49176421 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0.001214655 | 0.005199581 | 0 | 0 | 0.005199581 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.07463657 | 0.26596363 | 0.02238949 | 0 | 0.28835312 |
| Los Angele | 2020 | Annual | LDA/LDT1 | 1.451633769 | 3.255205416 | 8.292165916 | 1.303763434 | 22.64246168 | 139.6621189 | 0 | 45.47336973 | 185.1354886 |

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| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDA | 0.976662108 | 2.327309267 | 5.459467659 | 0.915994559 | 15.62837184 | 101.476214 | 0 | 32.8130255 | 134.2892395 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 0.010174188 | 0.057445399 | 0 | 0 | 0.057445399 |
| Los Angele | 2021 | Annual | LDT1 | 0.397599504 | 0.747450956 | 2.511320127 | 0.327119367 | 5.83050596 | 31.11208551 | 0 | 9.422630715 | 40.53471622 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0.001147659 | 0.00491928 | 0 | 0 | 0.00491928 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.080035623 | 0.286089539 | 0.027383237 | 0 | 0.313472777 |
| Los Angele | 2021 | Annual | LDA/LDT1 | 1.374261613 | 3.074760223 | 7.970787786 | 1.243113925 | 21.47019965 | 132.6506642 | 0 | 42.23565621 | 174.8863204 |

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| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | LDA | 0.919652827 | 2.205946511 | 5.25935428 | 0.868384158 | 14.871828 | 97.28776258 | 0 | 30.755076 | 128.0428386 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 0.008962684 | 0.052902707 | 0 | 0 | 0.052902707 |
| Los Angele | 2022 | Annual | LDT1 | 0.381442291 | 0.7220332 | 2.404512695 | 0.317270859 | 5.535750494 | 28.91917371 | 0 | 8.69815295 | 37.61732666 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0.001093721 | 0.004712648 | 0 | 0 | 0.004712648 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.084672296 | 0.301954267 | 0.030962571 | 0 | 0.332916838 |
| Los Angele | 2022 | Annual | LDA/LDT1 | 1.301095119 | 2.927979711 | 7.663866975 | 1.185655017 | 20.4176349 | 126.2645516 | 0 | 39.45322895 | 165.7177806 |

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| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDA | 10.16957171 | 0 | 2.384950983 | 12.55452269 | 48410.74631 | 0 | 1833.192427 | 50243.93874 | 35286.16247 |
| Los Angele | 2019 | Annual | LDA | 0.15640497 | 0 | 0 | 0.15640497 | 144.7809319 | 0 | 0 | 144.7809319 | 105.2723012 |
| Los Angele | 2019 | Annual | LDT1 | 3.548352607 | 0 | 0.625944857 | 4.174297464 | 6094.011155 | 0 | 218.0713346 | 6312.08249 | 4730.374671 |
| Los Angele | 2019 | Annual | LDT1 | 0.010355007 | 0 | 0 | 0.010355007 | 7.08188629 | 0 | 0 | 7.08188629 | 5.197755156 |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.647659211 | 0.097002722 | 0 | 2.744661933 | 786.5359468 | 9.284421676 | 0 | 795.8203685 | 723.6130711 |
| Los Angele | 2019 | Annual | LDA/LDT1 | 13.88468429 | 0 | 3.01089584 | 16.89558013 | 54656.62029 | 0 | 2051.263762 | 56707.88405 | 40127.0072 |

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| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | LDA | 9.628903488 | 0 | 2.166911823 | 11.79581531 | 48614.8093 | 0 | 1843.493868 | 50458.30317 | 33869.84615 |
| Los Angele | 2020 | Annual | LDA | 0.148005028 | 0 | 0 | 0.148005028 | 144.125189 | 0 | 0 | 144.125189 | 101.0172855 |
| Los Angele | 2020 | Annual | LDT1 | 3.303682079 | 0 | 0.580710841 | 3.88439292 | 6112.940663 | 0 | 218.8963409 | 6331.837004 | 4561.436572 |
| Los Angele | 2020 | Annual | LDT1 | 0.009790641 | 0 | 0 | 0.009790641 | 7.088663468 | 0 | 0 | 7.088663468 | 4.997040336 |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.109326715 | 0.089352295 | 0 | 2.19867901 | 790.9485505 | 9.397901636 | 0 | 800.3464521 | 711.8536954 |
| Los Angele | 2020 | Annual | LDA/LDT1 | 13.09038124 | 0 | 2.747622664 | 15.8380039 | 54878.96382 | 0 | 2062.390209 | 56941.35403 | 38537.29705 |

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| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDA | 9.208912502 | 0 | 1.991737824 | 11.20065033 | 48608.28233 | 0 | 1845.301403 | 50453.58373 | 33164.60647 |
| Los Angele | 2021 | Annual | LDA | 0.1402104 | 0 | 0 | 0.1402104 | 142.4940137 | 0 | 0 | 142.4940137 | 98.60825259 |
| Los Angele | 2021 | Annual | LDT1 | 3.074763152 | 0 | 0.538741732 | 3.613504885 | 6159.613248 | 0 | 220.1298165 | 6379.743064 | 4517.05388 |
| Los Angele | 2021 | Annual | LDT1 | 0.009558038 | 0 | 0 | 0.009558038 | 7.043317376 | 0 | 0 | 7.043317376 | 4.913127247 |
| Los Angele | 2021 | Annual | T6 instate heavy | 1.343815612 | 0.065979221 | 0 | 1.409794833 | 791.6171843 | 9.405192737 | 0 | 801.022377 | 712.4554659 |
| Los Angele | 2021 | Annual | LDA/LDT1 | 12.43344409 | 0 | 2.530479556 | 14.96392365 | 54917.4329 | 0 | 2065.43122 | 56982.86412 | 37785.18173 |

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| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | LDA | 8.868119522 | 0 | 1.854623495 | 10.72274302 | 48558.63448 | 0 | 1846.828245 | 50405.46272 | 32483.53089 |
| Los Angele | 2022 | Annual | LDA | 0.133545171 | 0 | 0 | 0.133545171 | 140.9682069 | 0 | 0 | 140.9682069 | 96.39697866 |
| Los Angele | 2022 | Annual | LDT1 | 2.851809082 | 0 | 0.499809241 | 3.351618323 | 6194.603317 | 0 | 221.4065797 | 6416.009897 | 4467.390622 |
| Los Angele | 2022 | Annual | LDT1 | 0.009428139 | 0 | 0 | 0.009428139 | 6.987541721 | 0 | 0 | 6.987541721 | 4.838464839 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.954218568 | 0.04677809 | 0 | 1.000996658 | 790.0978178 | 9.302918792 | 0 | 799.4007366 | 711.0880361 |
| Los Angele | 2022 | Annual | LDA/LDT1 | 11.86290191 | 0 | 2.354432736 | 14.21733465 | 54901.19354 | 0 | 2068.234825 | 56969.42837 | 37052.15695 |

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| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDA | 0 | 1380.867213 | 36667.02968 | 0.262728823 | 0 | 0.079404023 | 0.342132846 | 1.045817827 | 4.804226258 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 105.2723012 | 0.008451913 | 0 | 0 | 0.008451913 | 0.003583691 | 0.016462582 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 172.5242373 | 4902.898908 | 0.063414015 | 0 | 0.012616064 | 0.07603008 | 0.114160488 | 0.524424822 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 5.197755156 | 9.68E-04 | 0 | 0 | 9.68E-04 | 1.71E-04 | 7.86E-04 |
| Los Angele | 2019 | Annual | T6 instate heavy | 8.541667942 | 0 | 732.154739 | 0.033148286 | 1.38E-04 | 0 | 0.033286749 | 0.008338258 | 0.090567379 |
| Los Angele | 2019 | Annual | LDA/LDT1 | 0 | 1553.39145 | 41680.39865 | 0.335562669 | 0 | 0.092020087 | 0.427582756 | 1.163733036 | 5.345899333 |

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| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | LDA | 0 | 1326.120395 | 35195.96654 | 0.268051054 | 0 | 0.084283079 | 0.352334133 | 1.049959108 | 4.823250418 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 101.0172855 | 0.007296913 | 0 | 0 | 0.007296913 | 0.003576817 | 0.016431007 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 166.4052591 | 4727.841832 | 0.060826177 | 0 | 0.012490265 | 0.073316442 | 0.114431297 | 0.52566885 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 4.997040336 | 8.61E-04 | 0 | 0 | 8.61E-04 | 1.72E-04 | 7.91E-04 |
| Los Angele | 2020 | Annual | T6 instate heavy | 8.458111472 | 0 | 720.3118069 | 0.032655302 | 1.28E-04 | 0 | 0.032783369 | 0.00840481 | 0.09129025 |
| Los Angele | 2020 | Annual | LDA/LDT1 | 0 | 1492.525654 | 40029.8227 | 0.337034792 | 0 | 0.096773344 | 0.433808137 | 1.168139343 | 5.366140955 |

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| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDA | 0 | 1297.755454 | 34462.36192 | 0.27367702 | 0 | 0.088935086 | 0.362612105 | 1.047548812 | 4.812177731 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 98.60825259 | 0.006321211 | 0 | 0 | 0.006321211 | 0.003546082 | 0.016289814 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 164.3691646 | 4681.423044 | 0.058647513 | 0 | 0.012423214 | 0.071070727 | 0.114999324 | 0.528278238 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 4.913127247 | 8.10E-04 | 0 | 0 | 8.10E-04 | 1.71E-04 | 7.88E-04 |
| Los Angele | 2021 | Annual | T6 instate heavy | 8.464673463 | 0 | 720.9201393 | 0.031013264 | 1.16E-04 | 0 | 0.031129697 | 0.008439725 | 0.091669482 |
| Los Angele | 2021 | Annual | LDA/LDT1 | 0 | 1462.124619 | 39247.30635 | 0.339455361 | 0 | 0.1013583 | 0.440813661 | 1.166265665 | 5.35753337 |

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| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | LDA | 0 | 1270.867286 | 33754.39817 | 0.278873219 | 0 | 0.093672437 | 0.372545656 | 1.046404025 | 4.806919383 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 96.39697866 | 0.005493923 | 0 | 0 | 0.005493923 | 0.003514847 | 0.016146329 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 162.4527285 | 4629.843351 | 0.056264542 | 0 | 0.012382668 | 0.06864721 | 0.115587337 | 0.530979422 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 4.838464839 | 7.75E-04 | 0 | 0 | 7.75E-04 | 1.70E-04 | 7.82E-04 |
| Los Angele | 2022 | Annual | T6 instate heavy | 8.372626913 | 0 | 719.460663 | 0.029534046 | 1.10E-04 | 0 | 0.02964399 | 0.008445125 | 0.091728136 |
| Los Angele | 2022 | Annual | LDA/LDT1 | 0 | 1433.320015 | 38485.47697 | 0.341406911 | 0 | 0.106055105 | 0.447462016 | 1.165676472 | 5.354827286 |

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| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDA | 6.192176931 | 0.243572803 | 0 | 0.073625079 | 0.317197882 | 0.261454469 | 2.058954105 | 2.637606456 | 0.485099783 |
| Los Angele | 2019 | Annual | LDA | 0.028498186 | 0.00777576 | 0 | 0 | 0.00777576 | 8.96E-04 | 0.007055392 | 0.015727075 | 0.001382169 |
| Los Angele | 2019 | Annual | LDT1 | 0.714615389 | 0.058781553 | 0 | 0.011696093 | 0.070477646 | 0.028540122 | 0.224753481 | 0.323771249 | 0.061426597 |
| Los Angele | 2019 | Annual | LDT1 | 0.001924619 | 8.90E-04 | 0 | 0 | 8.90E-04 | 4.28E-05 | 3.37E-04 | 0.001269958 | 6.76E-05 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.132192386 | 0.030496423 | 1.27E-04 | 0 | 0.030623809 | 0.002084565 | 0.038814591 | 0.071522965 | 0.007503921 |
| Los Angele | 2019 | Annual | LDA/LDT1 | 6.937215125 | 0.311020601 | 0 | 0.085321172 | 0.396341773 | 0.290933271 | 2.291099694 | 2.978374739 | 0.547976157 |

EMFAC 2011
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| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | LDA | 6.225543659 | 0.248549816 | 0 | 0.078161712 | 0.326711529 | 0.262489763 | 2.067107085 | 2.656308377 | 0.487036008 |
| Los Angele | 2020 | Annual | LDA | 0.027304737 | 0.00671316 | 0 | 0 | 0.00671316 | 8.94E-04 | 0.00704186 | 0.014649224 | 0.001375908 |
| Los Angele | 2020 | Annual | LDT1 | 0.713416588 | 0.056402282 | 0 | 0.011583073 | 0.067985355 | 0.028607824 | 0.225286639 | 0.321879818 | 0.061574674 |
| Los Angele | 2020 | Annual | LDT1 | 0.001823451 | 7.92E-04 | 0 | 0 | 7.92E-04 | 4.30E-05 | 3.39E-04 | 0.001173691 | 6.77E-05 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.132478429 | 0.030042878 | 1.18E-04 | 0 | 0.030160699 | 0.002101203 | 0.039124393 | 0.071386294 | 0.007546019 |
| Los Angele | 2020 | Annual | LDA/LDT1 | 6.968088434 | 0.312457056 | 0 | 0.089744785 | 0.402201841 | 0.292034822 | 2.299774447 | 2.99401111 | 0.550054263 |

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| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDA | 6.222338649 | 0.253813301 | 0 | 0.082488887 | 0.336302189 | 0.2618872 | 2.062361884 | 2.660551272 | 0.486890204 |
| Los Angele | 2021 | Annual | LDA | 0.026157106 | 0.005815514 | 0 | 0 | 0.005815514 | 8.87E-04 | 0.006981349 | 0.013683383 | 0.001360336 |
| Los Angele | 2021 | Annual | LDT1 | 0.714348289 | 0.054388698 | 0 | 0.01152223 | 0.065910927 | 0.028749831 | 0.226404932 | 0.32106569 | 0.062003968 |
| Los Angele | 2021 | Annual | LDT1 | 0.001768652 | 7.45E-04 | 0 | 0 | 7.45E-04 | 4.29E-05 | 3.38E-04 | 0.001125247 | 6.72E-05 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.131238904 | 0.028532203 | 1.07E-04 | 0 | 0.028639321 | 0.002109931 | 0.039286921 | 0.070036173 | 0.007552398 |
| Los Angele | 2021 | Annual | LDA/LDT1 | 6.964612696 | 0.314762362 | 0 | 0.094011117 | 0.408773479 | 0.291566413 | 2.296085701 | 2.996425593 | 0.550321748 |

EMFAC 2011
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| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | LDA | 6.225869064 | 0.25867421 | 0 | 0.086894215 | 0.345568425 | 0.261601002 | 2.060108083 | 2.66727751 | 0.486324403 |
| Los Angele | 2022 | Annual | LDA | 0.025155099 | 0.005054409 | 0 | 0 | 0.005054409 | 8.79E-04 | 0.006919855 | 0.012852976 | 0.00134577 |
| Los Angele | 2022 | Annual | LDT1 | 0.715213969 | 0.052185686 | 0 | 0.011485969 | 0.063671655 | 0.028896834 | 0.22756259 | 0.320131079 | 0.062316543 |
| Los Angele | 2022 | Annual | LDT1 | 0.001727641 | 7.13E-04 | 0 | 0 | 7.13E-04 | 4.26E-05 | 3.35E-04 | 0.001090982 | 6.67E-05 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.129817251 | 0.027171322 | 1.01E-04 | 0 | 0.02727247 | 0.002111281 | 0.039312058 | 0.06869581 | 0.007537903 |
| Los Angele | 2022 | Annual | LDA/LDT1 | 6.967965774 | 0.316627514 | 0 | 0.098380184 | 0.415007698 | 0.291419115 | 2.294925735 | 3.001352548 | 0.550053424 |

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| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDA | 0 | 0.018985687 | 0.50408547 | 5376.803887 | 0 | 2.68E-04 | 2.54E-03 | 2.12E-04 | 5.77E-06 | 9.87E-05 | 5.35E-06 | 3.91E-05 | 8.50E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0.001382169 | 0 | 13.03028346 | 5.75E-05 | 3.39E-04 | 7.70E-04 | 4.16E-05 | 9.87E-05 | 3.83E-05 | 3.91E-05 | 6.80E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0.00237552 | 0.063802117 | 680.5422564 | 0 | 9.28E-04 | 7.22E-03 | 6.45E-04 | 1.17E-05 | 9.87E-05 | 1.09E-05 | 3.91E-05 | 9.86E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 6.76E-05 | 0 | 0.637369795 | 1.22E-04 | 5.84E-04 | 1.07E-03 | 9.98E-05 | 9.87E-05 | 9.18E-05 | 3.91E-05 | 6.97E-06 |
| Los Angele | 2019 | Annual | T6 instate heavy | 8.86E-05 | 0 | 0.007592498 | 0 | 71.62383316 | 2.09E-04 | 9.06E-04 | 8.71E-03 | 1.06E-04 | 3.14E-04 | 9.72E-05 | 1.30E-04 | 2.41E-05 |
| Los Angele | 2019 | Annual | LDA/LDT1 | 0 | 0.021361207 | 0.569337364 | 6057.346143 | 13.66765326 | 3.32E-04 | 2.99E-03 | 2.56E-04 | 6.48E-06 | 9.87E-05 | 6.01E-06 | 3.91E-05 | 8.63E-06 |

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| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | LDA | 0 | 0.019033121 | 0.506069129 | 5397.962378 | 0 | 2.50E-04 | 2.38E-03 | 1.98E-04 | 5.92E-06 | 9.87E-05 | 5.49E-06 | 3.91E-05 | 8.50E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0.001375908 | 0 | 12.97126722 | 5.03E-05 | 3.10E-04 | 7.30E-04 | 3.60E-05 | 9.87E-05 | 3.31E-05 | 3.91E-05 | 6.78E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0.002368817 | 0.063943491 | 682.0502214 | 0 | 8.81E-04 | 6.70E-03 | 5.99E-04 | 1.13E-05 | 9.87E-05 | 1.05E-05 | 3.91E-05 | 9.86E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 6.77E-05 | 0 | 0.637979738 | 1.09E-04 | 5.33E-04 | 1.00E-03 | 8.82E-05 | 9.87E-05 | 8.11E-05 | 3.91E-05 | 6.93E-06 |
| Los Angele | 2020 | Annual | T6 instate heavy | 8.97E-05 | 0 | 0.007635679 | 0 | 72.03118069 | 2.06E-04 | 9.08E-04 | 6.92E-03 | 1.03E-04 | 3.14E-04 | 9.49E-05 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2020 | Annual | LDA/LDT1 | 0 | 0.021401938 | 0.571456201 | 6080.012599 | 13.60924696 | 3.11E-04 | 2.80E-03 | 2.39E-04 | 6.55E-06 | 9.87E-05 | 6.07E-06 | 3.91E-05 | 8.63E-06 |

EMFAC 2011
2021 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
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| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDA | 0 | 0.01900593 | 0.505896134 | 5396.117151 | 0 | 2.37E-04 | 2.26E-03 | 1.89E-04 | 6.11E-06 | 9.87E-05 | 5.66E-06 | 3.91E-05 | 8.52E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0.001360336 | 0 | 12.8244621 | 4.44E-05 | 2.86E-04 | 6.97E-04 | 3.14E-05 | 9.87E-05 | 2.89E-05 | 3.91E-05 | 6.77E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0.002367225 | 0.064371193 | 686.6122934 | 0 | 8.36E-04 | 6.22E-03 | 5.54E-04 | 1.09E-05 | 9.87E-05 | 1.01E-05 | 3.91E-05 | 9.87E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 6.72E-05 | 0 | 0.633898589 | 1.04E-04 | 5.06E-04 | 9.83E-04 | 8.33E-05 | 9.87E-05 | 7.66E-05 | 3.91E-05 | 6.92E-06 |
| Los Angele | 2021 | Annual | T6 instate heavy | 8.97E-05 | 0 | 0.007642128 | 0 | 72.09201393 | 2.20E-04 | 9.83E-04 | 4.42E-03 | 9.76E-05 | 3.14E-04 | 8.98E-05 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2021 | Annual | LDA/LDT1 | 0 | 0.021373155 | 0.571694903 | 6082.729444 | 13.45836069 | 2.95E-04 | 2.64E-03 | 2.26E-04 | 6.67E-06 | 9.87E-05 | 6.18E-06 | 3.91E-05 | 8.65E-06 |

EMFAC 2011
2022 Estimated Annual Emissions
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| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | LDA | 0 | 0.018983657 | 0.505308061 | 5389.844555 | 0 | 2.25E-04 | 2.16E-03 | 1.81E-04 | 6.28E-06 | 9.87E-05 | 5.82E-06 | 3.91E-05 | 8.52E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0.00134577 | 0 | 12.68713929 | 3.95E-05 | 2.65E-04 | 6.70E-04 | 2.76E-05 | 9.87E-05 | 2.54E-05 | 3.91E-05 | 6.75E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0.002366862 | 0.064683405 | 689.9424853 | 0 | 7.90E-04 | 5.74E-03 | 5.11E-04 | 1.05E-05 | 9.87E-05 | 9.72E-06 | 3.91E-05 | 9.87E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 6.67E-05 | 0 | 0.628878795 | 9.95E-05 | 4.88E-04 | 9.77E-04 | 8.03E-05 | 9.87E-05 | 7.39E-05 | 3.91E-05 | 6.91E-06 |
| Los Angele | 2022 | Annual | T6 instate heavy | 8.88E-05 | 0 | 0.007626657 | 0 | 71.9460663 | 2.33E-04 | 1.04E-03 | 3.14E-03 | 9.29E-05 | 3.14E-04 | 8.54E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2022 | Annual | LDA/LDT1 | 0 | 0.021350519 | 0.571403942 | 6079.78704 | 13.31601808 | 2.81E-04 | 2.51E-03 | 2.15E-04 | 6.77E-06 | 9.87E-05 | 6.28E-06 | 3.91E-05 | 8.65E-06 |

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| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDA | 3.09E-04 |
| Los Angele | 2019 | Annual | LDA | 2.59E-04 |
| Los Angele | 2019 | Annual | LDT1 | 3.79E-04 |
| Los Angele | 2019 | Annual | LDT1 | 2.68E-04 |
| Los Angele | 2019 | Annual | T6 instate heavy | 1.16E-03 |
| Los Angele | 2019 | Annual | LDA/LDT1 | 3.16E-04 |

EMFAC 2011
2020 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2020 | Annual | LDA | 2.96E-04 |
| Los Angele | 2020 | Annual | LDA | 2.49E-04 |
| Los Angele | 2020 | Annual | LDT1 | 3.64E-04 |
| Los Angele | 2020 | Annual | LDT1 | 2.56E-04 |
| Los Angele | 2020 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2020 | Annual | LDA/LDT1 | 3.02E-04 |

EMFAC 2011
2021 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDA | 2.90E-04 |
| Los Angele | 2021 | Annual | LDA | 2.45E-04 |
| Los Angele | 2021 | Annual | LDT1 | 3.59E-04 |
| Los Angele | 2021 | Annual | LDT1 | 2.53E-04 |
| Los Angele | 2021 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2021 | Annual | LDA/LDT1 | 2.97E-04 |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2022 | Annual | LDA | 2.84E-04 |
| Los Angele | 2022 | Annual | LDA | 2.42E-04 |
| Los Angele | 2022 | Annual | LDT1 | 3.53E-04 |
| Los Angele | 2022 | Annual | LDT1 | 2.51E-04 |
| Los Angele | 2022 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2022 | Annual | LDA/LDT1 | 2.91E-04 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | LDA | GAS | AllMYr | AllSpeeds | 3589516.331 | 1.19E+08 | 2.26E+07 | 1.902484288 | 0 | 1.957394544 | 3.859878832 |
| Los Angele | 2023 | Annual | LDA | DSL | AllMYr | AllSpeeds | 12867.56528 | 395616.5171 | 79393.1482 | 0.006911958 | 0 | 0 | 0.006911958 |
| Los Angele | 2023 | Annual | LDT1 | GAS | AllMYr | AllSpeeds | 394680.5366 | 1.32E+07 | 2373441.668 | 0.650488963 | 0 | 0.591295332 | 1.241784295 |
| Los Angele | 2023 | Annual | LDT1 | DSL | AllMYr | AllSpeeds | 586.608603 | 19387.19475 | 3393.565927 | 8.89E-04 | 0 | 0 | 8.89E-04 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | AllMYr | AllSpeeds | 11144.24544 | 636570.279 | 0 | 0.062067437 | 0.002578603 | 0 | 0.06464604 |
| Los Angele | 2023 | Annual | LDA/LDT1 | GAS&DSI | AllMYr | AllSpeeds | 3997651.041 | 132214336.6 | 25073585.72 | 2.560774393 | 0 | 2.548689876 | 5.109464269 |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDA | GAS | AllMYr | AllSpeeds | 3591486.385 | 1.19E+08 | 2.26E+07 | 1.821490492 | 0 | 1.838692439 | 3.660182931 |
| Los Angele | 2024 | Annual | LDA | DSL | AllMYr | AllSpeeds | 12874.62846 | 393938.1249 | 79586.46724 | 0.005980748 | 0 | 0 | 0.005980748 |
| Los Angele | 2024 | Annual | LDT1 | GAS | AllMYr | AllSpeeds | 396649.9834 | 1.32E+07 | 2384983.675 | 0.607625245 | 0 | 0.545079377 | 1.152704622 |
| Los Angele | 2024 | Annual | LDT1 | DSL | AllMYr | AllSpeeds | 589.535813 | 19592.7736 | 3435.614494 | 8.19E-04 | 0 | 0 | 8.19E-04 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | AllMYr | AllSpeeds | 11076.4441 | 639644.8768 | 0 | 0.064161679 | 0.002562915 | 0 | 0.066724594 |
| Los Angele | 2024 | Annual | LDA/LDT1 | GAS&DSI | AllMYr | AllSpeeds | 4001600.533 | 132329247.5 | 25096466.79 | 2.435915971 | 0 | 2.383771816 | 4.819687787 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDA | GAS | AllMYr | AllSpeeds | 3593458.432 | 1.19E+08 | 2.26E+07 | 1.765606562 | 0 | 1.7578077 | 3.523414262 |
| Los Angele | 2025 | Annual | LDA | DSL | AllMYr | AllSpeeds | 12881.69662 | 392528.0442 | 79718.58049 | 0.005353777 | 0 | 0 | 0.005353777 |
| Los Angele | 2025 | Annual | LDT1 | GAS | AllMYr | AllSpeeds | 398629.268 | 1.33E+07 | 2396674.753 | 0.559055844 | 0 | 0.502597453 | 1.061653297 |
| Los Angele | 2025 | Annual | LDT1 | DSL | AllMYr | AllSpeeds | 592.477637 | 19908.68417 | 3489.504185 | 7.23E-04 | 0 | 0 | 7.23E-04 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | AllMYr | AllSpeeds | 11091.34154 | 644898.3828 | 0 | 0.065504392 | 0.002566362 | 0 | 0.068070755 |
| Los Angele | 2025 | Annual | LDA/LDT1 | GAS&DSI | AllMYr | AllSpeeds | 4005561.874 | 132420777.6 | 25115884.28 | 2.330739535 | 0 | 2.260405153 | 4.591144689 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDA | GAS | AllMYr | AllSpeeds | 3594974.473 | 1.19E+08 | 2.26E+07 | 1.720692842 | 0 | 1.693761025 | 3.414453867 |
| Los Angele | 2026 | Annual | LDA | DSL | AllMYr | AllSpeeds | 12887.1329 | 391957.5306 | 79831.41901 | 0.004807799 | 0 | 0 | 0.004807799 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | LDA | 0.865443434 | 2.098239716 | 5.06113882 | 0.822323641 | 12.70702444 | 3.23415588 | 0 | 2.08993136 | 5.32408724 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 0.006911958 | 0.007868804 | 0 | 0 | 0.007868804 |
| Los Angele | 2023 | Annual | LDT1 | 0.364109637 | 0.694521326 | 2.296218209 | 0.306277405 | 4.902910872 | 0.950444658 | 0 | 0.631323478 | 1.581768136 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.89E-04 | 0.001012278 | 0 | 0 | 0.001012278 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.06464604 | 0.070659052 | 0.002935544 | 0 | 0.073594596 |
| Los Angele | 2023 | Annual | LDA/LDT1 | 1.22955307 | 2.792761042 | 7.357357029 | 1.128601046 | 17.61773646 | 4.19348162 | 0 | 2.721254838 | 6.914736458 |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDA | 0.814771789 | 2.003768256 | 4.874316407 | 0.778879521 | 12.1319189 | 3.141828197 | 0 | 1.963156476 | 5.104984673 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 0.005980748 | 0.006808683 | 0 | 0 | 0.006808683 |
| Los Angele | 2024 | Annual | LDT1 | 0.346215394 | 0.665521653 | 2.18769117 | 0.294522536 | 4.646655374 | 0.895668018 | 0 | 0.581977772 | 1.477645789 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.19E-04 | 9.33E-04 | 0 | 0 | 9.33E-04 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.066724594 | 0.073043188 | 0.002917684 | 0 | 0.075960872 |
| Los Angele | 2024 | Annual | LDA/LDT1 | 1.160987183 | 2.669289909 | 7.062007577 | 1.073402058 | 16.78537451 | 4.04523783 | 0 | 2.545134248 | 6.590372077 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDA | 0.781407352 | 1.925407712 | 4.759078456 | 0.748957637 | 11.73826542 | 3.066160779 | 0 | 1.876796575 | 4.942957354 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 0.005353777 | 0.006094919 | 0 | 0 | 0.006094919 |
| Los Angele | 2025 | Annual | LDT1 | 0.328396255 | 0.635656067 | 2.080687971 | 0.282610839 | 4.38900443 | 0.833458884 | 0 | 0.536619087 | 1.370077971 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 7.23E-04 | 8.23E-04 | 0 | 0 | 8.23E-04 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.068070755 | 0.074571764 | 0.002921608 | 0 | 0.077493372 |
| Los Angele | 2025 | Annual | LDA/LDT1 | 1.109803608 | 2.561063779 | 6.839766427 | 1.031568477 | 16.13334698 | 3.906538072 | 0 | 2.413415662 | 6.319953734 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDA | 0.750723292 | 1.856578382 | 4.659605797 | 0.720991772 | 11.40235311 | 3.004915852 | 0 | 1.808414393 | 4.813330245 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 0.004807799 | 0.005473359 | 0 | 0 | 0.005473359 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | LDA | 0.865443434 | 2.098239716 | 5.06113882 | 0.822323641 | 14.17123285 | 93.56068364 | 0 | 28.9846599 | 122.5453435 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 0.007868804 | 0.048942566 | 0 | 0 | 0.048942566 |
| Los Angele | 2023 | Annual | LDT1 | 0.364109637 | 0.694521326 | 2.296218209 | 0.306277405 | 5.242894712 | 26.81618065 | 0 | 8.021705607 | 34.83788626 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0.001012278 | 0.004475525 | 0 | 0 | 0.004475525 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.073594596 | 0.261175417 | 0.030492155 | 0 | 0.291667572 |
| Los Angele | 2023 | Annual | LDA/LDT1 | 1.22955307 | 2.792761042 | 7.357357029 | 1.128601046 | 19.42300865 | 120.4302824 | 0 | 37.00636551 | 157.4366479 |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDA | 0.814771789 | 2.003768256 | 4.874316407 | 0.778879521 | 13.57672065 | 90.7790984 | 0 | 27.4842913 | 118.2633897 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 0.006808683 | 0.045437898 | 0 | 0 | 0.045437898 |
| Los Angele | 2024 | Annual | LDT1 | 0.346215394 | 0.665521653 | 2.18769117 | 0.294522536 | 4.971596542 | 25.13733812 | 0 | 7.421163593 | 32.55850172 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.33E-04 | 0.004258674 | 0 | 0 | 0.004258674 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.075960872 | 0.267106039 | 0.030306641 | 0 | 0.29741268 |
| Los Angele | 2024 | Annual | LDA/LDT1 | 1.160987183 | 2.669289909 | 7.062007577 | 1.073402058 | 18.5560588 | 115.9661331 | 0 | 34.90545489 | 150.871588 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDA | 0.781407352 | 1.925407712 | 4.759078456 | 0.748957637 | 13.15780851 | 88.64145887 | 0 | 26.4139687 | 115.0554276 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 0.006094919 | 0.042379556 | 0 | 0 | 0.042379556 |
| Los Angele | 2025 | Annual | LDT1 | 0.328396255 | 0.635656067 | 2.080687971 | 0.282610839 | 4.697429104 | 23.45204551 | 0 | 6.873194339 | 30.32523984 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.23E-04 | 0.00391621 | 0 | 0 | 0.00391621 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.077493372 | 0.272695774 | 0.030347403 | 0 | 0.303043177 |
| Los Angele | 2025 | Annual | LDA/LDT1 | 1.109803608 | 2.561063779 | 6.839766427 | 1.031568477 | 17.86215602 | 112.1398001 | 0 | 33.28716304 | 145.4269632 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDA | 0.750723292 | 1.856578382 | 4.659605797 | 0.720991772 | 12.80122949 | 86.94221531 | 0 | 25.5788155 | 112.5210308 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 0.005473359 | 0.039782599 | 0 | 0 | 0.039782599 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | LDA | 8.569283663 | 0 | 1.747287549 | 10.31657121 | 48543.96391 | 0 | 1848.145832 | 50392.10974 | 31883.35727 |
| Los Angele | 2023 | Annual | LDA | 0.127700263 | 0 | 0 | 0.127700263 | 139.6822659 | 0 | 0 | 139.6822659 | 94.41928036 |
| Los Angele | 2023 | Annual | LDT1 | 2.642978772 | 0 | 0.464310636 | 3.107289408 | 6228.274824 | 0 | 222.6813368 | 6450.956161 | 4420.996686 |
| Los Angele | 2023 | Annual | LDT1 | 0.0091332 | 0 | 0 | 0.0091332 | 6.994796733 | 0 | 0 | 6.994796733 | 4.786083756 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.70198794 | 0.046067388 | 0 | 0.748055329 | 784.8828966 | 9.161579092 | 0 | 794.0444757 | 706.394607 |
| Los Angele | 2023 | Annual | LDA/LDT1 | 11.3490959 | 0 | 2.211598185 | 13.56069408 | 54918.91579 | 0 | 2070.827169 | 56989.74296 | 36403.55932 |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDA | 8.334414578 | 0 | 1.663024108 | 9.997438686 | 48907.95423 | 0 | 1849.398782 | 50757.35301 | 31589.04996 |
| Los Angele | 2024 | Annual | LDA | 0.122351468 | 0 | 0 | 0.122351468 | 138.8398426 | 0 | 0 | 138.8398426 | 92.74439208 |
| Los Angele | 2024 | Annual | LDT1 | 2.462506889 | 0 | 0.431917913 | 2.894424802 | 6311.272501 | 0 | 224.0629147 | 6535.335416 | 4412.277246 |
| Los Angele | 2024 | Annual | LDT1 | 0.00876547 | 0 | 0 | 0.00876547 | 7.038490407 | 0 | 0 | 7.038490407 | 4.747168279 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.726979052 | 0.045787116 | 0 | 0.772766167 | 790.6364876 | 9.105840247 | 0 | 799.7423278 | 711.5728388 |
| Los Angele | 2024 | Annual | LDA/LDT1 | 10.9280384 | 0 | 2.094942021 | 13.02298043 | 55365.10506 | 0 | 2073.461697 | 57438.56676 | 36098.81877 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDA | 8.160270338 | 0 | 1.59955349 | 9.759823828 | 48914.79259 | 0 | 1850.455342 | 50765.24793 | 31128.75751 |
| Los Angele | 2025 | Annual | LDA | 0.11775376 | 0 | 0 | 0.11775376 | 138.1594228 | 0 | 0 | 138.1594228 | 91.23141723 |
| Los Angele | 2025 | Annual | LDT1 | 2.288832713 | 0 | 0.402626317 | 2.691459031 | 6347.700255 | 0 | 225.4333043 | 6573.13356 | 4375.092158 |
| Los Angele | 2025 | Annual | LDT1 | 0.008318474 | 0 | 0 | 0.008318474 | 7.118304237 | 0 | 0 | 7.118304237 | 4.720248647 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.746692467 | 0.045848698 | 0 | 0.792541165 | 797.1363359 | 9.118087297 | 0 | 806.2544232 | 717.4227023 |
| Los Angele | 2025 | Annual | LDA/LDT1 | 10.57517529 | 0 | 2.002179807 | 12.57735509 | 55407.77057 | 0 | 2075.888646 | 57483.65922 | 35599.80133 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDA | 8.018607836 | 0 | 1.549973992 | 9.568581828 | 48927.65084 | 0 | 1851.412754 | 50779.0636 | 30736.68703 |
| Los Angele | 2026 | Annual | LDA | 0.113525191 | 0 | 0 | 0.113525191 | 137.7876328 | 0 | 0 | 137.7876328 | 89.92457153 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | LDA | 0 | 1245.719737 | 33129.07701 | 0.28409689 | 0 | 0.098311509 | 0.382408399 | 1.046106995 | 4.805554559 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 94.41928036 | 0.004736859 | 0 | 0 | 0.004736859 | 0.003488741 | 0.016026405 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 160.6563494 | 4581.653035 | 0.053952646 | 0 | 0.012363785 | 0.066316431 | 0.11616425 | 0.533629612 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 4.786083756 | 7.16E-04 | 0 | 0 | 7.16E-04 | 1.71E-04 | 7.85E-04 |
| Los Angele | 2023 | Annual | T6 instate heavy | 8.245421182 | 0 | 714.6400282 | 0.02785465 | 1.08E-04 | 0 | 0.027962924 | 0.008420383 | 0.091459398 |
| Los Angele | 2023 | Annual | LDA/LDT1 | 0 | 1406.376086 | 37809.93541 | 0.343502105 | 0 | 0.110675294 | 0.454177399 | 1.165930952 | 5.35599595 |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDA | 0 | 1222.69531 | 32811.74527 | 0.293296268 | 0 | 0.102787069 | 0.396083338 | 1.046473628 | 4.807238871 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 92.74439208 | 0.004038391 | 0 | 0 | 0.004038391 | 0.00347394 | 0.015958413 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 159.0367066 | 4571.313953 | 0.052577401 | 0 | 0.012388598 | 0.064965999 | 0.116823926 | 0.536659995 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 4.747168279 | 6.49E-04 | 0 | 0 | 6.49E-04 | 1.73E-04 | 7.94E-04 |
| Los Angele | 2024 | Annual | T6 instate heavy | 8.195256223 | 0 | 719.768095 | 0.028414088 | 1.08E-04 | 0 | 0.028521703 | 0.008461053 | 0.091901142 |
| Los Angele | 2024 | Annual | LDA/LDT1 | 0 | 1381.732016 | 37480.55079 | 0.35056089 | 0 | 0.115175667 | 0.465736557 | 1.166944272 | 5.360650982 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDA | 0 | 1202.181147 | 32330.93866 | 0.299512752 | 0 | 0.107369903 | 0.406882654 | 1.046655845 | 4.80807569 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 91.23141723 | 0.003561119 | 0 | 0 | 0.003561119 | 0.003461505 | 0.015901291 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 157.5554724 | 4532.64763 | 0.050684762 | 0 | 0.012446453 | 0.063131215 | 0.117458516 | 0.539575149 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 4.720248647 | 5.61E-04 | 0 | 0 | 5.61E-04 | 1.76E-04 | 8.06E-04 |
| Los Angele | 2025 | Annual | T6 instate heavy | 8.206278567 | 0 | 725.6289808 | 0.029115966 | 1.08E-04 | 0 | 0.029223725 | 0.008530545 | 0.09265594 |
| Los Angele | 2025 | Annual | LDA/LDT1 | 0 | 1359.736619 | 36959.53795 | 0.354320028 | 0 | 0.119816355 | 0.474136383 | 1.16775143 | 5.364358629 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDA | 0 | 1184.182843 | 31920.86988 | 0.306466713 | 0 | 0.111956968 | 0.41842368 | 1.046884856 | 4.809127878 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 89.92457153 | 0.00314245 | 0 | 0 | 0.00314245 | 0.003456474 | 0.01587818 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | LDA | 6.234069953 | 0.263547918 | 0 | 0.0912052 | 0.354753118 | 0.261526741 | 2.059523407 | 2.675803267 | 0.486115256 |
| Los Angele | 2023 | Annual | LDA | 0.024252005 | 0.004357911 | 0 | 0 | 0.004357911 | 8.72E-04 | 0.006868459 | 0.012098555 | 0.001333493 |
| Los Angele | 2023 | Annual | LDT1 | 0.716110294 | 0.050048913 | 0 | 0.011469843 | 0.061518757 | 0.029041063 | 0.228698389 | 0.319258208 | 0.062617467 |
| Los Angele | 2023 | Annual | LDT1 | 0.00167205 | 6.58E-04 | 0 | 0 | 6.58E-04 | 4.27E-05 | 3.37E-04 | 0.001037783 | 6.68E-05 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.127842705 | 0.025626278 | 9.96E-05 | 0 | 0.02572589 | 0.002105096 | 0.039196885 | 0.067027871 | 0.00748815 |
| Los Angele | 2023 | Annual | LDA/LDT1 | 6.976104301 | 0.318613195 | 0 | 0.102675044 | 0.421288239 | 0.29148273 | 2.295426844 | 3.008197813 | 0.550132994 |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDA | 6.249795836 | 0.272130557 | 0 | 0.09536944 | 0.367499998 | 0.261618403 | 2.060244997 | 2.689363398 | 0.489702161 |
| Los Angele | 2024 | Annual | LDA | 0.023470744 | 0.00371532 | 0 | 0 | 0.00371532 | 8.68E-04 | 0.006839319 | 0.011423124 | 0.001325451 |
| Los Angele | 2024 | Annual | LDT1 | 0.71844992 | 0.048778389 | 0 | 0.01149379 | 0.060272179 | 0.029205982 | 0.229997123 | 0.319475284 | 0.063417984 |
| Los Angele | 2024 | Annual | LDT1 | 0.00161531 | 5.97E-04 | 0 | 0 | 5.97E-04 | 4.32E-05 | 3.40E-04 | 9.80E-04 | 6.72E-05 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.128883898 | 0.026140961 | 9.90E-05 | 0 | 0.026239967 | 0.002115263 | 0.039386204 | 0.067741433 | 0.007543042 |
| Los Angele | 2024 | Annual | LDA/LDT1 | 6.99333181 | 0.325221189 | 0 | 0.10686323 | 0.432084419 | 0.291736065 | 2.297421598 | 3.021242082 | 0.554512789 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDA | 6.261614189 | 0.277898429 | 0 | 0.099621554 | 0.377519983 | 0.261663959 | 2.060603717 | 2.699787659 | 0.489734673 |
| Los Angele | 2025 | Annual | LDA | 0.022923915 | 0.003276229 | 0 | 0 | 0.003276229 | 8.65E-04 | 0.006814838 | 0.010956444 | 0.001318955 |
| Los Angele | 2025 | Annual | LDT1 | 0.720164879 | 0.047027097 | 0 | 0.011548255 | 0.058575351 | 0.029364629 | 0.231246471 | 0.319186451 | 0.063753335 |
| Los Angele | 2025 | Annual | LDT1 | 0.001543459 | 5.16E-04 | 0 | 0 | 5.16E-04 | 4.39E-05 | 3.46E-04 | 9.06E-04 | 6.80E-05 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.130410211 | 0.026786689 | 9.91E-05 | 0 | 0.026885827 | 0.002132636 | 0.039709689 | 0.068728153 | 0.007605053 |
| Los Angele | 2025 | Annual | LDA/LDT1 | 7.006246442 | 0.328718239 | 0 | 0.111169809 | 0.439888047 | 0.291937855 | 2.299010669 | 3.030836571 | 0.55487492 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDA | 6.274436415 | 0.284350558 | 0 | 0.103877596 | 0.388228154 | 0.261721213 | 2.061054752 | 2.711004119 | 0.489834579 |
| Los Angele | 2026 | Annual | LDA | 0.022477103 | 0.002891054 | 0 | 0 | 0.002891054 | 8.64E-04 | 0.006804933 | 0.010560106 | 0.001315406 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | LDA | 0 | 0.018964584 | 0.505079841 | 5387.41056 | 0 | 2.14E-04 | 2.07E-03 | 1.74E-04 | 6.45E-06 | 9.87E-05 | 5.98E-06 | 3.91E-05 | 8.52E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0.001333493 | 0 | 12.57140407 | 3.49E-05 | 2.47E-04 | 6.46E-04 | 2.39E-05 | 9.87E-05 | 2.20E-05 | 3.91E-05 | 6.74E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0.002367364 | 0.064984831 | 693.1576271 | 0 | 7.44E-04 | 5.29E-03 | 4.72E-04 | 1.01E-05 | 9.87E-05 | 9.34E-06 | 3.91E-05 | 9.87E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 6.68E-05 | 0 | 0.629531739 | 9.17E-05 | 4.62E-04 | 9.42E-04 | 7.38E-05 | 9.87E-05 | 6.79E-05 | 3.91E-05 | 6.89E-06 |
| Los Angele | 2023 | Annual | T6 instate heavy | 8.74E-05 | 0 | 0.007575556 | 0 | 71.46400282 | 2.03E-04 | 9.16E-04 | 2.35E-03 | 8.79E-05 | 3.14E-04 | 8.08E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2023 | Annual | LDA/LDT1 | 0 | 0.021331948 | 0.571464942 | 6080.568187 | 13.2009358 | 2.67E-04 | 2.38E-03 | 2.05E-04 | 6.87E-06 | 9.87E-05 | 6.37E-06 | 3.91E-05 | 8.64E-06 |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDA | 0 | 0.018949784 | 0.508651944 | 5425.511452 | 0 | 2.04E-04 | 1.99E-03 | 1.68E-04 | 6.68E-06 | 9.87E-05 | 6.19E-06 | 3.91E-05 | 8.57E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0.001325451 | 0 | 12.4955865 | 3.04E-05 | 2.31E-04 | 6.21E-04 | 2.05E-05 | 9.87E-05 | 1.89E-05 | 3.91E-05 | 6.73E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0.002370266 | 0.065788249 | 701.7272946 | 0 | 7.02E-04 | 4.92E-03 | 4.37E-04 | 9.81E-06 | 9.87E-05 | 9.10E-06 | 3.91E-05 | 9.93E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 6.72E-05 | 0 | 0.633464175 | 8.37E-05 | 4.35E-04 | 8.95E-04 | 6.62E-05 | 9.87E-05 | 6.09E-05 | 3.91E-05 | 6.86E-06 |
| Los Angele | 2024 | Annual | T6 instate heavy | 8.69E-05 | 0 | 0.007629916 | 0 | 71.9768095 | 2.09E-04 | 9.30E-04 | 2.42E-03 | 8.92E-05 | 3.14E-04 | 8.20E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2024 | Annual | LDA/LDT1 | 0 | 0.02132005 | 0.575832839 | 6127.238747 | 13.12905067 | 2.54E-04 | 2.28E-03 | 1.97E-04 | 7.04E-06 | 9.87E-05 | 6.53E-06 | 3.91E-05 | 8.70E-06 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDA | 0 | 0.018940972 | 0.508675645 | 5425.764266 | 0 | 1.98E-04 | 1.94E-03 | 1.64E-04 | 6.86E-06 | 9.87E-05 | 6.36E-06 | 3.91E-05 | 8.57E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0.001318955 | 0 | 12.43434877 | 2.73E-05 | 2.16E-04 | 6.00E-04 | 1.81E-05 | 9.87E-05 | 1.67E-05 | 3.91E-05 | 6.72E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0.002374 | 0.066127335 | 705.3440973 | 0 | 6.59E-04 | 4.55E-03 | 4.04E-04 | 9.48E-06 | 9.87E-05 | 8.80E-06 | 3.91E-05 | 9.93E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 6.80E-05 | 0 | 0.640647409 | 7.27E-05 | 3.93E-04 | 8.36E-04 | 5.64E-05 | 9.87E-05 | 5.19E-05 | 3.91E-05 | 6.83E-06 |
| Los Angele | 2025 | Annual | T6 instate heavy | 8.70E-05 | 0 | 0.007692044 | 0 | 72.56289808 | 2.11E-04 | 9.40E-04 | 2.46E-03 | 9.06E-05 | 3.14E-04 | 8.34E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2025 | Annual | LDA/LDT1 | 0 | 0.021314972 | 0.576189892 | 6131.108363 | 13.07499618 | 2.44E-04 | 2.20E-03 | 1.90E-04 | 7.16E-06 | 9.87E-05 | 6.64E-06 | 3.91E-05 | 8.70E-06 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
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South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDA | 0 | 0.018935395 | 0.508769974 | 5426.770995 | 0 | 1.92E-04 | 1.90E-03 | 1.61E-04 | 7.05E-06 | 9.87E-05 | 6.54E-06 | 3.91E-05 | 8.57E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0.001315406 | 0 | 12.40088726 | 2.45E-05 | 2.03E-04 | 5.79E-04 | 1.60E-05 | 9.87E-05 | 1.48E-05 | 3.91E-05 | 6.71E-06 |

EMFAC 2011
2023 Estimated Annual Emissions
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| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2023 | Annual | LDA | 2.79E-04 |
| Los Angele | 2023 | Annual | LDA | 2.39E-04 |
| Los Angele | 2023 | Annual | LDT1 | 3.48E-04 |
| Los Angele | 2023 | Annual | LDT1 | 2.47E-04 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2023 | Annual | LDA/LDT1 | 2.86E-04 |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
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| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDA | 2.77E-04 |
| Los Angele | 2024 | Annual | LDA | 2.35E-04 |
| Los Angele | 2024 | Annual | LDT1 | 3.45E-04 |
| Los Angele | 2024 | Annual | LDT1 | 2.42E-04 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2024 | Annual | LDA/LDT1 | 2.83E-04 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDA | 2.72E-04 |
| Los Angele | 2025 | Annual | LDA | 2.32E-04 |
| Los Angele | 2025 | Annual | LDT1 | 3.40E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.37E-04 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2025 | Annual | LDA/LDT1 | 2.79E-04 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDA | 2.69E-04 |
| Los Angele | 2026 | Annual | LDA | 2.29E-04 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDT1 | GAS | AllMYr | AllSpeeds | 400618.4327 | 1.34E+07 | 2408640.772 | 0.514154471 | 0 | 0.463332204 | 0.977486675 |
| Los Angele | 2026 | Annual | LDT1 | DSL | AllMYr | AllSpeeds | 595.434107 | 20154.29487 | 3537.817011 | 6.47E-04 | 0 | 0 | 6.47E-04 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | AllMYr | AllSpeeds | 11189.94084 | 652790.4413 | 0 | 0.066994879 | 0.002589177 | 0 | 0.069584055 |
| Los Angele | 2026 | Annual | LDA/LDT1 | GAS&DSI | AllMYr | AllSpeeds | 4009075.473 | 132519328.9 | 25133664.69 | 2.24030252 | 0 | 2.157093229 | 4.397395749 |

**onsite transit**

unmitigated - used for worker vehicles during construction and operations and for delivery trucks during operation; for trucks during construction, CAAP is required as project condition.

EMFAC 2011
2011 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2011 | Annual | T6 instate heavy | DSL | AllMYr | | 5 | 0 | 693.098378 | 0 | 0.004164066 | 0 | 0 | 0 |

EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | T6 instate heavy | DSL | AllMYr | | 5 | 0 | 809.2207082 | 0 | 0.003545014 | 0 | 0 | 0 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | T6 instate heavy | DSL | AllMYr | | 5 | 0 | 844.591924 | 0 | 0.002213503 | 0 | 0 | 0 |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | AllMYr | | 5 | 0 | 915.2611706 | 0 | 0.001621393 | 0 | 0 | 0 |

EMFAC 2011
2016 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed | Pop | VMT | Trips | ROG_RUNEX | ROG_IDLEX | ROG_STREX | ROG_TOTEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDT1 | 0.310271417 | 0.605714266 | 1.975063674 | 0.270310703 | 4.138846736 | 0.775937672 | 0 | 0.494695912 | 1.270633585 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 6.47E-04 | 7.37E-04 | 0 | 0 | 7.37E-04 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.069584055 | 0.07626857 | 0.002947581 | 0 | 0.07921615 |
| Los Angele | 2026 | Annual | LDA/LDT1 | 1.06099471 | 2.462292649 | 6.634669471 | 0.991302476 | 15.54665505 | 3.787063914 | 0 | 2.303110306 | 6.09017422 |

**onsite transit**

unmitigated - used for worker vehicles during const

EMFAC 2011
2011 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2011 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.004740472 | 0 | 0 | 0 |

EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.004035728 | 0 | 0 | 0 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.002519905 | 0 | 0 | 0 |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.001845832 | 0 | 0 | 0 |

EMFAC 2011
2016 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN | ROG_HTSK | ROG_RUNLS | ROG_RESTL | ROG_TOTAL | TOG_RUNEX | TOG_IDLEX | TOG_STREX | TOG_TOTEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDT1 | 0.310271417 | 0.605714266 | 1.975063674 | 0.270310703 | 4.431993646 | 21.91328862 | 0 | 6.371541279 | 28.2848299 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 7.37E-04 | 0.003607718 | 0 | 0 | 0.003607718 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.07921615 | 0.278900692 | 0.030617184 | 0 | 0.309517876 |
| Los Angele | 2026 | Annual | LDA/LDT1 | 1.06099471 | 2.462292649 | 6.634669471 | 0.991302476 | 17.23943352 | 108.8988943 | 0 | 31.95035678 | 140.849251 |

**onsite transit**

unmitigated - used for worker vehicles during const

EMFAC 2011
2011 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2011 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.005449468 | 0 | 0 | 0 | 0 |

EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.004809204 | 0 | 0 | 0 | 0 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.00303833 | 0 | 0 | 0 | 0 |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.00244492 | 0 | 0 | 0 | 0 |

EMFAC 2011
2016 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN | TOG_HTSK | TOG_RUNLS | TOG_RESTL | TOG_TOTAL | CO_RUNEX | CO_IDLEX | CO_STREX | CO_TOTEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDT1 | 2.131745975 | 0 | 0.376201158 | 2.507947133 | 6385.158459 | 0 | 226.836843 | 6611.995302 | 4342.528217 | |
| Los Angele | 2026 | Annual | LDT1 | 0.007977982 | 0 | 0 | 0.007977982 | 7.180718462 | 0 | 0 | 7.180718462 | 4.692128526 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.765665582 | 0.046256281 | 0 | 0.811921864 | 806.8975815 | 9.19914485 | 0 | 816.0967263 | 726.2078233 | |
| Los Angele | 2026 | Annual | LDA/LDT1 | 10.27185698 | 0 | 1.926175151 | 12.19803213 | 55457.77765 | 0 | 2078.249597 | 57536.02725 | 35173.83195 | |

**onsite transit**

unmitigated - used for worker vehicles during const

EMFAC 2011
2011 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2011 | Annual | T6 instate heavy | 0.020178665 | 0 | 0 | 0 | 1.991402397 | 0 | 0 | 0 | 1.986423891 |

EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | T6 instate heavy | 0.020713894 | 0 | 0 | 0 | 2.325778154 | 0 | 0 | 0 | 2.302520372 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | T6 instate heavy | 0.020180166 | 0 | 0 | 0 | 2.435398022 | 0 | 0 | 0 | 2.398867052 |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | T6 instate heavy | 0.018722321 | 0 | 0 | 0 | 2.630058369 | 0 | 0 | 0 | 2.56430691 |

EMFAC 2011
2016 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX | NOX_IDLEX | NOX_STREX | NOX_TOTEX | CO2_RUNEX | CO2_IDLEX | CO2_STREX | CO2_TOTEX | CO2_RUNEX(Pavl |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDT1 | 0 | 156.23007 | 4498.758287 | 0.049170617 | 0 | 0.012562496 | 0.061733114 | 0.118101463 | 0.542528677 | |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 4.692128526 | 4.91E-04 | 0 | 0 | 4.91E-04 | 1.78E-04 | 8.16E-04 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 8.279230365 | 0 | 734.4870537 | 0.029867382 | 1.09E-04 | 0 | 0.029976099 | 0.008634939 | 0.093789834 | |
| Los Angele | 2026 | Annual | LDA/LDT1 | 0 | 1340.412913 | 36514.24486 | 0.359270688 | 0 | 0.124519464 | 0.483790152 | 1.168620524 | 5.368351184 | |

**onsite transit**

unmitigated - used for worker vehicles during const

EMFAC 2011
2011 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2011 | Annual | T6 instate heavy | 0 | 0 | 0 | 0.001177101 | 0 | 0 | 0 | 0 | 0 | |

EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 9.22E-04 | 0 | 0 | 0.00E+00 | 0 | 0 | |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 5.35E-04 | 0 | 0 | 0.00E+00 | 0 | 0 | |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.88E-04 | 0 | 0 | 0 | 0 | 0 | |

EMFAC 2011
2016 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle | CO2_STREX(Pavle | CO2_TOTEX(Pavl | PM10_RUNEX | PM10_IDLEX | PM10_STREX | PM10_TOTEX | PM10_PMTW | PM10_PMBW |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDT1 | 0.722363254 | 0.045622221 | 0 | 0.011655924 | 0.057278145 | 0.029525366 | 0.232512283 | 0.319315795 | 0.064101412 | |
| Los Angele | 2026 | Annual | LDT1 | 0.001485088 | 4.52E-04 | 0 | 0 | 4.52E-04 | 4.44E-05 | 3.50E-04 | 8.46E-04 | 6.86E-05 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.132400873 | 0.027477991 | 1.00E-04 | 0 | 0.027578011 | 0.002158735 | 0.040195643 | 0.069932389 | 0.00769818 | |
| Los Angele | 2026 | Annual | LDA/LDT1 | 7.020761859 | 0.333315468 | 0 | 0.11553352 | 0.448848988 | 0.29215513 | 2.300721876 | 3.041725994 | 0.555319948 | |

**onsite transit**

unmitigated - used for worker vehicles during const

EMFAC 2011
2011 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2011 | Annual | T6 instate heavy | 0 | 0.001082933 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 8.48E-04 | 0 | 0 | 0.00E+00 | 0 | 0 | 0 | 0 | |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 4.92E-04 | 0 | 0 | 0.00E+00 | 0 | 0 | 0 | 0 | |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 2.65E-04 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

EMFAC 2011
2016 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL | PM2_5_RUNEX | PM2_5_IDLEX | PM2_5_STREX | PM2_5_TOTEX | PM2_5_PMTW | PM2_5_PMBW | PM2_5_TOTAL | SOX_RUNEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDT1 | 0 | 0.002378893 | 0.066480305 | 709.1090097 | 0 | 6.18E-04 | 4.22E-03 | 3.75E-04 | 9.22E-06 | 9.87E-05 | 8.55E-06 | 3.91E-05 | 9.93E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 6.86E-05 | 0 | 0.646264687 | 6.42E-05 | 3.58E-04 | 7.92E-04 | 4.87E-05 | 9.87E-05 | 4.48E-05 | 3.91E-05 | 6.80E-06 |
| Los Angele | 2026 | Annual | T6 instate heavy | 8.78E-05 | 0 | 0.007785944 | 0 | 73.44870537 | 2.13E-04 | 9.48E-04 | 2.49E-03 | 9.18E-05 | 3.14E-04 | 8.45E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2026 | Annual | LDA/LDT1 | 0 | 0.021314288 | 0.576634236 | 6135.880005 | 13.04715195 | 2.35E-04 | 2.13E-03 | 1.84E-04 | 7.30E-06 | 9.87E-05 | 6.77E-06 | 3.91E-05 | 8.70E-06 |

**onsite transit**

unmitigated - used for worker vehicles during const

EMFAC 2011
2011 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2011 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.20E-02 | 1.57E-02 | 5.82E-02 | 3.40E-03 | 0.00E+00 | 3.12E-03 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0.00E+00 | 0 | 65.36228571 | 8.76E-03 | 1.19E-02 | 5.12E-02 | 2.28E-03 | 0.00E+00 | 2.10E-03 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0.00E+00 | 0 | 68.45710056 | 5.24E-03 | 7.19E-03 | 4.78E-02 | 1.27E-03 | 0.00E+00 | 1.17E-03 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 70.60641202 | 3.54E-03 | 5.34E-03 | 4.09E-02 | 6.30E-04 | 0.00E+00 | 5.79E-04 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
2016 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX | SOX_STREX | SOX_TOTEX | FUEL_GAS | FUEL_DSL | exhaust ROG | exhaust CO | exhaust NOx | exhaust PM10 | tire wear a PM10 | exaust PM2.5 | tire wear a PM2.5 | exaust SOx |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDT1 | 3.36E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.33E-04 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2026 | Annual | LDA/LDT1 | 2.76E-04 |

**onsite transit**

unmitigated - used for worker vehicles during const

EMFAC 2011
2011 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2011 | Annual | T6 instate heavy | 2.87E-03 |

EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2013 | Annual | T6 instate heavy | 2.85E-03 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2014 | Annual | T6 instate heavy | 2.84E-03 |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2015 | Annual | T6 instate heavy | 2.80E-03 |

EMFAC 2011
2016 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 |
|---|---|---|---|---|

| | | | | | | (Miles/hr) | (Vehicles) | (Miles/day) | (Trips/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | AllMYr | 5 | 0 | 928.4173317 | 0 | 0.001338933 | 0 | 0 | 0 | |

EMFAC 2011
2017 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | AllMYr | 5 | 0 | 937.0489504 | 0 | 0.001218578 | 0 | 0 | 0 | |

EMFAC 2011
2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | AllMYr | 5 | 0 | 934.72047 | 0 | 0.001213418 | 0 | 0 | 0 | |

EMFAC 2011
2019 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | AllMYr | 5 | 0 | 1172.47193 | 0 | 0.001500196 | 0 | 0 | 0 | |

EMFAC 2011
2020 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | AllMYr | 5 | 0 | 1181.830108 | 0 | 0.001471864 | 0 | 0 | 0 | |

EMFAC 2011
2021 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | AllMYr | 5 | 0 | 1229.161756 | 0 | 0.001605852 | 0 | 0 | 0 | |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | | |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.001524273 | 0 | 0 | 0 | | |

EMFAC 2011
2017 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.001387258 | 0 | 0 | 0 | |

EMFAC 2011
2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.001381383 | 0 | 0 | 0 | |

EMFAC 2011
2019 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.001707859 | 0 | 0 | 0 | |

EMFAC 2011
2020 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.001675606 | 0 | 0 | 0 | |

EMFAC 2011
2021 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.00182814 | 0 | 0 | 0 | |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | | |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.00214808 | 0 | 0 | 0 | |

EMFAC 2011
2017 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.002020757 | 0 | 0 | 0 | |

EMFAC 2011
2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.002036233 | 0 | 0 | 0 | |

EMFAC 2011
2019 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.002544673 | 0 | 0 | 0 | |

EMFAC 2011
2020 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.00255334 | 0 | 0 | 0 | |

EMFAC 2011
2021 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.00284763 | 0 | 0 | 0 | |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories

| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | T6 instate heavy | 0.01648839 | 0 | 0 | 0 | 2.664344542 | 0 | 0 | 0 | 2.571092483 |

EMFAC 2011
2017 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | T6 instate heavy | 0.015034613 | 0 | 0 | 0 | 2.685848122 | 0 | 0 | 0 | 2.551555715 |

EMFAC 2011
2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | T6 instate heavy | 0.013673993 | 0 | 0 | 0 | 2.675333881 | 0 | 0 | 0 | 2.501437179 |

EMFAC 2011
2019 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | T6 instate heavy | 0.015594678 | 0 | 0 | 0 | 3.350546315 | 0 | 0 | 0 | 3.082502609 |

EMFAC 2011
2020 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | T6 instate heavy | 0.012577542 | 0 | 0 | 0 | 3.369343463 | 0 | 0 | 0 | 3.032409117 |

EMFAC 2011
2021 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | T6 instate heavy | 0.008435535 | 0 | 0 | 0 | 3.490667492 | 0 | 0 | 0 | 3.141600743 |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories

| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.74E-04 | 0 | 0 | 0 | 0 | 0 | |

EMFAC 2011
2017 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle | CO2_STREX(Pavle | CO2_TOTEX(Pavl | PM10_RUNEX | PM10_IDLEX | PM10_STREX | PM10_TOTEX | PM10_PMTW | PM10_PMBW | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.22E-04 | 0 | 0 | 0 | 0 | 0 | |

EMFAC 2011
2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle | CO2_STREX(Pavle | CO2_TOTEX(Pavl | PM10_RUNEX | PM10_IDLEX | PM10_STREX | PM10_TOTEX | PM10_PMTW | PM10_PMBW | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.09E-04 | 0 | 0 | 0 | 0 | 0 | |

EMFAC 2011
2019 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle | CO2_STREX(Pavle | CO2_TOTEX(Pavl | PM10_RUNEX | PM10_IDLEX | PM10_STREX | PM10_TOTEX | PM10_PMTW | PM10_PMBW | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.21E-04 | 0 | 0 | 0 | 0 | 0 | |

EMFAC 2011
2020 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle | CO2_STREX(Pavle | CO2_TOTEX(Pavl | PM10_RUNEX | PM10_IDLEX | PM10_STREX | PM10_TOTEX | PM10_PMTW | PM10_PMBW | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 8.85E-05 | 0 | 0 | 0 | 0 | 0 | |

EMFAC 2011
2021 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle | CO2_STREX(Pavle | CO2_TOTEX(Pavl | PM10_RUNEX | PM10_IDLEX | PM10_STREX | PM10_TOTEX | PM10_PMTW | PM10_PMBW | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 6.13E-05 | 0 | 0 | 0 | 0 | 0 | |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) | | |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 1.60E-04 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

EMFAC 2011
2017 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 1.12E-04 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 1.00E-04 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2019 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 1.12E-04 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2020 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 8.14E-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2021 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 5.64E-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (Tons/day) | (Tons/day) | (Tons/day) | (1000 Gallons) | (1000 Gallons) | lb/mile | lb/mile | lb/mile | lb/mile | lb/mile | lb/mile | lb/mile | lb/mile |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 71.52952404 | 2.88E-03 | 4.63E-03 | 3.55E-02 | 3.74E-04 | 0.00E+00 | 3.45E-04 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
2017 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 72.10365985 | 2.60E-03 | 4.31E-03 | 3.21E-02 | 2.60E-04 | 0.00E+00 | 2.39E-04 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 71.8201233 | 2.60E-03 | 4.36E-03 | 2.93E-02 | 2.33E-04 | 0.00E+00 | 2.14E-04 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
2019 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 71.62383316 | 2.56E-03 | 4.34E-03 | 2.66E-02 | 2.07E-04 | 0.00E+00 | 1.91E-04 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
2020 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 72.03118069 | 2.49E-03 | 4.32E-03 | 2.13E-02 | 1.50E-04 | 0.00E+00 | 1.38E-04 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
2021 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 72.09201393 | 2.61E-03 | 4.63E-03 | 1.37E-02 | 9.97E-05 | 0.00E+00 | 9.17E-05 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories

| | | | | | ton/mile |
|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | T6 instate heavy | 2.77E-03 | |

EMFAC 2011
2017 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| | | | | | exaust |
|---|---|---|---|---|---|
| Area | CalYr | Season | Veh | CO2 | |
| | | | | | ton/mile |
| Los Angele | 2017 | Annual | T6 instate heavy | 2.72E-03 | |

EMFAC 2011
2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| | | | | | exaust |
|---|---|---|---|---|---|
| Area | CalYr | Season | Veh | CO2 | |
| | | | | | ton/mile |
| Los Angele | 2018 | Annual | T6 instate heavy | 2.68E-03 | |

EMFAC 2011
2019 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| | | | | | exaust |
|---|---|---|---|---|---|
| Area | CalYr | Season | Veh | CO2 | |
| | | | | | ton/mile |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.63E-03 | |

EMFAC 2011
2020 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| | | | | | exaust |
|---|---|---|---|---|---|
| Area | CalYr | Season | Veh | CO2 | |
| | | | | | ton/mile |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.57E-03 | |

EMFAC 2011
2021 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| | | | | | exaust |
|---|---|---|---|---|---|
| Area | CalYr | Season | Veh | CO2 | |
| | | | | | ton/mile |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.56E-03 | |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories

Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | AllMYr | 5 | 0 | 1229.948223 | 0 | 0.001694902 | 0 | 0 | 0 | 0 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | AllMYr | 5 | 0 | 1226.344815 | 0 | 0.001466006 | 0 | 0 | 0 | 0 |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | AllMYr | 5 | 0 | 1149.741686 | 0 | 0.001396518 | 0 | 0 | 0 | 0 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | AllMYr | 5 | 0 | 1159.184699 | 0 | 0.001425743 | 0 | 0 | 0 | 0 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | AllMYr | 5 | 0 | 1173.370428 | 0 | 0.001458184 | 0 | 0 | 0 | 0 |

**offsite transit**
Clean Trucks Program
EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.001929517 | 0 | 0 | 0 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.001668936 | 0 | 0 | 0 |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.00158983 | 0 | 0 | 0 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.0016231 | 0 | 0 | 0 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.001660032 | 0 | 0 | 0 |

**offsite transit**
Clean Trucks Program
EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.003005541 | 0 | 0 | 0 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.002599644 | 0 | 0 | 0 |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.002476422 | 0 | 0 | 0 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.002528246 | 0 | 0 | 0 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.002585774 | 0 | 0 | 0 |

**offsite transit**
Clean Trucks Program
EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | 0.005989917 | 0 | 0 | 0 | 3.483967785 | 0 | 0 | 0 | 3.135571007 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | 0.004406589 | 0 | 0 | 0 | 3.460972383 | 0 | 0 | 0 | 3.114875144 |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | T6 instate heavy | 0.004241077 | 0 | 0 | 0 | 3.244806554 | 0 | 0 | 0 | 2.920325899 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | 0.004356082 | 0 | 0 | 0 | 3.271482215 | 0 | 0 | 0 | 2.944333993 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | T6 instate heavy | 0.004466768 | 0 | 0 | 0 | 3.311542791 | 0 | 0 | 0 | 2.980388512 |

**offsite transit**
Clean Trucks Program
EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 5.84E-05 | 0 | 0 | 0 | 0 | 0 | |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 5.50E-05 | 0 | 0 | 0 | 0 | 0 | |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 5.27E-05 | 0 | 0 | 0 | 0 | 0 | |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 5.40E-05 | 0 | 0 | 0 | 0 | 0 | |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 5.54E-05 | 0 | 0 | 0 | 0 | 0 | |

**offsite transit**
Clean Trucks Program
EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 5.37E-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 5.06E-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 4.85E-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 4.97E-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 5.09E-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**offsite transit**
Clean Trucks Program
EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | | 0 | 0 | 0 | 71.9460663 | 2.76E-03 | 4.89E-03 | 9.74E-03 | 9.49E-05 | 0.00E+00 | 8.73E-05 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | | 0 | 0 | 0 | 71.46400282 | 2.39E-03 | 4.24E-03 | 7.19E-03 | 8.97E-05 | 0.00E+00 | 8.26E-05 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | T6 instate heavy | | 0 | 0 | 0 | 71.9768095 | 2.43E-03 | 4.31E-03 | 7.38E-03 | 9.16E-05 | 0.00E+00 | 8.43E-05 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | | 0 | 0 | 0 | 72.56289808 | 2.46E-03 | 4.36E-03 | 7.52E-03 | 9.31E-05 | 0.00E+00 | 8.57E-05 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | T6 instate heavy | | 0 | 0 | 0 | 73.44870537 | 2.49E-03 | 4.41E-03 | 7.61E-03 | 9.44E-05 | 0.00E+00 | 8.68E-05 | 0.00E+00 | 0.00E+00 |

**offsite transit**
Clean Trucks Program
EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| exhaust ROG | exhaust CO | exhaust NOx | exhaust PM10 | tire wear a PM10 | exaust PM2.5 | tire wear a PM2.5 | exaust SOx |
|---|---|---|---|---|---|---|---|
| lb/mile | lb/mile | lb/mile | lb/mile | lb/mile | lb/mile | lb/mile | lb/mile |

Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | 2.55E-03 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | 2.54E-03 |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2024 | Annual | T6 instate heavy | 2.54E-03 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | 2.54E-03 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2026 | Annual | T6 instate heavy | 2.54E-03 |

**offsite transit**
Clean Trucks Program
EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD exaust

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | LDA | GAS | 2007 | AllSpeeds | 248063.9 | 8204179.588 | 1597372 | 0.098157854 | 0 | 0.090031363 | 0.188189217 |
| Los Angele | 2013 | Annual | LDA | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDA | GAS | 2008 | AllSpeeds | 246393.3 | 8521047.199 | 1594005 | 0.090839169 | 0 | 0.077462792 | 0.168301961 |
| Los Angele | 2013 | Annual | LDA | DSL | 2008 | AllSpeeds | 23.88152 | 825.9042766 | 154.4979 | 5.70E-06 | 0 | 0 | 5.70E-06 |
| Los Angele | 2013 | Annual | LDA | GAS | 2009 | AllSpeeds | 203844.4 | 7413305.006 | 1322818 | 0.073164538 | 0 | 0.060777053 | 0.133941591 |
| Los Angele | 2013 | Annual | LDA | DSL | 2009 | AllSpeeds | 768.488 | 27947.99276 | 4986.988 | 1.82E-04 | 0 | 0 | 1.82E-04 |
| Los Angele | 2013 | Annual | LDA | GAS | 2010 | AllSpeeds | 248570 | 9582184.898 | 1615543 | 0.08959958 | 0 | 0.070038974 | 0.159638554 |
| Los Angele | 2013 | Annual | LDA | DSL | 2010 | AllSpeeds | 1351.746 | 52108.88205 | 8785.472 | 3.17E-04 | 0 | 0 | 3.17E-04 |
| Los Angele | 2013 | Annual | LDA | GAS | 2011 | AllSpeeds | 239898.6 | 9923446.465 | 1563983 | 0.087888028 | 0 | 0.063870423 | 0.151758451 |
| Los Angele | 2013 | Annual | LDA | DSL | 2011 | AllSpeeds | 1226.225 | 50723.05928 | 7994.186 | 2.85E-04 | 0 | 0 | 2.85E-04 |
| Los Angele | 2013 | Annual | LDA | GAS | 2012 | AllSpeeds | 247746.8 | 1.12E+07 | 1620102 | 0.093318477 | 0 | 0.061479289 | 0.154797766 |
| Los Angele | 2013 | Annual | LDA | DSL | 2012 | AllSpeeds | 1124.676 | 50986.04158 | 7354.644 | 2.62E-04 | 0 | 0 | 2.62E-04 |
| Los Angele | 2013 | Annual | LDA | GAS | 2013 | AllSpeeds | 240185.4 | 1.25E+07 | 1575459 | 0.094956573 | 0 | 0.053757761 | 0.148714334 |
| Los Angele | 2013 | Annual | LDA | DSL | 2013 | AllSpeeds | 1044.155 | 54423.00195 | 6848.974 | 2.51E-04 | 0 | 0 | 2.51E-04 |
| Los Angele | 2013 | Annual | LDT1 | GAS | 2007 | AllSpeeds | 11362.47 | 407819.2829 | 73166.98 | 0.004933252 | 0 | 0.004163683 | 0.009096935 |
| Los Angele | 2013 | Annual | LDT1 | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDT1 | GAS | 2008 | AllSpeeds | 22860.94 | 846609.184 | 147895.5 | 0.009082794 | 0 | 0.007220728 | 0.016303522 |
| Los Angele | 2013 | Annual | LDT1 | DSL | 2008 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDT1 | GAS | 2009 | AllSpeeds | 20013.67 | 768110.1203 | 129875.7 | 0.007526386 | 0 | 0.005911965 | 0.013438351 |
| Los Angele | 2013 | Annual | LDT1 | DSL | 2009 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDT1 | GAS | 2010 | AllSpeeds | 21567.9 | 863314.9294 | 140177.3 | 0.008055179 | 0 | 0.006066503 | 0.014121682 |
| Los Angele | 2013 | Annual | LDT1 | DSL | 2010 | AllSpeeds | 34.69507 | 1388.770331 | 225.4954 | 1.00E-05 | 0 | 0 | 1.00E-05 |
| Los Angele | 2013 | Annual | LDT1 | GAS | 2011 | AllSpeeds | 20139.92 | 849110.2554 | 131299.1 | 0.007494463 | 0 | 0.005344772 | 0.012839235 |
| Los Angele | 2013 | Annual | LDT1 | DSL | 2011 | AllSpeeds | 47.30273 | 1994.316343 | 308.383 | 1.33E-05 | 0 | 0 | 1.33E-05 |
| Los Angele | 2013 | Annual | LDT1 | GAS | 2012 | AllSpeeds | 19374.13 | 875009.197 | 126694.2 | 0.007236405 | 0 | 0.004785345 | 0.01202175 |
| Los Angele | 2013 | Annual | LDT1 | DSL | 2012 | AllSpeeds | 33.45337 | 1510.886189 | 218.7631 | 9.21E-06 | 0 | 0 | 9.21E-06 |
| Los Angele | 2013 | Annual | LDT1 | GAS | 2013 | AllSpeeds | 19266.41 | 968819.3096 | 126375 | 0.007306644 | 0 | 0.004286777 | 0.011593421 |
| Los Angele | 2013 | Annual | LDT1 | DSL | 2013 | AllSpeeds | 42.63757 | 2144.055964 | 279.6745 | 1.17E-05 | 0 | 0 | 1.17E-05 |
| Los Angele | 2013 | Annual | T6 instate heavy | DSL | 2007 | AllSpeeds | 508.7522966 | 36598.29577 | 0 | 0.006639742 | 1.18E-04 | 0 | 0.00675746 |
| Los Angele | 2013 | Annual | T6 instate heavy | DSL | 2008 | AllSpeeds | 429.3837814 | 32629.65299 | 0 | 0.005499851 | 9.94E-05 | 0 | 0.005599203 |
| Los Angele | 2013 | Annual | T6 instate heavy | DSL | 2009 | AllSpeeds | 268.8764939 | 21415.53246 | 0 | 0.003318552 | 6.22E-05 | 0 | 0.003380766 |
| Los Angele | 2013 | Annual | T6 instate heavy | DSL | 2010 | AllSpeeds | 334.138356 | 27566.76727 | 0 | 0.002655549 | 7.73E-05 | 0 | 0.002732864 |
| Los Angele | 2013 | Annual | T6 instate heavy | DSL | 2011 | AllSpeeds | 390.2522835 | 32799.58987 | 0 | 0.002919413 | 9.03E-05 | 0 | 0.003009711 |
| Los Angele | 2013 | Annual | T6 instate heavy | DSL | 2012 | AllSpeeds | 457.3212719 | 38271.19459 | 0 | 0.003120873 | 1.06E-04 | 0 | 0.00322669 |
| Los Angele | 2013 | Annual | T6 instate heavy | DSL | 2013 | AllSpeeds | 429.7618788 | 35964.87087 | 0 | 0.002572372 | 9.94E-05 | 0 | 0.002671812 |
| Los Angele | 2013 | Annual | T6 instate heavy | DSL | 2014 | AllSpeeds | 115.9233664 | 4042.130759 | 0 | 2.70E-04 | 2.68E-05 | 0 | 2.96E-04 |
| Los Angele | 2013 | Annual | LDA/LDT1 | GAS&DSI | >2007 | AllSpeeds | 1814985.1 | 73217157.2 | 11801922.86 | 0.680906415 | 0 | 0.515197428 | 1.196103843 |
| Los Angele | 2013 | Annual | T6 instate heavy | DSL | >2007 | AllSpeeds | 2934.409729 | 65049575.91 | 10204550.86 | 0.589388304 | 0.000117717 | 0.425166065 | 1.014672086 |

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South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | GAS | 2007 | AllSpeeds | 240319.6 | 7634983.605 | 1542697 | 0.094162606 | 0 | 0.089589827 | 0.183752433 |
| Los Angele | 2014 | Annual | LDA | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDA | GAS | 2008 | AllSpeeds | 238164.7 | 7876788.405 | 1533627 | 0.088557414 | 0 | 0.078015074 | 0.166572488 |
| Los Angele | 2014 | Annual | LDA | DSL | 2008 | AllSpeeds | 23.88152 | 789.8369735 | 153.7816 | 5.76E-06 | 0 | 0 | 5.76E-06 |
| Los Angele | 2014 | Annual | LDA | GAS | 2009 | AllSpeeds | 200886.2 | 6947324.277 | 1299604 | 0.076334461 | 0 | 0.064781092 | 0.141115553 |
| Los Angele | 2014 | Annual | LDA | DSL | 2009 | AllSpeeds | 768.488 | 26576.93802 | 4971.621 | 1.83E-04 | 0 | 0 | 1.83E-04 |
| Los Angele | 2014 | Annual | LDA | GAS | 2010 | AllSpeeds | 247037.9 | 8984137.833 | 1603116 | 0.090091334 | 0 | 0.074082188 | 0.164173522 |

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | LDA | 0.016824311 | 0.049531654 | 0.2239677 | 0.017362908 | 0.49587579 | 0.182684194 | 0 | 0.096125722 | 0.278809916 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDA | 0.013281424 | 0.03429684 | 0.2005928 | 0.01267767 | 0.429150695 | 0.169063191 | 0 | 0.082706369 | 0.25176956 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 0 | 0 | 5.70E-06 | 6.49E-06 | 0 | 0 | 6.49E-06 |
| Los Angele | 2013 | Annual | LDA | 0.009010568 | 0.019805474 | 0.1521274 | 0.007883037 | 0.32276807 | 0.136168469 | 0 | 0.064891152 | 0.201059621 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 0 | 0 | 1.82E-04 | 2.07E-04 | 0 | 0 | 2.07E-04 |
| Los Angele | 2013 | Annual | LDA | 0.009392045 | 0.017279083 | 0.1723691 | 0.007534524 | 0.366213306 | 0.166756166 | 0 | 0.074780025 | 0.241536191 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 0 | 0 | 3.17E-04 | 3.60E-04 | 0 | 0 | 3.60E-04 |
| Los Angele | 2013 | Annual | LDA | 0.008028825 | 0.012340296 | 0.1566065 | 0.00594867 | 0.334682742 | 0.163570749 | 0 | 0.068193898 | 0.231764647 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 0 | 0 | 2.85E-04 | 3.25E-04 | 0 | 0 | 3.25E-04 |
| Los Angele | 2013 | Annual | LDA | 0.007525827 | 0.009742696 | 0.1537543 | 0.005208999 | 0.331029588 | 0.173677489 | 0 | 0.065640926 | 0.239318415 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 0 | 0 | 2.62E-04 | 2.99E-04 | 0 | 0 | 2.99E-04 |
| Los Angele | 2013 | Annual | LDA | 0.006952722 | 0.007856849 | 0.1429662 | 0.004584564 | 0.311074668 | 0.176726199 | 0 | 0.057396714 | 0.234122913 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 0 | 0 | 2.51E-04 | 2.86E-04 | 0 | 0 | 2.86E-04 |
| Los Angele | 2013 | Annual | LDT1 | 0.001003019 | 0.002342308 | 0.009792146 | 0.001035129 | 0.023269538 | 0.009181405 | 0 | 0.00444553 | 0.013626935 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDT1 | 0.001602289 | 0.003323668 | 0.016656542 | 0.001529452 | 0.039415472 | 0.016904228 | 0 | 0.00770951 | 0.024613738 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDT1 | 0.001150372 | 0.002066662 | 0.012621982 | 0.001006421 | 0.030283788 | 0.014007557 | 0 | 0.006312155 | 0.020319712 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDT1 | 0.0010591 | 0.001627929 | 0.011951362 | 8.50E-04 | 0.029609707 | 0.014991708 | 0 | 0.006477154 | 0.021468861 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.00E-05 | 1.14E-05 | 0 | 0 | 1.14E-05 |
| Los Angele | 2013 | Annual | LDT1 | 8.76E-04 | 0.001154533 | 0.010256294 | 6.49E-04 | 0.025774929 | 0.013948144 | 0 | 0.005706569 | 0.019654713 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.33E-05 | 1.52E-05 | 0 | 0 | 1.52E-05 |
| Los Angele | 2013 | Annual | LDT1 | 7.65E-04 | 8.74E-04 | 0.009319048 | 5.29E-04 | 0.023508913 | 0.013467865 | 0 | 0.005109272 | 0.018577137 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.21E-06 | 1.05E-05 | 0 | 0 | 1.05E-05 |
| Los Angele | 2013 | Annual | LDT1 | 7.25E-04 | 7.42E-04 | 0.00856759 | 4.78E-04 | 0.022105576 | 0.013598589 | 0 | 0.004576956 | 0.018175545 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.17E-05 | 1.34E-05 | 0 | 0 | 1.34E-05 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00675746 | 0.007558841 | 1.34E-04 | 0 | 0.007692853 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005599203 | 0.006261161 | 1.13E-04 | 0 | 0.006374267 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003380766 | 0.003777919 | 7.08E-05 | 0 | 0.003848744 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002732864 | 0.003023141 | 8.80E-05 | 0 | 0.003111157 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003009711 | 0.00332353 | 1.03E-04 | 0 | 0.003426327 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00322669 | 0.003552876 | 1.20E-04 | 0 | 0.003673341 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002671812 | 0.002928449 | 1.13E-04 | 0 | 0.003041655 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 2.96E-04 | 3.07E-04 | 3.05E-05 | 0 | 3.37E-04 |
| Los Angele | 2013 | Annual | LDA/LDT1 | 0.078195842 | 0.162984056 | 1.281548965 | 0.067277153 | 2.786109859 | 1.266279508 | 0 | 0.550071952 | 1.81635146 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.061371531 | 0.113452402 | 1.057581265 | 0.049914245 | 2.296991528 | 1.091154156 | 0.000134012 | 0.45394623 | 1.545234398 |

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South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | 0.020411622 | 0.066329338 | 0.2615325 | 0.022022355 | 0.554048248 | 0.175248538 | 0 | 0.095654309 | 0.270902847 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDA | 0.015685163 | 0.04582946 | 0.212996 | 0.016115477 | 0.457198588 | 0.16481656 | 0 | 0.083296031 | 0.248112591 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0 | 0 | 5.76E-06 | 6.55E-06 | 0 | 0 | 6.55E-06 |
| Los Angele | 2014 | Annual | LDA | 0.010483874 | 0.026762808 | 0.1623283 | 0.009943793 | 0.350634327 | 0.142068097 | 0 | 0.069166228 | 0.211234325 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0 | 0 | 1.83E-04 | 2.09E-04 | 0 | 0 | 2.09E-04 |
| Los Angele | 2014 | Annual | LDA | 0.010630494 | 0.02310062 | 0.1832797 | 0.009245927 | 0.390430262 | 0.16767138 | 0 | 0.079096928 | 0.246768308 |

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | LDA | 0.016824311 | 0.049531654 | 0.2239677 | 0.017362908 | 0.586496489 | 6.178388894 | 0 | 1.678577 | 7.856965894 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDA | 0.013281424 | 0.03429684 | 0.2005928 | 0.01267767 | 0.512618294 | 5.54567262 | 0 | 1.390369 | 6.93604162 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 0 | 0 | 6.49E-06 | 5.33E-05 | 0 | 0 | 5.33E-05 |
| Los Angele | 2013 | Annual | LDA | 0.009010568 | 0.019805474 | 0.1521274 | 0.007883037 | 0.389886101 | 4.285529793 | 0 | 0.9889135 | 5.274443293 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 0 | 0 | 2.07E-04 | 0.001694933 | 0 | 0 | 0.001694933 |
| Los Angele | 2013 | Annual | LDA | 0.009392045 | 0.017279083 | 0.1723691 | 0.007534524 | 0.448110944 | 4.998102294 | 0 | 1.053867 | 6.051969294 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 0 | 0 | 3.60E-04 | 0.002949497 | 0 | 0 | 0.002949497 |
| Los Angele | 2013 | Annual | LDA | 0.008028825 | 0.012340296 | 0.1566065 | 0.00594867 | 0.414688938 | 4.836065737 | 0 | 0.9400933 | 5.776159037 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 0 | 0 | 3.25E-04 | 0.002653657 | 0 | 0 | 0.002653657 |
| Los Angele | 2013 | Annual | LDA | 0.007525827 | 0.009742696 | 0.1537543 | 0.005208999 | 0.415550237 | 5.134827491 | 0 | 0.9052902 | 6.040117691 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 0 | 0 | 2.99E-04 | 0.002432928 | 0 | 0 | 0.002432928 |
| Los Angele | 2013 | Annual | LDA | 0.006952722 | 0.007856849 | 0.1429662 | 0.004584564 | 0.396483247 | 5.380316496 | 0 | 0.825644 | 6.205960496 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 0 | 0 | 2.86E-04 | 0.002320763 | 0 | 0 | 0.002320763 |
| Los Angele | 2013 | Annual | LDT1 | 0.001003019 | 0.002342308 | 0.009792146 | 0.001035129 | 0.027799538 | 0.31057364 | 0 | 0.078022182 | 0.388595822 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDT1 | 0.001602289 | 0.003323668 | 0.016656542 | 0.001529452 | 0.047725689 | 0.554060321 | 0 | 0.1300489 | 0.684109221 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDT1 | 0.001150372 | 0.002066662 | 0.012621982 | 0.001006421 | 0.037165149 | 0.441719682 | 0 | 0.096605442 | 0.538325124 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDT1 | 0.0010591 | 0.001627929 | 0.011951362 | 8.50E-04 | 0.036956887 | 0.448917803 | 0 | 0.091229059 | 0.540146862 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.14E-05 | 9.28E-05 | 0 | 0 | 9.28E-05 |
| Los Angele | 2013 | Annual | LDT1 | 8.76E-04 | 0.001154533 | 0.010256294 | 6.49E-04 | 0.032590407 | 0.412019179 | 0 | 0.078635357 | 0.490654536 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.52E-05 | 1.23E-04 | 0 | 0 | 1.23E-04 |
| Los Angele | 2013 | Annual | LDT1 | 7.65E-04 | 8.74E-04 | 0.009319048 | 5.29E-04 | 0.0300643 | 0.398183683 | 0 | 0.070531555 | 0.468715238 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.05E-05 | 8.45E-05 | 0 | 0 | 8.45E-05 |
| Los Angele | 2013 | Annual | LDT1 | 7.25E-04 | 7.42E-04 | 0.00856759 | 4.78E-04 | 0.0286877 | 0.414754019 | 0 | 0.066059209 | 0.480813228 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.34E-05 | 1.07E-04 | 0 | 0 | 1.07E-04 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.007692853 | 0.027677801 | 0.001392015 | 0 | 0.029069815 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.006374267 | 0.022926156 | 0.001174852 | 0 | 0.024101007 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003848744 | 0.0138334 | 7.36E-04 | 0 | 0.014569083 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003111157 | 0.01106967 | 9.14E-04 | 0 | 0.011983918 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003426327 | 0.012169589 | 0.001067783 | 0 | 0.013237372 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003673341 | 0.013009374 | 0.001251293 | 0 | 0.014260667 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003041655 | 0.010722945 | 0.001175886 | 0 | 0.011898831 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.37E-04 | 0.001123666 | 3.17E-04 | 0 | 0.001440848 |
| Los Angele | 2013 | Annual | LDA/LDT1 | 0.078195842 | 0.162984056 | 1.281548965 | 0.067277153 | 3.406357475 | 39.3516437 | 0 | 8.393885704 | 47.7455294 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.061371531 | 0.113452402 | 1.057581265 | 0.049914245 | 2.82755384 | 33.2009326 | 0.001392015 | 6.715308704 | 39.91763332 |

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| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | 0.020411622 | 0.066329338 | 0.2615325 | 0.022022355 | 0.641198662 | 5.976363701 | 0 | 1.697667 | 7.674030701 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDA | 0.015685163 | 0.04582946 | 0.212996 | 0.016115477 | 0.538738691 | 5.473612859 | 0 | 1.446453 | 6.920065859 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0 | 0 | 6.55E-06 | 5.38E-05 | 0 | 0 | 5.38E-05 |
| Los Angele | 2014 | Annual | LDA | 0.010483874 | 0.026762808 | 0.1623283 | 0.009943793 | 0.4207531 | 4.506308967 | 0 | 1.1199 | 5.626208967 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0 | 0 | 2.09E-04 | 0.001713974 | 0 | 0 | 0.001713974 |
| Los Angele | 2014 | Annual | LDA | 0.010630494 | 0.02310062 | 0.1832797 | 0.009245927 | 0.473025049 | 5.108530424 | 0 | 1.164108 | 6.272638424 |

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | LDA | 0.480427542 | 0 | 0.08381702 | 0.564244562 | 3350.543909 | 0 | 130.6236 | 3481.167509 | 3317.03847 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDA | 0.456384032 | 0 | 0.073842876 | 0.530226908 | 3481.389591 | 0 | 130.3615 | 3611.751091 | 3446.575695 |
| Los Angele | 2013 | Annual | LDA | 1.77E-04 | 0 | 0 | 1.77E-04 | 0.289167044 | 0 | 0 | 0.289167044 | 0.286275374 |
| Los Angele | 2013 | Annual | LDA | 0.395191662 | 0 | 0.060451131 | 0.455642793 | 3034.743223 | 0 | 108.3622 | 3143.105423 | 3004.395791 |
| Los Angele | 2013 | Annual | LDA | 0.005684107 | 0 | 0 | 0.005684107 | 9.785199201 | 0 | 0 | 9.785199201 | 9.687347209 |
| Los Angele | 2013 | Annual | LDA | 0.491682352 | 0 | 0.06892167 | 0.560604022 | 3923.574732 | 0 | 132.333 | 4055.907732 | 3748.38712 |
| Los Angele | 2013 | Annual | LDA | 0.009973691 | 0 | 0 | 0.009973691 | 18.24445236 | 0 | 0 | 18.24445236 | 17.42983756 |
| Los Angele | 2013 | Annual | LDA | 0.47652598 | 0 | 0.059320509 | 0.535846489 | 4064.565418 | 0 | 128.1092 | 4192.674618 | 3444.475318 |
| Los Angele | 2013 | Annual | LDA | 0.009064293 | 0 | 0 | 0.009064293 | 17.75924558 | 0 | 0 | 17.75924558 | 15.04989508 |
| Los Angele | 2013 | Annual | LDA | 0.502024171 | 0 | 0.053651277 | 0.555675448 | 4601.452372 | 0 | 132.6988 | 4734.151172 | 3402.912072 |
| Los Angele | 2013 | Annual | LDA | 0.008416502 | 0 | 0 | 0.008416502 | 17.85132175 | 0 | 0 | 17.85132175 | 13.20158798 |
| Los Angele | 2013 | Annual | LDA | 0.515980143 | 0 | 0.044228621 | 0.560208764 | 5130.31061 | 0 | 129.0367 | 5259.34731 | 3697.517463 |
| Los Angele | 2013 | Annual | LDA | 0.008165572 | 0 | 0 | 0.008165572 | 19.05467573 | 0 | 0 | 19.05467573 | 13.73308589 |
| Los Angele | 2013 | Annual | LDT1 | 0.024076241 | 0 | 0.003884341 | 0.027960582 | 194.035776 | 0 | 6.97457 | 201.010346 | 192.0954183 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDT1 | 0.045433076 | 0 | 0.006875516 | 0.052308592 | 402.571046 | 0 | 14.08541 | 416.656456 | 398.5453356 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDT1 | 0.040684848 | 0 | 0.005883759 | 0.046568607 | 365.9792749 | 0 | 12.39047 | 378.3697449 | 362.3194821 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDT1 | 0.044193481 | 0 | 0.005960771 | 0.050154252 | 411.2120103 | 0 | 13.36499 | 424.5770003 | 392.8513941 |
| Los Angele | 2013 | Annual | LDT1 | 3.19E-04 | 0 | 0 | 3.19E-04 | 0.486238663 | 0 | 0 | 0.486238663 | 0.464528107 |
| Los Angele | 2013 | Annual | LDT1 | 0.040618998 | 0 | 0.004950474 | 0.045569472 | 404.5258394 | 0 | 12.51719 | 417.0430294 | 342.8113773 |
| Los Angele | 2013 | Annual | LDT1 | 4.26E-04 | 0 | 0 | 4.26E-04 | 0.69825347 | 0 | 0 | 0.69825347 | 0.591727921 |
| Los Angele | 2013 | Annual | LDT1 | 0.03892705 | 0 | 0.004162028 | 0.043089078 | 416.959875 | 0 | 12.07729 | 429.037165 | 308.3543363 |
| Los Angele | 2013 | Annual | LDT1 | 2.98E-04 | 0 | 0 | 2.98E-04 | 0.528994194 | 0 | 0 | 0.528994194 | 0.391207076 |
| Los Angele | 2013 | Annual | LDT1 | 0.039756452 | 0 | 0.003520005 | 0.043276457 | 461.7445861 | 0 | 12.04537 | 473.7899561 | 332.7885581 |
| Los Angele | 2013 | Annual | LDT1 | 3.84E-04 | 0 | 0 | 3.84E-04 | 0.750680656 | 0 | 0 | 0.750680656 | 0.541030562 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.17738577 | 0.002103049 | 0 | 0.179488818 | 46.91652708 | 0.418240466 | 0 | 47.33476754 | 46.4473618 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.143320596 | 0.00177496 | 0 | 0.145095556 | 41.82899683 | 0.352992358 | 0 | 42.18198919 | 41.41070686 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.080197749 | 0.001111465 | 0 | 0.081309213 | 27.4532567 | 0.22104083 | 0 | 27.67429753 | 27.17872413 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.035450709 | 0.00138124 | 0 | 0.03683195 | 34.15797085 | 0.274691992 | 0 | 34.43266284 | 33.81639114 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.034412948 | 0.001613201 | 0 | 0.036026149 | 40.64195933 | 0.320822722 | 0 | 40.96278205 | 40.23553974 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.029609323 | 0.001890446 | 0 | 0.03149977 | 47.42182266 | 0.375959505 | 0 | 47.79778216 | 46.94760443 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.022815035 | 0.001776523 | 0 | 0.024591558 | 44.46149381 | 0.353303188 | 0 | 44.814797 | 44.01687887 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.002210126 | 4.79E-04 | 0 | 0.002689323 | 4.997075407 | 0.095299506 | 0 | 5.092374914 | 4.947104653 |
| Los Angele | 2013 | Annual | LDA/LDT1 | 3.634813858 | 0 | 0.479469997 | 4.114283855 | 30329.05649 | 0 | 974.98029 | 31304.03678 | 26462.44435 |
| Los Angele | 2013 | Annual | T6 instate heavy | 3.331772086 | 0.002103049 | 0.395652977 | 3.729528112 | 27025.42911 | 0.418240466 | 844.35669 | 27870.20404 | 23191.85324 |

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South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | 0.461334981 | 0 | 0.084710449 | 0.54604543 | 3117.059058 | 0 | 126.1504 | 3243.209458 | 3070.303172 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDA | 0.44991021 | 0 | 0.077663027 | 0.527573237 | 3217.066521 | 0 | 125.4198 | 3342.486321 | 3168.810523 |
| Los Angele | 2014 | Annual | LDA | 1.78E-04 | 0 | 0 | 1.78E-04 | 0.276539104 | 0 | 0 | 0.276539104 | 0.272391017 |
| Los Angele | 2014 | Annual | LDA | 0.39014721 | 0 | 0.064416617 | 0.454563827 | 2843.100772 | 0 | 106.4606 | 2949.561372 | 2800.45426 |
| Los Angele | 2014 | Annual | LDA | 0.005708047 | 0 | 0 | 0.005708047 | 9.305164045 | 0 | 0 | 9.305164045 | 9.165586585 |
| Los Angele | 2014 | Annual | LDA | 0.496211227 | 0 | 0.077041693 | 0.57325292 | 3677.552947 | 0 | 131.3152 | 3808.868147 | 3495.606015 |

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | LDA | 0 | 129.317364 | 3446.355834 | 0.002587623 | 0 | 3.15E-04 | 0.002902882 | 0.07234849 | 0.3323509 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDA | 0 | 129.057885 | 3575.63358 | 0.002687836 | 0 | 4.09E-04 | 0.00309685 | 0.075142764 | 0.3451872 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 0.286275374 | 3.52E-06 | 0 | 0 | 3.52E-06 | 7.28E-06 | 3.35E-05 |
| Los Angele | 2013 | Annual | LDA | 0 | 107.278578 | 3111.674369 | 0.003123023 | 0 | 5.37E-04 | 0.003660035 | 0.065374166 | 0.3003126 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 9.687347209 | 1.13E-04 | 0 | 0 | 1.13E-04 | 2.46E-04 | 0.001132172 |
| Los Angele | 2013 | Annual | LDA | 0 | 126.4243316 | 3874.811451 | 0.004036451 | 0 | 8.09E-04 | 0.004845559 | 0.084500417 | 0.3881738 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 17.42983756 | 1.98E-04 | 0 | 0 | 1.98E-04 | 4.60E-04 | 0.002110928 |
| Los Angele | 2013 | Annual | LDA | 0 | 108.5648604 | 3553.040178 | 0.006270291 | 0 | 0.00145938 | 0.00772967 | 0.087509833 | 0.4019983 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 15.04989508 | 1.80E-04 | 0 | 0 | 1.80E-04 | 4.47E-04 | 0.002054788 |
| Los Angele | 2013 | Annual | LDA | 0 | 98.13474356 | 3501.046816 | 0.009461757 | 0 | 0.002126578 | 0.011588335 | 0.099043429 | 0.4549808 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 13.20158798 | 1.67E-04 | 0 | 0 | 1.67E-04 | 4.50E-04 | 0.002065442 |
| Los Angele | 2013 | Annual | LDA | 0 | 92.99933042 | 3790.516794 | 0.015818908 | 0 | 0.003874179 | 0.019693086 | 0.1103971 | 0.5071365 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 13.73308589 | 1.62E-04 | 0 | 0 | 1.62E-04 | 4.80E-04 | 0.002204673 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 6.9048243 | 199.0002426 | 1.29E-04 | 0 | 1.45E-05 | 1.43E-04 | 0.00359635 | 0.016520739 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 13.9445559 | 412.4898915 | 2.67E-04 | 0 | 3.80E-05 | 3.05E-04 | 0.007465816 | 0.034296099 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 12.2665653 | 374.5860474 | 3.24E-04 | 0 | 5.27E-05 | 3.76E-04 | 0.006773572 | 0.031116102 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 12.7682432 | 405.6196373 | 3.64E-04 | 0 | 7.02E-05 | 4.34E-04 | 0.007613136 | 0.034972843 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0.464528107 | 5.28E-06 | 0 | 0 | 5.28E-06 | 1.22E-05 | 5.63E-05 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 10.60756749 | 353.4189448 | 5.36E-04 | 0 | 1.22E-04 | 6.59E-04 | 0.007487872 | 0.034397408 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0.591727921 | 7.06E-06 | 0 | 0 | 7.06E-06 | 1.76E-05 | 8.08E-05 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 8.931518274 | 317.2858546 | 7.37E-04 | 0 | 1.66E-04 | 9.03E-04 | 0.00771626 | 0.03544658 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0.391207076 | 4.93E-06 | 0 | 0 | 4.93E-06 | 1.33E-05 | 6.12E-05 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 8.681339066 | 341.4698972 | 0.001223608 | 0 | 3.11E-04 | 0.001534221 | 0.008543524 | 0.039246816 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0.541030562 | 6.37E-06 | 0 | 0 | 6.37E-06 | 1.89E-05 | 8.69E-05 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.414058061 | 0 | 46.86141987 | 0.001951258 | 4.94E-06 | 0 | 0.0019562 | 4.84E-04 | 0.00525827 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.349462434 | 0 | 41.7601693 | 0.001621754 | 4.17E-06 | 0 | 0.001625925 | 4.32E-04 | 0.004688074 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.218830422 | 0 | 27.39755455 | 9.83E-04 | 2.61E-06 | 0 | 9.85E-04 | 2.83E-04 | 0.003076882 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.271945072 | 0 | 34.08833621 | 0.001154589 | 3.25E-06 | 0 | 0.001157836 | 3.65E-04 | 0.003960662 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.317614495 | 0 | 40.55315423 | 0.001237824 | 3.79E-06 | 0 | 0.001241615 | 4.34E-04 | 0.004712489 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.37219991 | 0 | 47.31980434 | 0.00128273 | 4.44E-06 | 0 | 0.001287173 | 5.06E-04 | 0.005498624 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.349770156 | 0 | 44.36664903 | 0.001004689 | 4.18E-06 | 0 | 0.001008864 | 4.76E-04 | 0.005167262 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.094346511 | 0 | 5.041451164 | 1.01E-04 | 1.13E-06 | 0 | 1.03E-04 | 5.35E-05 | 5.81E-04 |
| Los Angele | 2013 | Annual | LDA/LDT1 | 0 | 865.8817065 | 27328.32606 | 0.048412868 | 0 | 0.010305181 | 0.05871805 | 0.645664907 | 2.966023258 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.414058061 | 736.5643425 | 23928.83165 | 0.047776503 | 4.94286E-06 | 0.009989922 | 0.057771368 | 0.57380053 | 2.638930627 |

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South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | 0 | 124.258144 | 3194.561316 | 0.002408055 | 0 | 3.04E-04 | 0.002712518 | 0.067329019 | 0.3092928 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDA | 0 | 123.538503 | 3292.349026 | 0.002484538 | 0 | 3.94E-04 | 0.002878048 | 0.069461383 | 0.3190882 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0.272391017 | 3.53E-06 | 0 | 0 | 3.53E-06 | 6.97E-06 | 3.20E-05 |
| Los Angele | 2014 | Annual | LDA | 0 | 104.863691 | 2905.317951 | 0.002926719 | 0 | 5.28E-04 | 0.003454307 | 0.061264914 | 0.2814358 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 9.165586585 | 1.13E-04 | 0 | 0 | 1.13E-04 | 2.34E-04 | 0.00107663 |
| Los Angele | 2014 | Annual | LDA | 0 | 124.8183805 | 3620.424395 | 0.003784532 | 0 | 8.03E-04 | 0.004587417 | 0.079226531 | 0.3639469 |

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | LDA | 0.407602272 | 0.002400887 | 0 | 2.93E-04 | 0.002693396 | 0.018087123 | 0.1424361 | 0.163216619 | 0.033546504 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDA | 0.423426814 | 0.002493868 | 0 | 3.79E-04 | 0.002873366 | 0.018785691 | 0.1479373 | 0.169596357 | 0.034842253 |
| Los Angele | 2013 | Annual | LDA | 4.43E-05 | 3.24E-06 | 0 | 0 | 3.24E-06 | 1.82E-06 | 1.43E-05 | 1.94E-05 | 2.76E-06 |
| Los Angele | 2013 | Annual | LDA | 0.369346801 | 0.00289765 | 0 | 4.98E-04 | 0.003395908 | 0.016343541 | 0.1287054 | 0.148444849 | 0.030363221 |
| Los Angele | 2013 | Annual | LDA | 0.001491371 | 1.04E-04 | 0 | 0 | 1.04E-04 | 6.16E-05 | 4.85E-04 | 6.51E-04 | 9.34E-05 |
| Los Angele | 2013 | Annual | LDA | 0.477519776 | 0.00374516 | 0 | 7.51E-04 | 0.004495879 | 0.021125104 | 0.1663602 | 0.191981183 | 0.039247379 |
| Los Angele | 2013 | Annual | LDA | 0.002768335 | 1.82E-04 | 0 | 0 | 1.82E-04 | 1.15E-04 | 9.05E-04 | 0.001201618 | 1.74E-04 |
| Los Angele | 2013 | Annual | LDA | 0.497237803 | 0.005817795 | 0 | 0.001354063 | 0.007171858 | 0.021877458 | 0.172285 | 0.201334316 | 0.040652085 |
| Los Angele | 2013 | Annual | LDA | 0.002682003 | 1.66E-04 | 0 | 0 | 1.66E-04 | 1.12E-04 | 8.81E-04 | 0.001157969 | 1.70E-04 |
| Los Angele | 2013 | Annual | LDA | 0.565612564 | 0.008778949 | 0 | 0.001973113 | 0.010752063 | 0.024760857 | 0.1949918 | 0.23050472 | 0.046016142 |
| Los Angele | 2013 | Annual | LDA | 0.002682201 | 1.54E-04 | 0 | 0 | 1.54E-04 | 1.12E-04 | 8.85E-04 | 0.001151362 | 1.70E-04 |
| Los Angele | 2013 | Annual | LDA | 0.637226686 | 0.014677335 | 0 | 0.003594599 | 0.018271933 | 0.027599264 | 0.2173442 | 0.263215397 | 0.051299013 |
| Los Angele | 2013 | Annual | LDA | 0.002846863 | 1.49E-04 | 0 | 0 | 1.49E-04 | 1.20E-04 | 9.45E-04 | 0.001214122 | 1.82E-04 |
| Los Angele | 2013 | Annual | LDT1 | 0.020260328 | 1.19E-04 | 0 | 1.34E-05 | 1.33E-04 | 8.99E-04 | 0.007080315 | 0.008112304 | 0.001941955 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDT1 | 0.042066975 | 2.48E-04 | 0 | 3.52E-05 | 2.83E-04 | 0.001866454 | 0.014698325 | 0.016847825 | 0.004027546 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDT1 | 0.038266082 | 3.00E-04 | 0 | 4.89E-05 | 3.49E-04 | 0.001693393 | 0.013335472 | 0.015378109 | 0.00366045 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | LDT1 | 0.043019725 | 3.37E-04 | 0 | 6.51E-05 | 4.02E-04 | 0.001903284 | 0.014988361 | 0.01729409 | 0.004112093 |
| Los Angele | 2013 | Annual | LDT1 | 7.38E-05 | 4.86E-06 | 0 | 0 | 4.86E-06 | 3.06E-06 | 2.41E-05 | 3.20E-05 | 4.64E-06 |
| Los Angele | 2013 | Annual | LDT1 | 0.042544064 | 4.98E-04 | 0 | 1.14E-04 | 6.11E-04 | 0.001871968 | 0.014741745 | 0.017224956 | 0.004044745 |
| Los Angele | 2013 | Annual | LDT1 | 1.05E-04 | 6.50E-06 | 0 | 0 | 6.50E-06 | 4.40E-06 | 3.46E-05 | 4.55E-05 | 6.67E-06 |
| Los Angele | 2013 | Annual | LDT1 | 0.044065916 | 6.84E-04 | 0 | 1.54E-04 | 8.38E-04 | 0.001929065 | 0.015191391 | 0.017958361 | 0.004168627 |
| Los Angele | 2013 | Annual | LDT1 | 7.95E-05 | 4.54E-06 | 0 | 0 | 4.54E-06 | 3.33E-06 | 2.62E-05 | 3.41E-05 | 5.05E-06 |
| Los Angele | 2013 | Annual | LDT1 | 0.049324561 | 0.001135306 | 0 | 2.88E-04 | 0.001423504 | 0.002135881 | 0.016820064 | 0.020379449 | 0.004615921 |
| Los Angele | 2013 | Annual | LDT1 | 1.12E-04 | 5.86E-06 | 0 | 0 | 5.86E-06 | 4.73E-06 | 3.72E-05 | 4.78E-05 | 7.17E-06 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.007698583 | 0.001795157 | 4.55E-06 | 0 | 0.001799704 | 1.21E-04 | 0.002253544 | 0.004174277 | 4.48E-04 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.006745616 | 0.001492013 | 3.84E-06 | 0 | 0.001495851 | 1.08E-04 | 0.002009174 | 0.00361293 | 3.99E-04 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.004345414 | 9.04E-04 | 2.40E-06 | 0 | 9.06E-04 | 7.08E-05 | 0.001318664 | 0.002295916 | 2.62E-04 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.005483144 | 0.001062222 | 2.99E-06 | 0 | 0.001065209 | 9.12E-05 | 0.001697427 | 0.002853797 | 3.26E-04 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.006387969 | 0.001138798 | 3.49E-06 | 0 | 0.001142286 | 1.08E-04 | 0.002019638 | 0.00327039 | 3.88E-04 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.007292038 | 0.001180111 | 4.09E-06 | 0 | 0.001184199 | 1.27E-04 | 0.002356553 | 0.003667312 | 4.52E-04 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.00665186 | 9.24E-04 | 3.84E-06 | 0 | 9.28E-04 | 1.19E-04 | 0.002214541 | 0.003261629 | 4.24E-04 |
| Los Angele | 2013 | Annual | T6 instate heavy | 7.37E-04 | 9.34E-05 | 1.04E-06 | 0 | 9.44E-05 | 1.34E-05 | 2.49E-04 | 3.57E-04 | 4.77E-05 |
| Los Angele | 2013 | Annual | LDA/LDT1 | 3.670406215 | 0.044912514 | 0 | 0.009561508 | 0.054474022 | 0.161416215 | 1.271152775 | 1.487043011 | 0.303353674 |
| Los Angele | 2013 | Annual | T6 instate heavy | 3.270502525 | 0.044306784 | 4.54743E-06 | 0.009268999 | 0.053580331 | 0.14345012 | 1.130970219 | 1.328000669 | 0.270254776 |

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EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | 0.379334337 | 0.002234277 | 0 | 2.82E-04 | 0.002516769 | 0.016832255 | 0.132554 | 0.151903024 | 0.031212525 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDA | 0.391427631 | 0.002305241 | 0 | 3.65E-04 | 0.002670354 | 0.017365346 | 0.1367521 | 0.1567878 | 0.03220259 |
| Los Angele | 2014 | Annual | LDA | 4.25E-05 | 3.25E-06 | 0 | 0 | 3.25E-06 | 1.74E-06 | 1.37E-05 | 1.87E-05 | 2.64E-06 |
| Los Angele | 2014 | Annual | LDA | 0.346155021 | 0.002715512 | 0 | 4.90E-04 | 0.003205027 | 0.015316228 | 0.1206153 | 0.139136555 | 0.028453924 |
| Los Angele | 2014 | Annual | LDA | 0.001424182 | 1.04E-04 | 0 | 0 | 1.04E-04 | 5.86E-05 | 4.61E-04 | 6.24E-04 | 8.88E-05 |
| Los Angele | 2014 | Annual | LDA | 0.447760848 | 0.003511421 | 0 | 7.45E-04 | 0.004256366 | 0.019806633 | 0.1559772 | 0.180040199 | 0.036793411 |

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | ROG lb/mile | CO lb/mile | NOx lb/mile | PM10 lb/mile | PM10 lb/mile | PM2.5 lb/mile | PM2.5 lb/mile | SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | LDA | 0 | 0.001333044 | 0.034879548 | 372.041 | 0 | 1.21E-04 | 1.92E-03 | 1.38E-04 | 7.08E-07 | 9.87E-05 | 6.57E-07 | 3.91E-05 | 8.50E-06 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2013 | Annual | LDA | 0 | 0.001325508 | 0.036167761 | 385.7817 | 0 | 1.01E-04 | 1.63E-03 | 1.24E-04 | 7.27E-07 | 9.87E-05 | 6.74E-07 | 3.91E-05 | 8.49E-06 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 2.76E-06 | 0 | 0.026025034 | 1.38E-05 | 1.29E-04 | 4.30E-04 | 8.52E-06 | 9.87E-05 | 7.84E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2013 | Annual | LDA | 0 | 0.001099089 | 0.03146231 | 335.5912 | 0 | 8.71E-05 | 1.42E-03 | 1.23E-04 | 9.87E-07 | 9.87E-05 | 9.16E-07 | 3.91E-05 | 8.49E-06 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 9.34E-05 | 0 | 0.880668 | 1.30E-05 | 1.21E-04 | 4.07E-04 | 8.07E-06 | 9.87E-05 | 7.42E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2013 | Annual | LDA | 0 | 0.001339672 | 0.040587051 | 432.9199 | 0 | 7.64E-05 | 1.26E-03 | 1.17E-04 | 1.01E-06 | 9.87E-05 | 9.38E-07 | 3.91E-05 | 8.47E-06 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 1.74E-04 | 0 | 1.642001 | 1.22E-05 | 1.13E-04 | 3.83E-04 | 7.60E-06 | 9.87E-05 | 6.99E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2013 | Annual | LDA | 0 | 0.001295531 | 0.041947616 | 447.4323 | 0 | 6.75E-05 | 1.16E-03 | 1.08E-04 | 1.56E-06 | 9.87E-05 | 1.45E-06 | 3.91E-05 | 8.45E-06 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 1.70E-04 | 0 | 1.598332 | 1.13E-05 | 1.05E-04 | 3.57E-04 | 7.09E-06 | 9.87E-05 | 6.53E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2013 | Annual | LDA | 0 | 0.001340722 | 0.047356864 | 505.1297 | 0 | 5.89E-05 | 1.08E-03 | 9.90E-05 | 2.06E-06 | 9.87E-05 | 1.91E-06 | 3.91E-05 | 8.43E-06 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 1.70E-04 | 0 | 1.606619 | 1.03E-05 | 9.54E-05 | 3.30E-04 | 6.56E-06 | 9.87E-05 | 6.03E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2013 | Annual | LDA | 0 | 0.001302672 | 0.052601685 | 561.0734 | 0 | 4.97E-05 | 9.91E-04 | 8.95E-05 | 3.15E-06 | 9.87E-05 | 2.92E-06 | 3.91E-05 | 8.40E-06 |
| Los Angele | 2013 | Annual | LDA | 0 | 0 | 1.82E-04 | 0 | 1.714921 | 9.22E-06 | 8.53E-05 | 3.00E-04 | 5.96E-06 | 9.87E-05 | 5.49E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 7.10E-05 | 0.002012929 | 21.47082 | 0 | 1.14E-04 | 1.91E-03 | 1.37E-04 | 7.02E-07 | 9.87E-05 | 6.52E-07 | 3.91E-05 | 9.87E-06 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2013 | Annual | LDT1 | 0 | 1.43E-04 | 0.004170412 | 44.4835 | 0 | 9.31E-05 | 1.62E-03 | 1.24E-04 | 7.21E-07 | 9.87E-05 | 6.69E-07 | 3.91E-05 | 9.85E-06 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2013 | Annual | LDT1 | 0 | 1.25E-04 | 0.003785832 | 40.38139 | 0 | 7.89E-05 | 1.40E-03 | 1.21E-04 | 9.80E-07 | 9.87E-05 | 9.09E-07 | 3.91E-05 | 9.86E-06 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2013 | Annual | LDT1 | 0 | 1.35E-04 | 0.004247123 | 45.30173 | 0 | 6.86E-05 | 1.25E-03 | 1.16E-04 | 1.00E-06 | 9.87E-05 | 9.32E-07 | 3.91E-05 | 9.84E-06 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 4.64E-06 | 0 | 0.043761484 | 1.45E-05 | 1.34E-04 | 4.59E-04 | 7.61E-06 | 9.87E-05 | 7.00E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 1.26E-04 | 0.004171092 | 44.49074 | 0 | 6.07E-05 | 1.16E-03 | 1.07E-04 | 1.55E-06 | 9.87E-05 | 1.44E-06 | 3.91E-05 | 9.82E-06 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 6.67E-06 | 0 | 0.062842816 | 1.34E-05 | 1.23E-04 | 4.27E-04 | 7.08E-06 | 9.87E-05 | 6.52E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 1.22E-04 | 0.004290438 | 45.76375 | 0 | 5.37E-05 | 1.07E-03 | 9.85E-05 | 2.06E-06 | 9.87E-05 | 1.92E-06 | 3.91E-05 | 9.81E-06 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 5.05E-06 | 0 | 0.047609478 | 1.22E-05 | 1.12E-04 | 3.94E-04 | 6.53E-06 | 9.87E-05 | 6.01E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 1.21E-04 | 0.004737327 | 50.53048 | 0 | 4.56E-05 | 9.93E-04 | 8.93E-05 | 3.17E-06 | 9.87E-05 | 2.94E-06 | 3.91E-05 | 9.78E-06 |
| Los Angele | 2013 | Annual | LDT1 | 0 | 0 | 7.17E-06 | 0 | 0.067561261 | 1.09E-05 | 9.99E-05 | 3.58E-04 | 5.94E-06 | 9.87E-05 | 5.46E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2013 | Annual | T6 instate heavy | 3.99E-06 | 0 | 4.52E-04 | 0 | 4.260129079 | 3.69E-04 | 1.59E-03 | 9.81E-03 | 1.07E-04 | 3.14E-04 | 9.83E-05 | 1.30E-04 | 2.47E-05 |
| Los Angele | 2013 | Annual | T6 instate heavy | 3.37E-06 | 0 | 4.02E-04 | 0 | 3.796379027 | 3.43E-04 | 1.48E-03 | 8.89E-03 | 9.97E-05 | 3.14E-04 | 9.17E-05 | 1.30E-04 | 2.47E-05 |
| Los Angele | 2013 | Annual | T6 instate heavy | 2.11E-06 | 0 | 2.64E-04 | 0 | 2.490686778 | 3.16E-04 | 1.36E-03 | 7.59E-03 | 9.20E-05 | 3.14E-04 | 8.47E-05 | 1.30E-04 | 2.47E-05 |
| Los Angele | 2013 | Annual | T6 instate heavy | 2.62E-06 | 0 | 3.29E-04 | 0 | 3.098939655 | 1.98E-04 | 8.69E-04 | 2.67E-03 | 8.40E-05 | 3.14E-04 | 7.73E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2013 | Annual | T6 instate heavy | 3.06E-06 | 0 | 3.91E-04 | 0 | 3.686650385 | 1.84E-04 | 8.07E-04 | 2.20E-03 | 7.57E-05 | 3.14E-04 | 6.97E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2013 | Annual | T6 instate heavy | 3.59E-06 | 0 | 4.56E-04 | 0 | 4.301800395 | 1.69E-04 | 7.45E-04 | 1.65E-03 | 6.73E-05 | 3.14E-04 | 6.19E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2013 | Annual | T6 instate heavy | 3.37E-06 | 0 | 4.28E-04 | 0 | 4.03333173 | 1.49E-04 | 6.62E-04 | 1.37E-03 | 5.61E-05 | 3.14E-04 | 5.16E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2013 | Annual | T6 instate heavy | 9.09E-07 | 0 | 4.86E-05 | 0 | 0.458313742 | 1.47E-04 | 7.13E-04 | 1.33E-03 | 5.08E-05 | 3.14E-04 | 4.67E-05 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2013 | Annual | LDA/LDT1 | 0 | 0.009880054 | 0.313233728 | 3332.39161 | 7.690341073 | 7.61E-05 | 1.30E-03 | 1.12E-04 | 1.60E-06 | 9.87E-05 | 1.49E-06 | 3.91E-05 | 8.56E-06 |
| Los Angele | 2013 | Annual | T6 instate heavy | 3.99021E-06 | 0.00854701 | 0.278805776 | 2960.35061 | 11.95047015 | 7.06E-05 | 1.23E-03 | 1.15E-04 | 1.78E-06 | 9.88E-05 | 1.65E-06 | 3.92E-05 | 8.57E-06 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | 0 | 0.001288679 | 0.032501204 | 346.6725 | 0 | 1.45E-04 | 2.01E-03 | 1.43E-04 | 7.11E-07 | 9.87E-05 | 6.59E-07 | 3.91E-05 | 8.51E-06 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2014 | Annual | LDA | 0 | 0.001277078 | 0.033479668 | 357.1092 | 0 | 1.16E-04 | 1.76E-03 | 1.34E-04 | 7.31E-07 | 9.87E-05 | 6.78E-07 | 3.91E-05 | 8.50E-06 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 2.64E-06 | 0 | 0.024888519 | 1.46E-05 | 1.36E-04 | 4.51E-04 | 8.95E-06 | 9.87E-05 | 8.23E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2014 | Annual | LDA | 0 | 0.001082289 | 0.029536213 | 315.0467 | 0 | 1.01E-04 | 1.62E-03 | 1.31E-04 | 9.94E-07 | 9.87E-05 | 9.23E-07 | 3.91E-05 | 8.50E-06 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 8.88E-05 | 0 | 0.8374649 | 1.38E-05 | 1.29E-04 | 4.30E-04 | 8.52E-06 | 9.87E-05 | 7.84E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2014 | Annual | LDA | 0 | 0.00133137 | 0.038124781 | 406.6562 | 0 | 8.69E-05 | 1.40E-03 | 1.28E-04 | 1.02E-06 | 9.87E-05 | 9.48E-07 | 3.91E-05 | 8.49E-06 |

| Area | CalYr | Season | Veh | CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2013 | Annual | LDA | 4.20E-04 |
| Los Angele | 2013 | Annual | LDA | |
| Los Angele | 2013 | Annual | LDA | 4.20E-04 |
| Los Angele | 2013 | Annual | LDA | 3.47E-04 |
| Los Angele | 2013 | Annual | LDA | 4.20E-04 |
| Los Angele | 2013 | Annual | LDA | 3.47E-04 |
| Los Angele | 2013 | Annual | LDA | 4.04E-04 |
| Los Angele | 2013 | Annual | LDA | 3.34E-04 |
| Los Angele | 2013 | Annual | LDA | 3.58E-04 |
| Los Angele | 2013 | Annual | LDA | 2.97E-04 |
| Los Angele | 2013 | Annual | LDA | 3.12E-04 |
| Los Angele | 2013 | Annual | LDA | 2.59E-04 |
| Los Angele | 2013 | Annual | LDA | 3.03E-04 |
| Los Angele | 2013 | Annual | LDA | 2.52E-04 |
| Los Angele | 2013 | Annual | LDT1 | 4.88E-04 |
| Los Angele | 2013 | Annual | LDT1 | |
| Los Angele | 2013 | Annual | LDT1 | 4.87E-04 |
| Los Angele | 2013 | Annual | LDT1 | |
| Los Angele | 2013 | Annual | LDT1 | 4.88E-04 |
| Los Angele | 2013 | Annual | LDT1 | |
| Los Angele | 2013 | Annual | LDT1 | 4.70E-04 |
| Los Angele | 2013 | Annual | LDT1 | 3.34E-04 |
| Los Angele | 2013 | Annual | LDT1 | 4.16E-04 |
| Los Angele | 2013 | Annual | LDT1 | 2.97E-04 |
| Los Angele | 2013 | Annual | LDT1 | 3.63E-04 |
| Los Angele | 2013 | Annual | LDT1 | 2.59E-04 |
| Los Angele | 2013 | Annual | LDT1 | 3.52E-04 |
| Los Angele | 2013 | Annual | LDT1 | 2.52E-04 |
| Los Angele | 2013 | Annual | T6 instate heavy | 1.28E-03 |
| Los Angele | 2013 | Annual | T6 instate heavy | 1.28E-03 |
| Los Angele | 2013 | Annual | T6 instate heavy | 1.28E-03 |
| Los Angele | 2013 | Annual | T6 instate heavy | 1.24E-03 |
| Los Angele | 2013 | Annual | T6 instate heavy | 1.24E-03 |
| Los Angele | 2013 | Annual | T6 instate heavy | 1.24E-03 |
| Los Angele | 2013 | Annual | T6 instate heavy | 1.23E-03 |
| Los Angele | 2013 | Annual | T6 instate heavy | 1.25E-03 |
| Los Angele | 2013 | Annual | LDA/LDT1 | 3.73E-04 |
| Los Angele | 2013 | Annual | T6 instate heavy | 3.68E-04 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | 4.18E-04 |
| Los Angele | 2014 | Annual | LDA | |
| Los Angele | 2014 | Annual | LDA | 4.18E-04 |
| Los Angele | 2014 | Annual | LDA | 3.45E-04 |
| Los Angele | 2014 | Annual | LDA | 4.18E-04 |
| Los Angele | 2014 | Annual | LDA | 3.45E-04 |
| Los Angele | 2014 | Annual | LDA | 4.03E-04 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | DSL | 2010 | AllSpeeds | 1351.746 | 49159.64469 | 8771.957 | 3.20E-04 | 0 | 0 | 3.20E-04 |
| Los Angele | 2014 | Annual | LDA | GAS | 2011 | AllSpeeds | 237881.2 | 9170140.694 | 1546073 | 0.085746645 | 0 | 0.067027174 | 0.152773819 |
| Los Angele | 2014 | Annual | LDA | DSL | 2011 | AllSpeeds | 1217.972 | 46951.97602 | 7916.027 | 2.85E-04 | 0 | 0 | 2.85E-04 |
| Los Angele | 2014 | Annual | LDA | GAS | 2012 | AllSpeeds | 243193.1 | 1.01E+07 | 1585460 | 0.089095611 | 0 | 0.064750224 | 0.153845835 |
| Los Angele | 2014 | Annual | LDA | DSL | 2012 | AllSpeeds | 1124.676 | 46522.46744 | 7332.152 | 2.62E-04 | 0 | 0 | 2.62E-04 |
| Los Angele | 2014 | Annual | LDA | GAS | 2013 | AllSpeeds | 240185.4 | 1.09E+07 | 1570656 | 0.090463891 | 0 | 0.059598226 | 0.150062117 |
| Los Angele | 2014 | Annual | LDA | DSL | 2013 | AllSpeeds | 1044.155 | 47335.73193 | 6828.092 | 2.44E-04 | 0 | 0 | 2.44E-04 |
| Los Angele | 2014 | Annual | LDA | GAS | 2014 | AllSpeeds | 240198.9 | 1.25E+07 | 1575547 | 0.094956214 | 0 | 0.05375737 | 0.148713584 |
| Los Angele | 2014 | Annual | LDA | DSL | 2014 | AllSpeeds | 915.3193 | 47707.87139 | 6003.895 | 2.20E-04 | 0 | 0 | 2.20E-04 |
| Los Angele | 2014 | Annual | LDT1 | GAS | 2007 | AllSpeeds | 11135.48 | 388696.1443 | 71482.59 | 0.004860651 | 0 | 0.004202496 | 0.009063147 |
| Los Angele | 2014 | Annual | LDT1 | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDT1 | GAS | 2008 | AllSpeeds | 22425.05 | 804871.643 | 144402.9 | 0.009134546 | 0 | 0.007400754 | 0.0165353 |
| Los Angele | 2014 | Annual | LDT1 | DSL | 2008 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDT1 | GAS | 2009 | AllSpeeds | 19675.49 | 728648.1167 | 127287.7 | 0.008001544 | 0 | 0.00631844 | 0.014319984 |
| Los Angele | 2014 | Annual | LDT1 | DSL | 2009 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDT1 | GAS | 2010 | AllSpeeds | 21221.78 | 814474.1883 | 137715.6 | 0.008166529 | 0 | 0.006365635 | 0.014532165 |
| Los Angele | 2014 | Annual | LDT1 | DSL | 2010 | AllSpeeds | 34.69507 | 1331.571613 | 225.1485 | 1.03E-05 | 0 | 0 | 1.03E-05 |
| Los Angele | 2014 | Annual | LDT1 | GAS | 2011 | AllSpeeds | 19845.79 | 794382.2365 | 128984.7 | 0.007411222 | 0 | 0.005581527 | 0.012992749 |
| Los Angele | 2014 | Annual | LDT1 | DSL | 2011 | AllSpeeds | 47.30273 | 1893.428408 | 307.4371 | 1.37E-05 | 0 | 0 | 1.37E-05 |
| Los Angele | 2014 | Annual | LDT1 | GAS | 2012 | AllSpeeds | 18970.26 | 799796.4454 | 123673.7 | 0.007058878 | 0 | 0.00503443 | 0.012093308 |
| Los Angele | 2014 | Annual | LDT1 | DSL | 2012 | AllSpeeds | 33.45337 | 1410.417359 | 218.0941 | 9.42E-06 | 0 | 0 | 9.42E-06 |
| Los Angele | 2014 | Annual | LDT1 | GAS | 2013 | AllSpeeds | 19266.41 | 870143.854 | 125989.8 | 0.007195174 | 0 | 0.004758063 | 0.011953237 |
| Los Angele | 2014 | Annual | LDT1 | DSL | 2013 | AllSpeeds | 42.63757 | 1925.681339 | 278.8218 | 1.17E-05 | 0 | 0 | 1.17E-05 |
| Los Angele | 2014 | Annual | LDT1 | GAS | 2014 | AllSpeeds | 19015.58 | 956205.5065 | 124729.7 | 0.007211099 | 0 | 0.004230706 | 0.011441804 |
| Los Angele | 2014 | Annual | LDT1 | DSL | 2014 | AllSpeeds | 39.16486 | 1969.428281 | 256.8958 | 1.08E-05 | 0 | 0 | 1.08E-05 |
| Los Angele | 2014 | Annual | T6 instate heavy | DSL | 2007 | AllSpeeds | 446.8065374 | 30290.1926 | 0 | 0.005862644 | 1.03E-04 | 0 | 0.005966028 |
| Los Angele | 2014 | Annual | T6 instate heavy | DSL | 2008 | AllSpeeds | 406.5080784 | 29243.11691 | 0 | 0.00530535 | 9.41E-05 | 0 | 0.005399409 |
| Los Angele | 2014 | Annual | T6 instate heavy | DSL | 2009 | AllSpeeds | 283.0211889 | 21507.29389 | 0 | 0.003625135 | 6.55E-05 | 0 | 0.003690622 |
| Los Angele | 2014 | Annual | T6 instate heavy | DSL | 2010 | AllSpeeds | 342.9931285 | 27318.79002 | 0 | 0.002824824 | 7.94E-05 | 0 | 0.002904187 |
| Los Angele | 2014 | Annual | T6 instate heavy | DSL | 2011 | AllSpeeds | 391.3480657 | 32286.62875 | 0 | 0.003110221 | 9.06E-05 | 0 | 0.003200772 |
| Los Angele | 2014 | Annual | T6 instate heavy | DSL | 2012 | AllSpeeds | 441.9038007 | 37140.75237 | 0 | 0.00330581 | 1.02E-04 | 0 | 0.003408059 |
| Los Angele | 2014 | Annual | T6 instate heavy | DSL | 2013 | AllSpeeds | 505.2486086 | 42282.02142 | 0 | 0.00322871 | 1.17E-04 | 0 | 0.003345616 |
| Los Angele | 2014 | Annual | T6 instate heavy | DSL | 2014 | AllSpeeds | 487.0159712 | 40756.21263 | 0 | 0.00291507 | 1.13E-04 | 0 | 0.003027758 |
| Los Angele | 2014 | Annual | T6 instate heavy | DSL | 2015 | AllSpeeds | 129.1463076 | 4503.201369 | 0 | 3.00E-04 | 2.99E-05 | 0 | 3.30E-04 |
| Los Angele | 2014 | Annual | LDA/LDT1 | GAS&DSI | >2007 | AllSpeeds | 2046066.331 | 80511947.2 | 13284310.61 | 0.770023232 | 0 | 0.595493226 | 1.365516459 |
| Los Angele | 2014 | Annual | T6 instate heavy | DSL | >2007 | AllSpeeds | 3433.991687 | 265328.21 | 0 | 0.030478072 | 0.000794572 | 0 | 0.031272644 |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed | Pop | VMT | Trips | ROG_RUNEX | ROG_IDLEX | ROG_STREX | ROG_TOTEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | (Miles/hr) | (Vehicles) | (Miles/day) | (Trips/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) |
| Los Angele | 2015 | Annual | LDA | GAS | 2007 | AllSpeeds | 229447.9 | 7024395.798 | 1466025 | 0.089348553 | 0 | 0.087437667 | 0.17678622 |
| Los Angele | 2015 | Annual | LDA | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDA | GAS | 2008 | AllSpeeds | 230729.3 | 7330300.651 | 1481134 | 0.085264363 | 0 | 0.077632949 | 0.162897312 |
| Los Angele | 2015 | Annual | LDA | DSL | 2008 | AllSpeeds | 23.88152 | 758.7257476 | 153.304 | 5.80E-06 | 0 | 0 | 5.80E-06 |
| Los Angele | 2015 | Annual | LDA | GAS | 2009 | AllSpeeds | 194172.3 | 6421882.46 | 1250345 | 0.074690068 | 0 | 0.06524308 | 0.139933148 |
| Los Angele | 2015 | Annual | LDA | DSL | 2009 | AllSpeeds | 768.488 | 25416.32508 | 4948.568 | 1.85E-04 | 0 | 0 | 1.85E-04 |
| Los Angele | 2015 | Annual | LDA | GAS | 2010 | AllSpeeds | 243452.8 | 8419416.907 | 1574982 | 0.094339188 | 0 | 0.078963287 | 0.173302475 |
| Los Angele | 2015 | Annual | LDA | DSL | 2010 | AllSpeeds | 1351.746 | 46747.99683 | 8744.924 | 3.23E-04 | 0 | 0 | 3.23E-04 |
| Los Angele | 2015 | Annual | LDA | GAS | 2011 | AllSpeeds | 236414.9 | 8597809.236 | 1534180 | 0.086533792 | 0 | 0.070896521 | 0.157430313 |
| Los Angele | 2015 | Annual | LDA | DSL | 2011 | AllSpeeds | 1217.972 | 44294.6043 | 7903.848 | 2.88E-04 | 0 | 0 | 2.88E-04 |
| Los Angele | 2015 | Annual | LDA | GAS | 2012 | AllSpeeds | 241147.8 | 9296065.13 | 1567304 | 0.08724393 | 0 | 0.06795048 | 0.15519441 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0 | 0 | 3.20E-04 | 3.64E-04 | 0 | 0 | 3.64E-04 |
| Los Angele | 2014 | Annual | LDA | 0.008768849 | 0.0159334 | 0.1642521 | 0.006993662 | 0.348721829 | 0.159585362 | 0 | 0.071564376 | 0.231149738 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0 | 0 | 2.85E-04 | 3.25E-04 | 0 | 0 | 3.25E-04 |
| Los Angele | 2014 | Annual | LDA | 0.007909124 | 0.011965998 | 0.1581367 | 0.005820551 | 0.337678208 | 0.165818207 | 0 | 0.069133274 | 0.234951481 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0 | 0 | 2.62E-04 | 2.98E-04 | 0 | 0 | 2.98E-04 |
| Los Angele | 2014 | Annual | LDA | 0.007295821 | 0.009444939 | 0.1490553 | 0.005049801 | 0.320907979 | 0.168364756 | 0 | 0.06363254 | 0.231997296 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0 | 0 | 2.44E-04 | 2.77E-04 | 0 | 0 | 2.77E-04 |
| Los Angele | 2014 | Annual | LDA | 0.006952794 | 0.007856932 | 0.1429676 | 0.004584612 | 0.311075521 | 0.176725545 | 0 | 0.057396289 | 0.234121834 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0 | 0 | 2.20E-04 | 2.51E-04 | 0 | 0 | 2.51E-04 |
| Los Angele | 2014 | Annual | LDT1 | 0.001231027 | 0.003157395 | 0.013848078 | 0.001328171 | 0.028627818 | 0.009046286 | 0 | 0.00448697 | 0.013533257 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDT1 | 0.00192039 | 0.004453686 | 0.019197199 | 0.001973075 | 0.044079649 | 0.017000546 | 0 | 0.007901722 | 0.024902268 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDT1 | 0.001335227 | 0.002741091 | 0.014394047 | 0.001266443 | 0.034056792 | 0.014891885 | 0 | 0.006746146 | 0.021638031 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDT1 | 0.00118683 | 0.002110675 | 0.013522633 | 0.001032251 | 0.032384554 | 0.015198945 | 0 | 0.006796536 | 0.021995481 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.03E-05 | 1.17E-05 | 0 | 0 | 1.17E-05 |
| Los Angele | 2014 | Annual | LDT1 | 9.51E-04 | 0.00144559 | 0.011227475 | 7.58E-04 | 0.027374671 | 0.013793223 | 0 | 0.00595935 | 0.019752573 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.37E-05 | 1.56E-05 | 0 | 0 | 1.56E-05 |
| Los Angele | 2014 | Annual | LDT1 | 8.02E-04 | 0.001042754 | 0.010004485 | 5.90E-04 | 0.024532245 | 0.013137466 | 0 | 0.005375218 | 0.018512683 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.42E-06 | 1.07E-05 | 0 | 0 | 1.07E-05 |
| Los Angele | 2014 | Annual | LDT1 | 7.60E-04 | 8.69E-04 | 0.009266081 | 5.26E-04 | 0.02337511 | 0.01339113 | 0 | 0.005080144 | 0.018471274 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.17E-05 | 1.34E-05 | 0 | 0 | 1.34E-05 |
| Los Angele | 2014 | Annual | LDT1 | 7.15E-04 | 7.32E-04 | 0.008455677 | 4.72E-04 | 0.021816645 | 0.013420768 | 0 | 0.00451709 | 0.017937857 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.08E-05 | 1.23E-05 | 0 | 0 | 1.23E-05 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005966028 | 0.006674174 | 1.18E-04 | 0 | 0.006791869 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005399409 | 0.006039737 | 1.07E-04 | 0 | 0.006146817 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003690622 | 0.00412694 | 7.46E-05 | 0 | 0.004201492 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002904187 | 0.003215847 | 9.03E-05 | 0 | 0.003306196 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003200772 | 0.003540749 | 1.03E-04 | 0 | 0.003643836 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003408059 | 0.003763413 | 1.16E-04 | 0 | 0.003879816 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003345616 | 0.00367564 | 1.33E-04 | 0 | 0.00380873 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003027758 | 0.003318586 | 1.28E-04 | 0 | 0.003446872 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.30E-04 | 3.42E-04 | 3.40E-05 | 0 | 3.76E-04 |
| Los Angele | 2014 | Annual | LDA/LDT1 | 0.097039198 | 0.223776088 | 1.534463875 | 0.087722239 | 3.30851786 | 1.431972198 | 0 | 0.635803149 | 2.067775347 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.031272644 | 0.034696965 | 0.000904559 | 0 | 0.035601525 |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | LDA | 0.023249147 | 0.080102608 | 0.2774191 | 0.026005588 | 0.583562663 | 0.166288984 | 0 | 0.093356483 | 0.259645467 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDA | 0.018997177 | 0.06134744 | 0.2484782 | 0.020412557 | 0.512132686 | 0.158687774 | 0 | 0.082888052 | 0.241575826 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 5.80E-06 | 6.60E-06 | 0 | 0 | 6.60E-06 |
| Los Angele | 2015 | Annual | LDA | 0.012345483 | 0.035716388 | 0.1719171 | 0.012610998 | 0.372523117 | 0.139007671 | 0 | 0.069659501 | 0.208667172 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 1.85E-04 | 2.11E-04 | 0 | 0 | 2.11E-04 |
| Los Angele | 2015 | Annual | LDA | 0.012336387 | 0.031166229 | 0.1952018 | 0.011634153 | 0.423641044 | 0.175577173 | 0 | 0.084308438 | 0.259885611 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 3.23E-04 | 3.68E-04 | 0 | 0 | 3.68E-04 |
| Los Angele | 2015 | Annual | LDA | 0.009900183 | 0.021255542 | 0.1743849 | 0.008557925 | 0.371528862 | 0.16105034 | 0 | 0.075695619 | 0.236745959 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 2.88E-04 | 3.28E-04 | 0 | 0 | 3.28E-04 |
| Los Angele | 2015 | Annual | LDA | 0.008614065 | 0.015396421 | 0.1656164 | 0.006817671 | 0.351638967 | 0.162372002 | 0 | 0.072550163 | 0.234922165 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0 | 0 | 3.64E-04 | 0.002981334 | 0 | 0 | 0.002981334 |
| Los Angele | 2014 | Annual | LDA | 0.008768849 | 0.0159334 | 0.1642521 | 0.006993662 | 0.427097749 | 4.783176101 | 0 | 1.008548 | 5.791724101 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0 | 0 | 3.25E-04 | 0.002657602 | 0 | 0 | 0.002657602 |
| Los Angele | 2014 | Annual | LDA | 0.007909124 | 0.011965998 | 0.1581367 | 0.005820551 | 0.418783853 | 4.902557017 | 0 | 0.953043 | 5.855600017 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0 | 0 | 2.98E-04 | 0.002433897 | 0 | 0 | 0.002433897 |
| Los Angele | 2014 | Annual | LDA | 0.007295821 | 0.009444939 | 0.1490553 | 0.005049801 | 0.402843157 | 4.977818216 | 0 | 0.8776068 | 5.855425016 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0 | 0 | 2.77E-04 | 0.002258744 | 0 | 0 | 0.002258744 |
| Los Angele | 2014 | Annual | LDA | 0.006952794 | 0.007856932 | 0.1429676 | 0.004584612 | 0.396483772 | 5.38033112 | 0 | 0.8256451 | 6.20597622 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 0 | 0 | 2.51E-04 | 0.00203441 | 0 | 0 | 0.00203441 |
| Los Angele | 2014 | Annual | LDT1 | 0.001231027 | 0.003157395 | 0.013848078 | 0.001328171 | 0.033097927 | 0.308741549 | 0 | 0.080135264 | 0.388876813 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDT1 | 0.00192039 | 0.004453686 | 0.019197199 | 0.001973075 | 0.052446617 | 0.564479946 | 0 | 0.1378774 | 0.702357346 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDT1 | 0.001335227 | 0.002741091 | 0.014394047 | 0.001266443 | 0.041374839 | 0.473315488 | 0 | 0.1100414 | 0.583356888 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDT1 | 0.00118683 | 0.002110675 | 0.013522633 | 0.001032251 | 0.03984787 | 0.462843017 | 0 | 0.1000751 | 0.562918117 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.17E-05 | 9.55E-05 | 0 | 0 | 9.55E-05 |
| Los Angele | 2014 | Annual | LDT1 | 9.51E-04 | 0.00144559 | 0.011227475 | 7.58E-04 | 0.034134495 | 0.413029891 | 0 | 0.083935909 | 0.4969658 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.56E-05 | 1.26E-04 | 0 | 0 | 1.26E-04 |
| Los Angele | 2014 | Annual | LDT1 | 8.02E-04 | 0.001042754 | 0.010004485 | 5.90E-04 | 0.03095162 | 0.38810322 | 0 | 0.074075133 | 0.462178353 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.07E-05 | 8.67E-05 | 0 | 0 | 8.67E-05 |
| Los Angele | 2014 | Annual | LDT1 | 7.60E-04 | 8.69E-04 | 0.009266081 | 5.26E-04 | 0.029893147 | 0.395917474 | 0 | 0.070130065 | 0.466047539 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.34E-05 | 1.08E-04 | 0 | 0 | 1.08E-04 |
| Los Angele | 2014 | Annual | LDT1 | 7.15E-04 | 7.32E-04 | 0.008455677 | 4.72E-04 | 0.028312698 | 0.409333073 | 0 | 0.065195732 | 0.474528805 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.23E-05 | 9.84E-05 | 0 | 0 | 9.84E-05 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.006791869 | 0.024438463 | 0.001222523 | 0 | 0.025660985 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.006146817 | 0.022115378 | 0.001112261 | 0 | 0.023227639 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004201492 | 0.015111395 | 7.74E-04 | 0 | 0.015885779 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003306196 | 0.011775293 | 9.38E-04 | 0 | 0.012713768 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003643836 | 0.012964971 | 0.001070781 | 0 | 0.014035752 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003879816 | 0.013780285 | 0.001209108 | 0 | 0.014989393 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00380873 | 0.013458893 | 0.001382428 | 0 | 0.014841322 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003446872 | 0.012151486 | 0.001332541 | 0 | 0.013484027 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.76E-04 | 0.001251839 | 3.53E-04 | 0 | 0.0016052 |
| Los Angele | 2014 | Annual | LDA/LDT1 | 0.097039198 | 0.223776088 | 1.534463875 | 0.087722239 | 4.010776748 | 44.53911064 | 0 | 9.814436903 | 54.35354754 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.035601525 | 0.127048003 | 0.009395863 | 0 | 0.136443866 |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | LDA | 0.023249147 | 0.080102608 | 0.2774191 | 0.026005588 | 0.66642191 | 5.667409455 | 0 | 1.668774 | 7.336183455 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDA | 0.018997177 | 0.06134744 | 0.2484782 | 0.020412557 | 0.5908112 | 5.305932988 | 0 | 1.462866 | 6.768798988 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 6.60E-06 | 5.44E-05 | 0 | 0 | 5.44E-05 |
| Los Angele | 2015 | Annual | LDA | 0.012345483 | 0.035716388 | 0.1719171 | 0.012610998 | 0.441257141 | 4.457858025 | 0 | 1.165076 | 5.622934025 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 2.11E-04 | 0.001736259 | 0 | 0 | 0.001736259 |
| Los Angele | 2015 | Annual | LDA | 0.012336387 | 0.031166229 | 0.1952018 | 0.011634153 | 0.51022418 | 5.384429301 | 0 | 1.318358 | 6.702787301 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 3.68E-04 | 0.003021221 | 0 | 0 | 0.003021221 |
| Los Angele | 2015 | Annual | LDA | 0.009900183 | 0.021255542 | 0.1743849 | 0.008557925 | 0.450844509 | 4.900068294 | 0 | 1.11405 | 6.014118294 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 3.28E-04 | 0.002691988 | 0 | 0 | 0.002691988 |
| Los Angele | 2015 | Annual | LDA | 0.008614065 | 0.015396421 | 0.1656164 | 0.006817671 | 0.431366721 | 4.860065348 | 0 | 1.022441 | 5.882506348 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | 0.009998165 | 0 | 0 | 0.009998165 | 17.21186013 | 0 | 0 | 17.21186013 | 16.36030335 |
| Los Angele | 2014 | Annual | LDA | 0.470539155 | 0 | 0.065957926 | 0.536497081 | 3754.85445 | 0 | 126.6424 | 3881.49685 | 3165.943078 |
| Los Angele | 2014 | Annual | LDA | 0.008986655 | 0 | 0 | 0.008986655 | 16.4389067 | 0 | 0 | 16.4389067 | 13.86062858 |
| Los Angele | 2014 | Annual | LDA | 0.483060418 | 0 | 0.060134709 | 0.543195127 | 4120.17482 | 0 | 129.8619 | 4250.03672 | 3031.604032 |
| Los Angele | 2014 | Annual | LDA | 0.008313641 | 0 | 0 | 0.008313641 | 16.28852534 | 0 | 0 | 16.28852534 | 11.9850155 |
| Los Angele | 2014 | Annual | LDA | 0.486667425 | 0 | 0.052009504 | 0.538676929 | 4460.822036 | 0 | 128.6433 | 4589.465336 | 3198.766266 |
| Los Angele | 2014 | Annual | LDA | 0.007813928 | 0 | 0 | 0.007813928 | 16.57326676 | 0 | 0 | 16.57326676 | 11.88435813 |
| Los Angele | 2014 | Annual | LDA | 0.515978218 | 0 | 0.044228204 | 0.560206422 | 5130.364031 | 0 | 129.038 | 5259.402031 | 3598.026902 |
| Los Angele | 2014 | Annual | LDA | 0.007158041 | 0 | 0 | 0.007158041 | 16.70356286 | 0 | 0 | 16.70356286 | 11.71454271 |
| Los Angele | 2014 | Annual | LDT1 | 0.023740241 | 0 | 0.003985933 | 0.027726174 | 184.8812229 | 0 | 6.814009 | 191.6952319 | 182.1080045 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDT1 | 0.046300523 | 0 | 0.007390683 | 0.053691206 | 382.6085409 | 0 | 13.75277 | 396.3613109 | 376.8694128 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDT1 | 0.040724854 | 0 | 0.006270791 | 0.046995644 | 347.07182 | 0 | 12.14357 | 359.21539 | 341.8657427 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDT1 | 0.044983564 | 0 | 0.006622637 | 0.051606201 | 387.8308542 | 0 | 13.13027 | 400.9611242 | 368.6429227 |
| Los Angele | 2014 | Annual | LDT1 | 3.26E-04 | 0 | 0 | 3.26E-04 | 0.466212126 | 0 | 0 | 0.466212126 | 0.443146281 |
| Los Angele | 2014 | Annual | LDT1 | 0.040660511 | 0 | 0.005484248 | 0.046144759 | 378.3383538 | 0 | 12.29655 | 390.6349038 | 318.9997664 |
| Los Angele | 2014 | Annual | LDT1 | 4.35E-04 | 0 | 0 | 4.35E-04 | 0.662930515 | 0 | 0 | 0.662930515 | 0.558956493 |
| Los Angele | 2014 | Annual | LDT1 | 0.038255454 | 0 | 0.00466233 | 0.042917784 | 381.0041931 | 0 | 11.78936 | 392.7935531 | 280.3409803 |
| Los Angele | 2014 | Annual | LDT1 | 3.01E-04 | 0 | 0 | 3.01E-04 | 0.493817789 | 0 | 0 | 0.493817789 | 0.36334866 |
| Los Angele | 2014 | Annual | LDT1 | 0.038705254 | 0 | 0.004138291 | 0.042843546 | 414.589981 | 0 | 12.00864 | 426.598621 | 297.2941836 |
| Los Angele | 2014 | Annual | LDT1 | 3.79E-04 | 0 | 0 | 3.79E-04 | 0.674222936 | 0 | 0 | 0.674222936 | 0.483471783 |
| Los Angele | 2014 | Annual | LDT1 | 0.039236576 | 0 | 0.003473956 | 0.042710531 | 455.712955 | 0 | 11.88802 | 467.600975 | 319.6006096 |
| Los Angele | 2014 | Annual | LDT1 | 3.52E-04 | 0 | 0 | 3.52E-04 | 0.689539659 | 0 | 0 | 0.689539659 | 0.483587953 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.150240014 | 0.001846981 | 0 | 0.152086995 | 38.82996767 | 0.367315441 | 0 | 39.19728311 | 38.24751815 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.131872225 | 0.001680398 | 0 | 0.133552623 | 37.48768781 | 0.334186458 | 0 | 37.82187427 | 36.92537249 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.083132521 | 0.001169935 | 0 | 0.084302456 | 27.57088862 | 0.232669051 | 0 | 27.80355767 | 27.15732529 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.03813154 | 0.001417844 | 0 | 0.039549384 | 33.85070232 | 0.281971417 | 0 | 34.13267374 | 33.34294179 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.037546947 | 0.00161773 | 0 | 0.039164677 | 40.0063494 | 0.321723555 | 0 | 40.32807295 | 39.40625416 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.03296656 | 0.001826714 | 0 | 0.034793274 | 46.02109214 | 0.363284948 | 0 | 46.38437708 | 45.33077576 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.030526242 | 0.002088565 | 0 | 0.032614808 | 52.27105752 | 0.415360117 | 0 | 52.68641764 | 51.48699166 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.025854519 | 0.002013196 | 0 | 0.027867715 | 50.3847797 | 0.400371238 | 0 | 50.78515094 | 49.62900801 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.002462227 | 5.34E-04 | 0 | 0.002996084 | 5.567072951 | 0.106169962 | 0 | 5.673242913 | 5.483566857 |
| Los Angele | 2014 | Annual | LDA/LDT1 | 4.116405936 | 0 | 0.568190997 | 4.684596933 | 33348.8171 | 0 | 1097.354789 | 34446.17189 | 28092.81121 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.532732795 | 0.014195221 | 0 | 0.546928016 | 331.9895981 | 2.823052185 | 0 | 334.8126503 | 327.0097542 |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | LDA | 0.431765815 | 0 | 0.082488403 | 0.514254218 | 2873.002337 | 0 | 119.8763 | 2992.878637 | 2801.177278 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDA | 0.432606896 | 0 | 0.078490838 | 0.511097734 | 2999.37822 | 0 | 121.1249 | 3120.50312 | 2924.393764 |
| Los Angele | 2015 | Annual | LDA | 1.79E-04 | 0 | 0 | 1.79E-04 | 0.265535129 | 0 | 0 | 0.265535129 | 0.258896751 |
| Los Angele | 2015 | Annual | LDA | 0.385126401 | 0 | 0.067749135 | 0.452875536 | 2632.941191 | 0 | 102.425 | 2735.366191 | 2567.117661 |
| Los Angele | 2015 | Annual | LDA | 0.00573713 | 0 | 0 | 0.00573713 | 8.895080318 | 0 | 0 | 8.895080318 | 8.67270331 |
| Los Angele | 2015 | Annual | LDA | 0.49053133 | 0 | 0.082095504 | 0.572626834 | 3452.794833 | 0 | 129.0108 | 3581.805633 | 3248.648339 |
| Los Angele | 2015 | Annual | LDA | 0.010042786 | 0 | 0 | 0.010042786 | 16.3606358 | 0 | 0 | 16.3606358 | 15.39331321 |
| Los Angele | 2015 | Annual | LDA | 0.475506964 | 0 | 0.07372877 | 0.549235734 | 3527.050056 | 0 | 125.6684 | 3652.718456 | 2943.675977 |
| Los Angele | 2015 | Annual | LDA | 0.009010959 | 0 | 0 | 0.009010959 | 15.50200952 | 0 | 0 | 15.50200952 | 12.93797714 |
| Los Angele | 2015 | Annual | LDA | 0.477628034 | 0 | 0.066863216 | 0.54449125 | 3814.486338 | 0 | 128.3751 | 3942.861438 | 2778.185762 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 16.36030335 | 1.98E-04 | 0 | 0 | 1.98E-04 | 4.34E-04 | 0.001991455 |
| Los Angele | 2014 | Annual | LDA | 0 | 106.779806 | 3272.722884 | 0.005794315 | 0 | 0.001442671 | 0.007236986 | 0.080866799 | 0.3714819 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 13.86062858 | 1.78E-04 | 0 | 0 | 1.78E-04 | 4.14E-04 | 0.001902022 |
| Los Angele | 2014 | Annual | LDA | 0 | 95.55173671 | 3127.155768 | 0.00847477 | 0 | 0.002081114 | 0.010555885 | 0.088711545 | 0.4075187 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 11.9850155 | 1.65E-04 | 0 | 0 | 1.65E-04 | 4.10E-04 | 0.001884623 |
| Los Angele | 2014 | Annual | LDA | 0 | 92.24753756 | 3291.013803 | 0.013758878 | 0 | 0.003862367 | 0.017621245 | 0.09602052 | 0.4410943 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 11.88435813 | 1.55E-04 | 0 | 0 | 1.55E-04 | 4.17E-04 | 0.001917568 |
| Los Angele | 2014 | Annual | LDA | 0 | 90.49693016 | 3688.523832 | 0.021092094 | 0 | 0.005481211 | 0.026573304 | 0.1104032 | 0.507165 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 11.71454271 | 1.42E-04 | 0 | 0 | 1.42E-04 | 4.21E-04 | 0.001932643 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 6.711798865 | 188.8198034 | 1.23E-04 | 0 | 1.41E-05 | 1.37E-04 | 0.003427714 | 0.015746063 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 13.54647845 | 390.4158912 | 2.54E-04 | 0 | 3.71E-05 | 2.91E-04 | 0.007097754 | 0.032605309 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 11.96141645 | 353.8271592 | 3.07E-04 | 0 | 5.17E-05 | 3.59E-04 | 0.006425577 | 0.029517498 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 12.48064989 | 381.1235726 | 3.43E-04 | 0 | 6.90E-05 | 4.12E-04 | 0.007182432 | 0.032994308 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0.443146281 | 5.39E-06 | 0 | 0 | 5.39E-06 | 1.17E-05 | 5.39E-05 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 10.3679591 | 329.3677255 | 5.02E-04 | 0 | 1.20E-04 | 6.22E-04 | 0.007005252 | 0.032180388 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0.558956493 | 7.20E-06 | 0 | 0 | 7.20E-06 | 1.67E-05 | 7.67E-05 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 8.674552141 | 289.0155324 | 6.74E-04 | 0 | 1.62E-04 | 8.36E-04 | 0.007052999 | 0.032399714 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0.36334866 | 4.99E-06 | 0 | 0 | 4.99E-06 | 1.24E-05 | 5.71E-05 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 8.611155571 | 305.9053392 | 0.001098982 | 0 | 3.10E-04 | 0.001408648 | 0.007673355 | 0.035249475 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0.483471783 | 6.29E-06 | 0 | 0 | 6.29E-06 | 1.70E-05 | 7.80E-05 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 8.337306186 | 327.9379158 | 0.001610166 | 0 | 4.34E-04 | 0.002043878 | 0.00843229 | 0.038735837 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0.483587953 | 5.85E-06 | 0 | 0 | 5.85E-06 | 1.74E-05 | 7.98E-05 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.36180571 | 0 | 38.60932386 | 0.001718091 | 4.34E-06 | 0 | 0.001722432 | 4.01E-04 | 0.004351951 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.329173661 | 0 | 37.25454616 | 0.001559112 | 3.95E-06 | 0 | 0.001563062 | 3.87E-04 | 0.004201512 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.229179015 | 0 | 27.3865043 | 0.001068952 | 2.75E-06 | 0 | 0.001071702 | 2.84E-04 | 0.003090066 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.277741845 | 0 | 33.62068364 | 0.001253508 | 3.33E-06 | 0 | 0.00125684 | 3.61E-04 | 0.003925034 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.316897701 | 0 | 39.72315186 | 0.001352273 | 3.80E-06 | 0 | 0.001356075 | 4.27E-04 | 0.00463879 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.357835673 | 0 | 45.68861143 | 0.001401655 | 4.29E-06 | 0 | 0.001405948 | 4.91E-04 | 0.005336207 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.409129715 | 0 | 51.89612137 | 0.001300663 | 4.91E-06 | 0 | 0.001305572 | 5.59E-04 | 0.00607488 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.394365669 | 0 | 50.02337367 | 0.001138536 | 4.73E-06 | 0 | 0.001143268 | 5.39E-04 | 0.005855659 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.104577412 | 0 | 5.588144269 | 1.13E-04 | 1.25E-06 | 0 | 1.14E-04 | 5.96E-05 | 6.47E-04 |
| Los Angele | 2014 | Annual | LDA/LDT1 | 0 | 943.2460456 | 29036.05725 | 0.066620485 | 0 | 0.016093591 | 0.082714076 | 0.709993802 | 3.2615347 |
| Los Angele | 2014 | Annual | T6 instate heavy | 2.780706402 | 0 | 329.7904606 | 0.010905862 | 3.33635E-05 | 0 | 0.010939225 | 0.003509691 | 0.038121099 |

EMFAC 2011
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EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavl (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | LDA | 0 | 116.8793925 | 2918.056671 | 0.002223548 | 0 | 2.89E-04 | 0.002512869 | 0.061944567 | 0.2845579 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDA | 0 | 118.0967775 | 3042.490542 | 0.002320632 | 0 | 3.80E-04 | 0.002700666 | 0.064642183 | 0.2969501 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0.258896751 | 3.54E-06 | 0 | 0 | 3.54E-06 | 6.69E-06 | 3.07E-05 |
| Los Angele | 2015 | Annual | LDA | 0 | 99.864375 | 2666.982036 | 0.002715309 | 0 | 5.08E-04 | 0.003222897 | 0.056631312 | 0.2601501 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 8.67270331 | 1.14E-04 | 0 | 0 | 1.14E-04 | 2.24E-04 | 0.001029614 |
| Los Angele | 2015 | Annual | LDA | 0 | 121.3830365 | 3370.031375 | 0.003559699 | 0 | 7.89E-04 | 0.004348495 | 0.074246541 | 0.3410701 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 15.39331321 | 1.99E-04 | 0 | 0 | 1.99E-04 | 4.12E-04 | 0.001893759 |
| Los Angele | 2015 | Annual | LDA | 0 | 104.8828466 | 3048.558823 | 0.005452677 | 0 | 0.001431575 | 0.006884253 | 0.075819694 | 0.3482968 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 12.93797714 | 1.79E-04 | 0 | 0 | 1.79E-04 | 3.91E-04 | 0.001794372 |
| Los Angele | 2015 | Annual | LDA | 0 | 93.49879471 | 2871.684557 | 0.007860273 | 0 | 0.002057287 | 0.00991756 | 0.081977263 | 0.3765832 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | 0.002623274 | 1.82E-04 | 0 | 0 | 1.82E-04 | 1.08E-04 | 8.53E-04 | 0.0011443 | 1.64E-04 |
| Los Angele | 2014 | Annual | LDA | 0.459585685 | 0.005376168 | 0 | 0.001338561 | 0.006714729 | 0.0202167 | 0.1592065 | 0.186137929 | 0.037559681 |
| Los Angele | 2014 | Annual | LDA | 0.00249437 | 1.64E-04 | 0 | 0 | 1.64E-04 | 1.04E-04 | 8.15E-04 | 0.001082702 | 1.57E-04 |
| Los Angele | 2014 | Annual | LDA | 0.50678613 | 0.007863189 | 0 | 0.00193093 | 0.009794119 | 0.022177886 | 0.1746508 | 0.206622805 | 0.041208275 |
| Los Angele | 2014 | Annual | LDA | 0.002459895 | 1.52E-04 | 0 | 0 | 1.52E-04 | 1.03E-04 | 8.08E-04 | 0.001062073 | 1.56E-04 |
| Los Angele | 2014 | Annual | LDA | 0.554736065 | 0.012765968 | 0 | 0.003583639 | 0.016349607 | 0.02400513 | 0.1890404 | 0.229395137 | 0.044609785 |
| Los Angele | 2014 | Annual | LDA | 0.00249017 | 1.43E-04 | 0 | 0 | 1.43E-04 | 1.04E-04 | 8.22E-04 | 0.001068931 | 1.58E-04 |
| Los Angele | 2014 | Annual | LDA | 0.644141504 | 0.019569983 | 0 | 0.005085658 | 0.024655641 | 0.027600808 | 0.2173564 | 0.269612849 | 0.05129955 |
| Los Angele | 2014 | Annual | LDA | 0.002495594 | 1.31E-04 | 0 | 0 | 1.31E-04 | 1.05E-04 | 8.28E-04 | 0.001064314 | 1.59E-04 |
| Los Angele | 2014 | Annual | LDT1 | 0.019310643 | 1.14E-04 | 0 | 1.31E-05 | 1.27E-04 | 8.57E-04 | 0.006748312 | 0.00773223 | 0.001850543 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDT1 | 0.039994059 | 2.36E-04 | 0 | 3.44E-05 | 2.70E-04 | 0.001774438 | 0.013973704 | 0.016018139 | 0.00382845 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDT1 | 0.036301803 | 2.85E-04 | 0 | 4.80E-05 | 3.33E-04 | 0.001606394 | 0.012650355 | 0.014589589 | 0.003472241 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | LDT1 | 0.040588686 | 3.18E-04 | 0 | 6.40E-05 | 3.82E-04 | 0.001795608 | 0.014140416 | 0.016318242 | 0.003878932 |
| Los Angele | 2014 | Annual | LDT1 | 7.11E-05 | 4.96E-06 | 0 | 0 | 4.96E-06 | 2.94E-06 | 2.31E-05 | 3.10E-05 | 4.45E-06 |
| Los Angele | 2014 | Annual | LDT1 | 0.039807698 | 4.66E-04 | 0 | 1.12E-04 | 5.77E-04 | 0.001751313 | 0.013791592 | 0.016120072 | 0.003783359 |
| Los Angele | 2014 | Annual | LDT1 | 1.01E-04 | 6.62E-06 | 0 | 0 | 6.62E-06 | 4.17E-06 | 3.29E-05 | 4.37E-05 | 6.33E-06 |
| Los Angele | 2014 | Annual | LDT1 | 0.040288489 | 6.25E-04 | 0 | 1.51E-04 | 7.75E-04 | 0.00176325 | 0.013885592 | 0.016424304 | 0.003809559 |
| Los Angele | 2014 | Annual | LDT1 | 7.46E-05 | 4.59E-06 | 0 | 0 | 4.59E-06 | 3.11E-06 | 2.45E-05 | 3.22E-05 | 4.71E-06 |
| Los Angele | 2014 | Annual | LDT1 | 0.044331478 | 0.001019674 | 0 | 2.87E-04 | 0.001306993 | 0.001918339 | 0.01510692 | 0.018332252 | 0.004144934 |
| Los Angele | 2014 | Annual | LDT1 | 1.01E-04 | 5.78E-06 | 0 | 0 | 5.78E-06 | 4.25E-06 | 3.34E-05 | 4.35E-05 | 6.44E-06 |
| Los Angele | 2014 | Annual | LDT1 | 0.049212004 | 0.001493968 | 0 | 4.02E-04 | 0.001896381 | 0.002108072 | 0.016601069 | 0.020605523 | 0.004555625 |
| Los Angele | 2014 | Annual | LDT1 | 1.03E-04 | 5.38E-06 | 0 | 0 | 5.38E-06 | 4.34E-06 | 3.42E-05 | 4.39E-05 | 6.58E-06 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.006475054 | 0.001580644 | 3.99E-06 | 0 | 0.001584638 | 1.00E-04 | 0.001865122 | 0.003549927 | 3.70E-04 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.006151394 | 0.001434383 | 3.63E-06 | 0 | 0.001438017 | 9.67E-05 | 0.001800648 | 0.00333537 | 3.58E-04 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.004446261 | 9.83E-04 | 2.53E-06 | 0 | 9.86E-04 | 7.11E-05 | 0.001324314 | 0.002381403 | 2.63E-04 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.00554324 | 0.001153227 | 3.07E-06 | 0 | 0.001156293 | 9.03E-05 | 0.001682157 | 0.002928792 | 3.23E-04 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.006421944 | 0.001244091 | 3.50E-06 | 0 | 0.001247589 | 1.07E-04 | 0.001988053 | 0.003342412 | 3.82E-04 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.007233443 | 0.001289522 | 3.95E-06 | 0 | 0.001293472 | 1.23E-04 | 0.002286946 | 0.00370324 | 4.39E-04 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.007939748 | 0.00119661 | 4.52E-06 | 0 | 0.001201126 | 1.40E-04 | 0.00260352 | 0.00394447 | 4.99E-04 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.007538039 | 0.001047453 | 4.35E-06 | 0 | 0.001051806 | 1.35E-04 | 0.002509568 | 0.003696153 | 4.81E-04 |
| Los Angele | 2014 | Annual | T6 instate heavy | 8.21E-04 | 1.04E-04 | 1.15E-06 | 0 | 1.05E-04 | 1.49E-05 | 2.77E-04 | 3.97E-04 | 5.31E-05 |
| Los Angele | 2014 | Annual | LDA/LDT1 | 4.054242578 | 0.061805096 | 0 | 0.014932196 | 0.076737291 | 0.177498459 | 1.397800306 | 1.652036056 | 0.333577803 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.052570015 | 0.010033393 | 3.06944E-05 | 0 | 0.010064087 | 0.000877423 | 0.016337614 | 0.027279124 | 0.003167336 |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | LDA | 0.349015336 | 0.002063086 | 0 | 2.68E-04 | 0.002331528 | 0.015486142 | 0.1219534 | 0.13977107 | 0.0287713 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDA | 0.364292949 | 0.002153163 | 0 | 3.53E-04 | 0.002505772 | 0.016160546 | 0.1272643 | 0.145930618 | 0.03002687 |
| Los Angele | 2015 | Annual | LDA | 4.10E-05 | 3.26E-06 | 0 | 0 | 3.26E-06 | 1.67E-06 | 1.32E-05 | 1.81E-05 | 2.53E-06 |
| Los Angele | 2015 | Annual | LDA | 0.320004309 | 0.002519358 | 0 | 4.71E-04 | 0.002990316 | 0.014157828 | 0.1114929 | 0.128641044 | 0.026355315 |
| Los Angele | 2015 | Annual | LDA | 0.001367496 | 1.05E-04 | 0 | 0 | 1.05E-04 | 5.60E-05 | 4.41E-04 | 6.02E-04 | 8.49E-05 |
| Los Angele | 2015 | Annual | LDA | 0.419665136 | 0.003302813 | 0 | 7.32E-04 | 0.004034685 | 0.018561635 | 0.1461729 | 0.16876922 | 0.034554485 |
| Los Angele | 2015 | Annual | LDA | 0.002505169 | 1.83E-04 | 0 | 0 | 1.83E-04 | 1.03E-04 | 8.12E-04 | 0.001097902 | 1.56E-04 |
| Los Angele | 2015 | Annual | LDA | 0.431000747 | 0.005059186 | 0 | 0.001328266 | 0.006387451 | 0.018954923 | 0.14927 | 0.174612374 | 0.035287663 |
| Los Angele | 2015 | Annual | LDA | 0.002363734 | 1.64E-04 | 0 | 0 | 1.64E-04 | 9.77E-05 | 7.69E-04 | 0.00103112 | 1.48E-04 |
| Los Angele | 2015 | Annual | LDA | 0.468478023 | 0.007293035 | 0 | 0.001908823 | 0.009201858 | 0.020494316 | 0.1613928 | 0.191088974 | 0.0381562 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 1.64E-04 | 0 | 1.549067 | 1.30E-05 | 1.21E-04 | 4.07E-04 | 8.07E-06 | 9.87E-05 | 7.42E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2014 | Annual | LDA | 0 | 0.001282064 | 0.038841745 | 414.3036 | 0 | 7.61E-05 | 1.26E-03 | 1.17E-04 | 1.58E-06 | 9.87E-05 | 1.46E-06 | 3.91E-05 | 8.47E-06 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 1.57E-04 | 0 | 1.479502 | 1.22E-05 | 1.13E-04 | 3.83E-04 | 7.60E-06 | 9.87E-05 | 6.99E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2014 | Annual | LDA | 0 | 0.001313257 | 0.042521532 | 453.5538 | 0 | 6.71E-05 | 1.16E-03 | 1.08E-04 | 2.10E-06 | 9.87E-05 | 1.95E-06 | 3.91E-05 | 8.45E-06 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 1.56E-04 | 0 | 1.465967 | 1.13E-05 | 1.05E-04 | 3.57E-04 | 7.09E-06 | 9.87E-05 | 6.53E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2014 | Annual | LDA | 0 | 0.001299746 | 0.045909531 | 489.6918 | 0 | 5.89E-05 | 1.08E-03 | 9.89E-05 | 3.24E-06 | 9.87E-05 | 3.00E-06 | 3.91E-05 | 8.43E-06 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 1.58E-04 | 0 | 1.491594 | 1.03E-05 | 9.54E-05 | 3.30E-04 | 6.56E-06 | 9.87E-05 | 6.03E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2014 | Annual | LDA | 0 | 0.001302686 | 0.052602236 | 561.0793 | 0 | 4.97E-05 | 9.91E-04 | 8.95E-05 | 4.25E-06 | 9.87E-05 | 3.94E-06 | 3.91E-05 | 8.40E-06 |
| Los Angele | 2014 | Annual | LDA | 0 | 0 | 1.59E-04 | 0 | 1.503321 | 0.00E+00 | 8.53E-05 | 3.00E-04 | 5.96E-06 | 9.87E-05 | 5.49E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 6.94E-05 | 0.00191995 | 20.47905 | 0 | 1.47E-04 | 2.00E-03 | 1.43E-04 | 7.04E-07 | 9.87E-05 | 6.53E-07 | 3.91E-05 | 9.88E-06 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2014 | Annual | LDT1 | 0 | 1.40E-04 | 0.003968125 | 42.32582 | 0 | 1.10E-04 | 1.75E-03 | 1.33E-04 | 7.23E-07 | 9.87E-05 | 6.71E-07 | 3.91E-05 | 9.86E-06 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2014 | Annual | LDT1 | 0 | 1.23E-04 | 0.003595382 | 38.34997 | 0 | 9.35E-05 | 1.60E-03 | 1.29E-04 | 9.85E-07 | 9.87E-05 | 9.14E-07 | 3.91E-05 | 9.87E-06 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2014 | Annual | LDT1 | 0 | 1.33E-04 | 0.004011768 | 42.79133 | 0 | 7.95E-05 | 1.38E-03 | 1.27E-04 | 1.01E-06 | 9.87E-05 | 9.39E-07 | 3.91E-05 | 9.85E-06 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 4.45E-06 | 0 | 0.041959092 | 1.55E-05 | 1.43E-04 | 4.89E-04 | 8.09E-06 | 9.87E-05 | 7.45E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 1.24E-04 | 0.003907594 | 41.68016 | 0 | 6.89E-05 | 1.25E-03 | 1.16E-04 | 1.57E-06 | 9.87E-05 | 1.45E-06 | 3.91E-05 | 9.84E-06 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 6.33E-06 | 0 | 0.059663743 | 1.45E-05 | 1.34E-04 | 4.59E-04 | 7.61E-06 | 9.87E-05 | 7.00E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 1.19E-04 | 0.003928559 | 41.90379 | 0 | 6.13E-05 | 1.16E-03 | 1.07E-04 | 2.09E-06 | 9.87E-05 | 1.94E-06 | 3.91E-05 | 9.82E-06 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 4.71E-06 | 0 | 0.044443607 | 1.34E-05 | 1.23E-04 | 4.27E-04 | 7.08E-06 | 9.87E-05 | 6.52E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 1.21E-04 | 0.004266052 | 45.50364 | 0 | 5.37E-05 | 1.07E-03 | 9.85E-05 | 3.24E-06 | 9.87E-05 | 3.00E-06 | 3.91E-05 | 9.81E-06 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 6.44E-06 | 0 | 0.060680062 | 1.22E-05 | 1.12E-04 | 3.94E-04 | 6.53E-06 | 9.87E-05 | 6.01E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 1.20E-04 | 0.004675446 | 49.87041 | 0 | 4.56E-05 | 9.93E-04 | 8.93E-05 | 4.27E-06 | 9.87E-05 | 3.97E-06 | 3.91E-05 | 9.78E-06 |
| Los Angele | 2014 | Annual | LDT1 | 0 | 0 | 6.58E-06 | 0 | 0.062058572 | 1.09E-05 | 9.99E-05 | 3.58E-04 | 5.94E-06 | 9.87E-05 | 5.46E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2014 | Annual | T6 instate heavy | 3.50E-06 | 0 | 3.74E-04 | 0 | 3.52775548 | 3.94E-04 | 1.69E-03 | 1.00E-02 | 1.14E-04 | 3.14E-04 | 1.05E-04 | 1.30E-04 | 2.47E-05 |
| Los Angele | 2014 | Annual | T6 instate heavy | 3.19E-06 | 0 | 3.61E-04 | 0 | 3.403968684 | 3.69E-04 | 1.59E-03 | 9.13E-03 | 1.07E-04 | 3.14E-04 | 9.83E-05 | 1.30E-04 | 2.47E-05 |
| Los Angele | 2014 | Annual | T6 instate heavy | 2.22E-06 | 0 | 2.65E-04 | 0 | 2.50232019 | 3.43E-04 | 1.48E-03 | 7.84E-03 | 9.97E-05 | 3.14E-04 | 9.17E-05 | 1.30E-04 | 2.47E-05 |
| Los Angele | 2014 | Annual | T6 instate heavy | 2.69E-06 | 0 | 3.26E-04 | 0 | 3.071940637 | 2.13E-04 | 9.31E-04 | 2.90E-03 | 9.20E-05 | 3.14E-04 | 8.47E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2014 | Annual | T6 instate heavy | 3.07E-06 | 0 | 3.85E-04 | 0 | 3.629526566 | 1.98E-04 | 8.69E-04 | 2.43E-03 | 8.40E-05 | 3.14E-04 | 7.73E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2014 | Annual | T6 instate heavy | 3.47E-06 | 0 | 4.43E-04 | 0 | 4.174593938 | 1.84E-04 | 8.07E-04 | 1.87E-03 | 7.57E-05 | 3.14E-04 | 6.97E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2014 | Annual | T6 instate heavy | 3.96E-06 | 0 | 5.03E-04 | 0 | 4.741777587 | 1.58E-04 | 7.02E-04 | 1.54E-03 | 6.18E-05 | 3.14E-04 | 5.68E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2014 | Annual | T6 instate heavy | 3.82E-06 | 0 | 4.85E-04 | 0 | 4.570663585 | 1.49E-04 | 6.62E-04 | 1.37E-03 | 5.61E-05 | 3.14E-04 | 5.16E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2014 | Annual | T6 instate heavy | 1.01E-06 | 0 | 5.41E-05 | 0 | 0.510591862 | 1.47E-04 | 7.13E-04 | 1.33E-03 | 5.08E-05 | 3.14E-04 | 4.67E-05 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2014 | Annual | LDA/LDT1 | 0 | 0.011126401 | 0.344704204 | 3667.01727 | 8.620609495 | 8.22E-05 | 1.35E-03 | 1.16E-04 | 2.05E-06 | 9.87E-05 | 1.91E-06 | 3.91E-05 | 8.56E-06 |
| Los Angele | 2014 | Annual | T6 instate heavy | 2.69332E-05 | 0 | 0.003194269 | 0 | 30.13313853 | 2.36E-04 | 1.03E-03 | 4.12E-03 | 8.25E-05 | 3.14E-04 | 7.59E-05 | 1.30E-04 | 2.41E-05 |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | LDA | 0 | 0.001225531 | 0.029996831 | 319.9597 | 0 | 1.66E-04 | 2.09E-03 | 1.46E-04 | 7.15E-07 | 9.87E-05 | 6.64E-07 | 3.91E-05 | 8.54E-06 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2015 | Annual | LDA | 0 | 0.001234452 | 0.031261322 | 333.4474 | 0 | 1.40E-04 | 1.85E-03 | 1.39E-04 | 7.37E-07 | 9.87E-05 | 6.84E-07 | 3.91E-05 | 8.53E-06 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 2.53E-06 | 0 | 0.023898164 | 1.53E-05 | 1.43E-04 | 4.71E-04 | 9.34E-06 | 9.87E-05 | 8.59E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2015 | Annual | LDA | 0 | 0.00104273 | 0.027398045 | 292.2399 | 0 | 1.16E-04 | 1.75E-03 | 1.41E-04 | 1.00E-06 | 9.87E-05 | 9.31E-07 | 3.91E-05 | 8.53E-06 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 8.49E-05 | 0 | 0.8005573 | 1.46E-05 | 1.37E-04 | 4.51E-04 | 8.95E-06 | 9.87E-05 | 8.23E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2015 | Annual | LDA | 0 | 0.001310943 | 0.035865428 | 382.5569 | 0 | 1.01E-04 | 1.59E-03 | 1.36E-04 | 1.03E-06 | 9.87E-05 | 9.58E-07 | 3.91E-05 | 8.52E-06 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 1.56E-04 | 0 | 1.472457 | 1.38E-05 | 1.29E-04 | 4.30E-04 | 8.52E-06 | 9.87E-05 | 7.84E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2015 | Annual | LDA | 0 | 0.001274119 | 0.036561782 | 389.9845 | 0 | 8.64E-05 | 1.40E-03 | 1.28E-04 | 1.60E-06 | 9.87E-05 | 1.49E-06 | 3.91E-05 | 8.50E-06 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 1.48E-04 | 0 | 1.395181 | 1.30E-05 | 1.22E-04 | 4.07E-04 | 8.07E-06 | 9.87E-05 | 7.43E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2015 | Annual | LDA | 0 | 0.001299606 | 0.039455806 | 420.8535 | 0 | 7.57E-05 | 1.27E-03 | 1.17E-04 | 2.13E-06 | 9.87E-05 | 1.98E-06 | 3.91E-05 | 8.49E-06 |

| | | | | |
|---|---|---|---|---|
| Los Angele | 2014 | Annual | LDA | 3.33E-04 |
| Los Angele | 2014 | Annual | LDA | 3.57E-04 |
| Los Angele | 2014 | Annual | LDA | 2.95E-04 |
| Los Angele | 2014 | Annual | LDA | 3.11E-04 |
| Los Angele | 2014 | Annual | LDA | 2.58E-04 |
| Los Angele | 2014 | Annual | LDA | 3.02E-04 |
| Los Angele | 2014 | Annual | LDA | 2.51E-04 |
| Los Angele | 2014 | Annual | LDA | 2.95E-04 |
| Los Angele | 2014 | Annual | LDA | 0.00E+00 |
| Los Angele | 2014 | Annual | LDT1 | 4.86E-04 |
| Los Angele | 2014 | Annual | LDT1 | |
| Los Angele | 2014 | Annual | LDT1 | 4.85E-04 |
| Los Angele | 2014 | Annual | LDT1 | |
| Los Angele | 2014 | Annual | LDT1 | 4.86E-04 |
| Los Angele | 2014 | Annual | LDT1 | |
| Los Angele | 2014 | Annual | LDT1 | 4.68E-04 |
| Los Angele | 2014 | Annual | LDT1 | 3.33E-04 |
| Los Angele | 2014 | Annual | LDT1 | 4.15E-04 |
| Los Angele | 2014 | Annual | LDT1 | 2.95E-04 |
| Los Angele | 2014 | Annual | LDT1 | 3.61E-04 |
| Los Angele | 2014 | Annual | LDT1 | 2.58E-04 |
| Los Angele | 2014 | Annual | LDT1 | 3.52E-04 |
| Los Angele | 2014 | Annual | LDT1 | 2.51E-04 |
| Los Angele | 2014 | Annual | LDT1 | 3.43E-04 |
| Los Angele | 2014 | Annual | LDT1 | 2.46E-04 |
| Los Angele | 2014 | Annual | T6 instate heavy | 1.27E-03 |
| Los Angele | 2014 | Annual | T6 instate heavy | 1.27E-03 |
| Los Angele | 2014 | Annual | T6 instate heavy | 1.27E-03 |
| Los Angele | 2014 | Annual | T6 instate heavy | 1.23E-03 |
| Los Angele | 2014 | Annual | T6 instate heavy | 1.23E-03 |
| Los Angele | 2014 | Annual | T6 instate heavy | 1.23E-03 |
| Los Angele | 2014 | Annual | T6 instate heavy | 1.23E-03 |
| Los Angele | 2014 | Annual | T6 instate heavy | 1.23E-03 |
| Los Angele | 2014 | Annual | T6 instate heavy | 1.24E-03 |
| Los Angele | 2014 | Annual | LDA/LDT1 | 3.61E-04 |
| Los Angele | 2014 | Annual | T6 instate heavy | 1.24E-03 |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2015 | Annual | LDA | 4.15E-04 |
| Los Angele | 2015 | Annual | LDA | |
| Los Angele | 2015 | Annual | LDA | 4.15E-04 |
| Los Angele | 2015 | Annual | LDA | 3.41E-04 |
| Los Angele | 2015 | Annual | LDA | 4.15E-04 |
| Los Angele | 2015 | Annual | LDA | 3.41E-04 |
| Los Angele | 2015 | Annual | LDA | 4.00E-04 |
| Los Angele | 2015 | Annual | LDA | 3.29E-04 |
| Los Angele | 2015 | Annual | LDA | 3.55E-04 |
| Los Angele | 2015 | Annual | LDA | 2.92E-04 |
| Los Angele | 2015 | Annual | LDA | 3.09E-04 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | LDA | DSL | 2012 | AllSpeeds | 1117.107 | 43063.68861 | 7260.467 | 2.62E-04 | 0 | 0 | 2.62E-04 |
| Los Angele | 2015 | Annual | LDA | GAS | 2013 | AllSpeeds | 235770.5 | 9752682.762 | 1537070 | 0.086687286 | 0 | 0.062769078 | 0.149456364 |
| Los Angele | 2015 | Annual | LDA | DSL | 2013 | AllSpeeds | 1044.155 | 43191.71596 | 6807.211 | 2.43E-04 | 0 | 0 | 2.43E-04 |
| Los Angele | 2015 | Annual | LDA | GAS | 2014 | AllSpeeds | 240198.9 | 1.09E+07 | 1570744 | 0.090795664 | 0 | 0.059597809 | 0.150393473 |
| Los Angele | 2015 | Annual | LDA | DSL | 2014 | AllSpeeds | 915.3193 | 41495.08175 | 5985.589 | 2.14E-04 | 0 | 0 | 2.14E-04 |
| Los Angele | 2015 | Annual | LDA | GAS | 2015 | AllSpeeds | 242927.2 | 1.27E+07 | 1593443 | 0.096384988 | 0 | 0.054367695 | 0.150752683 |
| Los Angele | 2015 | Annual | LDA | DSL | 2015 | AllSpeeds | 863.75 | 45019.99881 | 5665.633 | 2.08E-04 | 0 | 0 | 2.08E-04 |
| Los Angele | 2015 | Annual | LDT1 | GAS | 2007 | AllSpeeds | 10853.74 | 369382.8767 | 69348.45 | 0.004773354 | 0 | 0.00419551 | 0.008968863 |
| Los Angele | 2015 | Annual | LDT1 | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDT1 | GAS | 2008 | AllSpeeds | 21977.05 | 767130.3007 | 141078.6 | 0.009033109 | 0 | 0.007469798 | 0.016502907 |
| Los Angele | 2015 | Annual | LDT1 | DSL | 2008 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDT1 | GAS | 2009 | AllSpeeds | 19300.33 | 692725.9276 | 124281.7 | 0.008076658 | 0 | 0.006475987 | 0.014552645 |
| Los Angele | 2015 | Annual | LDT1 | DSL | 2009 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDT1 | GAS | 2010 | AllSpeeds | 20863.18 | 772630.0092 | 134971.3 | 0.008713926 | 0 | 0.006803346 | 0.015517271 |
| Los Angele | 2015 | Annual | LDT1 | DSL | 2010 | AllSpeeds | 33.68534 | 1247.478828 | 217.9223 | 1.03E-05 | 0 | 0 | 1.03E-05 |
| Los Angele | 2015 | Annual | LDT1 | GAS | 2011 | AllSpeeds | 19527.3 | 749441.2277 | 126719.5 | 0.007541257 | 0 | 0.005856746 | 0.013398003 |
| Los Angele | 2015 | Annual | LDT1 | DSL | 2011 | AllSpeeds | 47.30273 | 1815.444491 | 306.964 | 1.41E-05 | 0 | 0 | 1.41E-05 |
| Los Angele | 2015 | Annual | LDT1 | GAS | 2012 | AllSpeeds | 18693.21 | 748246.9738 | 121493.7 | 0.007006104 | 0 | 0.005257438 | 0.012263542 |
| Los Angele | 2015 | Annual | LDT1 | DSL | 2012 | AllSpeeds | 33.45337 | 1339.067589 | 217.4252 | 9.69E-06 | 0 | 0 | 9.69E-06 |
| Los Angele | 2015 | Annual | LDT1 | GAS | 2013 | AllSpeeds | 18864.79 | 795349.2196 | 122986.1 | 0.007044427 | 0 | 0.005005728 | 0.012050155 |
| Los Angele | 2015 | Annual | LDT1 | DSL | 2013 | AllSpeeds | 42.63757 | 1797.629851 | 277.9692 | 1.20E-05 | 0 | 0 | 1.20E-05 |
| Los Angele | 2015 | Annual | LDT1 | GAS | 2014 | AllSpeeds | 19015.58 | 858814.8251 | 124349.4 | 0.007127157 | 0 | 0.004695827 | 0.011822984 |
| Los Angele | 2015 | Annual | LDT1 | DSL | 2014 | AllSpeeds | 39.16486 | 1768.839566 | 256.1125 | 1.08E-05 | 0 | 0 | 1.08E-05 |
| Los Angele | 2015 | Annual | LDT1 | GAS | 2015 | AllSpeeds | 19563.61 | 983762.647 | 128324.4 | 0.00744504 | 0 | 0.004351964 | 0.011797004 |
| Los Angele | 2015 | Annual | LDT1 | DSL | 2015 | AllSpeeds | 39.06543 | 1964.42858 | 256.2436 | 1.08E-05 | 0 | 0 | 1.08E-05 |
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | 2007 | AllSpeeds | 392.519511 | 25030.57879 | 0 | 0.005147832 | 9.08E-05 | 0 | 0.005238655 |
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | 2008 | AllSpeeds | 465.7886704 | 28173.33455 | 0 | 0.005471684 | 1.08E-04 | 0 | 0.00557946 |
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | 2009 | AllSpeeds | 263.9469482 | 18988.05004 | 0 | 0.003456702 | 6.11E-05 | 0 | 0.003517775 |
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | 2010 | AllSpeeds | 1086.21363 | 50337.26765 | 0 | 0.005563634 | 2.51E-04 | 0 | 0.005814966 |
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | 2011 | AllSpeeds | 395.7276804 | 31519.75995 | 0 | 0.003270424 | 9.16E-05 | 0 | 0.003361989 |
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | 2012 | AllSpeeds | 436.5355583 | 36015.48383 | 0 | 0.00348136 | 1.01E-04 | 0 | 0.003582368 |
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | 2013 | AllSpeeds | 480.9341431 | 40422.19125 | 0 | 0.00329434 | 1.11E-04 | 0 | 0.003405621 |
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | 2014 | AllSpeeds | 564.0201114 | 47201.64164 | 0 | 0.003616776 | 1.31E-04 | 0 | 0.003747281 |
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | 2015 | AllSpeeds | 534.4761897 | 44729.23731 | 0 | 0.003210243 | 1.24E-04 | 0 | 0.003333913 |
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | 2016 | AllSpeeds | 137.1299809 | 4781.781188 | 0 | 3.20E-04 | 3.17E-05 | 0 | 3.52E-04 |
| Los Angele | 2015 | Annual | LDA/LDT1 | GAS&DSI | >2007 | AllSpeeds | 2270458.118 | 87430821.42 | 14717782.33 | 0.859844721 | 0 | 0.674970909 | 1.53481563 |
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | >2007 | AllSpeeds | 4757.292423 | 327199.3262 | 0 | 0.036832978 | 0.001100763 | 0 | 0.037933741 |

EMFAC 2011
2016 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | LDA | GAS | 2007 | AllSpeeds | 217958.4 | 6447760.566 | 1383897 | 0.083918348 | 0 | 0.084393181 | 0.168311529 |
| Los Angele | 2016 | Annual | LDA | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDA | GAS | 2008 | AllSpeeds | 220291.1 | 6744071.555 | 1407520 | 0.080608868 | 0 | 0.075768866 | 0.156377734 |
| Los Angele | 2016 | Annual | LDA | DSL | 2008 | AllSpeeds | 22.46428 | 687.735623 | 143.5324 | 5.48E-06 | 0 | 0 | 5.48E-06 |
| Los Angele | 2016 | Annual | LDA | GAS | 2009 | AllSpeeds | 188107.6 | 5976249.088 | 1207530 | 0.07164948 | 0 | 0.064923637 | 0.136573117 |
| Los Angele | 2016 | Annual | LDA | DSL | 2009 | AllSpeeds | 768.488 | 24415.18785 | 4933.2 | 1.87E-04 | 0 | 0 | 1.87E-04 |
| Los Angele | 2016 | Annual | LDA | GAS | 2010 | AllSpeeds | 235316.5 | 7782646.042 | 1515286 | 0.091968964 | 0 | 0.07952664 | 0.171495604 |
| Los Angele | 2016 | Annual | LDA | DSL | 2010 | AllSpeeds | 1351.746 | 44706.5147 | 8704.374 | 3.26E-04 | 0 | 0 | 3.26E-04 |
| Los Angele | 2016 | Annual | LDA | GAS | 2011 | AllSpeeds | 232984.1 | 8057372.347 | 1507256 | 0.090282444 | 0 | 0.075567722 | 0.165850166 |
| Los Angele | 2016 | Annual | LDA | DSL | 2011 | AllSpeeds | 1217.972 | 42121.62956 | 7879.491 | 2.91E-04 | 0 | 0 | 2.91E-04 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 2.62E-04 | 2.98E-04 | 0 | 0 | 2.98E-04 |
| Los Angele | 2015 | Annual | LDA | 0.007667402 | 0.01160029 | 0.1533037 | 0.005642661 | 0.327670418 | 0.161336017 | 0 | 0.067018032 | 0.228354049 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 2.43E-04 | 2.77E-04 | 0 | 0 | 2.77E-04 |
| Los Angele | 2015 | Annual | LDA | 0.007295897 | 0.009445036 | 0.1490568 | 0.005049853 | 0.321241059 | 0.168982219 | 0 | 0.063632071 | 0.23261429 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 2.14E-04 | 2.43E-04 | 0 | 0 | 2.43E-04 |
| Los Angele | 2015 | Annual | LDA | 0.006937679 | 0.007788196 | 0.1444293 | 0.00456344 | 0.314471298 | 0.17938466 | 0 | 0.058047932 | 0.237432592 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 2.08E-04 | 2.36E-04 | 0 | 0 | 2.36E-04 |
| Los Angele | 2015 | Annual | LDT1 | 0.001431491 | 0.003875285 | 0.016483329 | 0.001601211 | 0.032360179 | 0.008883815 | 0 | 0.00447951 | 0.013363326 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDT1 | 0.002352922 | 0.006000569 | 0.026807234 | 0.002528226 | 0.054191857 | 0.016811758 | 0 | 0.007975441 | 0.024787199 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDT1 | 0.001595679 | 0.003667373 | 0.01643429 | 0.001629997 | 0.037879984 | 0.015031682 | 0 | 0.006914357 | 0.021946039 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDT1 | 0.001373948 | 0.002794298 | 0.015283499 | 0.001295737 | 0.036264753 | 0.016217718 | 0 | 0.007263876 | 0.023481593 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.03E-05 | 1.17E-05 | 0 | 0 | 1.17E-05 |
| Los Angele | 2015 | Annual | LDT1 | 0.001062629 | 0.001869716 | 0.012575361 | 9.19E-04 | 0.029824268 | 0.014035234 | 0 | 0.006253199 | 0.020288434 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.41E-05 | 1.60E-05 | 0 | 0 | 1.60E-05 |
| Los Angele | 2015 | Annual | LDT1 | 8.68E-04 | 0.00130078 | 0.01084415 | 6.87E-04 | 0.025962922 | 0.013039246 | 0 | 0.005613321 | 0.018652567 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.69E-06 | 1.10E-05 | 0 | 0 | 1.10E-05 |
| Los Angele | 2015 | Annual | LDT1 | 7.97E-04 | 0.001036827 | 0.00994762 | 5.87E-04 | 0.02441839 | 0.013110571 | 0 | 0.005344573 | 0.018455143 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.20E-05 | 1.37E-05 | 0 | 0 | 1.37E-05 |
| Los Angele | 2015 | Annual | LDT1 | 7.50E-04 | 8.58E-04 | 0.009145041 | 5.19E-04 | 0.023095656 | 0.013264542 | 0 | 0.005013695 | 0.018278237 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.08E-05 | 1.23E-05 | 0 | 0 | 1.23E-05 |
| Los Angele | 2015 | Annual | LDT1 | 7.26E-04 | 7.39E-04 | 0.008946725 | 4.77E-04 | 0.022686556 | 0.013856162 | 0 | 0.004646555 | 0.018502717 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.08E-05 | 1.22E-05 | 0 | 0 | 1.22E-05 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005238655 | 0.005860415 | 1.03E-04 | 0 | 0.00596381 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00557946 | 0.006229095 | 1.23E-04 | 0 | 0.00635179 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003517775 | 0.003935192 | 6.95E-05 | 0 | 0.004004719 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005814966 | 0.006333773 | 2.86E-04 | 0 | 0.006619897 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003361989 | 0.003723129 | 1.04E-04 | 0 | 0.003827368 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003582368 | 0.003963264 | 1.15E-04 | 0 | 0.004078253 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003405621 | 0.003750355 | 1.27E-04 | 0 | 0.00387704 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003747281 | 0.004117424 | 1.49E-04 | 0 | 0.004265994 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003333913 | 0.003654618 | 1.41E-04 | 0 | 0.003795406 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.52E-04 | 3.64E-04 | 3.61E-05 | 0 | 4.00E-04 |
| Los Angele | 2015 | Annual | LDA/LDT1 | 0.118301341 | 0.295960109 | 1.80627455 | 0.111538908 | 3.866890538 | 1.598982034 | 0 | 0.720660817 | 2.319642851 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.037933741 | 0.041931542 | 0.001253135 | 0 | 0.043184676 |

EMFAC 2011
2016 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | LDA | 0.025587805 | 0.09151762 | 0.2833173 | 0.029439237 | 0.598173491 | 0.156182671 | 0 | 0.090105899 | 0.24628857 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDA | 0.021610959 | 0.07405936 | 0.2632368 | 0.024084905 | 0.539369758 | 0.150023303 | 0 | 0.080897786 | 0.230921089 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 5.48E-06 | 6.24E-06 | 0 | 0 | 6.24E-06 |
| Los Angele | 2016 | Annual | LDA | 0.014919283 | 0.047785215 | 0.2003141 | 0.015945366 | 0.415537081 | 0.133348752 | 0 | 0.069318421 | 0.202667173 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 1.87E-04 | 2.12E-04 | 0 | 0 | 2.12E-04 |
| Los Angele | 2016 | Annual | LDA | 0.014489313 | 0.041544475 | 0.2062729 | 0.014723822 | 0.448526114 | 0.171165888 | 0 | 0.084909938 | 0.256075826 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 3.26E-04 | 3.71E-04 | 0 | 0 | 3.71E-04 |
| Los Angele | 2016 | Annual | LDA | 0.011457496 | 0.028628511 | 0.1853784 | 0.010740266 | 0.402054839 | 0.168027058 | 0 | 0.08068303 | 0.248710088 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 2.91E-04 | 3.31E-04 | 0 | 0 | 3.31E-04 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 2.98E-04 | 0.002442686 | 0 | 0 | 0.002442686 |
| Los Angele | 2015 | Annual | LDA | 0.007667402 | 0.01160029 | 0.1533037 | 0.005642661 | 0.406568102 | 4.763551427 | 0 | 0.9238994 | 5.687450827 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 2.77E-04 | 0.002264436 | 0 | 0 | 0.002264436 |
| Los Angele | 2015 | Annual | LDA | 0.007295897 | 0.009445036 | 0.1490568 | 0.005049853 | 0.403461876 | 4.989252119 | 0 | 0.877608 | 5.866860119 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 2.43E-04 | 0.001984243 | 0 | 0 | 0.001984243 |
| Los Angele | 2015 | Annual | LDA | 0.006937679 | 0.007788196 | 0.1444293 | 0.00456344 | 0.401151207 | 5.453740033 | 0 | 0.8350047 | 6.288744733 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 0 | 0 | 2.36E-04 | 0.001923863 | 0 | 0 | 0.001923863 |
| Los Angele | 2015 | Annual | LDT1 | 0.001431491 | 0.003875285 | 0.016483329 | 0.001601211 | 0.036754641 | 0.303593217 | 0 | 0.080768332 | 0.384361549 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDT1 | 0.002352922 | 0.006000569 | 0.026807234 | 0.002528226 | 0.06247615 | 0.562334049 | 0 | 0.1416074 | 0.703941449 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDT1 | 0.001595679 | 0.003667373 | 0.01643429 | 0.001629997 | 0.045273378 | 0.483308328 | 0 | 0.1166655 | 0.599973828 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDT1 | 0.001373948 | 0.002794298 | 0.015283499 | 0.001295737 | 0.044229075 | 0.497123626 | 0 | 0.1139986 | 0.611122226 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.17E-05 | 9.56E-05 | 0 | 0 | 9.56E-05 |
| Los Angele | 2015 | Annual | LDT1 | 0.001062629 | 0.001869716 | 0.012575361 | 9.19E-04 | 0.036714698 | 0.426818368 | 0 | 0.092074722 | 0.51889309 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.60E-05 | 1.30E-04 | 0 | 0 | 1.30E-04 |
| Los Angele | 2015 | Annual | LDT1 | 8.68E-04 | 0.00130078 | 0.01084415 | 6.87E-04 | 0.032351947 | 0.389948144 | 0 | 0.07906834 | 0.469016484 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.10E-05 | 8.96E-05 | 0 | 0 | 8.96E-05 |
| Los Angele | 2015 | Annual | LDT1 | 7.97E-04 | 0.001036827 | 0.00994762 | 5.87E-04 | 0.030823378 | 0.386779422 | 0 | 0.073653445 | 0.460432867 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.37E-05 | 1.11E-04 | 0 | 0 | 1.11E-04 |
| Los Angele | 2015 | Annual | LDT1 | 7.50E-04 | 8.58E-04 | 0.009145041 | 5.19E-04 | 0.029550909 | 0.391638996 | 0 | 0.069213353 | 0.460852349 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.23E-05 | 9.91E-05 | 0 | 0 | 9.91E-05 |
| Los Angele | 2015 | Annual | LDT1 | 7.26E-04 | 7.39E-04 | 0.008946725 | 4.77E-04 | 0.02939227 | 0.422031161 | 0 | 0.067064062 | 0.489095223 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.22E-05 | 9.83E-05 | 0 | 0 | 9.83E-05 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00596381 | 0.021421963 | 0.001073986 | 0 | 0.022495949 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00635179 | 0.022769625 | 0.00127446 | 0 | 0.024044085 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004004719 | 0.014384569 | 7.22E-04 | 0 | 0.015106764 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.006619897 | 0.023152262 | 0.002972027 | 0 | 0.026124289 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003827368 | 0.013609399 | 0.001082764 | 0 | 0.014692163 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004078253 | 0.014487181 | 0.00119442 | 0 | 0.015681601 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00387704 | 0.013708923 | 0.001315901 | 0 | 0.015024823 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004265994 | 0.015050693 | 0.001543235 | 0 | 0.016593928 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003795406 | 0.013358966 | 0.001462399 | 0 | 0.014821365 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.00E-04 | 0.001331565 | 3.75E-04 | 0 | 0.001706772 |
| Los Angele | 2015 | Annual | LDA/LDT1 | 0.118301341 | 0.295960109 | 1.80627455 | 0.111538908 | 4.65171776 | 49.66262528 | 0 | 11.22219085 | 60.88481614 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.043184676 | 0.153275146 | 0.013016592 | 0 | 0.166291738 |

EMFAC 2011
2016 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | LDA | 0.025587805 | 0.09151762 | 0.2833173 | 0.029439237 | 0.676150532 | 5.324379908 | 0 | 1.618275 | 6.942654908 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDA | 0.021610959 | 0.07405936 | 0.2632368 | 0.024084905 | 0.613913113 | 5.019292897 | 0 | 1.437928 | 6.457220897 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 6.24E-06 | 5.14E-05 | 0 | 0 | 5.14E-05 |
| Los Angele | 2016 | Annual | LDA | 0.014919283 | 0.047785215 | 0.2003141 | 0.015945366 | 0.481631137 | 4.311168127 | 0 | 1.178284 | 5.489452127 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 2.12E-04 | 0.001749164 | 0 | 0 | 0.001749164 |
| Los Angele | 2016 | Annual | LDA | 0.014489313 | 0.041544475 | 0.2062729 | 0.014723822 | 0.533106336 | 5.314194337 | 0 | 1.371543 | 6.685737337 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 3.71E-04 | 0.003054026 | 0 | 0 | 0.003054026 |
| Los Angele | 2016 | Annual | LDA | 0.011457496 | 0.028628511 | 0.1853784 | 0.010740266 | 0.484914761 | 5.152889195 | 0 | 1.261667 | 6.414556195 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 3.31E-04 | 0.002722229 | 0 | 0 | 0.002722229 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | LDA | 0.008244493 | 0 | 0 | 0.008244493 | 15.07121945 | 0 | 0 | 15.07121945 | 10.97674591 |
| Los Angele | 2015 | Annual | LDA | 0.46890863 | 0 | 0.058294527 | 0.527203157 | 4002.921178 | 0 | 125.893 | 4128.814178 | 2841.273452 |
| Los Angele | 2015 | Annual | LDA | 0.00772036 | 0 | 0 | 0.00772036 | 15.11602441 | 0 | 0 | 15.11602441 | 10.72935412 |
| Los Angele | 2015 | Annual | LDA | 0.487315019 | 0 | 0.052009013 | 0.539324032 | 4470.549257 | 0 | 128.6446 | 4599.193857 | 3103.455294 |
| Los Angele | 2015 | Annual | LDA | 0.006851498 | 0 | 0 | 0.006851498 | 14.52224582 | 0 | 0 | 14.52224582 | 10.08134304 |
| Los Angele | 2015 | Annual | LDA | 0.522517732 | 0 | 0.044729758 | 0.56724749 | 5199.522844 | 0 | 130.4943 | 5330.017144 | 3462.49225 |
| Los Angele | 2015 | Annual | LDA | 0.006756444 | 0 | 0 | 0.006756444 | 15.75587905 | 0 | 0 | 15.75587905 | 10.49223376 |
| Los Angele | 2015 | Annual | LDT1 | 0.0230062 | 0 | 0.003976112 | 0.026982313 | 176.0229227 | 0 | 6.610573 | 182.6334957 | 171.6223497 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDT1 | 0.045715283 | 0 | 0.00758398 | 0.053299263 | 365.3483435 | 0 | 13.43617 | 378.7845135 | 356.2146349 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDT1 | 0.041557808 | 0 | 0.006740649 | 0.048298458 | 330.577259 | 0 | 11.85679 | 342.434049 | 322.3128276 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDT1 | 0.04508791 | 0 | 0.007058274 | 0.052146183 | 368.592621 | 0 | 12.86862 | 381.461241 | 346.7995823 |
| Los Angele | 2015 | Annual | LDT1 | 3.23E-04 | 0 | 0 | 3.23E-04 | 0.436586547 | 0 | 0 | 0.436586547 | 0.410773368 |
| Los Angele | 2015 | Annual | LDT1 | 0.041442659 | 0 | 0.006093201 | 0.04753586 | 357.6008189 | 0 | 12.0806 | 369.6814189 | 298.4536434 |
| Los Angele | 2015 | Annual | LDT1 | 4.44E-04 | 0 | 0 | 4.44E-04 | 0.635360444 | 0 | 0 | 0.635360444 | 0.530271826 |
| Los Angele | 2015 | Annual | LDT1 | 0.038345649 | 0 | 0.005165037 | 0.043510686 | 357.1127225 | 0 | 11.58155 | 368.6942725 | 260.0941236 |
| Los Angele | 2015 | Annual | LDT1 | 3.08E-04 | 0 | 0 | 3.08E-04 | 0.468640353 | 0 | 0 | 0.468640353 | 0.341322485 |
| Los Angele | 2015 | Annual | LDT1 | 0.038088244 | 0 | 0.004635739 | 0.042723983 | 379.6607884 | 0 | 11.72235 | 391.3831384 | 269.4832276 |
| Los Angele | 2015 | Annual | LDT1 | 3.84E-04 | 0 | 0 | 3.84E-04 | 0.629125751 | 0 | 0 | 0.629125751 | 0.446553458 |
| Los Angele | 2015 | Annual | LDT1 | 0.0382501 | 0 | 0.004084153 | 0.042334253 | 410.0622835 | 0 | 11.85178 | 421.9140635 | 284.6652372 |
| Los Angele | 2015 | Annual | LDT1 | 3.48E-04 | 0 | 0 | 3.48E-04 | 0.619049791 | 0 | 0 | 0.619049791 | 0.429744365 |
| Los Angele | 2015 | Annual | LDT1 | 0.040415349 | 0 | 0.003573555 | 0.043988904 | 469.7950106 | 0 | 12.22884 | 482.0238506 | 312.8482424 |
| Los Angele | 2015 | Annual | LDT1 | 3.52E-04 | 0 | 0 | 3.52E-04 | 0.687501162 | 0 | 0 | 0.687501162 | 0.457824211 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.127011358 | 0.001622573 | 0 | 0.128633931 | 32.11888854 | 0.322686589 | 0 | 32.44157513 | 31.31591632 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.130358108 | 0.001925448 | 0 | 0.132283556 | 36.15162877 | 0.382920474 | 0 | 36.53454924 | 35.24783805 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.075676025 | 0.001091087 | 0 | 0.076767113 | 24.36520018 | 0.216988297 | 0 | 24.58218848 | 23.75607017 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.075649755 | 0.004490122 | 0 | 0.080139877 | 62.43390279 | 0.892965983 | 0 | 63.32686878 | 60.87305522 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.040177529 | 0.001635834 | 0 | 0.041813363 | 39.09432753 | 0.325323995 | 0 | 39.41965153 | 38.11696934 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.036050863 | 0.001804524 | 0 | 0.037855386 | 44.67042654 | 0.358871766 | 0 | 45.0292983 | 43.55366587 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.0327898 | 0.001988056 | 0 | 0.034777856 | 50.0207293 | 0.395371424 | 0 | 50.41610072 | 48.77021107 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.034130189 | 0.002331511 | 0 | 0.0364617 | 58.41000861 | 0.463675615 | 0 | 58.87368423 | 56.9497584 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.028418301 | 0.002209384 | 0 | 0.030627685 | 55.35051421 | 0.439387836 | 0 | 55.78990205 | 53.96675136 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.002618547 | 5.67E-04 | 0 | 0.003185407 | 5.917249289 | 0.112733264 | 0 | 6.029982553 | 5.769318056 |
| Los Angele | 2015 | Annual | LDA/LDT1 | 4.580517116 | 0 | 0.655359863 | 5.23587698 | 36292.38392 | 0 | 1215.749673 | 37508.13359 | 29375.0727 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.582880475 | 0.019665399 | 0 | 0.602545875 | 408.5328758 | 3.910925242 | 0 | 412.443801 | 398.3195539 |

EMFAC 2011
2016 Estimated Annual Emissions
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South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | LDA | 0.400995963 | 0 | 0.079279631 | 0.480275594 | 2637.074701 | 0 | 113.1573 | 2750.232001 | 2544.777086 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDA | 0.404339519 | 0 | 0.076431967 | 0.480771486 | 2758.548667 | 0 | 115.1008 | 2873.649467 | 2661.999463 |
| Los Angele | 2016 | Annual | LDA | 1.68E-04 | 0 | 0 | 1.68E-04 | 0.240690364 | 0 | 0 | 0.240690364 | 0.232266201 |
| Los Angele | 2016 | Annual | LDA | 0.369821354 | 0 | 0.068471283 | 0.438292637 | 2449.462694 | 0 | 98.91746 | 2548.380154 | 2363.7315 |
| Los Angele | 2016 | Annual | LDA | 0.005751577 | 0 | 0 | 0.005751577 | 8.54470877 | 0 | 0 | 8.54470877 | 8.245643964 |
| Los Angele | 2016 | Annual | LDA | 0.48357368 | 0 | 0.086342648 | 0.569916328 | 3190.642574 | 0 | 124.1203 | 3314.762874 | 2971.206131 |
| Los Angele | 2016 | Annual | LDA | 0.010091433 | 0 | 0 | 0.010091433 | 15.64616781 | 0 | 0 | 15.64616781 | 14.57010262 |
| Los Angele | 2016 | Annual | LDA | 0.469437648 | 0 | 0.078565247 | 0.548002895 | 3304.318709 | 0 | 123.4631 | 3427.781809 | 2729.499426 |
| Los Angele | 2016 | Annual | LDA | 0.009048911 | 0 | 0 | 0.009048911 | 14.74152095 | 0 | 0 | 14.74152095 | 12.17708597 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 10.97674591 | 1.64E-04 | 0 | 0 | 1.64E-04 | 3.80E-04 | 0.001744508 |
| Los Angele | 2015 | Annual | LDA | 0 | 89.3588514 | 2930.632304 | 0.012368993 | 0 | 0.003779794 | 0.016148787 | 0.086003937 | 0.3950806 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 10.72935412 | 1.53E-04 | 0 | 0 | 1.53E-04 | 3.81E-04 | 0.001749694 |
| Los Angele | 2015 | Annual | LDA | 0 | 89.30508132 | 3192.760375 | 0.018412871 | 0 | 0.0054645 | 0.023877371 | 0.096025892 | 0.441119 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 10.08134304 | 1.36E-04 | 0 | 0 | 1.36E-04 | 3.66E-04 | 0.001680964 |
| Los Angele | 2015 | Annual | LDA | 0 | 86.89941673 | 3549.391667 | 0.02676078 | 0 | 0.007138802 | 0.033899582 | 0.1116572 | 0.5129253 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 10.49223376 | 1.34E-04 | 0 | 0 | 1.34E-04 | 3.97E-04 | 0.001823758 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 6.445308675 | 178.0676583 | 1.17E-04 | 0 | 1.37E-05 | 1.31E-04 | 0.0032574 | 0.01496368 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 13.10026575 | 369.3149006 | 2.43E-04 | 0 | 3.62E-05 | 2.79E-04 | 0.006764932 | 0.031076411 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 11.56037025 | 333.8731978 | 2.93E-04 | 0 | 5.05E-05 | 3.43E-04 | 0.006108798 | 0.028062293 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 12.10776284 | 358.9073452 | 3.27E-04 | 0 | 6.76E-05 | 3.94E-04 | 0.006813431 | 0.031299204 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0.410773368 | 5.34E-06 | 0 | 0 | 5.34E-06 | 1.10E-05 | 5.05E-05 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 10.08246876 | 308.5361122 | 4.75E-04 | 0 | 1.18E-04 | 5.93E-04 | 0.00660894 | 0.030359821 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0.530271826 | 7.35E-06 | 0 | 0 | 7.35E-06 | 1.60E-05 | 7.35E-05 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 8.435132404 | 268.529256 | 6.32E-04 | 0 | 1.59E-04 | 7.92E-04 | 0.006598409 | 0.030311448 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0.341322485 | 5.09E-06 | 0 | 0 | 5.09E-06 | 1.18E-05 | 5.42E-05 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 8.32052403 | 277.8037516 | 0.001008214 | 0 | 3.02E-04 | 0.001310497 | 0.00701378 | 0.032219555 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0.446553458 | 6.37E-06 | 0 | 0 | 6.37E-06 | 1.59E-05 | 7.28E-05 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 8.227505676 | 292.8927429 | 0.00145149 | 0 | 4.32E-04 | 0.00188388 | 0.007573451 | 0.034790546 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0.429744365 | 5.78E-06 | 0 | 0 | 5.78E-06 | 1.56E-05 | 7.17E-05 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 8.143490277 | 320.9917327 | 0.002078028 | 0 | 5.75E-04 | 0.00265261 | 0.008675303 | 0.039852176 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0.457824211 | 5.84E-06 | 0 | 0 | 5.84E-06 | 1.73E-05 | 7.96E-05 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.314619424 | 0 | 31.63053575 | 0.001501888 | 3.81E-06 | 0 | 0.001505701 | 3.31E-04 | 0.003596275 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.373347462 | 0 | 35.62118551 | 0.001600091 | 4.53E-06 | 0 | 0.001604617 | 3.73E-04 | 0.004047811 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.21156359 | 0 | 23.96763376 | 0.00101367 | 2.56E-06 | 0 | 0.001016234 | 2.51E-04 | 0.002728113 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.870641833 | 0 | 61.74369706 | 0.002505096 | 1.06E-05 | 0 | 0.002515649 | 6.66E-04 | 0.00723222 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.317190895 | 0 | 38.43416024 | 0.001448141 | 3.84E-06 | 0 | 0.001451986 | 4.17E-04 | 0.00452861 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.349899972 | 0 | 43.90356585 | 0.001510405 | 4.24E-06 | 0 | 0.001514646 | 4.76E-04 | 0.005174534 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.385487138 | 0 | 49.1556982 | 0.001359953 | 4.67E-06 | 0 | 0.001364625 | 5.35E-04 | 0.005807669 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.452083725 | 0 | 57.40184212 | 0.00145388 | 5.48E-06 | 0 | 0.00145936 | 6.24E-04 | 0.006781708 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.42840314 | 0 | 54.3951545 | 0.001251142 | 5.19E-06 | 0 | 0.001256335 | 5.92E-04 | 0.006426485 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.109914933 | 0 | 5.879232989 | 1.20E-04 | 1.33E-06 | 0 | 1.22E-04 | 6.33E-05 | 6.87E-04 |
| Los Angele | 2015 | Annual | LDA/LDT1 | 0 | 1006.591401 | 30381.6641 | 0.08941776 | 0 | 0.023592512 | 0.113010273 | 0.771007883 | 3.541818019 |
| Los Angele | 2015 | Annual | T6 instate heavy | 3.813152111 | 0 | 402.132706 | 0.013764486 | 4.62202E-05 | 0 | 0.013810706 | 0.004328106 | 0.047010447 |

EMFAC 2011
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Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | LDA | 0 | 109.1967945 | 2653.973881 | 0.002040953 | 0 | 2.73E-04 | 0.002314057 | 0.056859512 | 0.2611984 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDA | 0 | 111.072272 | 2773.071735 | 0.002134967 | 0 | 3.61E-04 | 0.002496101 | 0.059472535 | 0.273202 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0.232266201 | 3.34E-06 | 0 | 0 | 3.34E-06 | 6.06E-06 | 2.79E-05 |
| Los Angele | 2016 | Annual | LDA | 0 | 95.4553489 | 2459.186849 | 0.00252688 | 0 | 4.90E-04 | 0.003017086 | 0.052701488 | 0.2420975 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 8.245643964 | 1.14E-04 | 0 | 0 | 1.14E-04 | 2.15E-04 | 9.89E-04 |
| Los Angele | 2016 | Annual | LDA | 0 | 115.5839264 | 3086.790057 | 0.003290457 | 0 | 7.59E-04 | 0.004049352 | 0.06863118 | 0.3152746 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 14.57010262 | 2.00E-04 | 0 | 0 | 2.00E-04 | 3.94E-04 | 0.001811059 |
| Los Angele | 2016 | Annual | LDA | 0 | 101.9854591 | 2831.484885 | 0.005109939 | 0 | 0.001406453 | 0.006516392 | 0.071053863 | 0.3264037 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 12.17708597 | 1.79E-04 | 0 | 0 | 1.79E-04 | 3.71E-04 | 0.001706345 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | LDA | 0.002287864 | 1.51E-04 | 0 | 0 | 1.51E-04 | 9.49E-05 | 7.48E-04 | 9.93E-04 | 1.44E-04 |
| Los Angele | 2015 | Annual | LDA | 0.497233324 | 0.011476386 | 0 | 0.003507025 | 0.014983411 | 0.021500984 | 0.1693203 | 0.205804695 | 0.040035564 |
| Los Angele | 2015 | Annual | LDA | 0.00228384 | 1.41E-04 | 0 | 0 | 1.41E-04 | 9.52E-05 | 7.50E-04 | 9.86E-04 | 1.44E-04 |
| Los Angele | 2015 | Annual | LDA | 0.561022263 | 0.017084105 | 0 | 0.005070154 | 0.022154259 | 0.024006473 | 0.189051 | 0.235211732 | 0.044707078 |
| Los Angele | 2015 | Annual | LDA | 0.002182967 | 1.25E-04 | 0 | 0 | 1.25E-04 | 9.15E-05 | 7.20E-04 | 9.37E-04 | 1.39E-04 |
| Los Angele | 2015 | Annual | LDA | 0.658482082 | 0.024829588 | 0 | 0.00662363 | 0.031453218 | 0.027914297 | 0.2198251 | 0.279192615 | 0.051991101 |
| Los Angele | 2015 | Annual | LDA | 0.002355044 | 1.24E-04 | 0 | 0 | 1.24E-04 | 9.93E-05 | 7.82E-04 | 0.001004398 | 1.50E-04 |
| Los Angele | 2015 | Annual | LDT1 | 0.018351855 | 1.09E-04 | 0 | 1.27E-05 | 1.21E-04 | 8.14E-04 | 0.006413006 | 0.007348694 | 0.001762036 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDT1 | 0.038120469 | 2.25E-04 | 0 | 3.36E-05 | 2.59E-04 | 0.001691233 | 0.01331846 | 0.015268676 | 0.003656125 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDT1 | 0.034514536 | 2.72E-04 | 0 | 4.68E-05 | 3.19E-04 | 0.0015272 | 0.012026696 | 0.013872555 | 0.003307757 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | LDT1 | 0.038506783 | 3.03E-04 | 0 | 6.27E-05 | 3.66E-04 | 0.001703358 | 0.013413941 | 0.015483003 | 0.003687468 |
| Los Angele | 2015 | Annual | LDT1 | 6.69E-05 | 4.91E-06 | 0 | 0 | 4.91E-06 | 2.75E-06 | 2.17E-05 | 2.93E-05 | 4.17E-06 |
| Los Angele | 2015 | Annual | LDT1 | 0.037562062 | 4.41E-04 | 0 | 1.10E-04 | 5.50E-04 | 0.001652235 | 0.013011354 | 0.015214075 | 0.003576584 |
| Los Angele | 2015 | Annual | LDT1 | 9.69E-05 | 6.76E-06 | 0 | 0 | 6.76E-06 | 4.00E-06 | 3.15E-05 | 4.23E-05 | 6.07E-06 |
| Los Angele | 2015 | Annual | LDT1 | 0.037701682 | 5.87E-04 | 0 | 1.48E-04 | 7.35E-04 | 0.001649602 | 0.01299062 | 0.015374905 | 0.003571106 |
| Los Angele | 2015 | Annual | LDT1 | 7.11E-05 | 4.69E-06 | 0 | 0 | 4.69E-06 | 2.95E-06 | 2.32E-05 | 3.09E-05 | 4.47E-06 |
| Los Angele | 2015 | Annual | LDT1 | 0.040543832 | 9.35E-04 | 0 | 2.80E-04 | 0.001215925 | 0.001753445 | 0.013808382 | 0.016777752 | 0.003796128 |
| Los Angele | 2015 | Annual | LDT1 | 9.50E-05 | 5.86E-06 | 0 | 0 | 5.86E-06 | 3.96E-06 | 3.12E-05 | 4.10E-05 | 6.01E-06 |
| Los Angele | 2015 | Annual | LDT1 | 0.044247877 | 0.001346744 | 0 | 4.01E-04 | 0.00174793 | 0.001893363 | 0.014910231 | 0.018551523 | 0.004099669 |
| Los Angele | 2015 | Annual | LDT1 | 9.30E-05 | 5.32E-06 | 0 | 0 | 5.32E-06 | 3.90E-06 | 3.07E-05 | 3.99E-05 | 5.91E-06 |
| Los Angele | 2015 | Annual | LDT1 | 0.051180089 | 0.001928067 | 0 | 5.33E-04 | 0.002461184 | 0.002168826 | 0.017079502 | 0.021709512 | 0.0046964 |
| Los Angele | 2015 | Annual | LDT1 | 1.03E-04 | 5.37E-06 | 0 | 0 | 5.37E-06 | 4.33E-06 | 3.41E-05 | 4.38E-05 | 6.56E-06 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.005433074 | 0.001381737 | 3.51E-06 | 0 | 0.001385245 | 8.28E-05 | 0.001541261 | 0.00300928 | 3.06E-04 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.006025097 | 0.001472084 | 4.16E-06 | 0 | 0.001476247 | 9.32E-05 | 0.001734776 | 0.003304191 | 3.45E-04 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.003995516 | 9.33E-04 | 2.36E-06 | 0 | 9.35E-04 | 6.28E-05 | 0.001169191 | 0.002166919 | 2.32E-04 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.010413717 | 0.002304688 | 9.71E-06 | 0 | 0.002314397 | 1.66E-04 | 0.003099523 | 0.005580382 | 5.96E-04 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.00639753 | 0.00133229 | 3.54E-06 | 0 | 0.001335827 | 1.04E-04 | 0.001940833 | 0.003380893 | 3.73E-04 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.007165583 | 0.001389572 | 3.90E-06 | 0 | 0.001393474 | 1.19E-04 | 0.002217657 | 0.003730232 | 4.26E-04 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.007706988 | 0.001251157 | 4.30E-06 | 0 | 0.001255455 | 1.34E-04 | 0.002489001 | 0.00387813 | 4.77E-04 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.008865439 | 0.00133757 | 5.04E-06 | 0 | 0.001342611 | 1.56E-04 | 0.002906446 | 0.00440515 | 5.57E-04 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.008274486 | 0.001151051 | 4.78E-06 | 0 | 0.001155828 | 1.48E-04 | 0.002754208 | 0.004057953 | 5.28E-04 |
| Los Angele | 2015 | Annual | T6 instate heavy | 8.72E-04 | 1.11E-04 | 1.23E-06 | 0 | 1.12E-04 | 1.58E-05 | 2.94E-04 | 4.22E-04 | 5.65E-05 |
| Los Angele | 2015 | Annual | LDA/LDT1 | 4.425836175 | 0.082956167 | 0 | 0.021889957 | 0.104846124 | 0.192751967 | 1.517921942 | 1.815520034 | 0.363040908 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.06514926 | 0.012663327 | 4.25226E-05 | 0 | 0.01270585 | 0.001082027 | 0.020147334 | 0.033935211 | 0.003897595 |

EMFAC 2011
2016 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | LDA | 0.320371969 | 0.001893668 | 0 | 2.53E-04 | 0.002147064 | 0.014214878 | 0.1119422 | 0.128304142 | 0.026410656 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDA | 0.335170636 | 0.001980898 | 0 | 3.35E-04 | 0.00231597 | 0.014868134 | 0.1170865 | 0.134270604 | 0.02761822 |
| Los Angele | 2016 | Annual | LDA | 3.73E-05 | 3.07E-06 | 0 | 0 | 3.07E-06 | 1.52E-06 | 1.19E-05 | 1.65E-05 | 2.30E-06 |
| Los Angele | 2016 | Annual | LDA | 0.297816074 | 0.002344527 | 0 | 4.55E-04 | 0.002799358 | 0.013175372 | 0.1037561 | 0.11973083 | 0.024521412 |
| Los Angele | 2016 | Annual | LDA | 0.001318375 | 1.05E-04 | 0 | 0 | 1.05E-04 | 5.38E-05 | 4.24E-04 | 5.83E-04 | 8.16E-05 |
| Los Angele | 2016 | Annual | LDA | 0.387955132 | 0.003053001 | 0 | 7.04E-04 | 0.00375713 | 0.017157795 | 0.1351177 | 0.156032625 | 0.031936515 |
| Los Angele | 2016 | Annual | LDA | 0.002405382 | 1.84E-04 | 0 | 0 | 1.84E-04 | 9.86E-05 | 7.76E-04 | 0.001058802 | 1.49E-04 |
| Los Angele | 2016 | Annual | LDA | 0.403973955 | 0.004741181 | 0 | 0.001304957 | 0.006046137 | 0.017763466 | 0.1398873 | 0.163696903 | 0.033068575 |
| Los Angele | 2016 | Annual | LDA | 0.002257247 | 1.65E-04 | 0 | 0 | 1.65E-04 | 9.29E-05 | 7.31E-04 | 9.89E-04 | 1.41E-04 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 1.44E-04 | 0 | 1.35641 | 1.22E-05 | 1.13E-04 | 3.83E-04 | 7.60E-06 | 9.87E-05 | 6.99E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2015 | Annual | LDA | 0 | 0.001273121 | 0.041308685 | 440.6172 | 0 | 6.72E-05 | 1.17E-03 | 1.08E-04 | 3.31E-06 | 9.87E-05 | 3.07E-06 | 3.91E-05 | 8.47E-06 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 1.44E-04 | 0 | 1.360443 | 1.13E-05 | 1.05E-04 | 3.57E-04 | 7.10E-06 | 9.87E-05 | 6.53E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2015 | Annual | LDA | 0 | 0.001299759 | 0.046006837 | 490.7297 | 0 | 5.90E-05 | 1.08E-03 | 9.91E-05 | 4.39E-06 | 9.87E-05 | 4.07E-06 | 3.91E-05 | 8.45E-06 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 1.39E-04 | 0 | 1.307002 | 0.00E+00 | 9.56E-05 | 3.30E-04 | 6.56E-06 | 9.87E-05 | 6.03E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2015 | Annual | LDA | 0 | 0.001317388 | 0.053308489 | 568.6125 | 0 | 4.97E-05 | 9.93E-04 | 8.96E-05 | 5.35E-06 | 9.87E-05 | 4.97E-06 | 3.91E-05 | 8.42E-06 |
| Los Angele | 2015 | Annual | LDA | 0 | 0 | 1.50E-04 | 0 | 1.418029 | 0.00E+00 | 8.55E-05 | 3.00E-04 | 5.97E-06 | 9.87E-05 | 5.49E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 6.74E-05 | 0.001829422 | 19.51344 | 0 | 1.75E-04 | 2.08E-03 | 1.46E-04 | 7.08E-07 | 9.87E-05 | 6.57E-07 | 3.91E-05 | 9.91E-06 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2015 | Annual | LDT1 | 0 | 1.37E-04 | 0.0037927 | 40.45465 | 0 | 1.41E-04 | 1.84E-03 | 1.39E-04 | 7.28E-07 | 9.87E-05 | 6.75E-07 | 3.91E-05 | 9.89E-06 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2015 | Annual | LDT1 | 0 | 1.20E-04 | 0.003428144 | 36.56614 | 0 | 1.09E-04 | 1.73E-03 | 1.39E-04 | 9.92E-07 | 9.87E-05 | 9.20E-07 | 3.91E-05 | 9.90E-06 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2015 | Annual | LDT1 | 0 | 1.30E-04 | 0.003817924 | 40.72371 | 0 | 9.39E-05 | 1.58E-03 | 1.35E-04 | 1.02E-06 | 9.87E-05 | 9.47E-07 | 3.91E-05 | 9.88E-06 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 4.17E-06 | 0 | 0.039292794 | 1.65E-05 | 1.53E-04 | 5.18E-04 | 8.56E-06 | 9.87E-05 | 7.88E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 1.22E-04 | 0.0036988 | 39.45308 | 0 | 7.96E-05 | 1.38E-03 | 1.27E-04 | 1.58E-06 | 9.87E-05 | 1.47E-06 | 3.91E-05 | 9.87E-06 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 6.07E-06 | 0 | 0.057182439 | 1.55E-05 | 1.44E-04 | 4.89E-04 | 8.10E-06 | 9.87E-05 | 7.45E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 1.17E-04 | 0.003688117 | 39.33913 | 0 | 6.94E-05 | 1.25E-03 | 1.16E-04 | 2.12E-06 | 9.87E-05 | 1.96E-06 | 3.91E-05 | 9.86E-06 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 4.47E-06 | 0 | 0.042177636 | 1.45E-05 | 1.34E-04 | 4.59E-04 | 7.61E-06 | 9.87E-05 | 7.00E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 1.18E-04 | 0.003914452 | 41.75331 | 0 | 6.14E-05 | 1.16E-03 | 1.07E-04 | 3.30E-06 | 9.87E-05 | 3.06E-06 | 3.91E-05 | 9.84E-06 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 6.01E-06 | 0 | 0.056621317 | 1.34E-05 | 1.23E-04 | 4.28E-04 | 7.08E-06 | 9.87E-05 | 6.52E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 1.20E-04 | 0.004219205 | 45.00394 | 0 | 5.38E-05 | 1.07E-03 | 9.86E-05 | 4.39E-06 | 9.87E-05 | 4.07E-06 | 3.91E-05 | 9.83E-06 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 5.91E-06 | 0 | 0.055714484 | 1.22E-05 | 1.12E-04 | 3.94E-04 | 6.53E-06 | 9.87E-05 | 6.01E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 1.23E-04 | 0.004819655 | 51.40863 | 0 | 4.61E-05 | 9.94E-04 | 8.94E-05 | 5.39E-06 | 9.87E-05 | 5.00E-06 | 3.91E-05 | 9.80E-06 |
| Los Angele | 2015 | Annual | LDT1 | 0 | 0 | 6.56E-06 | 0 | 0.061875109 | 1.09E-05 | 1.00E-04 | 3.58E-04 | 5.94E-06 | 9.87E-05 | 5.47E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2015 | Annual | T6 instate heavy | 3.08E-06 | 0 | 3.10E-04 | 0 | 2.919741761 | 4.19E-04 | 1.80E-03 | 1.03E-02 | 1.20E-04 | 3.14E-04 | 1.11E-04 | 1.30E-04 | 2.47E-05 |
| Los Angele | 2015 | Annual | T6 instate heavy | 3.65E-06 | 0 | 3.49E-04 | 0 | 3.288109432 | 3.96E-04 | 1.71E-03 | 9.39E-03 | 1.14E-04 | 3.14E-04 | 1.05E-04 | 1.30E-04 | 2.47E-05 |
| Los Angele | 2015 | Annual | T6 instate heavy | 2.07E-06 | 0 | 2.35E-04 | 0 | 2.212396963 | 3.71E-04 | 1.59E-03 | 8.09E-03 | 1.07E-04 | 3.14E-04 | 9.85E-05 | 1.30E-04 | 2.47E-05 |
| Los Angele | 2015 | Annual | T6 instate heavy | 8.52E-06 | 0 | 6.04E-04 | 0 | 5.69941819 | 2.31E-04 | 1.04E-03 | 3.18E-03 | 1.00E-04 | 3.14E-04 | 9.20E-05 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2015 | Annual | T6 instate heavy | 3.10E-06 | 0 | 3.76E-04 | 0 | 3.547768637 | 2.13E-04 | 9.32E-04 | 2.65E-03 | 9.21E-05 | 3.14E-04 | 8.48E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2015 | Annual | T6 instate heavy | 3.42E-06 | 0 | 4.30E-04 | 0 | 4.052636847 | 1.99E-04 | 8.71E-04 | 2.10E-03 | 8.41E-05 | 3.14E-04 | 7.74E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2015 | Annual | T6 instate heavy | 3.77E-06 | 0 | 4.81E-04 | 0 | 4.537449065 | 1.69E-04 | 7.43E-04 | 1.72E-03 | 6.75E-05 | 3.14E-04 | 6.21E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2015 | Annual | T6 instate heavy | 4.42E-06 | 0 | 5.62E-04 | 0 | 5.29863158 | 1.59E-04 | 7.03E-04 | 1.54E-03 | 6.18E-05 | 3.14E-04 | 5.69E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2015 | Annual | T6 instate heavy | 4.19E-06 | 0 | 5.32E-04 | 0 | 5.021091184 | 1.49E-04 | 6.63E-04 | 1.37E-03 | 5.62E-05 | 3.14E-04 | 5.17E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2015 | Annual | T6 instate heavy | 1.08E-06 | 0 | 5.75E-05 | 0 | 0.54269843 | 1.47E-04 | 7.14E-04 | 1.33E-03 | 5.08E-05 | 3.14E-04 | 4.68E-05 | 1.30E-04 | 2.41E-05 |
| Los Angele | 2015 | Annual | LDA/LDT1 | 0 | 0.012332796 | 0.375373704 | 3993.21733 | 9.446841243 | 8.85E-05 | 1.39E-03 | 1.20E-04 | 2.59E-06 | 9.87E-05 | 2.40E-06 | 3.91E-05 | 8.59E-06 |
| Los Angele | 2015 | Annual | T6 instate heavy | 3.73121E-05 | 0 | 0.003934907 | 0 | 37.11994209 | 2.32E-04 | 1.02E-03 | 3.68E-03 | 8.44E-05 | 3.14E-04 | 7.77E-05 | 1.30E-04 | 2.41E-05 |

EMFAC 2011
2016 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | LDA | 0 | 0.001157574 | 0.02756823 | 294.0552 | 0 | 1.86E-04 | 2.15E-03 | 1.49E-04 | 7.18E-07 | 9.87E-05 | 6.66E-07 | 3.91E-05 | 8.55E-06 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2016 | Annual | LDA | 0 | 0.00117387 | 0.02879209 | 307.1094 | 0 | 1.60E-04 | 1.91E-03 | 1.43E-04 | 7.40E-07 | 9.87E-05 | 6.87E-07 | 3.91E-05 | 8.54E-06 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 2.30E-06 | 0 | 0.021662133 | 1.59E-05 | 1.50E-04 | 4.90E-04 | 9.71E-06 | 9.87E-05 | 8.93E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2016 | Annual | LDA | 0 | 0.001007916 | 0.025529328 | 272.3074 | 0 | 1.39E-04 | 1.84E-03 | 1.47E-04 | 1.01E-06 | 9.87E-05 | 9.37E-07 | 3.91E-05 | 8.54E-06 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 8.16E-05 | 0 | 0.7690237 | 1.53E-05 | 1.43E-04 | 4.71E-04 | 9.34E-06 | 9.87E-05 | 8.59E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2016 | Annual | LDA | 0 | 0.00126298 | 0.033199495 | 354.1208 | 0 | 1.15E-04 | 1.72E-03 | 1.46E-04 | 1.04E-06 | 9.87E-05 | 9.66E-07 | 3.91E-05 | 8.53E-06 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 1.49E-04 | 0 | 1.408155 | 1.46E-05 | 1.37E-04 | 4.51E-04 | 8.95E-06 | 9.87E-05 | 8.23E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2016 | Annual | LDA | 0 | 0.00125457 | 0.034323145 | 366.1063 | 0 | 9.98E-05 | 1.59E-03 | 1.36E-04 | 1.62E-06 | 9.87E-05 | 1.50E-06 | 3.91E-05 | 8.52E-06 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 1.41E-04 | 0 | 1.326737 | 1.38E-05 | 1.29E-04 | 4.30E-04 | 8.52E-06 | 9.87E-05 | 7.84E-06 | 3.91E-05 | 6.68E-06 |

| | | | | |
|---|---|---|---|---|
| Los Angele | 2015 | Annual | LDA | 2.55E-04 |
| Los Angele | 2015 | Annual | LDA | 3.00E-04 |
| Los Angele | 2015 | Annual | LDA | 2.48E-04 |
| Los Angele | 2015 | Annual | LDA | 2.93E-04 |
| Los Angele | 2015 | Annual | LDA | 0.00E+00 |
| Los Angele | 2015 | Annual | LDA | 2.80E-04 |
| Los Angele | 2015 | Annual | LDA | 0.00E+00 |
| Los Angele | 2015 | Annual | LDT1 | 4.82E-04 |
| Los Angele | 2015 | Annual | LDT1 | |
| Los Angele | 2015 | Annual | LDT1 | 4.81E-04 |
| Los Angele | 2015 | Annual | LDT1 | |
| Los Angele | 2015 | Annual | LDT1 | 4.82E-04 |
| Los Angele | 2015 | Annual | LDT1 | |
| Los Angele | 2015 | Annual | LDT1 | 4.65E-04 |
| Los Angele | 2015 | Annual | LDT1 | 3.29E-04 |
| Los Angele | 2015 | Annual | LDT1 | 4.12E-04 |
| Los Angele | 2015 | Annual | LDT1 | 2.92E-04 |
| Los Angele | 2015 | Annual | LDT1 | 3.59E-04 |
| Los Angele | 2015 | Annual | LDT1 | 2.55E-04 |
| Los Angele | 2015 | Annual | LDT1 | 3.49E-04 |
| Los Angele | 2015 | Annual | LDT1 | 2.48E-04 |
| Los Angele | 2015 | Annual | LDT1 | 3.41E-04 |
| Los Angele | 2015 | Annual | LDT1 | 2.43E-04 |
| Los Angele | 2015 | Annual | LDT1 | 3.26E-04 |
| Los Angele | 2015 | Annual | LDT1 | 2.33E-04 |
| Los Angele | 2015 | Annual | T6 instate heavy | 1.26E-03 |
| Los Angele | 2015 | Annual | T6 instate heavy | 1.26E-03 |
| Los Angele | 2015 | Annual | T6 instate heavy | 1.26E-03 |
| Los Angele | 2015 | Annual | T6 instate heavy | 1.23E-03 |
| Los Angele | 2015 | Annual | T6 instate heavy | 1.22E-03 |
| Los Angele | 2015 | Annual | T6 instate heavy | 1.22E-03 |
| Los Angele | 2015 | Annual | T6 instate heavy | 1.22E-03 |
| Los Angele | 2015 | Annual | T6 instate heavy | 1.22E-03 |
| Los Angele | 2015 | Annual | T6 instate heavy | 1.22E-03 |
| Los Angele | 2015 | Annual | T6 instate heavy | 1.23E-03 |
| Los Angele | 2015 | Annual | LDA/LDT1 | 3.47E-04 |
| Los Angele | 2015 | Annual | T6 instate heavy | 1.23E-03 |

EMFAC 2011
2016 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2016 | Annual | LDA | 4.12E-04 |
| Los Angele | 2016 | Annual | LDA | |
| Los Angele | 2016 | Annual | LDA | 4.11E-04 |
| Los Angele | 2016 | Annual | LDA | 3.38E-04 |
| Los Angele | 2016 | Annual | LDA | 4.11E-04 |
| Los Angele | 2016 | Annual | LDA | 3.38E-04 |
| Los Angele | 2016 | Annual | LDA | 3.97E-04 |
| Los Angele | 2016 | Annual | LDA | 3.26E-04 |
| Los Angele | 2016 | Annual | LDA | 3.51E-04 |
| Los Angele | 2016 | Annual | LDA | 2.89E-04 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | LDA | GAS | 2012 | AllSpeeds | 239661.4 | 8715872.409 | 1555247 | 0.087722755 | 0 | 0.071873114 | 0.159595869 |
| Los Angele | 2016 | Annual | LDA | DSL | 2012 | AllSpeeds | 1117.107 | 40626.38141 | 7249.297 | 2.64E-04 | 0 | 0 | 2.64E-04 |
| Los Angele | 2016 | Annual | LDA | GAS | 2013 | AllSpeeds | 233787.6 | 9012332.901 | 1519468 | 0.084575164 | 0 | 0.065871418 | 0.150446582 |
| Los Angele | 2016 | Annual | LDA | DSL | 2013 | AllSpeeds | 1037.128 | 39980.56789 | 6740.658 | 2.43E-04 | 0 | 0 | 2.43E-04 |
| Los Angele | 2016 | Annual | LDA | GAS | 2014 | AllSpeeds | 235783.7 | 9753224.262 | 1537156 | 0.086686972 | 0 | 0.062768623 | 0.149455595 |
| Los Angele | 2016 | Annual | LDA | DSL | 2014 | AllSpeeds | 915.3193 | 37862.39041 | 5967.285 | 2.13E-04 | 0 | 0 | 2.13E-04 |
| Los Angele | 2016 | Annual | LDA | GAS | 2015 | AllSpeeds | 242927.2 | 1.10E+07 | 1588585 | 0.091824746 | 0 | 0.060274441 | 0.152099187 |
| Los Angele | 2016 | Annual | LDA | DSL | 2015 | AllSpeeds | 863.75 | 39157.23863 | 5648.36 | 2.02E-04 | 0 | 0 | 2.02E-04 |
| Los Angele | 2016 | Annual | LDA | GAS | 2016 | AllSpeeds | 241941.7 | 1.26E+07 | 1586979 | 0.095987899 | 0 | 0.054144487 | 0.150132386 |
| Los Angele | 2016 | Annual | LDA | DSL | 2016 | AllSpeeds | 763.4277 | 39791.04449 | 5007.584 | 1.84E-04 | 0 | 0 | 1.84E-04 |
| Los Angele | 2016 | Annual | LDT1 | GAS | 2007 | AllSpeeds | 10524.14 | 349945.9214 | 66821.63 | 0.004642148 | 0 | 0.004144926 | 0.008787074 |
| Los Angele | 2016 | Annual | LDT1 | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDT1 | GAS | 2008 | AllSpeeds | 21421.01 | 729013.6552 | 136866.6 | 0.008838374 | 0 | 0.007457464 | 0.016295838 |
| Los Angele | 2016 | Annual | LDT1 | DSL | 2008 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDT1 | GAS | 2009 | AllSpeeds | 18914.76 | 660243.278 | 121420.6 | 0.007957733 | 0 | 0.006536417 | 0.01449415 |
| Los Angele | 2016 | Annual | LDT1 | DSL | 2009 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDT1 | GAS | 2010 | AllSpeeds | 20465.38 | 734539.5461 | 131783.9 | 0.008763521 | 0 | 0.006973002 | 0.015736523 |
| Los Angele | 2016 | Annual | LDT1 | DSL | 2010 | AllSpeeds | 33.51234 | 1202.822234 | 215.7979 | 1.05E-05 | 0 | 0 | 1.05E-05 |
| Los Angele | 2016 | Annual | LDT1 | GAS | 2011 | AllSpeeds | 19197.34 | 710938.3507 | 124194.4 | 0.008017306 | 0 | 0.006259464 | 0.01427677 |
| Los Angele | 2016 | Annual | LDT1 | DSL | 2011 | AllSpeeds | 45.92608 | 1700.793752 | 297.1121 | 1.40E-05 | 0 | 0 | 1.40E-05 |
| Los Angele | 2016 | Annual | LDT1 | GAS | 2012 | AllSpeeds | 18393.22 | 705916.0424 | 119360.1 | 0.007102953 | 0 | 0.005516677 | 0.012619629 |
| Los Angele | 2016 | Annual | LDT1 | DSL | 2012 | AllSpeeds | 33.45337 | 1283.915899 | 217.0907 | 9.95E-06 | 0 | 0 | 9.95E-06 |
| Los Angele | 2016 | Annual | LDT1 | GAS | 2013 | AllSpeeds | 18589.28 | 744086.3061 | 120818.2 | 0.006966185 | 0 | 0.005227463 | 0.012193648 |
| Los Angele | 2016 | Annual | LDT1 | DSL | 2013 | AllSpeeds | 42.63757 | 1706.692013 | 277.1165 | 1.23E-05 | 0 | 0 | 1.23E-05 |
| Los Angele | 2016 | Annual | LDT1 | GAS | 2014 | AllSpeeds | 18619.18 | 784994.1321 | 121384.9 | 0.006952311 | 0 | 0.004940252 | 0.011892563 |
| Los Angele | 2016 | Annual | LDT1 | DSL | 2014 | AllSpeeds | 39.16486 | 1651.217742 | 255.3293 | 1.10E-05 | 0 | 0 | 1.10E-05 |
| Los Angele | 2016 | Annual | LDT1 | GAS | 2015 | AllSpeeds | 19563.61 | 883565.3895 | 127933.2 | 0.00733146 | 0 | 0.004830416 | 0.012161876 |
| Los Angele | 2016 | Annual | LDT1 | DSL | 2015 | AllSpeeds | 39.06543 | 1764.349126 | 255.4624 | 1.08E-05 | 0 | 0 | 1.08E-05 |
| Los Angele | 2016 | Annual | LDT1 | GAS | 2016 | AllSpeeds | 19305.11 | 970763.7018 | 126628.8 | 0.007346638 | 0 | 0.004294549 | 0.011641186 |
| Los Angele | 2016 | Annual | LDT1 | DSL | 2016 | AllSpeeds | 47.77551 | 2402.420441 | 313.376 | 1.31E-05 | 0 | 0 | 1.31E-05 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | 2007 | AllSpeeds | 552.081829 | 33117.40724 | 0 | 0.00716751 | 1.28E-04 | 0 | 0.007295253 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | 2008 | AllSpeeds | 410.3058631 | 23296.14114 | 0 | 0.004791124 | 9.49E-05 | 0 | 0.004886063 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | 2009 | AllSpeeds | 224.4781788 | 15220.92365 | 0 | 0.002956131 | 5.19E-05 | 0 | 0.003008072 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | 2010 | AllSpeeds | 1160.410218 | 50249.74505 | 0 | 0.005875964 | 2.69E-04 | 0 | 0.006144464 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | 2011 | AllSpeeds | 629.2578221 | 38484.10054 | 0 | 0.004253537 | 1.46E-04 | 0 | 0.004399138 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | 2012 | AllSpeeds | 433.9333833 | 34570.30573 | 0 | 0.003586942 | 1.00E-04 | 0 | 0.003687347 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | 2013 | AllSpeeds | 467.0331393 | 38539.68982 | 0 | 0.003325316 | 1.08E-04 | 0 | 0.00343338 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | 2014 | AllSpeeds | 527.7706968 | 44369.12265 | 0 | 0.003616008 | 1.22E-04 | 0 | 0.003738126 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | 2015 | AllSpeeds | 608.4851005 | 50935.35233 | 0 | 0.003902867 | 1.41E-04 | 0 | 0.004043661 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | 2016 | AllSpeeds | 557.8905228 | 46700.82007 | 0 | 0.003351745 | 1.29E-04 | 0 | 0.003480832 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | 2017 | AllSpeeds | 145.7565601 | 5084.476338 | 0 | 3.40E-04 | 3.37E-05 | 0 | 3.74E-04 |
| Los Angele | 2016 | Annual | LDA/LDT1 | GAS&DSI | >2007 | AllSpeeds | 2482091.267 | 93707773.37 | 16060241.4 | 0.941140476 | 0 | 0.751292757 | 1.692433233 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | >2007 | AllSpeeds | 5717.403314 | 380568.0845 | 0 | 0.043167384 | 0.001322917 | 0 | 0.044490301 |

EMFAC 2011
2017 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed | Pop | VMT | Trips | ROG_RUNEX | ROG_IDLEX | ROG_STREX | ROG_TOTEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | (Miles/hr) | (Vehicles) | (Miles/day) | (Trips/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) |
| Los Angele | 2017 | Annual | LDA | GAS | 2007 | AllSpeeds | 204106.2 | 5847381.018 | 1287781 | 0.077701529 | 0 | 0.080091298 | 0.157792827 |
| Los Angele | 2017 | Annual | LDA | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDA | GAS | 2008 | AllSpeeds | 209260 | 6190440.703 | 1328668 | 0.075709501 | 0 | 0.073131531 | 0.148841032 |
| Los Angele | 2017 | Annual | LDA | DSL | 2008 | AllSpeeds | 21.96365 | 649.7464848 | 139.4552 | 5.38E-06 | 0 | 0 | 5.38E-06 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | LDA | 0.009693403 | 0.020479362 | 0.1755012 | 0.008311198 | 0.373581032 | 0.163263167 | 0 | 0.076738328 | 0.240001495 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 2.64E-04 | 3.01E-04 | 0 | 0 | 3.01E-04 |
| Los Angele | 2016 | Annual | LDA | 0.0083508 | 0.014925874 | 0.1605548 | 0.006609308 | 0.340887363 | 0.157405083 | 0 | 0.070330374 | 0.227735457 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 2.43E-04 | 2.77E-04 | 0 | 0 | 2.77E-04 |
| Los Angele | 2016 | Annual | LDA | 0.007667482 | 0.011600413 | 0.1533053 | 0.005642721 | 0.327671511 | 0.16133542 | 0 | 0.06701754 | 0.22835296 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 2.13E-04 | 2.43E-04 | 0 | 0 | 2.43E-04 |
| Los Angele | 2016 | Annual | LDA | 0.00727339 | 0.009341762 | 0.1505166 | 0.005018654 | 0.324249592 | 0.170897469 | 0 | 0.064354509 | 0.235251978 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 2.02E-04 | 2.29E-04 | 0 | 0 | 2.29E-04 |
| Los Angele | 2016 | Annual | LDA | 0.006909033 | 0.007756038 | 0.1438329 | 0.004544597 | 0.313174954 | 0.178645635 | 0 | 0.057809617 | 0.236455252 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 1.84E-04 | 2.09E-04 | 0 | 0 | 2.09E-04 |
| Los Angele | 2016 | Annual | LDT1 | 0.001608221 | 0.004503419 | 0.018154994 | 0.00185029 | 0.034903998 | 0.008639626 | 0 | 0.004425503 | 0.013065129 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDT1 | 0.002732649 | 0.007361576 | 0.031705454 | 0.003045475 | 0.061140992 | 0.016449333 | 0 | 0.007962273 | 0.024411606 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDT1 | 0.001950759 | 0.004937975 | 0.022590308 | 0.002084924 | 0.046058115 | 0.014810349 | 0 | 0.006978877 | 0.021789227 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDT1 | 0.001637699 | 0.003733301 | 0.017312195 | 0.001664205 | 0.040083923 | 0.016310022 | 0 | 0.007445016 | 0.023755037 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.05E-05 | 1.19E-05 | 0 | 0 | 1.19E-05 |
| Los Angele | 2016 | Annual | LDT1 | 0.001226805 | 0.002470417 | 0.014089006 | 0.001150008 | 0.033213006 | 0.014921222 | 0 | 0.006683178 | 0.0216044 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.40E-05 | 1.60E-05 | 0 | 0 | 1.60E-05 |
| Los Angele | 2016 | Annual | LDT1 | 9.67E-04 | 0.001676932 | 0.01199986 | 8.29E-04 | 0.028091998 | 0.013219494 | 0 | 0.005890109 | 0.019109603 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.95E-06 | 1.13E-05 | 0 | 0 | 1.13E-05 |
| Los Angele | 2016 | Annual | LDT1 | 8.63E-04 | 0.001293386 | 0.010782512 | 6.83E-04 | 0.025815161 | 0.012964951 | 0 | 0.005581318 | 0.01854627 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.23E-05 | 1.41E-05 | 0 | 0 | 1.41E-05 |
| Los Angele | 2016 | Annual | LDT1 | 7.87E-04 | 0.001023283 | 0.009817678 | 5.79E-04 | 0.024099235 | 0.012939131 | 0 | 0.005274666 | 0.018213797 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.10E-05 | 1.26E-05 | 0 | 0 | 1.26E-05 |
| Los Angele | 2016 | Annual | LDT1 | 7.61E-04 | 8.64E-04 | 0.009632041 | 5.25E-04 | 0.023944192 | 0.013644775 | 0 | 0.005157394 | 0.018802169 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.08E-05 | 1.22E-05 | 0 | 0 | 1.22E-05 |
| Los Angele | 2016 | Annual | LDT1 | 7.16E-04 | 7.30E-04 | 0.00882802 | 4.71E-04 | 0.022386255 | 0.013673023 | 0 | 0.004585255 | 0.018258277 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.31E-05 | 1.50E-05 | 0 | 0 | 1.50E-05 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.007295253 | 0.008159665 | 1.45E-04 | 0 | 0.00830509 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004886063 | 0.00545433 | 1.08E-04 | 0 | 0.005562411 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003008072 | 0.003365331 | 5.91E-05 | 0 | 0.003424461 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.006144464 | 0.006689337 | 3.06E-04 | 0 | 0.006995005 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004399138 | 0.004842328 | 1.66E-04 | 0 | 0.005008083 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003687347 | 0.00408346 | 1.14E-04 | 0 | 0.004197764 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00343338 | 0.003785619 | 1.23E-04 | 0 | 0.003908641 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003738126 | 0.00411655 | 1.39E-04 | 0 | 0.004255572 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004043661 | 0.004443117 | 1.60E-04 | 0 | 0.004603401 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003480832 | 0.003815706 | 1.47E-04 | 0 | 0.003962662 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.74E-04 | 3.87E-04 | 3.84E-05 | 0 | 4.26E-04 |
| Los Angele | 2016 | Annual | LDA/LDT1 | 0.141208628 | 0.376232654 | 2.077142367 | 0.137941934 | 4.424958816 | 1.750138921 | 0 | 0.802149031 | 2.552287952 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.044490301 | 0.049142781 | 0.001506041 | 0 | 0.050648821 |

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South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | LDA | 0.027234955 | 0.099938154 | 0.2830516 | 0.032002781 | 0.600020317 | 0.144612378 | 0 | 0.085512802 | 0.23012518 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDA | 0.023762146 | 0.084588826 | 0.2684837 | 0.027249999 | 0.552925703 | 0.140904957 | 0 | 0.078081921 | 0.218986878 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 5.38E-06 | 6.12E-06 | 0 | 0 | 6.12E-06 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | LDA | 0.009693403 | 0.020479362 | 0.1755012 | 0.008311198 | 0.453986658 | 4.967443893 | 0 | 1.129396 | 6.096839893 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 3.01E-04 | 0.002469053 | 0 | 0 | 0.002469053 |
| Los Angele | 2016 | Annual | LDA | 0.0083508 | 0.014925874 | 0.1605548 | 0.006609308 | 0.418176239 | 4.711456562 | 0 | 0.9911751 | 5.702631662 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 2.77E-04 | 0.002267803 | 0 | 0 | 0.002267803 |
| Los Angele | 2016 | Annual | LDA | 0.007667482 | 0.011600413 | 0.1533053 | 0.005642721 | 0.406568876 | 4.763564188 | 0 | 0.9239005 | 5.687464688 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 2.43E-04 | 0.001985033 | 0 | 0 | 0.001985033 |
| Los Angele | 2016 | Annual | LDA | 0.00727339 | 0.009341762 | 0.1505166 | 0.005018654 | 0.407402383 | 5.045752042 | 0 | 0.8875567 | 5.933308742 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 2.29E-04 | 0.00187245 | 0 | 0 | 0.00187245 |
| Los Angele | 2016 | Annual | LDA | 0.006909033 | 0.007756038 | 0.1438329 | 0.004544597 | 0.39949782 | 5.431354808 | 0 | 0.8315893 | 6.262944108 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 0 | 0 | 2.09E-04 | 0.001700411 | 0 | 0 | 0.001700411 |
| Los Angele | 2016 | Annual | LDT1 | 0.001608221 | 0.004503419 | 0.018154994 | 0.00185029 | 0.039182053 | 0.295295804 | 0 | 0.080225706 | 0.37552151 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDT1 | 0.002732649 | 0.007361576 | 0.031705454 | 0.003045475 | 0.069256759 | 0.551588878 | 0 | 0.1427214 | 0.694310278 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDT1 | 0.001950759 | 0.004937975 | 0.022590308 | 0.002084924 | 0.053353192 | 0.480337634 | 0 | 0.1198201 | 0.600157734 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDT1 | 0.001637699 | 0.003733301 | 0.017312195 | 0.001664205 | 0.048102437 | 0.506441001 | 0 | 0.1208611 | 0.627302101 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.19E-05 | 9.76E-05 | 0 | 0 | 9.76E-05 |
| Los Angele | 2016 | Annual | LDT1 | 0.001226805 | 0.002470417 | 0.014089006 | 0.001150008 | 0.040540635 | 0.457382052 | 0 | 0.1048852 | 0.562267252 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.60E-05 | 1.30E-04 | 0 | 0 | 1.30E-04 |
| Los Angele | 2016 | Annual | LDT1 | 9.67E-04 | 0.001676932 | 0.01199986 | 8.29E-04 | 0.034581972 | 0.402044388 | 0 | 0.086735174 | 0.488779562 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.13E-05 | 9.23E-05 | 0 | 0 | 9.23E-05 |
| Los Angele | 2016 | Annual | LDT1 | 8.63E-04 | 0.001293386 | 0.010782512 | 6.83E-04 | 0.032167783 | 0.387728729 | 0 | 0.078618228 | 0.466346957 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.41E-05 | 1.14E-04 | 0 | 0 | 1.14E-04 |
| Los Angele | 2016 | Annual | LDT1 | 7.87E-04 | 0.001023283 | 0.009817678 | 5.79E-04 | 0.03042047 | 0.381724113 | 0 | 0.072690688 | 0.454414801 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.26E-05 | 1.02E-04 | 0 | 0 | 1.02E-04 |
| Los Angele | 2016 | Annual | LDT1 | 7.61E-04 | 8.64E-04 | 0.009632041 | 5.25E-04 | 0.030584485 | 0.402863911 | 0 | 0.071196839 | 0.47406075 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.22E-05 | 9.89E-05 | 0 | 0 | 9.89E-05 |
| Los Angele | 2016 | Annual | LDT1 | 7.16E-04 | 7.30E-04 | 0.00882802 | 4.71E-04 | 0.029003346 | 0.416451318 | 0 | 0.066178575 | 0.482629893 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.50E-05 | 1.20E-04 | 0 | 0 | 1.20E-04 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00830509 | 0.029826564 | 0.00151057 | 0 | 0.031337134 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005562411 | 0.019937576 | 0.001122652 | 0 | 0.021060228 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003424461 | 0.012301516 | 6.14E-04 | 0 | 0.012915718 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.006995005 | 0.024451979 | 0.003175038 | 0 | 0.027627017 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005008083 | 0.017700484 | 0.001721734 | 0 | 0.019422218 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004197764 | 0.014926544 | 0.0011873 | 0 | 0.016113844 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003908641 | 0.013837823 | 0.001277866 | 0 | 0.015115689 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004255572 | 0.015047499 | 0.001444052 | 0 | 0.01649155 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004603401 | 0.016241222 | 0.001664897 | 0 | 0.017906119 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003962662 | 0.013947805 | 0.001526464 | 0 | 0.015474269 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.26E-04 | 0.001415856 | 3.99E-04 | 0 | 0.001814665 |
| Los Angele | 2016 | Annual | LDA/LDT1 | 0.141208628 | 0.376232654 | 2.077142367 | 0.137941934 | 5.284813535 | 54.34198066 | 0 | 12.57524761 | 66.91722827 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.050648821 | 0.179634866 | 0.015643585 | 0 | 0.195278451 |

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2017 Estimated Annual Emissions
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Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | LDA | 0.027234955 | 0.099938154 | 0.2830516 | 0.032002781 | 0.67235267 | 4.923208835 | 0 | 1.540066 | 6.463274835 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDA | 0.023762146 | 0.084588826 | 0.2684837 | 0.027249999 | 0.623071549 | 4.716115375 | 0 | 1.394909 | 6.111024375 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 6.12E-06 | 5.05E-05 | 0 | 0 | 5.05E-05 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | LDA | 0.482027424 | 0 | 0.074740723 | 0.556768147 | 3575.305226 | 0 | 127.3877 | 3702.692926 | 2577.276649 |
| Los Angele | 2016 | Annual | LDA | 0.008264724 | 0 | 0 | 0.008264724 | 14.21822489 | 0 | 0 | 14.21822489 | 10.2492785 |
| Los Angele | 2016 | Annual | LDA | 0.463017522 | 0 | 0.064817138 | 0.52783466 | 3697.90719 | 0 | 124.4517 | 3822.35889 | 2597.853759 |
| Los Angele | 2016 | Annual | LDA | 0.007654233 | 0 | 0 | 0.007654233 | 13.99220409 | 0 | 0 | 13.99220409 | 9.829803216 |
| Los Angele | 2016 | Annual | LDA | 0.468906936 | 0 | 0.058293983 | 0.527200919 | 4002.963199 | 0 | 125.8943 | 4128.857499 | 2750.355955 |
| Los Angele | 2016 | Annual | LDA | 0.006767762 | 0 | 0 | 0.006767762 | 13.25089449 | 0 | 0 | 13.25089449 | 9.104424585 |
| Los Angele | 2016 | Annual | LDA | 0.492833578 | 0 | 0.052598801 | 0.545432379 | 4521.001829 | 0 | 130.0965 | 4651.098329 | 2979.7697 |
| Los Angele | 2016 | Annual | LDA | 0.006465483 | 0 | 0 | 0.006465483 | 13.70406017 | 0 | 0 | 13.70406017 | 9.032277535 |
| Los Angele | 2016 | Annual | LDA | 0.520356711 | 0 | 0.044544641 | 0.564901352 | 5178.053241 | 0 | 129.9555 | 5308.008741 | 3282.911645 |
| Los Angele | 2016 | Annual | LDA | 0.005971701 | 0 | 0 | 0.005971701 | 13.92587427 | 0 | 0 | 13.92587427 | 8.829073918 |
| Los Angele | 2016 | Annual | LDT1 | 0.022085607 | 0 | 0.003909153 | 0.025994759 | 166.7605828 | 0 | 6.369707 | 173.1302898 | 160.9239624 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDT1 | 0.044242747 | 0 | 0.007565294 | 0.051808041 | 347.0899867 | 0 | 13.03503 | 360.1250167 | 334.9418372 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDT1 | 0.040977855 | 0 | 0.006916946 | 0.047894801 | 314.9807596 | 0 | 11.58384 | 326.5645996 | 303.9564331 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDT1 | 0.045948823 | 0 | 0.007587139 | 0.053535961 | 350.3150442 | 0 | 12.56472 | 362.8797642 | 326.222127 |
| Los Angele | 2016 | Annual | LDT1 | 3.28E-04 | 0 | 0 | 3.28E-04 | 0.420957857 | 0 | 0 | 0.420957857 | 0.392006481 |
| Los Angele | 2016 | Annual | LDT1 | 0.041483438 | 0 | 0.006494014 | 0.047977452 | 339.1261962 | 0 | 11.83986 | 350.9660562 | 280.1318031 |
| Los Angele | 2016 | Annual | LDT1 | 4.40E-04 | 0 | 0 | 4.40E-04 | 0.595235522 | 0 | 0 | 0.595235522 | 0.491688351 |
| Los Angele | 2016 | Annual | LDT1 | 0.039031189 | 0 | 0.005738547 | 0.044769736 | 336.8076336 | 0 | 11.37815 | 348.1857836 | 242.7894667 |
| Los Angele | 2016 | Annual | LDT1 | 3.14E-04 | 0 | 0 | 3.14E-04 | 0.449338649 | 0 | 0 | 0.449338649 | 0.323908012 |
| Los Angele | 2016 | Annual | LDT1 | 0.038127164 | 0 | 0.005135579 | 0.043262743 | 355.0829123 | 0 | 11.51572 | 366.5986323 | 249.4528476 |
| Los Angele | 2016 | Annual | LDT1 | 3.92E-04 | 0 | 0 | 3.92E-04 | 0.597299661 | 0 | 0 | 0.597299661 | 0.419614958 |
| Los Angele | 2016 | Annual | LDT1 | 0.037590185 | 0 | 0.004575094 | 0.042165279 | 374.7014048 | 0 | 11.56923 | 386.2706348 | 257.4498412 |
| Los Angele | 2016 | Annual | LDT1 | 3.53E-04 | 0 | 0 | 3.53E-04 | 0.5778851 | 0 | 0 | 0.5778851 | 0.397053294 |
| Los Angele | 2016 | Annual | LDT1 | 0.039346729 | 0 | 0.004201248 | 0.043547977 | 421.8182652 | 0 | 12.19155 | 434.0098152 | 278.0183095 |
| Los Angele | 2016 | Annual | LDT1 | 3.48E-04 | 0 | 0 | 3.48E-04 | 0.617478218 | 0 | 0 | 0.617478218 | 0.406976806 |
| Los Angele | 2016 | Annual | LDT1 | 0.039880531 | 0 | 0.003526318 | 0.043406849 | 463.5617635 | 0 | 12.06658 | 475.6283435 | 293.9004758 |
| Los Angele | 2016 | Annual | LDT1 | 4.30E-04 | 0 | 0 | 4.30E-04 | 0.840787292 | 0 | 0 | 0.840787292 | 0.533063347 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.17136731 | 0.002282162 | 0 | 0.173649471 | 42.49579368 | 0.453861266 | 0 | 42.94965494 | 41.0084409 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.110214772 | 0.001696097 | 0 | 0.111910869 | 29.89328242 | 0.337308581 | 0 | 30.230591 | 28.84701754 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.062300742 | 9.28E-04 | 0 | 0.063228676 | 19.5312763 | 0.184541394 | 0 | 19.71581769 | 18.84768163 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.080509274 | 0.004796832 | 0 | 0.085306105 | 62.32534749 | 0.953962298 | 0 | 63.27930979 | 60.14396033 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.05309269 | 0.002601187 | 0 | 0.055693877 | 47.73228076 | 0.517306922 | 0 | 48.24958768 | 46.06165093 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.038342688 | 0.001793767 | 0 | 0.040136454 | 42.8779552 | 0.356732543 | 0 | 43.23468774 | 41.37722677 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.034595974 | 0.001930593 | 0 | 0.036526566 | 47.69121446 | 0.38394354 | 0 | 48.075158 | 46.02202196 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.035991485 | 0.002181666 | 0 | 0.03817315 | 54.90488775 | 0.433875313 | 0 | 55.33876307 | 52.98321668 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.036829931 | 0.002515318 | 0 | 0.039345249 | 63.03031558 | 0.500229863 | 0 | 63.53054544 | 60.82425454 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.029670928 | 0.002306173 | 0 | 0.031977101 | 57.79026338 | 0.458636538 | 0 | 58.24889992 | 55.76760416 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.002784306 | 6.03E-04 | 0 | 0.003386826 | 6.291821564 | 0.119825094 | 0 | 6.411646658 | 6.071607809 |
| Los Angele | 2016 | Annual | LDA/LDT1 | 5.006813067 | 0 | 0.739735393 | 5.746548459 | 38897.88591 | 0 | 1326.659047 | 40224.54495 | 30272.40269 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.655700098 | 0.023634246 | 0 | 0.679334344 | 474.5644386 | 4.700223352 | 0 | 479.2646619 | 457.9546832 |

EMFAC 2011
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EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | LDA | 0.366932438 | 0 | 0.074794292 | 0.44172673 | 2391.407957 | 0 | 105.2929 | 2496.700857 | 2271.837559 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDA | 0.375524186 | 0 | 0.073458754 | 0.44898294 | 2532.019942 | 0 | 108.6493 | 2640.669242 | 2405.418945 |
| Los Angele | 2017 | Annual | LDA | 1.65E-04 | 0 | 0 | 1.65E-04 | 0.227395086 | 0 | 0 | 0.227395086 | 0.216025331 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | LDA | 0 | 91.82806048 | 2669.104709 | 0.007369705 | 0 | 0.002041464 | 0.009411169 | 0.07686083 | 0.3530795 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 10.2492785 | 1.64E-04 | 0 | 0 | 1.64E-04 | 3.58E-04 | 0.001645773 |
| Los Angele | 2016 | Annual | LDA | 0 | 87.42980828 | 2685.283567 | 0.011430067 | 0 | 0.003736519 | 0.015166586 | 0.079475179 | 0.3650892 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 9.829803216 | 1.52E-04 | 0 | 0 | 1.52E-04 | 3.53E-04 | 0.001619611 |
| Los Angele | 2016 | Annual | LDA | 0 | 86.49945564 | 2836.85541 | 0.016492165 | 0 | 0.005347675 | 0.02183984 | 0.086008728 | 0.3951026 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 9.104424585 | 1.34E-04 | 0 | 0 | 1.34E-04 | 3.34E-04 | 0.001533803 |
| Los Angele | 2016 | Annual | LDA | 0 | 85.74595267 | 3065.515653 | 0.023275838 | 0 | 0.007117037 | 0.030392875 | 0.09711656 | 0.4461292 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 9.032277535 | 1.28E-04 | 0 | 0 | 1.28E-04 | 3.45E-04 | 0.001586258 |
| Los Angele | 2016 | Annual | LDA | 0 | 82.39243678 | 3365.304082 | 0.030647824 | 0 | 0.008295955 | 0.03894378 | 0.1112042 | 0.5108444 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 8.829073918 | 1.19E-04 | 0 | 0 | 1.19E-04 | 3.51E-04 | 0.001611933 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 6.146767255 | 167.0707296 | 1.11E-04 | 0 | 1.32E-05 | 1.24E-04 | 0.003085995 | 0.01417629 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 12.57880395 | 347.5206411 | 2.31E-04 | 0 | 3.51E-05 | 2.66E-04 | 0.006428801 | 0.029532308 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 11.1784056 | 315.1348387 | 2.79E-04 | 0 | 4.93E-05 | 3.29E-04 | 0.00582235 | 0.026746424 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 11.70058138 | 337.9227084 | 3.10E-04 | 0 | 6.60E-05 | 3.76E-04 | 0.006477531 | 0.02975616 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0.392006481 | 5.42E-06 | 0 | 0 | 5.42E-06 | 1.06E-05 | 4.87E-05 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 9.780197954 | 289.9120011 | 4.51E-04 | 0 | 1.16E-04 | 5.67E-04 | 0.006269402 | 0.028800072 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0.491688351 | 7.28E-06 | 0 | 0 | 7.28E-06 | 1.50E-05 | 6.89E-05 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 8.201996318 | 250.9914631 | 5.97E-04 | 0 | 1.57E-04 | 7.53E-04 | 0.006225114 | 0.028596619 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0.323908012 | 5.20E-06 | 0 | 0 | 5.20E-06 | 1.13E-05 | 5.20E-05 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 8.090023614 | 257.5428712 | 9.43E-04 | 0 | 2.97E-04 | 0.001240186 | 0.006561718 | 0.030142896 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0.419614958 | 6.49E-06 | 0 | 0 | 6.49E-06 | 1.51E-05 | 6.91E-05 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 7.948986548 | 265.3988277 | 0.001326725 | 0 | 4.22E-04 | 0.001748806 | 0.006922463 | 0.031800073 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0.397053294 | 5.85E-06 | 0 | 0 | 5.85E-06 | 1.46E-05 | 6.69E-05 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 8.035389647 | 286.0536991 | 0.001866379 | 0 | 5.73E-04 | 0.002439209 | 0.007791713 | 0.035793185 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0.406976806 | 5.76E-06 | 0 | 0 | 5.76E-06 | 1.56E-05 | 7.15E-05 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 7.650272053 | 301.5507479 | 0.002358026 | 0 | 6.62E-04 | 0.003019616 | 0.008560671 | 0.039325584 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0.533063347 | 7.14E-06 | 0 | 0 | 7.14E-06 | 2.12E-05 | 9.73E-05 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.437976121 | 0 | 41.44641702 | 0.00208702 | 5.36E-06 | 0 | 0.002092384 | 4.38E-04 | 0.004758152 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.325502781 | 0 | 29.17252032 | 0.001397818 | 3.99E-06 | 0 | 0.001401804 | 3.08E-04 | 0.003347079 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.178082445 | 0 | 19.02576407 | 8.64E-04 | 2.18E-06 | 0 | 8.67E-04 | 2.01E-04 | 0.00218687 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.920573618 | 0 | 61.06453394 | 0.002682563 | 1.13E-05 | 0 | 0.002693837 | 6.65E-04 | 0.007219645 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.49920118 | 0 | 46.56085211 | 0.001915209 | 6.11E-06 | 0 | 0.001921322 | 5.09E-04 | 0.005529213 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.344246904 | 0 | 41.72147367 | 0.001588295 | 4.22E-06 | 0 | 0.001592511 | 4.57E-04 | 0.004966898 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.370505516 | 0 | 46.39252747 | 0.00140414 | 4.54E-06 | 0 | 0.001408678 | 5.10E-04 | 0.0055372 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.418689677 | 0 | 53.40190636 | 0.001492742 | 5.13E-06 | 0 | 0.00149787 | 5.87E-04 | 0.006374745 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.482721818 | 0 | 61.30697635 | 0.001568884 | 5.91E-06 | 0 | 0.001574796 | 6.74E-04 | 0.00731815 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.442584259 | 0 | 56.21018842 | 0.00130629 | 5.42E-06 | 0 | 0.001311711 | 6.18E-04 | 0.006709752 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.115631215 | 0 | 6.187239025 | 1.28E-04 | 1.42E-06 | 0 | 1.29E-04 | 6.73E-05 | 7.31E-04 |
| Los Angele | 2016 | Annual | LDA/LDT1 | 0 | 1058.500939 | 31330.90363 | 0.11402926 | 0 | 0.032217965 | 0.146247225 | 0.826361105 | 3.796096871 |
| Los Angele | 2016 | Annual | T6 instate heavy | 4.535715535 | 0 | 462.4903988 | 0.016435258 | 5.55483E-05 | 0 | 0.016490806 | 0.005034054 | 0.054678217 |

EMFAC 2011
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EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavl (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | LDA | 0 | 100.028255 | 2371.865814 | 0.001850821 | 0 | 2.54E-04 | 0.002104944 | 0.051565081 | 0.2368771 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDA | 0 | 103.216835 | 2508.63578 | 0.001959646 | 0 | 3.41E-04 | 0.002300538 | 0.054590344 | 0.2507744 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0.216025331 | 3.27E-06 | 0 | 0 | 3.27E-06 | 5.73E-06 | 2.63E-05 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | LDA | 0.439351499 | 0.00683787 | 0 | 0.001894142 | 0.008732012 | 0.019215208 | 0.1513198 | 0.17926702 | 0.035770454 |
| Los Angele | 2016 | Annual | LDA | 0.002167983 | 1.51E-04 | 0 | 0 | 1.51E-04 | 8.96E-05 | 7.05E-04 | 9.46E-04 | 1.36E-04 |
| Los Angele | 2016 | Annual | LDA | 0.459730965 | 0.010605217 | 0 | 0.003466873 | 0.014072089 | 0.019868795 | 0.1564668 | 0.190407684 | 0.036990061 |
| Los Angele | 2016 | Annual | LDA | 0.002124066 | 1.40E-04 | 0 | 0 | 1.40E-04 | 8.81E-05 | 6.94E-04 | 9.22E-04 | 1.34E-04 |
| Los Angele | 2016 | Annual | LDA | 0.502951168 | 0.015302007 | 0 | 0.004961759 | 0.020263766 | 0.021502182 | 0.1693297 | 0.211095648 | 0.040035985 |
| Los Angele | 2016 | Annual | LDA | 0.002002042 | 1.24E-04 | 0 | 0 | 1.24E-04 | 8.35E-05 | 6.57E-04 | 8.64E-04 | 1.27E-04 |
| Los Angele | 2016 | Annual | LDA | 0.573638635 | 0.021596138 | 0 | 0.006603436 | 0.028199574 | 0.02427914 | 0.1911982 | 0.243676914 | 0.045211624 |
| Los Angele | 2016 | Annual | LDA | 0.002059978 | 1.18E-04 | 0 | 0 | 1.18E-04 | 8.63E-05 | 6.80E-04 | 8.84E-04 | 1.31E-04 |
| Los Angele | 2016 | Annual | LDA | 0.66099238 | 0.028436125 | 0 | 0.007697277 | 0.036133402 | 0.027801055 | 0.2189333 | 0.282867757 | 0.051776428 |
| Los Angele | 2016 | Annual | LDA | 0.002081512 | 1.09E-04 | 0 | 0 | 1.09E-04 | 8.77E-05 | 6.91E-04 | 8.88E-04 | 1.33E-04 |
| Los Angele | 2016 | Annual | LDT1 | 0.017386401 | 1.03E-04 | 0 | 1.23E-05 | 1.15E-04 | 7.71E-04 | 0.006075553 | 0.006962211 | 0.001669445 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDT1 | 0.036227084 | 2.14E-04 | 0 | 3.26E-05 | 2.47E-04 | 0.0016072 | 0.012656703 | 0.014510684 | 0.003473694 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDT1 | 0.032897318 | 2.59E-04 | 0 | 4.57E-05 | 3.05E-04 | 0.001455588 | 0.01146275 | 0.013223173 | 0.003152023 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | LDT1 | 0.036610143 | 2.88E-04 | 0 | 6.12E-05 | 3.49E-04 | 0.001619383 | 0.01275264 | 0.014721308 | 0.003505174 |
| Los Angele | 2016 | Annual | LDT1 | 6.48E-05 | 4.98E-06 | 0 | 0 | 4.98E-06 | 2.65E-06 | 2.09E-05 | 2.85E-05 | 4.02E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0.035636011 | 4.18E-04 | 0 | 1.07E-04 | 5.26E-04 | 0.001567351 | 0.012342888 | 0.014435892 | 0.003392681 |
| Los Angele | 2016 | Annual | LDT1 | 9.12E-05 | 6.70E-06 | 0 | 0 | 6.70E-06 | 3.75E-06 | 2.95E-05 | 4.00E-05 | 5.68E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0.03557498 | 5.54E-04 | 0 | 1.45E-04 | 6.99E-04 | 0.001556279 | 0.012255695 | 0.014510863 | 0.00336862 |
| Los Angele | 2016 | Annual | LDT1 | 6.85E-05 | 4.78E-06 | 0 | 0 | 4.78E-06 | 2.83E-06 | 2.23E-05 | 2.99E-05 | 4.29E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0.0379448 | 8.75E-04 | 0 | 2.76E-04 | 0.001150688 | 0.00164043 | 0.012918383 | 0.015709501 | 0.003550808 |
| Los Angele | 2016 | Annual | LDT1 | 9.07E-05 | 5.97E-06 | 0 | 0 | 5.97E-06 | 3.76E-06 | 2.96E-05 | 3.94E-05 | 5.70E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0.040471342 | 0.001230982 | 0 | 3.92E-04 | 0.001622604 | 0.001730616 | 0.013628602 | 0.016981822 | 0.00374654 |
| Los Angele | 2016 | Annual | LDT1 | 8.73E-05 | 5.38E-06 | 0 | 0 | 5.38E-06 | 3.64E-06 | 2.87E-05 | 3.77E-05 | 5.52E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0.046024107 | 0.001731691 | 0 | 5.31E-04 | 0.002263183 | 0.001947928 | 0.015339935 | 0.019551046 | 0.004217201 |
| Los Angele | 2016 | Annual | LDT1 | 9.28E-05 | 5.30E-06 | 0 | 0 | 5.30E-06 | 3.89E-06 | 3.06E-05 | 3.98E-05 | 5.89E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0.05090587 | 0.002187859 | 0 | 6.14E-04 | 0.002801705 | 0.002140168 | 0.016853822 | 0.021795695 | 0.004634089 |
| Los Angele | 2016 | Annual | LDT1 | 1.26E-04 | 6.57E-06 | 0 | 0 | 6.57E-06 | 5.30E-06 | 4.17E-05 | 5.36E-05 | 8.03E-06 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.007288605 | 0.001920059 | 4.93E-06 | 0 | 0.001924994 | 1.10E-04 | 0.002039208 | 0.004073719 | 4.05E-04 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.005057039 | 0.001285993 | 3.67E-06 | 0 | 0.00128966 | 7.70E-05 | 0.001434462 | 0.002801161 | 2.85E-04 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.003254855 | 7.95E-04 | 2.01E-06 | 0 | 7.97E-04 | 5.03E-05 | 9.37E-04 | 0.001784879 | 1.86E-04 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.010578172 | 0.002467958 | 1.04E-05 | 0 | 0.00247833 | 1.66E-04 | 0.003094134 | 0.005738636 | 5.95E-04 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.007959593 | 0.001761992 | 5.62E-06 | 0 | 0.001767616 | 1.27E-04 | 0.002369663 | 0.004264544 | 4.55E-04 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.007016695 | 0.001461231 | 3.88E-06 | 0 | 0.00146511 | 1.14E-04 | 0.00212867 | 0.003708102 | 4.09E-04 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.00745567 | 0.001291809 | 4.17E-06 | 0 | 0.001295984 | 1.27E-04 | 0.002373086 | 0.003796517 | 4.55E-04 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.008459518 | 0.001373323 | 4.72E-06 | 0 | 0.00137804 | 1.47E-04 | 0.002732034 | 0.0042568 | 5.24E-04 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.009566705 | 0.001443373 | 5.44E-06 | 0 | 0.001448812 | 1.68E-04 | 0.00313635 | 0.004753602 | 6.01E-04 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.008639209 | 0.001201787 | 4.99E-06 | 0 | 0.001206774 | 1.54E-04 | 0.002875608 | 0.004236818 | 5.51E-04 |
| Los Angele | 2016 | Annual | T6 instate heavy | 9.27E-04 | 1.18E-04 | 1.30E-06 | 0 | 1.19E-04 | 1.68E-05 | 3.13E-04 | 4.49E-04 | 6.00E-05 |
| Los Angele | 2016 | Annual | LDA/LDT1 | 4.768705201 | 0.105790645 | 0 | 0.029892956 | 0.1356836 | 0.206590282 | 1.62689864 | 1.969172522 | 0.389122895 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.076203077 | 0.015120437 | 5.11044E-05 | 0 | 0.015171542 | 0.001258514 | 0.023433522 | 0.039863577 | 0.004527567 |

EMFAC 2011
2017 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | LDA | 0.290547125 | 0.001717256 | 0 | 2.36E-04 | 0.001953041 | 0.01289127 | 0.1015188 | 0.116363111 | 0.023951847 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDA | 0.307665282 | 0.001818229 | 0 | 3.16E-04 | 0.00213452 | 0.013647586 | 0.1074747 | 0.123256806 | 0.025352048 |
| Los Angele | 2017 | Annual | LDA | 3.53E-05 | 3.00E-06 | 0 | 0 | 3.00E-06 | 1.43E-06 | 1.13E-05 | 1.57E-05 | 2.17E-06 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | LDA | 0 | 0.001291553 | 0.037062007 | 395.3201 | 0 | 8.57E-05 | 1.40E-03 | 1.28E-04 | 2.16E-06 | 9.87E-05 | 2.00E-06 | 3.91E-05 | 8.50E-06 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 1.36E-04 | 0 | 1.27964 | 1.30E-05 | 1.22E-04 | 4.07E-04 | 8.07E-06 | 9.87E-05 | 7.43E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2016 | Annual | LDA | 0 | 0.001259887 | 0.038249948 | 407.9913 | 0 | 7.56E-05 | 1.27E-03 | 1.17E-04 | 3.37E-06 | 9.87E-05 | 3.12E-06 | 3.91E-05 | 8.49E-06 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 1.34E-04 | 0 | 1.259298 | 1.22E-05 | 1.13E-04 | 3.83E-04 | 7.60E-06 | 9.87E-05 | 6.99E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2016 | Annual | LDA | 0 | 0.001273134 | 0.041309119 | 440.6218 | 0 | 6.72E-05 | 1.17E-03 | 1.08E-04 | 4.48E-06 | 9.87E-05 | 4.16E-06 | 3.91E-05 | 8.47E-06 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 1.27E-04 | 0 | 1.19258 | 0.00E+00 | 1.05E-04 | 3.57E-04 | 7.10E-06 | 9.87E-05 | 6.53E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2016 | Annual | LDA | 0 | 0.001314429 | 0.046526053 | 496.2679 | 0 | 5.89E-05 | 1.08E-03 | 9.91E-05 | 5.52E-06 | 9.87E-05 | 5.12E-06 | 3.91E-05 | 8.45E-06 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 1.31E-04 | 0 | 1.233365 | 0.00E+00 | 9.56E-05 | 3.30E-04 | 6.56E-06 | 9.87E-05 | 6.03E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2016 | Annual | LDA | 0 | 0.001311949 | 0.053088377 | 566.2646 | 0 | 4.97E-05 | 9.93E-04 | 8.96E-05 | 6.18E-06 | 9.87E-05 | 5.73E-06 | 3.91E-05 | 8.42E-06 |
| Los Angele | 2016 | Annual | LDA | 0 | 0 | 1.33E-04 | 0 | 1.253329 | 0.00E+00 | 8.55E-05 | 3.00E-04 | 5.97E-06 | 9.87E-05 | 5.49E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 6.50E-05 | 0.001734416 | 18.50006 | 0 | 1.99E-04 | 2.15E-03 | 1.49E-04 | 7.09E-07 | 9.87E-05 | 6.58E-07 | 3.91E-05 | 9.91E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2016 | Annual | LDT1 | 0 | 1.33E-04 | 0.003606283 | 38.46624 | 0 | 1.68E-04 | 1.90E-03 | 1.42E-04 | 7.30E-07 | 9.87E-05 | 6.77E-07 | 3.91E-05 | 9.89E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2016 | Annual | LDT1 | 0 | 1.18E-04 | 0.003269737 | 34.8765 | 0 | 1.40E-04 | 1.82E-03 | 1.45E-04 | 9.95E-07 | 9.87E-05 | 9.23E-07 | 3.91E-05 | 9.90E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2016 | Annual | LDT1 | 0 | 1.28E-04 | 0.00363271 | 38.74812 | 0 | 1.09E-04 | 1.71E-03 | 1.46E-04 | 1.03E-06 | 9.87E-05 | 9.51E-07 | 3.91E-05 | 9.89E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 4.02E-06 | 0 | 0.037886206 | 1.74E-05 | 1.62E-04 | 5.45E-04 | 9.01E-06 | 9.87E-05 | 8.29E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 1.20E-04 | 0.003512707 | 37.46812 | 0 | 9.34E-05 | 1.58E-03 | 1.35E-04 | 1.59E-06 | 9.87E-05 | 1.48E-06 | 3.91E-05 | 9.88E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 5.68E-06 | 0 | 0.053571202 | 1.65E-05 | 1.53E-04 | 5.18E-04 | 8.56E-06 | 9.87E-05 | 7.88E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 1.15E-04 | 0.00348373 | 37.15904 | 0 | 7.96E-05 | 1.38E-03 | 1.27E-04 | 2.13E-06 | 9.87E-05 | 1.98E-06 | 3.91E-05 | 9.87E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 4.29E-06 | 0 | 0.040440481 | 1.55E-05 | 1.44E-04 | 4.89E-04 | 8.10E-06 | 9.87E-05 | 7.45E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 1.16E-04 | 0.003667154 | 39.11553 | 0 | 6.94E-05 | 1.25E-03 | 1.16E-04 | 3.33E-06 | 9.87E-05 | 3.09E-06 | 3.91E-05 | 9.86E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 5.70E-06 | 0 | 0.053756975 | 1.45E-05 | 1.34E-04 | 4.59E-04 | 7.61E-06 | 9.87E-05 | 7.00E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 1.17E-04 | 0.003863318 | 41.20791 | 0 | 6.14E-05 | 1.16E-03 | 1.07E-04 | 4.46E-06 | 9.87E-05 | 4.13E-06 | 3.91E-05 | 9.84E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 5.52E-06 | 0 | 0.052009661 | 1.34E-05 | 1.23E-04 | 4.28E-04 | 7.08E-06 | 9.87E-05 | 6.52E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 1.23E-04 | 0.004340165 | 46.29417 | 0 | 5.42E-05 | 1.07E-03 | 9.86E-05 | 5.52E-06 | 9.87E-05 | 5.12E-06 | 3.91E-05 | 9.82E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 5.89E-06 | 0 | 0.05557305 | 1.22E-05 | 1.12E-04 | 3.94E-04 | 6.53E-06 | 9.87E-05 | 6.01E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 1.22E-04 | 0.00475571 | 50.72655 | 0 | 4.61E-05 | 9.94E-04 | 8.94E-05 | 6.22E-06 | 9.87E-05 | 5.77E-06 | 3.91E-05 | 9.80E-06 |
| Los Angele | 2016 | Annual | LDT1 | 0 | 0 | 8.03E-06 | 0 | 0.075670861 | 1.09E-05 | 1.00E-04 | 3.58E-04 | 5.94E-06 | 9.87E-05 | 5.47E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2016 | Annual | T6 instate heavy | 4.33E-06 | 0 | 4.10E-04 | 0 | 3.865468945 | 4.41E-04 | 1.89E-03 | 1.05E-02 | 1.26E-04 | 3.14E-04 | 1.16E-04 | 1.30E-04 | 2.47E-05 |
| Los Angele | 2016 | Annual | T6 instate heavy | 3.22E-06 | 0 | 2.88E-04 | 0 | 2.72075319 | 4.19E-04 | 1.81E-03 | 9.61E-03 | 1.20E-04 | 3.14E-04 | 1.11E-04 | 1.30E-04 | 2.48E-05 |
| Los Angele | 2016 | Annual | T6 instate heavy | 1.76E-06 | 0 | 1.88E-04 | 0 | 1.774423592 | 3.95E-04 | 1.70E-03 | 8.31E-03 | 1.14E-04 | 3.14E-04 | 1.05E-04 | 1.30E-04 | 2.47E-05 |
| Los Angele | 2016 | Annual | T6 instate heavy | 9.10E-06 | 0 | 6.04E-04 | 0 | 5.695137881 | 2.45E-04 | 1.10E-03 | 3.40E-03 | 1.07E-04 | 3.14E-04 | 9.86E-05 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2016 | Annual | T6 instate heavy | 4.94E-06 | 0 | 4.60E-04 | 0 | 4.342462891 | 2.29E-04 | 1.01E-03 | 2.89E-03 | 9.99E-05 | 3.14E-04 | 9.19E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2016 | Annual | T6 instate heavy | 3.40E-06 | 0 | 4.12E-04 | 0 | 3.891121897 | 2.13E-04 | 9.32E-04 | 2.32E-03 | 9.21E-05 | 3.14E-04 | 8.48E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2016 | Annual | T6 instate heavy | 3.66E-06 | 0 | 4.59E-04 | 0 | 4.32676422 | 1.78E-04 | 7.84E-04 | 1.90E-03 | 7.31E-05 | 3.14E-04 | 6.73E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2016 | Annual | T6 instate heavy | 4.14E-06 | 0 | 5.28E-04 | 0 | 4.980488676 | 1.69E-04 | 7.43E-04 | 1.72E-03 | 6.75E-05 | 3.14E-04 | 6.21E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2016 | Annual | T6 instate heavy | 4.77E-06 | 0 | 6.06E-04 | 0 | 5.71774909 | 1.59E-04 | 7.03E-04 | 1.54E-03 | 6.18E-05 | 3.14E-04 | 5.69E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2016 | Annual | T6 instate heavy | 4.38E-06 | 0 | 5.56E-04 | 0 | 5.242400993 | 1.49E-04 | 6.63E-04 | 1.37E-03 | 5.62E-05 | 3.14E-04 | 5.17E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2016 | Annual | T6 instate heavy | 1.14E-06 | 0 | 6.12E-05 | 0 | 0.577048199 | 1.47E-04 | 7.14E-04 | 1.33E-03 | 5.08E-05 | 3.14E-04 | 4.68E-05 | 1.30E-04 | 2.41E-05 |
| Los Angele | 2016 | Annual | LDA/LDT1 | 0 | 0.013463514 | 0.402586409 | 4282.72704 | 10.11269827 | 9.44E-05 | 1.43E-03 | 1.23E-04 | 3.12E-06 | 9.87E-05 | 2.90E-06 | 3.91E-05 | 8.59E-06 |
| Los Angele | 2016 | Annual | T6 instate heavy | 4.48423E-05 | 0 | 0.004572409 | 0 | 43.13381957 | 2.34E-04 | 1.03E-03 | 3.57E-03 | 8.67E-05 | 3.14E-04 | 7.97E-05 | 1.30E-04 | 2.40E-05 |

EMFAC 2011
2017 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | LDA | 0 | 0.001077711 | 0.025029558 | 266.9766 | 0 | 2.05E-04 | 2.21E-03 | 1.51E-04 | 7.20E-07 | 9.87E-05 | 6.68E-07 | 3.91E-05 | 8.56E-06 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2017 | Annual | LDA | 0 | 0.001108716 | 0.026460764 | 282.2424 | 0 | 1.79E-04 | 1.97E-03 | 1.45E-04 | 7.43E-07 | 9.87E-05 | 6.90E-07 | 3.91E-05 | 8.55E-06 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 2.17E-06 | 0 | 0.020465558 | 1.66E-05 | 1.55E-04 | 5.07E-04 | 1.01E-05 | 9.87E-05 | 9.25E-06 | 3.91E-05 | 6.68E-06 |

| | | | | |
|---|---|---|---|---|
| Los Angele | 2016 | Annual | LDA | 3.06E-04 |
| Los Angele | 2016 | Annual | LDA | 2.52E-04 |
| Los Angele | 2016 | Annual | LDA | 2.98E-04 |
| Los Angele | 2016 | Annual | LDA | 2.46E-04 |
| Los Angele | 2016 | Annual | LDA | 2.91E-04 |
| Los Angele | 2016 | Annual | LDA | 0.00E+00 |
| Los Angele | 2016 | Annual | LDA | 2.78E-04 |
| Los Angele | 2016 | Annual | LDA | 0.00E+00 |
| Los Angele | 2016 | Annual | LDA | 2.67E-04 |
| Los Angele | 2016 | Annual | LDA | 0.00E+00 |
| Los Angele | 2016 | Annual | LDT1 | 4.77E-04 |
| Los Angele | 2016 | Annual | LDT1 | |
| Los Angele | 2016 | Annual | LDT1 | 4.77E-04 |
| Los Angele | 2016 | Annual | LDT1 | |
| Los Angele | 2016 | Annual | LDT1 | 4.77E-04 |
| Los Angele | 2016 | Annual | LDT1 | |
| Los Angele | 2016 | Annual | LDT1 | 4.60E-04 |
| Los Angele | 2016 | Annual | LDT1 | 3.26E-04 |
| Los Angele | 2016 | Annual | LDT1 | 4.08E-04 |
| Los Angele | 2016 | Annual | LDT1 | 2.89E-04 |
| Los Angele | 2016 | Annual | LDT1 | 3.56E-04 |
| Los Angele | 2016 | Annual | LDT1 | 2.52E-04 |
| Los Angele | 2016 | Annual | LDT1 | 3.46E-04 |
| Los Angele | 2016 | Annual | LDT1 | 2.46E-04 |
| Los Angele | 2016 | Annual | LDT1 | 3.38E-04 |
| Los Angele | 2016 | Annual | LDT1 | 2.40E-04 |
| Los Angele | 2016 | Annual | LDT1 | 3.24E-04 |
| Los Angele | 2016 | Annual | LDT1 | 2.31E-04 |
| Los Angele | 2016 | Annual | LDT1 | 3.11E-04 |
| Los Angele | 2016 | Annual | LDT1 | 2.22E-04 |
| Los Angele | 2016 | Annual | T6 instate heavy | 1.25E-03 |
| Los Angele | 2016 | Annual | T6 instate heavy | 1.25E-03 |
| Los Angele | 2016 | Annual | T6 instate heavy | 1.25E-03 |
| Los Angele | 2016 | Annual | T6 instate heavy | 1.22E-03 |
| Los Angele | 2016 | Annual | T6 instate heavy | 1.21E-03 |
| Los Angele | 2016 | Annual | T6 instate heavy | 1.21E-03 |
| Los Angele | 2016 | Annual | T6 instate heavy | 1.20E-03 |
| Los Angele | 2016 | Annual | T6 instate heavy | 1.20E-03 |
| Los Angele | 2016 | Annual | T6 instate heavy | 1.20E-03 |
| Los Angele | 2016 | Annual | T6 instate heavy | 1.20E-03 |
| Los Angele | 2016 | Annual | T6 instate heavy | 1.22E-03 |
| Los Angele | 2016 | Annual | LDA/LDT1 | 3.34E-04 |
| Los Angele | 2016 | Annual | T6 instate heavy | 1.22E-03 |

EMFAC 2011
2017 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2017 | Annual | LDA | 4.06E-04 |
| Los Angele | 2017 | Annual | LDA | |
| Los Angele | 2017 | Annual | LDA | 4.05E-04 |
| Los Angele | 2017 | Annual | LDA | 3.32E-04 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | LDA | GAS | 2009 | AllSpeeds | 179592.2 | 5498140.414 | 1147479 | 0.067737245 | 0 | 0.06336493 | 0.131102175 |
| Los Angele | 2017 | Annual | LDA | DSL | 2009 | AllSpeeds | 722.8826 | 22130.78371 | 4618.758 | 1.76E-04 | 0 | 0 | 1.76E-04 |
| Los Angele | 2017 | Annual | LDA | GAS | 2010 | AllSpeeds | 227966.8 | 7242588.74 | 1463400 | 0.088224746 | 0 | 0.079137444 | 0.16736219 |
| Los Angele | 2017 | Annual | LDA | DSL | 2010 | AllSpeeds | 1351.746 | 42945.54765 | 8677.344 | 3.28E-04 | 0 | 0 | 3.28E-04 |
| Los Angele | 2017 | Annual | LDA | GAS | 2011 | AllSpeeds | 225197.6 | 7447981.827 | 1450127 | 0.088014132 | 0 | 0.076106869 | 0.164121001 |
| Los Angele | 2017 | Annual | LDA | DSL | 2011 | AllSpeeds | 1217.972 | 40282.17414 | 7842.956 | 2.94E-04 | 0 | 0 | 2.94E-04 |
| Los Angele | 2017 | Annual | LDA | GAS | 2012 | AllSpeeds | 236183.4 | 8168012.608 | 1527954 | 0.091522919 | 0 | 0.076608665 | 0.168131584 |
| Los Angele | 2017 | Annual | LDA | DSL | 2012 | AllSpeeds | 1117.107 | 38633.36092 | 7226.957 | 2.67E-04 | 0 | 0 | 2.67E-04 |
| Los Angele | 2017 | Annual | LDA | GAS | 2013 | AllSpeeds | 232346.5 | 8449846.76 | 1507778 | 0.085039356 | 0 | 0.069674045 | 0.154713401 |
| Los Angele | 2017 | Annual | LDA | DSL | 2013 | AllSpeeds | 1037.128 | 37717.75998 | 6730.288 | 2.45E-04 | 0 | 0 | 2.45E-04 |
| Los Angele | 2017 | Annual | LDA | GAS | 2014 | AllSpeeds | 233800.6 | 9012831.271 | 1519552 | 0.084574848 | 0 | 0.065870941 | 0.150445789 |
| Los Angele | 2017 | Annual | LDA | DSL | 2014 | AllSpeeds | 909.1592 | 35047.45865 | 5908.944 | 2.13E-04 | 0 | 0 | 2.13E-04 |
| Los Angele | 2017 | Annual | LDA | GAS | 2015 | AllSpeeds | 238461.6 | 9863994.815 | 1554614 | 0.08766948 | 0 | 0.063481279 | 0.151150759 |
| Los Angele | 2017 | Annual | LDA | DSL | 2015 | AllSpeeds | 863.75 | 35729.2112 | 5631.087 | 2.01E-04 | 0 | 0 | 2.01E-04 |
| Los Angele | 2017 | Annual | LDA | GAS | 2016 | AllSpeeds | 241941.7 | 1.10E+07 | 1582141 | 0.09144645 | 0 | 0.060026981 | 0.151473431 |
| Los Angele | 2017 | Annual | LDA | DSL | 2016 | AllSpeeds | 763.4277 | 34609.23203 | 4992.318 | 1.78E-04 | 0 | 0 | 1.78E-04 |
| Los Angele | 2017 | Annual | LDA | GAS | 2017 | AllSpeeds | 244079.2 | 1.27E+07 | 1601000 | 0.09683052 | 0 | 0.054619584 | 0.151450104 |
| Los Angele | 2017 | Annual | LDA | DSL | 2017 | AllSpeeds | 744.0703 | 38782.10553 | 4880.613 | 1.79E-04 | 0 | 0 | 1.79E-04 |
| Los Angele | 2017 | Annual | LDT1 | GAS | 2007 | AllSpeeds | 10156.54 | 330550.5035 | 64081.34 | 0.00448751 | 0 | 0.004062578 | 0.008550088 |
| Los Angele | 2017 | Annual | LDT1 | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDT1 | GAS | 2008 | AllSpeeds | 20770.53 | 690652.9249 | 131879.7 | 0.008595395 | 0 | 0.007367654 | 0.015963049 |
| Los Angele | 2017 | Annual | LDT1 | DSL | 2008 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDT1 | GAS | 2009 | AllSpeeds | 18436.2 | 627437.5362 | 117795.6 | 0.007786168 | 0 | 0.006525652 | 0.01431182 |
| Los Angele | 2017 | Annual | LDT1 | DSL | 2009 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDT1 | GAS | 2010 | AllSpeeds | 20056.53 | 700096.3089 | 128750.1 | 0.008634462 | 0 | 0.007038085 | 0.015672547 |
| Los Angele | 2017 | Annual | LDT1 | DSL | 2010 | AllSpeeds | 32.81466 | 1145.43658 | 210.6491 | 1.05E-05 | 0 | 0 | 1.05E-05 |
| Los Angele | 2017 | Annual | LDT1 | GAS | 2011 | AllSpeeds | 18831.3 | 675889.1179 | 121261.4 | 0.008062936 | 0 | 0.006415556 | 0.014478493 |
| Los Angele | 2017 | Annual | LDT1 | DSL | 2011 | AllSpeeds | 45.69023 | 1639.909786 | 294.2156 | 1.43E-05 | 0 | 0 | 1.43E-05 |
| Los Angele | 2017 | Annual | LDT1 | GAS | 2012 | AllSpeeds | 18082.42 | 669649.1613 | 116981.6 | 0.007551334 | 0 | 0.00589601 | 0.013447343 |
| Los Angele | 2017 | Annual | LDT1 | DSL | 2012 | AllSpeeds | 32.47977 | 1202.832829 | 210.1231 | 9.91E-06 | 0 | 0 | 9.91E-06 |
| Los Angele | 2017 | Annual | LDT1 | GAS | 2013 | AllSpeeds | 18290.96 | 701990.6912 | 118696.4 | 0.007062482 | 0 | 0.005485224 | 0.012547706 |
| Los Angele | 2017 | Annual | LDT1 | DSL | 2013 | AllSpeeds | 42.63757 | 1636.399054 | 276.6902 | 1.27E-05 | 0 | 0 | 1.27E-05 |
| Los Angele | 2017 | Annual | LDT1 | GAS | 2014 | AllSpeeds | 18347.25 | 734398.5684 | 119245.2 | 0.006875092 | 0 | 0.005159089 | 0.012034181 |
| Los Angele | 2017 | Annual | LDT1 | DSL | 2014 | AllSpeeds | 39.16486 | 1567.686308 | 254.5461 | 1.13E-05 | 0 | 0 | 1.13E-05 |
| Los Angele | 2017 | Annual | LDT1 | GAS | 2015 | AllSpeeds | 19155.78 | 807617.0728 | 124883.2 | 0.007151602 | 0 | 0.005081846 | 0.012233448 |
| Los Angele | 2017 | Annual | LDT1 | DSL | 2015 | AllSpeeds | 39.06543 | 1647.025605 | 254.6811 | 1.10E-05 | 0 | 0 | 1.10E-05 |
| Los Angele | 2017 | Annual | LDT1 | GAS | 2016 | AllSpeeds | 19305.11 | 871890.2277 | 126242.8 | 0.007234559 | 0 | 0.00476669 | 0.012001248 |
| Los Angele | 2017 | Annual | LDT1 | DSL | 2016 | AllSpeeds | 47.77551 | 2157.730844 | 312.4206 | 1.32E-05 | 0 | 0 | 1.32E-05 |
| Los Angele | 2017 | Annual | LDT1 | GAS | 2017 | AllSpeeds | 19351.97 | 973120.168 | 126936.2 | 0.007364345 | 0 | 0.004304885 | 0.01166923 |
| Los Angele | 2017 | Annual | LDT1 | DSL | 2017 | AllSpeeds | 31.89508 | 1603.863309 | 209.2108 | 8.78E-06 | 0 | 0 | 8.78E-06 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2007 | AllSpeeds | 541.6686432 | 30570.92404 | 0 | 0.006926042 | 1.25E-04 | 0 | 0.007051376 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2008 | AllSpeeds | 513.8621036 | 28648.03389 | 0 | 0.006200216 | 1.19E-04 | 0 | 0.006319115 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2009 | AllSpeeds | 192.5692346 | 12281.88245 | 0 | 0.002525913 | 4.46E-05 | 0 | 0.002570471 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2010 | AllSpeeds | 946.830711 | 39722.30921 | 0 | 0.004884815 | 2.19E-04 | 0 | 0.005103897 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2011 | AllSpeeds | 564.3306926 | 33171.65222 | 0 | 0.003878934 | 1.31E-04 | 0 | 0.004009511 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2012 | AllSpeeds | 439.3740167 | 33395.83377 | 0 | 0.003691146 | 1.02E-04 | 0 | 0.00379281 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2013 | AllSpeeds | 461.1603704 | 36738.49625 | 0 | 0.003339604 | 1.07E-04 | 0 | 0.003446309 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2014 | AllSpeeds | 509.1059883 | 42010.54181 | 0 | 0.003624791 | 1.18E-04 | 0 | 0.00374259 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2015 | AllSpeeds | 565.5896793 | 47547.25019 | 0 | 0.00387502 | 1.31E-04 | 0 | 0.004005889 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2016 | AllSpeeds | 630.915815 | 52811.50047 | 0 | 0.004046625 | 1.46E-04 | 0 | 0.004192609 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2017 | AllSpeeds | 589.0409975 | 49306.9497 | 0 | 0.003538788 | 1.36E-04 | 0 | 0.003675083 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2018 | AllSpeeds | 147.6527346 | 5150.402167 | 0 | 3.45E-04 | 3.42E-05 | 0 | 3.79E-04 |
| Los Angele | 2017 | Annual | LDA/LDT1 | GAS&DSI | >2007 | AllSpeeds | 2682781.12 | 99533547.5 | 17325918.8 | 1.017455253 | 0 | 0.824216834 | 1.841672087 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | >2007 | AllSpeeds | 6102.100987 | 411355.7762 | 0 | 0.046876544 | 0.00141193 | 0 | 0.048288475 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | LDA | 0.016944321 | 0.05765928 | 0.2118769 | 0.01879384 | 0.436376516 | 0.126067579 | 0 | 0.0676542 | 0.193721779 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 1.76E-04 | 2.01E-04 | 0 | 0 | 2.01E-04 |
| Los Angele | 2017 | Annual | LDA | 0.017475262 | 0.055556219 | 0.2400959 | 0.018586872 | 0.499076443 | 0.164197419 | 0 | 0.084494397 | 0.248691816 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 3.28E-04 | 3.74E-04 | 0 | 0 | 3.74E-04 |
| Los Angele | 2017 | Annual | LDA | 0.013420361 | 0.038113903 | 0.1954541 | 0.013562226 | 0.424671591 | 0.163805443 | 0 | 0.081258655 | 0.245064098 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 2.94E-04 | 3.34E-04 | 0 | 0 | 3.34E-04 |
| Los Angele | 2017 | Annual | LDA | 0.011177791 | 0.027520005 | 0.1861239 | 0.010394133 | 0.403347413 | 0.170335742 | 0 | 0.081794418 | 0.25213016 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 2.67E-04 | 3.04E-04 | 0 | 0 | 3.04E-04 |
| Los Angele | 2017 | Annual | LDA | 0.009397152 | 0.019853471 | 0.1701375 | 0.008057191 | 0.362158715 | 0.158269006 | 0 | 0.074390396 | 0.232659402 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 2.45E-04 | 2.79E-04 | 0 | 0 | 2.79E-04 |
| Los Angele | 2017 | Annual | LDA | 0.008350887 | 0.014926027 | 0.1605565 | 0.006609377 | 0.34088858 | 0.157404506 | 0 | 0.070329852 | 0.227734358 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 2.13E-04 | 2.43E-04 | 0 | 0 | 2.43E-04 |
| Los Angele | 2017 | Annual | LDA | 0.007634499 | 0.011448544 | 0.1547166 | 0.005597322 | 0.330547724 | 0.163164001 | 0 | 0.067778416 | 0.230942417 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 2.01E-04 | 2.29E-04 | 0 | 0 | 2.29E-04 |
| Los Angele | 2017 | Annual | LDA | 0.007243359 | 0.009303188 | 0.1498952 | 0.004997932 | 0.322913109 | 0.170193418 | 0 | 0.064090304 | 0.234283722 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 1.78E-04 | 2.03E-04 | 0 | 0 | 2.03E-04 |
| Los Angele | 2017 | Annual | LDA | 0.006969783 | 0.007824235 | 0.1450976 | 0.004584557 | 0.315926278 | 0.180213855 | 0 | 0.058316875 | 0.23853073 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 1.79E-04 | 2.04E-04 | 0 | 0 | 2.04E-04 |
| Los Angele | 2017 | Annual | LDT1 | 0.001764158 | 0.00505533 | 0.019523606 | 0.002072997 | 0.036966179 | 0.008351824 | 0 | 0.00433758 | 0.012689404 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDT1 | 0.003067091 | 0.008551704 | 0.034786779 | 0.003517289 | 0.065885911 | 0.015997118 | 0 | 0.007866382 | 0.0238635 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDT1 | 0.002261888 | 0.006054366 | 0.026501916 | 0.002508781 | 0.05163877 | 0.014491044 | 0 | 0.006967383 | 0.021458428 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDT1 | 0.00199815 | 0.005023792 | 0.023476193 | 0.002125253 | 0.048295935 | 0.016069827 | 0 | 0.007514505 | 0.023584332 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.05E-05 | 1.19E-05 | 0 | 0 | 1.19E-05 |
| Los Angele | 2017 | Annual | LDT1 | 0.001458324 | 0.003295607 | 0.01583419 | 0.001473739 | 0.036540353 | 0.015006146 | 0 | 0.006849836 | 0.021855981 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.43E-05 | 1.63E-05 | 0 | 0 | 1.63E-05 |
| Los Angele | 2017 | Annual | LDT1 | 0.001112048 | 0.002209797 | 0.013301582 | 0.001034084 | 0.031104855 | 0.014053988 | 0 | 0.00629512 | 0.020349108 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.91E-06 | 1.13E-05 | 0 | 0 | 1.13E-05 |
| Los Angele | 2017 | Annual | LDT1 | 9.61E-04 | 0.0016674 | 0.011931654 | 8.24E-04 | 0.027932131 | 0.013144173 | 0 | 0.005856528 | 0.019000701 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.27E-05 | 1.44E-05 | 0 | 0 | 1.44E-05 |
| Los Angele | 2017 | Annual | LDT1 | 8.51E-04 | 0.001276491 | 0.010641666 | 6.74E-04 | 0.025477763 | 0.012795416 | 0 | 0.005508315 | 0.018303731 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.13E-05 | 1.29E-05 | 0 | 0 | 1.29E-05 |
| Los Angele | 2017 | Annual | LDT1 | 7.97E-04 | 0.001028684 | 0.010283853 | 5.84E-04 | 0.024926992 | 0.013310037 | 0 | 0.005425844 | 0.018735881 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.10E-05 | 1.25E-05 | 0 | 0 | 1.25E-05 |
| Los Angele | 2017 | Annual | LDT1 | 7.51E-04 | 8.53E-04 | 0.009504244 | 5.18E-04 | 0.023627238 | 0.013464429 | 0 | 0.005089354 | 0.018553783 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.32E-05 | 1.50E-05 | 0 | 0 | 1.50E-05 |
| Los Angele | 2017 | Annual | LDT1 | 7.18E-04 | 7.31E-04 | 0.008849423 | 4.72E-04 | 0.02244035 | 0.013705978 | 0 | 0.004596289 | 0.018302268 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.78E-06 | 9.99E-06 | 0 | 0 | 9.99E-06 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.007051376 | 0.007884771 | 1.43E-04 | 0 | 0.008027454 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.006319115 | 0.007058474 | 1.35E-04 | 0 | 0.007193832 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002570471 | 0.00287556 | 5.07E-05 | 0 | 0.002926285 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005103897 | 0.00556099 | 2.49E-04 | 0 | 0.005810398 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004009511 | 0.004415871 | 1.49E-04 | 0 | 0.004564523 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00379281 | 0.004202088 | 1.16E-04 | 0 | 0.004317825 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003446309 | 0.003801885 | 1.21E-04 | 0 | 0.003923361 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00374259 | 0.004126548 | 1.34E-04 | 0 | 0.004260654 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004005889 | 0.004411416 | 1.49E-04 | 0 | 0.004560399 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004192609 | 0.004606775 | 1.66E-04 | 0 | 0.004772967 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003675083 | 0.004028641 | 1.55E-04 | 0 | 0.004183802 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.79E-04 | 3.92E-04 | 3.89E-05 | 0 | 4.31E-04 |
| Los Angele | 2017 | Annual | LDA/LDT1 | 0.165350662 | 0.462479062 | 2.350124606 | 0.166241091 | 4.985867508 | 1.892038522 | 0 | 0.880009372 | 2.772047894 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.048288475 | 0.053365377 | 0.001607375 | 0 | 0.054972753 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | LDA | 0.016944321 | 0.05765928 | 0.2118769 | 0.01879384 | 0.49899612 | 4.078029374 | 0 | 1.158183 | 5.236212374 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 2.01E-04 | 0.00165493 | 0 | 0 | 0.00165493 |
| Los Angele | 2017 | Annual | LDA | 0.017475262 | 0.055556219 | 0.2400959 | 0.018586872 | 0.580406069 | 5.138937708 | 0 | 1.387072 | 6.526009708 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 3.74E-04 | 0.003076726 | 0 | 0 | 0.003076726 |
| Los Angele | 2017 | Annual | LDA | 0.013420361 | 0.038113903 | 0.1954541 | 0.013562226 | 0.505614688 | 5.085675491 | 0 | 1.312565 | 6.398240491 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 3.34E-04 | 0.002751787 | 0 | 0 | 0.002751787 |
| Los Angele | 2017 | Annual | LDA | 0.011177791 | 0.027520005 | 0.1861239 | 0.010394133 | 0.487345989 | 5.223741184 | 0 | 1.279046 | 6.502787184 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 3.04E-04 | 0.00249679 | 0 | 0 | 0.00249679 |
| Los Angele | 2017 | Annual | LDA | 0.009397152 | 0.019853471 | 0.1701375 | 0.008057191 | 0.440104716 | 4.815551309 | 0 | 1.094859 | 5.910410309 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 2.79E-04 | 0.002292283 | 0 | 0 | 0.002292283 |
| Los Angele | 2017 | Annual | LDA | 0.008350887 | 0.014926027 | 0.1605565 | 0.006609377 | 0.418177149 | 4.711468359 | 0 | 0.9911765 | 5.702644859 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 2.43E-04 | 0.001987984 | 0 | 0 | 0.001987984 |
| Los Angele | 2017 | Annual | LDA | 0.007634499 | 0.011448544 | 0.1547166 | 0.005597322 | 0.410339382 | 4.81751023 | 0 | 0.9343744 | 5.75188463 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 2.29E-04 | 0.001873196 | 0 | 0 | 0.001873196 |
| Los Angele | 2017 | Annual | LDA | 0.007243359 | 0.009303188 | 0.1498952 | 0.004997932 | 0.405723401 | 5.025045378 | 0 | 0.8839265 | 5.908971878 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 2.03E-04 | 0.00165497 | 0 | 0 | 0.00165497 |
| Los Angele | 2017 | Annual | LDA | 0.006969783 | 0.007824235 | 0.1450976 | 0.004584557 | 0.403006904 | 5.479069366 | 0 | 0.8388935 | 6.317962866 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 0 | 0 | 2.04E-04 | 0.001657296 | 0 | 0 | 0.001657296 |
| Los Angele | 2017 | Annual | LDT1 | 0.001764158 | 0.00505533 | 0.019523606 | 0.002072997 | 0.041105496 | 0.285525458 | 0 | 0.079013444 | 0.364538902 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDT1 | 0.003067091 | 0.008551704 | 0.034786779 | 0.003517289 | 0.073786362 | 0.536435375 | 0 | 0.1417632 | 0.678198575 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDT1 | 0.002261888 | 0.006054366 | 0.026501916 | 0.002508781 | 0.058785378 | 0.471126878 | 0 | 0.1207611 | 0.591887978 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDT1 | 0.00199815 | 0.005023792 | 0.023476193 | 0.002125253 | 0.056207719 | 0.503288108 | 0 | 0.1241272 | 0.627415308 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.19E-05 | 9.77E-05 | 0 | 0 | 9.77E-05 |
| Los Angele | 2017 | Annual | LDT1 | 0.001458324 | 0.003295607 | 0.01583419 | 0.001473739 | 0.043917842 | 0.465954502 | 0 | 0.111199 | 0.577153502 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.63E-05 | 1.33E-04 | 0 | 0 | 1.33E-04 |
| Los Angele | 2017 | Annual | LDT1 | 0.001112048 | 0.002209797 | 0.013301582 | 0.001034084 | 0.038006619 | 0.430833942 | 0 | 0.098802693 | 0.529636635 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.13E-05 | 9.21E-05 | 0 | 0 | 9.21E-05 |
| Los Angele | 2017 | Annual | LDT1 | 9.61E-04 | 0.0016674 | 0.011931654 | 8.24E-04 | 0.034385126 | 0.399756102 | 0 | 0.086241417 | 0.485997519 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.44E-05 | 1.18E-04 | 0 | 0 | 1.18E-04 |
| Los Angele | 2017 | Annual | LDT1 | 8.51E-04 | 0.001276491 | 0.010641666 | 6.74E-04 | 0.031747313 | 0.382661008 | 0 | 0.077590577 | 0.460251585 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.29E-05 | 1.05E-04 | 0 | 0 | 1.05E-04 |
| Los Angele | 2017 | Annual | LDT1 | 7.97E-04 | 0.001028684 | 0.010283853 | 5.84E-04 | 0.031429424 | 0.392664755 | 0 | 0.074773826 | 0.467438581 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.25E-05 | 1.02E-04 | 0 | 0 | 1.02E-04 |
| Los Angele | 2017 | Annual | LDT1 | 7.51E-04 | 8.53E-04 | 0.009504244 | 5.18E-04 | 0.030179773 | 0.397537867 | 0 | 0.070256792 | 0.467794659 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.50E-05 | 1.21E-04 | 0 | 0 | 1.21E-04 |
| Los Angele | 2017 | Annual | LDT1 | 7.18E-04 | 7.31E-04 | 0.008849423 | 4.72E-04 | 0.029073388 | 0.417457761 | 0 | 0.066338435 | 0.483796196 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.99E-06 | 8.03E-05 | 0 | 0 | 8.03E-05 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.008027454 | 0.028821728 | 0.001482078 | 0 | 0.030303807 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.007193832 | 0.025801307 | 0.001405996 | 0 | 0.027207303 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002926285 | 0.010511224 | 5.27E-04 | 0 | 0.01103812 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005810398 | 0.020327456 | 0.002590656 | 0 | 0.022918112 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004564523 | 0.016141625 | 0.001544085 | 0 | 0.017685709 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004317825 | 0.015360172 | 0.001202186 | 0 | 0.016562359 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003923361 | 0.013897282 | 0.001261797 | 0 | 0.015159079 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004260654 | 0.015084046 | 0.001392982 | 0 | 0.016477028 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004560399 | 0.01612534 | 0.001547529 | 0 | 0.017672869 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004772967 | 0.01683945 | 0.001726271 | 0 | 0.01856572 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004183802 | 0.014726159 | 0.001611695 | 0 | 0.016337855 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.31E-04 | 0.001434214 | 4.04E-04 | 0 | 0.001838212 |
| Los Angele | 2017 | Annual | LDA/LDT1 | 0.165350662 | 0.462479062 | 2.350124606 | 0.166241091 | 5.916243315 | 58.71793894 | 0 | 13.86593858 | 72.58387753 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.054972753 | 0.195070004 | 0.016696169 | 0 | 0.211766173 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | LDA | 0.345656526 | 0 | 0.066675238 | 0.412331764 | 2252.787681 | 0 | 93.99782 | 2346.785501 | 2140.148297 |
| Los Angele | 2017 | Annual | LDA | 0.005418756 | 0 | 0 | 0.005418756 | 7.745222966 | 0 | 0 | 7.745222966 | 7.357961818 |
| Los Angele | 2017 | Annual | LDA | 0.464356452 | 0 | 0.08726301 | 0.551619462 | 2968.30067 | 0 | 119.8699 | 3088.17057 | 2721.189639 |
| Los Angele | 2017 | Annual | LDA | 0.010116844 | 0 | 0 | 0.010116844 | 15.02987307 | 0 | 0 | 15.02987307 | 13.77863614 |
| Los Angele | 2017 | Annual | LDA | 0.46277922 | 0 | 0.08262977 | 0.54540899 | 3053.439796 | 0 | 118.7829 | 3172.222696 | 2483.057242 |
| Los Angele | 2017 | Annual | LDA | 0.009092744 | 0 | 0 | 0.009092744 | 14.09775914 | 0 | 0 | 14.09775914 | 11.46429773 |
| Los Angele | 2017 | Annual | LDA | 0.475874929 | 0 | 0.079643607 | 0.555518536 | 3349.526611 | 0 | 125.1523 | 3474.678911 | 2376.991559 |
| Los Angele | 2017 | Annual | LDA | 0.008299533 | 0 | 0 | 0.008299533 | 13.52071531 | 0 | 0 | 13.52071531 | 9.594975621 |
| Los Angele | 2017 | Annual | LDA | 0.467282461 | 0 | 0.072453603 | 0.539736064 | 3466.035879 | 0 | 123.4945 | 3589.530379 | 2397.110414 |
| Los Angele | 2017 | Annual | LDA | 0.007673016 | 0 | 0 | 0.007673016 | 13.20027713 | 0 | 0 | 13.20027713 | 9.129311666 |
| Los Angele | 2017 | Annual | LDA | 0.463015811 | 0 | 0.064816527 | 0.527832338 | 3697.946101 | 0 | 124.453 | 3822.399101 | 2501.290743 |
| Los Angele | 2017 | Annual | LDA | 0.006709795 | 0 | 0 | 0.006709795 | 12.26573678 | 0 | 0 | 12.26573678 | 8.296544355 |
| Los Angele | 2017 | Annual | LDA | 0.474216932 | 0 | 0.058955036 | 0.533171968 | 4048.13907 | 0 | 127.3151 | 4175.45417 | 2626.635035 |
| Los Angele | 2017 | Annual | LDA | 0.006386465 | 0 | 0 | 0.006386465 | 12.50433622 | 0 | 0 | 12.50433622 | 8.113438559 |
| Los Angele | 2017 | Annual | LDA | 0.490795261 | 0 | 0.052381106 | 0.543176367 | 4502.334259 | 0 | 129.5593 | 4631.893559 | 2810.131928 |
| Los Angele | 2017 | Annual | LDA | 0.005714534 | 0 | 0 | 0.005714534 | 12.11236894 | 0 | 0 | 12.11236894 | 7.559935073 |
| Los Angele | 2017 | Annual | LDA | 0.524924507 | 0 | 0.044935405 | 0.569859912 | 5223.582968 | 0 | 131.0981 | 5354.681068 | 3260.299309 |
| Los Angele | 2017 | Annual | LDA | 0.005820283 | 0 | 0 | 0.005820283 | 13.57277134 | 0 | 0 | 13.57277134 | 8.471445229 |
| Los Angele | 2017 | Annual | LDT1 | 0.021073939 | 0 | 0.003807024 | 0.024880963 | 157.5180382 | 0 | 6.108491 | 163.6265292 | 149.6421363 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDT1 | 0.042472373 | 0 | 0.00743789 | 0.049910262 | 328.8260959 | 0 | 12.56008 | 341.3861759 | 312.3847911 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDT1 | 0.039657928 | 0 | 0.006899905 | 0.046557833 | 299.2395083 | 0 | 11.23799 | 310.4774983 | 284.2775329 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDT1 | 0.045307609 | 0 | 0.007785576 | 0.053093185 | 333.7872909 | 0 | 12.27547 | 346.0627609 | 305.9994989 |
| Los Angele | 2017 | Annual | LDT1 | 3.26E-04 | 0 | 0 | 3.26E-04 | 0.400874292 | 0 | 0 | 0.400874292 | 0.367501507 |
| Los Angele | 2017 | Annual | LDT1 | 0.042275525 | 0 | 0.006980598 | 0.049256123 | 322.3097294 | 0 | 11.56026 | 333.8699894 | 262.102272 |
| Los Angele | 2017 | Annual | LDT1 | 4.47E-04 | 0 | 0 | 4.47E-04 | 0.573927614 | 0 | 0 | 0.573927614 | 0.466717935 |
| Los Angele | 2017 | Annual | LDT1 | 0.039069595 | 0 | 0.006116028 | 0.045185623 | 319.4072506 | 0 | 11.15142 | 330.5586706 | 226.6673554 |
| Los Angele | 2017 | Annual | LDT1 | 3.11E-04 | 0 | 0 | 3.11E-04 | 0.420961572 | 0 | 0 | 0.420961572 | 0.298735379 |
| Los Angele | 2017 | Annual | LDT1 | 0.038808794 | 0 | 0.005705816 | 0.044514611 | 334.8932687 | 0 | 11.31348 | 346.2067487 | 231.6121846 |
| Los Angele | 2017 | Annual | LDT1 | 4.00E-04 | 0 | 0 | 4.00E-04 | 0.572698959 | 0 | 0 | 0.572698959 | 0.3960786 |
| Los Angele | 2017 | Annual | LDT1 | 0.037628595 | 0 | 0.005068395 | 0.04269699 | 350.4446239 | 0 | 11.36529 | 361.8099139 | 237.0407436 |
| Los Angele | 2017 | Annual | LDT1 | 3.60E-04 | 0 | 0 | 3.60E-04 | 0.548651234 | 0 | 0 | 0.548651234 | 0.371107695 |
| Los Angele | 2017 | Annual | LDT1 | 0.038667889 | 0 | 0.004706264 | 0.043374153 | 385.4436539 | 0 | 11.9009 | 397.3445539 | 250.0951149 |
| Los Angele | 2017 | Annual | LDT1 | 3.52E-04 | 0 | 0 | 3.52E-04 | 0.576417988 | 0 | 0 | 0.576417988 | 0.374008811 |
| Los Angele | 2017 | Annual | LDT1 | 0.038826053 | 0 | 0.004145713 | 0.042971766 | 416.2215582 | 0 | 12.02979 | 428.2513482 | 259.7846856 |
| Los Angele | 2017 | Annual | LDT1 | 4.25E-04 | 0 | 0 | 4.25E-04 | 0.755152155 | 0 | 0 | 0.755152155 | 0.471328217 |
| Los Angele | 2017 | Annual | LDT1 | 0.039976656 | 0 | 0.003534796 | 0.043511452 | 464.6856331 | 0 | 12.09584 | 476.7814731 | 290.0335379 |
| Los Angele | 2017 | Annual | LDT1 | 2.87E-04 | 0 | 0 | 2.87E-04 | 0.561312267 | 0 | 0 | 0.561312267 | 0.350343052 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.161075204 | 0.002239116 | 0 | 0.16331432 | 39.22818206 | 0.445300684 | 0 | 39.67348274 | 37.26677296 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.138337595 | 0.002124171 | 0 | 0.140461766 | 36.76075633 | 0.42244119 | 0 | 37.18319752 | 34.92271851 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.051514574 | 7.96E-04 | 0 | 0.052310604 | 15.75993975 | 0.158309352 | 0 | 15.9182491 | 14.97194276 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.067360522 | 0.00391395 | 0 | 0.071274471 | 49.26804549 | 0.778380599 | 0 | 50.04642609 | 46.80464321 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.049058405 | 0.002332795 | 0 | 0.0513912 | 41.14318888 | 0.463930941 | 0 | 41.60711982 | 39.08602943 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.040485651 | 0.001816257 | 0 | 0.042301908 | 41.42124387 | 0.361205236 | 0 | 41.78244911 | 39.35018168 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.036046674 | 0.001906316 | 0 | 0.03795299 | 45.46231462 | 0.379115592 | 0 | 45.84143021 | 43.18919888 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.037711658 | 0.002104511 | 0 | 0.039816169 | 51.98624505 | 0.418531232 | 0 | 52.40477628 | 49.3869328 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.038569528 | 0.002337999 | 0 | 0.040907528 | 58.83768438 | 0.464965942 | 0 | 59.30265032 | 55.89580016 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.038186521 | 0.002608041 | 0 | 0.040794562 | 65.3519685 | 0.518669942 | 0 | 65.87063844 | 62.08437008 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.031326708 | 0.002434941 | 0 | 0.033761649 | 61.01523711 | 0.48424505 | 0 | 61.49948216 | 57.96447526 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.002820408 | 6.10E-04 | 0 | 0.003430765 | 6.373401952 | 0.121383921 | 0 | 6.494785872 | 6.054731854 |
| Los Angele | 2017 | Annual | LDA/LDT1 | 5.403429109 | 0 | 0.820194351 | 6.22362346 | 41316.98404 | 0 | 1431.264131 | 42748.24817 | 30890.82892 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.692493447 | 0.025224485 | 0 | 0.717717932 | 512.608208 | 5.016479682 | 0 | 517.6246877 | 486.9777976 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | LDA | 0 | 89.297929 | 2229.446226 | 0.002324715 | 0 | 4.66E-04 | 0.00279054 | 0.048485298 | 0.2227294 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 7.357961818 | 1.07E-04 | 0 | 0 | 1.07E-04 | 1.95E-04 | 8.97E-04 |
| Los Angele | 2017 | Annual | LDA | 0 | 109.8907308 | 2831.08037 | 0.003062116 | 0 | 7.33E-04 | 0.003795022 | 0.063868701 | 0.2933969 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 13.77863614 | 2.01E-04 | 0 | 0 | 2.01E-04 | 3.79E-04 | 0.001739722 |
| Los Angele | 2017 | Annual | LDA | 0 | 96.59425428 | 2579.651496 | 0.004723443 | 0 | 0.001353138 | 0.006076581 | 0.065679967 | 0.3017174 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 11.46429773 | 1.80E-04 | 0 | 0 | 1.80E-04 | 3.55E-04 | 0.001631829 |
| Los Angele | 2017 | Annual | LDA | 0 | 88.8143297 | 2465.805889 | 0.006906467 | 0 | 0.00200564 | 0.008912107 | 0.072029546 | 0.3308858 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 9.594975621 | 1.65E-04 | 0 | 0 | 1.65E-04 | 3.41E-04 | 0.001565036 |
| Los Angele | 2017 | Annual | LDA | 0 | 85.4087962 | 2482.51921 | 0.010716706 | 0 | 0.003707781 | 0.014424486 | 0.074514888 | 0.3423029 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 9.129311666 | 1.52E-04 | 0 | 0 | 1.52E-04 | 3.33E-04 | 0.001527945 |
| Los Angele | 2017 | Annual | LDA | 0 | 84.1800092 | 2585.470752 | 0.01524025 | 0 | 0.005286448 | 0.020526698 | 0.079479575 | 0.3651094 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 8.296544355 | 1.33E-04 | 0 | 0 | 1.33E-04 | 3.09E-04 | 0.001419771 |
| Los Angele | 2017 | Annual | LDA | 0 | 82.60840264 | 2709.243438 | 0.020847859 | 0 | 0.006964882 | 0.027812741 | 0.086985551 | 0.3995899 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 8.113438559 | 1.27E-04 | 0 | 0 | 1.27E-04 | 3.15E-04 | 0.001447389 |
| Los Angele | 2017 | Annual | LDA | 0 | 80.8644371 | 2890.996365 | 0.02665669 | 0 | 0.008270661 | 0.034927351 | 0.096722566 | 0.4443194 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 7.559935073 | 1.13E-04 | 0 | 0 | 1.13E-04 | 3.05E-04 | 0.001402018 |
| Los Angele | 2017 | Annual | LDA | 0 | 81.82487912 | 3342.124188 | 0.03360576 | 0 | 0.009149362 | 0.042755122 | 0.1121867 | 0.5153576 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 8.471445229 | 1.16E-04 | 0 | 0 | 1.16E-04 | 3.42E-04 | 0.001571061 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 5.80306645 | 155.4452028 | 1.05E-04 | 0 | 1.27E-05 | 1.17E-04 | 0.002914956 | 0.013390584 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 11.932076 | 324.3168671 | 2.19E-04 | 0 | 3.38E-05 | 2.53E-04 | 0.006090515 | 0.027978316 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 10.6760905 | 294.9536234 | 2.65E-04 | 0 | 4.78E-05 | 3.13E-04 | 0.005533053 | 0.025417466 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 11.25353712 | 317.253036 | 2.96E-04 | 0 | 6.45E-05 | 3.60E-04 | 0.006173792 | 0.028360862 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0.367501507 | 5.40E-06 | 0 | 0 | 5.40E-06 | 1.01E-05 | 4.64E-05 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 9.400803432 | 271.5030754 | 4.28E-04 | 0 | 1.13E-04 | 5.42E-04 | 0.005960322 | 0.027380232 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0.466717935 | 7.39E-06 | 0 | 0 | 7.39E-06 | 1.45E-05 | 6.64E-05 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 7.913605203 | 234.5809606 | 5.66E-04 | 0 | 1.53E-04 | 7.19E-04 | 0.005905294 | 0.027127454 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0.298735379 | 5.15E-06 | 0 | 0 | 5.15E-06 | 1.06E-05 | 4.87E-05 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 7.824402768 | 239.4365874 | 8.90E-04 | 0 | 2.92E-04 | 0.001181609 | 0.006190499 | 0.028437605 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0.3960786 | 6.62E-06 | 0 | 0 | 6.62E-06 | 1.44E-05 | 6.63E-05 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 7.687482156 | 244.7282257 | 0.001241214 | 0 | 4.15E-04 | 0.001655855 | 0.006476287 | 0.029750448 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0.371107695 | 5.96E-06 | 0 | 0 | 5.96E-06 | 1.38E-05 | 6.35E-05 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 7.721898965 | 257.8170138 | 0.001705951 | 0 | 5.59E-04 | 0.002265125 | 0.007121964 | 0.032716524 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0.374008811 | 5.83E-06 | 0 | 0 | 5.83E-06 | 1.45E-05 | 6.67E-05 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 7.508393429 | 267.293079 | 0.002117858 | 0 | 6.60E-04 | 0.002777431 | 0.007688756 | 0.035320234 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0.471328217 | 7.05E-06 | 0 | 0 | 7.05E-06 | 1.90E-05 | 8.74E-05 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 7.549618536 | 297.5831565 | 0.002569285 | 0 | 7.25E-04 | 0.003294327 | 0.008581451 | 0.039421041 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0.350343052 | 4.76E-06 | 0 | 0 | 4.76E-06 | 1.41E-05 | 6.50E-05 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.42303565 | 0 | 37.68980861 | 0.002013317 | 5.26E-06 | 0 | 0.002018579 | 4.04E-04 | 0.004392285 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.40131913 | 0 | 35.32403764 | 0.001805366 | 4.99E-06 | 0 | 0.001810358 | 3.79E-04 | 0.004116014 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.150393884 | 0 | 15.12233665 | 7.37E-04 | 1.87E-06 | 0 | 7.39E-04 | 1.62E-04 | 0.001764603 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.739461569 | 0 | 47.54410478 | 0.00225601 | 9.20E-06 | 0 | 0.002265209 | 5.25E-04 | 0.005707113 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.440734394 | 0 | 39.52676383 | 0.001770856 | 5.48E-06 | 0 | 0.001776338 | 4.39E-04 | 0.004765946 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.343144974 | 0 | 39.69332665 | 0.001661985 | 4.27E-06 | 0 | 0.001666253 | 4.42E-04 | 0.004798155 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.360159812 | 0 | 43.5493587 | 0.001437469 | 4.48E-06 | 0 | 0.001441949 | 4.86E-04 | 0.005278413 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.397604671 | 0 | 49.78453747 | 0.001530596 | 4.95E-06 | 0 | 0.001535542 | 5.56E-04 | 0.006035875 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.441717645 | 0 | 56.33751781 | 0.001599666 | 5.50E-06 | 0 | 0.001605161 | 6.29E-04 | 0.006831363 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.492736445 | 0 | 62.57710652 | 0.001626672 | 6.13E-06 | 0 | 0.001632802 | 6.99E-04 | 0.007587706 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.460032797 | 0 | 58.42450805 | 0.001379188 | 5.72E-06 | 0 | 0.001384911 | 6.52E-04 | 0.007084189 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.115314725 | 0 | 6.170046579 | 1.29E-04 | 1.43E-06 | 0 | 1.31E-04 | 6.81E-05 | 7.40E-04 |
| Los Angele | 2017 | Annual | LDA/LDT1 | 0 | 1097.999833 | 31988.82875 | 0.139643402 | 0 | 0.041607229 | 0.181250631 | 0.877735707 | 4.032099035 |
| Los Angele | 2017 | Annual | T6 instate heavy | 4.765655697 | 0 | 491.7434533 | 0.017947551 | 5.92859E-05 | 0 | 0.018006837 | 0.005441305 | 0.059101647 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | LDA | 0.274005238 | 0.002156951 | 0 | 4.32E-04 | 0.002589161 | 0.012121324 | 0.095455453 | 0.110165938 | 0.022554379 |
| Los Angele | 2017 | Annual | LDA | 0.001199073 | 9.88E-05 | 0 | 0 | 9.88E-05 | 4.88E-05 | 3.84E-04 | 5.32E-04 | 7.39E-05 |
| Los Angele | 2017 | Annual | LDA | 0.361060623 | 0.002841138 | 0 | 6.80E-04 | 0.003521154 | 0.015967175 | 0.1257415 | 0.145229829 | 0.029714199 |
| Los Angele | 2017 | Annual | LDA | 0.00231898 | 1.84E-04 | 0 | 0 | 1.84E-04 | 9.47E-05 | 7.46E-04 | 0.001024774 | 1.43E-04 |
| Los Angele | 2017 | Annual | LDA | 0.373473948 | 0.004382576 | 0 | 0.001255489 | 0.005638065 | 0.016419992 | 0.1293074 | 0.151365457 | 0.030563187 |
| Los Angele | 2017 | Annual | LDA | 0.002167335 | 1.66E-04 | 0 | 0 | 1.66E-04 | 8.88E-05 | 6.99E-04 | 9.54E-04 | 1.35E-04 |
| Los Angele | 2017 | Annual | LDA | 0.411827453 | 0.006408062 | 0 | 0.001860903 | 0.008268964 | 0.018007386 | 0.1418082 | 0.16808455 | 0.033521011 |
| Los Angele | 2017 | Annual | LDA | 0.002070315 | 1.51E-04 | 0 | 0 | 1.51E-04 | 8.52E-05 | 6.71E-04 | 9.07E-04 | 1.29E-04 |
| Los Angele | 2017 | Annual | LDA | 0.431242274 | 0.009943335 | 0 | 0.003440208 | 0.013383543 | 0.018628722 | 0.1467012 | 0.178713465 | 0.034677237 |
| Los Angele | 2017 | Annual | LDA | 0.002012768 | 1.40E-04 | 0 | 0 | 1.40E-04 | 8.32E-05 | 6.55E-04 | 8.78E-04 | 1.26E-04 |
| Los Angele | 2017 | Annual | LDA | 0.465115673 | 0.014140436 | 0 | 0.004904951 | 0.019045387 | 0.019869894 | 0.1564754 | 0.195390681 | 0.036990445 |
| Los Angele | 2017 | Annual | LDA | 0.001861982 | 1.22E-04 | 0 | 0 | 1.22E-04 | 7.73E-05 | 6.08E-04 | 8.08E-04 | 1.17E-04 |
| Los Angele | 2017 | Annual | LDA | 0.514388192 | 0.019343373 | 0 | 0.006462261 | 0.025805634 | 0.021746388 | 0.1712528 | 0.218804822 | 0.040487815 |
| Los Angele | 2017 | Annual | LDA | 0.001889247 | 1.17E-04 | 0 | 0 | 1.17E-04 | 7.88E-05 | 6.20E-04 | 8.16E-04 | 1.19E-04 |
| Los Angele | 2017 | Annual | LDA | 0.575969317 | 0.024733013 | 0 | 0.007673809 | 0.032406822 | 0.024180641 | 0.1904226 | 0.247010063 | 0.045024946 |
| Los Angele | 2017 | Annual | LDA | 0.001820717 | 1.04E-04 | 0 | 0 | 1.04E-04 | 7.63E-05 | 6.01E-04 | 7.82E-04 | 1.16E-04 |
| Los Angele | 2017 | Annual | LDA | 0.670299422 | 0.031180605 | 0 | 0.0084891 | 0.039669705 | 0.028046666 | 0.2208675 | 0.288583871 | 0.052231681 |
| Los Angele | 2017 | Annual | LDA | 0.002028734 | 1.06E-04 | 0 | 0 | 1.06E-04 | 8.55E-05 | 6.73E-04 | 8.65E-04 | 1.30E-04 |
| Los Angele | 2017 | Annual | LDT1 | 0.016422968 | 9.72E-05 | 0 | 1.17E-05 | 1.09E-04 | 7.29E-04 | 0.00573882 | 0.006576513 | 0.001577026 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDT1 | 0.03432138 | 2.03E-04 | 0 | 3.14E-05 | 2.34E-04 | 0.001522629 | 0.011990706 | 0.013747658 | 0.003291138 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDT1 | 0.031263716 | 2.46E-04 | 0 | 4.44E-05 | 2.91E-04 | 0.001383263 | 0.0108932 | 0.012567059 | 0.002994744 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | LDT1 | 0.034895029 | 2.75E-04 | 0 | 5.98E-05 | 3.34E-04 | 0.001543448 | 0.012154655 | 0.014032472 | 0.003340142 |
| Los Angele | 2017 | Annual | LDT1 | 6.19E-05 | 4.96E-06 | 0 | 0 | 4.96E-06 | 2.53E-06 | 1.99E-05 | 2.74E-05 | 3.83E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0.033882136 | 3.98E-04 | 0 | 1.05E-04 | 5.02E-04 | 0.001490081 | 0.011734385 | 0.013726965 | 0.00322496 |
| Los Angele | 2017 | Annual | LDT1 | 8.83E-05 | 6.80E-06 | 0 | 0 | 6.80E-06 | 3.62E-06 | 2.85E-05 | 3.89E-05 | 5.48E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0.033752222 | 5.25E-04 | 0 | 1.42E-04 | 6.68E-04 | 0.001476324 | 0.01162605 | 0.013769926 | 0.003195409 |
| Los Angele | 2017 | Annual | LDT1 | 6.45E-05 | 4.74E-06 | 0 | 0 | 4.74E-06 | 2.65E-06 | 2.09E-05 | 2.83E-05 | 4.02E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0.035809713 | 8.26E-04 | 0 | 2.71E-04 | 0.001096338 | 0.001547625 | 0.012187545 | 0.014831508 | 0.003349473 |
| Los Angele | 2017 | Annual | LDT1 | 8.73E-05 | 6.09E-06 | 0 | 0 | 6.09E-06 | 3.61E-06 | 2.84E-05 | 3.81E-05 | 5.47E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0.03788259 | 0.001151641 | 0 | 3.85E-04 | 0.00153636 | 0.001619072 | 0.012750193 | 0.015905624 | 0.003504425 |
| Los Angele | 2017 | Annual | LDT1 | 8.33E-05 | 5.49E-06 | 0 | 0 | 5.49E-06 | 3.46E-06 | 2.72E-05 | 3.62E-05 | 5.24E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0.042103613 | 0.001582841 | 0 | 5.19E-04 | 0.002101662 | 0.001780491 | 0.014021368 | 0.017903521 | 0.00385395 |
| Los Angele | 2017 | Annual | LDT1 | 8.71E-05 | 5.37E-06 | 0 | 0 | 5.37E-06 | 3.63E-06 | 2.86E-05 | 3.76E-05 | 5.50E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0.045786421 | 0.001965023 | 0 | 6.12E-04 | 0.002576998 | 0.001922189 | 0.015137239 | 0.019636426 | 0.004161247 |
| Los Angele | 2017 | Annual | LDT1 | 1.13E-04 | 6.48E-06 | 0 | 0 | 6.48E-06 | 4.76E-06 | 3.75E-05 | 4.87E-05 | 7.21E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0.051296819 | 0.002383873 | 0 | 6.73E-04 | 0.003056592 | 0.002145363 | 0.016894734 | 0.022096689 | 0.004645323 |
| Los Angele | 2017 | Annual | LDT1 | 8.39E-05 | 4.38E-06 | 0 | 0 | 4.38E-06 | 3.54E-06 | 2.78E-05 | 3.58E-05 | 5.36E-06 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.006815249 | 0.001852251 | 4.84E-06 | 0 | 0.001857093 | 1.01E-04 | 0.001882408 | 0.003840597 | 3.74E-04 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.00630532 | 0.001660936 | 4.59E-06 | 0 | 0.00166553 | 9.47E-05 | 0.001764006 | 0.003524273 | 3.51E-04 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.002665874 | 6.78E-04 | 1.72E-06 | 0 | 6.80E-04 | 4.06E-05 | 7.56E-04 | 0.001476579 | 1.50E-04 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.008497758 | 0.002075529 | 8.46E-06 | 0 | 0.002083992 | 1.31E-04 | 0.002445906 | 0.004661257 | 4.70E-04 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.00698107 | 0.001629187 | 5.04E-06 | 0 | 0.001634231 | 1.10E-04 | 0.002042548 | 0.003786476 | 3.93E-04 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.00690616 | 0.001529026 | 3.93E-06 | 0 | 0.001532953 | 1.10E-04 | 0.002056352 | 0.003699743 | 3.95E-04 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.007206329 | 0.001322471 | 4.12E-06 | 0 | 0.001326593 | 1.21E-04 | 0.002262177 | 0.003710262 | 4.34E-04 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.008127122 | 0.001408148 | 4.55E-06 | 0 | 0.001412699 | 1.39E-04 | 0.002586804 | 0.004138429 | 4.96E-04 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.009065467 | 0.001471693 | 5.06E-06 | 0 | 0.001476748 | 1.57E-04 | 0.002927727 | 0.004561711 | 5.61E-04 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.009919084 | 0.001496538 | 5.64E-06 | 0 | 0.001502177 | 1.75E-04 | 0.003251874 | 0.004928696 | 6.23E-04 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.009121318 | 0.001268853 | 5.27E-06 | 0 | 0.001274118 | 1.63E-04 | 0.003036081 | 0.004473253 | 5.82E-04 |
| Los Angele | 2017 | Annual | T6 instate heavy | 9.39E-04 | 1.19E-04 | 1.32E-06 | 0 | 1.20E-04 | 1.70E-05 | 3.17E-04 | 4.55E-04 | 6.08E-05 |
| Los Angele | 2017 | Annual | LDA/LDT1 | 5.091085372 | 0.1295555 | 0 | 0.038604644 | 0.168160144 | 0.219433916 | 1.728042191 | 2.115636252 | 0.413339686 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.082549789 | 0.016511747 | 5.4543E-05 | 0 | 0.01656629 | 0.001360326 | 0.025329277 | 0.043255893 | 0.004890522 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | LDA | 0 | 9.58E-04 | 0.023512823 | 250.7984 | 0 | 1.59E-04 | 1.90E-03 | 1.50E-04 | 1.02E-06 | 9.87E-05 | 9.42E-07 | 3.91E-05 | 8.55E-06 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 7.39E-05 | 0 | 0.6970702 | 1.59E-05 | 1.50E-04 | 4.90E-04 | 9.71E-06 | 9.87E-05 | 8.93E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2017 | Annual | LDA | 0 | 0.001220784 | 0.030934983 | 329.9665 | 0 | 1.38E-04 | 1.80E-03 | 1.52E-04 | 1.05E-06 | 9.87E-05 | 9.72E-07 | 3.91E-05 | 8.54E-06 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 1.43E-04 | 0 | 1.352689 | 1.53E-05 | 1.43E-04 | 4.71E-04 | 9.34E-06 | 9.87E-05 | 8.59E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2017 | Annual | LDA | 0 | 0.001208669 | 0.031771856 | 338.893 | 0 | 1.14E-04 | 1.72E-03 | 1.46E-04 | 1.63E-06 | 9.87E-05 | 1.51E-06 | 3.91E-05 | 8.53E-06 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 1.35E-04 | 0 | 1.268799 | 1.46E-05 | 1.37E-04 | 4.51E-04 | 8.95E-06 | 9.87E-05 | 8.23E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2017 | Annual | LDA | 0 | 0.001271737 | 0.034792748 | 371.1152 | 0 | 9.88E-05 | 1.59E-03 | 1.36E-04 | 2.18E-06 | 9.87E-05 | 2.02E-06 | 3.91E-05 | 8.52E-06 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 1.29E-04 | 0 | 1.216864 | 1.38E-05 | 1.29E-04 | 4.30E-04 | 8.52E-06 | 9.87E-05 | 7.84E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2017 | Annual | LDA | 0 | 0.00125208 | 0.035929317 | 383.2383 | 0 | 8.57E-05 | 1.40E-03 | 1.28E-04 | 3.41E-06 | 9.87E-05 | 3.17E-06 | 3.91E-05 | 8.50E-06 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 1.26E-04 | 0 | 1.188025 | 1.30E-05 | 1.22E-04 | 4.07E-04 | 8.07E-06 | 9.87E-05 | 7.43E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2017 | Annual | LDA | 0 | 0.0012599 | 0.038250345 | 407.9955 | 0 | 7.56E-05 | 1.27E-03 | 1.17E-04 | 4.55E-06 | 9.87E-05 | 4.23E-06 | 3.91E-05 | 8.49E-06 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 1.17E-04 | 0 | 1.103916 | 0.00E+00 | 1.13E-04 | 3.83E-04 | 7.60E-06 | 9.87E-05 | 6.99E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2017 | Annual | LDA | 0 | 0.001287503 | 0.041775318 | 445.5945 | 0 | 6.70E-05 | 1.17E-03 | 1.08E-04 | 5.64E-06 | 9.87E-05 | 5.23E-06 | 3.91E-05 | 8.47E-06 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 1.19E-04 | 0 | 1.12539 | 0.00E+00 | 1.05E-04 | 3.57E-04 | 7.10E-06 | 9.87E-05 | 6.53E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2017 | Annual | LDA | 0 | 0.001309002 | 0.046333948 | 494.2189 | 0 | 5.89E-05 | 1.08E-03 | 9.90E-05 | 6.37E-06 | 9.87E-05 | 5.91E-06 | 3.91E-05 | 8.45E-06 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 1.16E-04 | 0 | 1.090113 | 0.00E+00 | 9.56E-05 | 3.30E-04 | 6.56E-06 | 9.87E-05 | 6.03E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2017 | Annual | LDA | 0 | 0.001323484 | 0.053555165 | 571.2437 | 0 | 4.97E-05 | 9.93E-04 | 8.96E-05 | 6.72E-06 | 9.87E-05 | 6.24E-06 | 3.91E-05 | 8.42E-06 |
| Los Angele | 2017 | Annual | LDA | 0 | 0 | 1.30E-04 | 0 | 1.22155 | 9.23E-06 | 8.55E-05 | 3.00E-04 | 5.97E-06 | 9.87E-05 | 5.49E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 6.23E-05 | 0.001639368 | 17.48624 | 0 | 2.24E-04 | 2.21E-03 | 1.51E-04 | 7.10E-07 | 9.87E-05 | 6.59E-07 | 3.91E-05 | 9.92E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2017 | Annual | LDT1 | 0 | 1.28E-04 | 0.003418967 | 36.46825 | 0 | 1.91E-04 | 1.96E-03 | 1.45E-04 | 7.31E-07 | 9.87E-05 | 6.79E-07 | 3.91E-05 | 9.90E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2017 | Annual | LDT1 | 0 | 1.14E-04 | 0.00310902 | 33.16222 | 0 | 1.65E-04 | 1.89E-03 | 1.48E-04 | 9.98E-07 | 9.87E-05 | 9.26E-07 | 3.91E-05 | 9.91E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2017 | Annual | LDT1 | 0 | 1.25E-04 | 0.003464843 | 36.95759 | 0 | 1.38E-04 | 1.79E-03 | 1.52E-04 | 1.03E-06 | 9.87E-05 | 9.55E-07 | 3.91E-05 | 9.90E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 3.83E-06 | 0 | 0.036078691 | 1.83E-05 | 1.71E-04 | 5.70E-04 | 9.42E-06 | 9.87E-05 | 8.67E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 1.17E-04 | 0.0033423 | 35.65047 | 0 | 1.08E-04 | 1.71E-03 | 1.46E-04 | 1.60E-06 | 9.87E-05 | 1.49E-06 | 3.91E-05 | 9.89E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 5.48E-06 | 0 | 0.051653489 | 1.74E-05 | 1.62E-04 | 5.45E-04 | 9.01E-06 | 9.87E-05 | 8.29E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 1.13E-04 | 0.003308457 | 35.2895 | 0 | 9.29E-05 | 1.58E-03 | 1.35E-04 | 2.15E-06 | 9.87E-05 | 1.99E-06 | 3.91E-05 | 9.88E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 4.02E-06 | 0 | 0.037886549 | 1.65E-05 | 1.53E-04 | 5.18E-04 | 8.56E-06 | 9.87E-05 | 7.88E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 1.14E-04 | 0.003463928 | 36.94783 | 0 | 7.96E-05 | 1.38E-03 | 1.27E-04 | 3.37E-06 | 9.87E-05 | 3.12E-06 | 3.91E-05 | 9.87E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 5.47E-06 | 0 | 0.051542908 | 1.55E-05 | 1.44E-04 | 4.89E-04 | 8.10E-06 | 9.87E-05 | 7.45E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 1.15E-04 | 0.003619251 | 38.60458 | 0 | 6.94E-05 | 1.25E-03 | 1.16E-04 | 4.51E-06 | 9.87E-05 | 4.18E-06 | 3.91E-05 | 9.86E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 5.24E-06 | 0 | 0.049378611 | 1.45E-05 | 1.34E-04 | 4.59E-04 | 7.61E-06 | 9.87E-05 | 7.00E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 1.20E-04 | 0.003974076 | 42.38928 | 0 | 6.17E-05 | 1.16E-03 | 1.07E-04 | 5.61E-06 | 9.87E-05 | 5.20E-06 | 3.91E-05 | 9.84E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 5.50E-06 | 0 | 0.051877625 | 1.34E-05 | 1.23E-04 | 4.28E-04 | 7.08E-06 | 9.87E-05 | 6.52E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 1.21E-04 | 0.004282579 | 45.67994 | 0 | 5.42E-05 | 1.07E-03 | 9.86E-05 | 6.37E-06 | 9.87E-05 | 5.91E-06 | 3.91E-05 | 9.82E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 7.21E-06 | 0 | 0.067963697 | 1.22E-05 | 1.12E-04 | 3.94E-04 | 6.53E-06 | 9.87E-05 | 6.01E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 1.22E-04 | 0.004767239 | 50.84953 | 0 | 4.61E-05 | 9.94E-04 | 8.94E-05 | 6.77E-06 | 9.87E-05 | 6.28E-06 | 3.91E-05 | 9.80E-06 |
| Los Angele | 2017 | Annual | LDT1 | 0 | 0 | 5.36E-06 | 0 | 0.050518107 | 1.09E-05 | 1.00E-04 | 3.58E-04 | 5.94E-06 | 9.87E-05 | 5.47E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2017 | Annual | T6 instate heavy | 4.25E-06 | 0 | 3.79E-04 | 0 | 3.570613447 | 4.61E-04 | 1.98E-03 | 1.07E-02 | 1.32E-04 | 3.14E-04 | 1.21E-04 | 1.30E-04 | 2.48E-05 |
| Los Angele | 2017 | Annual | T6 instate heavy | 4.03E-06 | 0 | 3.55E-04 | 0 | 3.346487776 | 4.41E-04 | 1.90E-03 | 9.81E-03 | 1.26E-04 | 3.14E-04 | 1.16E-04 | 1.30E-04 | 2.48E-05 |
| Los Angele | 2017 | Annual | T6 instate heavy | 1.51E-06 | 0 | 1.52E-04 | 0 | 1.432642419 | 4.19E-04 | 1.80E-03 | 8.52E-03 | 1.20E-04 | 3.14E-04 | 1.11E-04 | 1.30E-04 | 2.47E-05 |
| Los Angele | 2017 | Annual | T6 instate heavy | 7.43E-06 | 0 | 4.77E-04 | 0 | 4.504178348 | 2.57E-04 | 1.15E-03 | 3.59E-03 | 1.14E-04 | 3.14E-04 | 1.05E-04 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2017 | Annual | T6 instate heavy | 4.43E-06 | 0 | 3.97E-04 | 0 | 3.744640784 | 2.42E-04 | 1.07E-03 | 3.10E-03 | 1.07E-04 | 3.14E-04 | 9.85E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2017 | Annual | T6 instate heavy | 3.45E-06 | 0 | 3.99E-04 | 0 | 3.76042042 | 2.27E-04 | 9.92E-04 | 2.53E-03 | 9.98E-05 | 3.14E-04 | 9.18E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2017 | Annual | T6 instate heavy | 3.62E-06 | 0 | 4.37E-04 | 0 | 4.125728719 | 1.88E-04 | 8.25E-04 | 2.07E-03 | 7.85E-05 | 3.14E-04 | 7.22E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2017 | Annual | T6 instate heavy | 3.99E-06 | 0 | 5.00E-04 | 0 | 4.716429865 | 1.78E-04 | 7.84E-04 | 1.90E-03 | 7.31E-05 | 3.14E-04 | 6.73E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2017 | Annual | T6 instate heavy | 4.44E-06 | 0 | 5.66E-04 | 0 | 5.337238529 | 1.69E-04 | 7.43E-04 | 1.72E-03 | 6.75E-05 | 3.14E-04 | 6.21E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2017 | Annual | T6 instate heavy | 4.95E-06 | 0 | 6.28E-04 | 0 | 5.92835746 | 1.59E-04 | 7.03E-04 | 1.54E-03 | 6.18E-05 | 3.14E-04 | 5.69E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2017 | Annual | T6 instate heavy | 4.62E-06 | 0 | 5.87E-04 | 0 | 5.534953395 | 1.49E-04 | 6.63E-04 | 1.37E-03 | 5.62E-05 | 3.14E-04 | 5.17E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2017 | Annual | T6 instate heavy | 1.16E-06 | 0 | 6.20E-05 | 0 | 0.584530729 | 1.47E-04 | 7.14E-04 | 1.33E-03 | 5.08E-05 | 3.14E-04 | 4.68E-05 | 1.30E-04 | 2.41E-05 |
| Los Angele | 2017 | Annual | LDA/LDT1 | 0 | 0.014530221 | 0.427869907 | 4551.76843 | 10.68178144 | 1.00E-04 | 1.46E-03 | 1.25E-04 | 3.64E-06 | 9.87E-05 | 3.38E-06 | 3.91E-05 | 8.60E-06 |
| Los Angele | 2017 | Annual | T6 instate heavy | 4.78596E-05 | 0 | 0.004938382 | 0 | 46.58622189 | 2.35E-04 | 1.03E-03 | 3.49E-03 | 8.75E-05 | 3.14E-04 | 8.05E-05 | 1.30E-04 | 2.40E-05 |

| | | | | |
|---|---|---|---|---|
| Los Angele | 2017 | Annual | LDA | 4.05E-04 |
| Los Angele | 2017 | Annual | LDA | 3.32E-04 |
| Los Angele | 2017 | Annual | LDA | 3.91E-04 |
| Los Angele | 2017 | Annual | LDA | 3.21E-04 |
| Los Angele | 2017 | Annual | LDA | 3.46E-04 |
| Los Angele | 2017 | Annual | LDA | 2.85E-04 |
| Los Angele | 2017 | Annual | LDA | 3.02E-04 |
| Los Angele | 2017 | Annual | LDA | 2.48E-04 |
| Los Angele | 2017 | Annual | LDA | 2.94E-04 |
| Los Angele | 2017 | Annual | LDA | 2.42E-04 |
| Los Angele | 2017 | Annual | LDA | 2.87E-04 |
| Los Angele | 2017 | Annual | LDA | 0.00E+00 |
| Los Angele | 2017 | Annual | LDA | 2.75E-04 |
| Los Angele | 2017 | Annual | LDA | 0.00E+00 |
| Los Angele | 2017 | Annual | LDA | 2.64E-04 |
| Los Angele | 2017 | Annual | LDA | 0.00E+00 |
| Los Angele | 2017 | Annual | LDA | 2.63E-04 |
| Los Angele | 2017 | Annual | LDA | 2.18E-04 |
| Los Angele | 2017 | Annual | LDT1 | 4.70E-04 |
| Los Angele | 2017 | Annual | LDT1 | |
| Los Angele | 2017 | Annual | LDT1 | 4.70E-04 |
| Los Angele | 2017 | Annual | LDT1 | |
| Los Angele | 2017 | Annual | LDT1 | 4.70E-04 |
| Los Angele | 2017 | Annual | LDT1 | |
| Los Angele | 2017 | Annual | LDT1 | 4.53E-04 |
| Los Angele | 2017 | Annual | LDT1 | 3.21E-04 |
| Los Angele | 2017 | Annual | LDT1 | 4.02E-04 |
| Los Angele | 2017 | Annual | LDT1 | 2.85E-04 |
| Los Angele | 2017 | Annual | LDT1 | 3.50E-04 |
| Los Angele | 2017 | Annual | LDT1 | 2.48E-04 |
| Los Angele | 2017 | Annual | LDT1 | 3.41E-04 |
| Los Angele | 2017 | Annual | LDT1 | 2.42E-04 |
| Los Angele | 2017 | Annual | LDT1 | 3.33E-04 |
| Los Angele | 2017 | Annual | LDT1 | 2.37E-04 |
| Los Angele | 2017 | Annual | LDT1 | 3.19E-04 |
| Los Angele | 2017 | Annual | LDT1 | 2.27E-04 |
| Los Angele | 2017 | Annual | LDT1 | 3.07E-04 |
| Los Angele | 2017 | Annual | LDT1 | 2.18E-04 |
| Los Angele | 2017 | Annual | LDT1 | 3.06E-04 |
| Los Angele | 2017 | Annual | LDT1 | 2.18E-04 |
| Los Angele | 2017 | Annual | T6 instate heavy | 1.23E-03 |
| Los Angele | 2017 | Annual | T6 instate heavy | 1.23E-03 |
| Los Angele | 2017 | Annual | T6 instate heavy | 1.23E-03 |
| Los Angele | 2017 | Annual | T6 instate heavy | 1.20E-03 |
| Los Angele | 2017 | Annual | T6 instate heavy | 1.19E-03 |
| Los Angele | 2017 | Annual | T6 instate heavy | 1.19E-03 |
| Los Angele | 2017 | Annual | T6 instate heavy | 1.19E-03 |
| Los Angele | 2017 | Annual | T6 instate heavy | 1.19E-03 |
| Los Angele | 2017 | Annual | T6 instate heavy | 1.18E-03 |
| Los Angele | 2017 | Annual | T6 instate heavy | 1.18E-03 |
| Los Angele | 2017 | Annual | T6 instate heavy | 1.18E-03 |
| Los Angele | 2017 | Annual | T6 instate heavy | 1.20E-03 |
| Los Angele | 2017 | Annual | LDA/LDT1 | 3.21E-04 |
| Los Angele | 2017 | Annual | T6 instate heavy | 1.20E-03 |

2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | LDA | GAS | 2007 | AllSpeeds | 188971.3 | 5253109.497 | 1182842 | 0.071010863 | 0 | 0.074762635 | 0.145773498 |
| Los Angele | 2018 | Annual | LDA | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDA | GAS | 2008 | AllSpeeds | 195960.2 | 5614012.865 | 1236386 | 0.070100561 | 0 | 0.069404714 | 0.139505275 |
| Los Angele | 2018 | Annual | LDA | DSL | 2008 | AllSpeeds | 21.41174 | 613.4248616 | 135.0945 | 5.26E-06 | 0 | 0 | 5.26E-06 |
| Los Angele | 2018 | Annual | LDA | GAS | 2009 | AllSpeeds | 170594.6 | 5046660.7 | 1083167 | 0.063620148 | 0 | 0.061159618 | 0.124779766 |
| Los Angele | 2018 | Annual | LDA | DSL | 2009 | AllSpeeds | 706.7727 | 20908.32187 | 4487.558 | 1.73E-04 | 0 | 0 | 1.73E-04 |
| Los Angele | 2018 | Annual | LDA | GAS | 2010 | AllSpeeds | 217647.2 | 6663178.925 | 1390627 | 0.083407315 | 0 | 0.077237889 | 0.160645204 |
| Los Angele | 2018 | Annual | LDA | DSL | 2010 | AllSpeeds | 1271.528 | 38927.35531 | 8124.251 | 3.10E-04 | 0 | 0 | 3.10E-04 |
| Los Angele | 2018 | Annual | LDA | GAS | 2011 | AllSpeeds | 218163.9 | 6931148.681 | 1400472 | 0.084430942 | 0 | 0.075734407 | 0.160165349 |
| Los Angele | 2018 | Annual | LDA | DSL | 2011 | AllSpeeds | 1217.972 | 38695.48323 | 7818.599 | 2.96E-04 | 0 | 0 | 2.96E-04 |
| Los Angele | 2018 | Annual | LDA | GAS | 2012 | AllSpeeds | 228290.1 | 7550261.367 | 1470042 | 0.089223456 | 0 | 0.077155232 | 0.166378688 |
| Los Angele | 2018 | Annual | LDA | DSL | 2012 | AllSpeeds | 1117.107 | 36946.24106 | 7193.447 | 2.69E-04 | 0 | 0 | 2.69E-04 |
| Los Angele | 2018 | Annual | LDA | GAS | 2013 | AllSpeeds | 228974.6 | 7918709.01 | 1481318 | 0.088723261 | 0 | 0.074264698 | 0.162987959 |
| Los Angele | 2018 | Annual | LDA | DSL | 2013 | AllSpeeds | 1037.128 | 35867.42576 | 6709.547 | 2.48E-04 | 0 | 0 | 2.48E-04 |
| Los Angele | 2018 | Annual | LDA | GAS | 2014 | AllSpeeds | 232359.3 | 8450312.569 | 1507861 | 0.085039035 | 0 | 0.069673523 | 0.154712558 |
| Los Angele | 2018 | Annual | LDA | DSL | 2014 | AllSpeeds | 909.1592 | 33063.85715 | 5899.854 | 2.15E-04 | 0 | 0 | 2.15E-04 |
| Los Angele | 2018 | Annual | LDA | GAS | 2015 | AllSpeeds | 236455.9 | 9115187.293 | 1536809 | 0.085533426 | 0 | 0.066618808 | 0.152152234 |
| Los Angele | 2018 | Annual | LDA | DSL | 2015 | AllSpeeds | 857.937 | 33072.87389 | 5576.033 | 2.01E-04 | 0 | 0 | 2.01E-04 |
| Los Angele | 2018 | Annual | LDA | GAS | 2016 | AllSpeeds | 237494.1 | 9823971.358 | 1548307 | 0.087308303 | 0 | 0.06322065 | 0.150528953 |
| Los Angele | 2018 | Annual | LDA | DSL | 2016 | AllSpeeds | 763.4277 | 31579.36055 | 4977.051 | 1.78E-04 | 0 | 0 | 1.78E-04 |
| Los Angele | 2018 | Annual | LDA | GAS | 2017 | AllSpeeds | 244079.2 | 1.11E+07 | 1596119 | 0.092249195 | 0 | 0.0605537 | 0.152802895 |
| Los Angele | 2018 | Annual | LDA | DSL | 2017 | AllSpeeds | 744.0703 | 33731.68023 | 4865.734 | 1.74E-04 | 0 | 0 | 1.74E-04 |
| Los Angele | 2018 | Annual | LDA | GAS | 2018 | AllSpeeds | 244485.3 | 1.27E+07 | 1603663 | 0.096985443 | 0 | 0.054706968 | 0.151692411 |
| Los Angele | 2018 | Annual | LDA | DSL | 2018 | AllSpeeds | 688.707 | 35896.48375 | 4517.466 | 1.66E-04 | 0 | 0 | 1.66E-04 |
| Los Angele | 2018 | Annual | LDT1 | GAS | 2007 | AllSpeeds | 9736.122 | 310638.3146 | 60942.04 | 0.0043025 | 0 | 0.003936316 | 0.008238816 |
| Los Angele | 2018 | Annual | LDT1 | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDT1 | GAS | 2008 | AllSpeeds | 20045.01 | 652374.1292 | 126471.4 | 0.008309034 | 0 | 0.007221392 | 0.015530427 |
| Los Angele | 2018 | Annual | LDT1 | DSL | 2008 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDT1 | GAS | 2009 | AllSpeeds | 17876.36 | 594421.7934 | 113503.5 | 0.007572104 | 0 | 0.006447093 | 0.014019197 |
| Los Angele | 2018 | Annual | LDT1 | DSL | 2009 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDT1 | GAS | 2010 | AllSpeeds | 19549.09 | 665310.3861 | 124906.2 | 0.008448289 | 0 | 0.007026526 | 0.015474815 |
| Los Angele | 2018 | Annual | LDT1 | DSL | 2010 | AllSpeeds | 31.35796 | 1067.202432 | 200.3573 | 1.02E-05 | 0 | 0 | 1.02E-05 |
| Los Angele | 2018 | Annual | LDT1 | GAS | 2011 | AllSpeeds | 18455.1 | 644195.9544 | 118469.9 | 0.007944195 | 0 | 0.006475439 | 0.014419634 |
| Los Angele | 2018 | Annual | LDT1 | DSL | 2011 | AllSpeeds | 44.73902 | 1561.671088 | 287.1958 | 1.43E-05 | 0 | 0 | 1.43E-05 |
| Los Angele | 2018 | Annual | LDT1 | GAS | 2012 | AllSpeeds | 17737.64 | 636635.6485 | 114219 | 0.007594313 | 0 | 0.006043039 | 0.013637352 |
| Los Angele | 2018 | Annual | LDT1 | DSL | 2012 | AllSpeeds | 32.31297 | 1159.774651 | 208.0747 | 1.01E-05 | 0 | 0 | 1.01E-05 |
| Los Angele | 2018 | Annual | LDT1 | GAS | 2013 | AllSpeeds | 17981.88 | 665925.5799 | 116331.1 | 0.007508308 | 0 | 0.005862395 | 0.013370703 |
| Los Angele | 2018 | Annual | LDT1 | DSL | 2013 | AllSpeeds | 41.39669 | 1533.05576 | 267.8098 | 1.26E-05 | 0 | 0 | 1.26E-05 |
| Los Angele | 2018 | Annual | LDT1 | GAS | 2014 | AllSpeeds | 18052.82 | 692850.96 | 117151.1 | 0.006970128 | 0 | 0.005413476 | 0.012383604 |
| Los Angele | 2018 | Annual | LDT1 | DSL | 2014 | AllSpeeds | 39.16486 | 1503.118718 | 254.1545 | 1.16E-05 | 0 | 0 | 1.16E-05 |
| Los Angele | 2018 | Annual | LDT1 | GAS | 2015 | AllSpeeds | 18876.02 | 755563.518 | 122681.9 | 0.007072169 | 0 | 0.005306954 | 0.012379123 |
| Los Angele | 2018 | Annual | LDT1 | DSL | 2015 | AllSpeeds | 39.06543 | 1563.706577 | 253.8999 | 1.13E-05 | 0 | 0 | 1.13E-05 |
| Los Angele | 2018 | Annual | LDT1 | GAS | 2016 | AllSpeeds | 18902.67 | 796945.6632 | 123233.1 | 0.007057078 | 0 | 0.005014803 | 0.012071881 |
| Los Angele | 2018 | Annual | LDT1 | DSL | 2016 | AllSpeeds | 47.77551 | 2014.248902 | 311.4652 | 1.35E-05 | 0 | 0 | 1.35E-05 |
| Los Angele | 2018 | Annual | LDT1 | GAS | 2017 | AllSpeeds | 19351.97 | 874006.6403 | 126549.2 | 0.007251995 | 0 | 0.004778161 | 0.012030156 |
| Los Angele | 2018 | Annual | LDT1 | DSL | 2017 | AllSpeeds | 31.89508 | 1440.50792 | 208.573 | 8.78E-06 | 0 | 0 | 8.78E-06 |
| Los Angele | 2018 | Annual | LDT1 | GAS | 2018 | AllSpeeds | 19132.59 | 962088.0295 | 125497.2 | 0.007279848 | 0 | 0.00425549 | 0.011535338 |
| Los Angele | 2018 | Annual | LDT1 | DSL | 2018 | AllSpeeds | 33.24561 | 1671.775312 | 218.0694 | 9.15E-06 | 0 | 0 | 9.15E-06 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2007 | AllSpeeds | 506.8503728 | 26889.32208 | 0 | 0.006347998 | 1.17E-04 | 0 | 0.006465276 |

2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | LDA | 0.028243029 | 0.1053573 | 0.2777609 | 0.033734974 | 0.590869701 | 0.132160207 | 0 | 0.079823442 | 0.211983649 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDA | 0.025273334 | 0.09235274 | 0.2679247 | 0.029611172 | 0.554667221 | 0.130466015 | 0 | 0.074102812 | 0.204568827 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 5.26E-06 | 5.99E-06 | 0 | 0 | 5.99E-06 |
| Los Angele | 2018 | Annual | LDA | 0.018607795 | 0.065832049 | 0.2157498 | 0.021248268 | 0.446217678 | 0.118405141 | 0 | 0.065299608 | 0.183704749 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 1.73E-04 | 1.97E-04 | 0 | 0 | 1.97E-04 |
| Los Angele | 2018 | Annual | LDA | 0.019818004 | 0.067006648 | 0.2536105 | 0.021885766 | 0.522966122 | 0.155231574 | 0 | 0.082466245 | 0.237697819 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 3.10E-04 | 3.53E-04 | 0 | 0 | 3.53E-04 |
| Los Angele | 2018 | Annual | LDA | 0.016152024 | 0.050942563 | 0.2272653 | 0.017091081 | 0.471616317 | 0.157136675 | 0 | 0.080860995 | 0.23799767 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 2.96E-04 | 3.37E-04 | 0 | 0 | 3.37E-04 |
| Los Angele | 2018 | Annual | LDA | 0.013045394 | 0.03657575 | 0.1956868 | 0.013085766 | 0.424772398 | 0.166056143 | 0 | 0.082377978 | 0.248434121 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 2.69E-04 | 3.07E-04 | 0 | 0 | 3.07E-04 |
| Los Angele | 2018 | Annual | LDA | 0.010836174 | 0.026678938 | 0.1804356 | 0.010076465 | 0.391015136 | 0.165125217 | 0 | 0.079291806 | 0.244417023 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 2.48E-04 | 2.82E-04 | 0 | 0 | 2.82E-04 |
| Los Angele | 2018 | Annual | LDA | 0.009397251 | 0.019853678 | 0.1701393 | 0.008057274 | 0.36216006 | 0.158268405 | 0 | 0.074389838 | 0.232658243 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 2.15E-04 | 2.45E-04 | 0 | 0 | 2.45E-04 |
| Los Angele | 2018 | Annual | LDA | 0.00830208 | 0.014701398 | 0.1619088 | 0.006542518 | 0.34360703 | 0.159188526 | 0 | 0.071128339 | 0.230316865 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 2.01E-04 | 2.29E-04 | 0 | 0 | 2.29E-04 |
| Los Angele | 2018 | Annual | LDA | 0.007602976 | 0.011401272 | 0.1540777 | 0.00557421 | 0.32918511 | 0.162491805 | 0 | 0.067500152 | 0.229991957 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 1.78E-04 | 2.02E-04 | 0 | 0 | 2.02E-04 |
| Los Angele | 2018 | Annual | LDA | 0.007307047 | 0.009384989 | 0.1512131 | 0.005041878 | 0.325749909 | 0.171687428 | 0 | 0.064652666 | 0.236340094 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 1.74E-04 | 1.98E-04 | 0 | 0 | 1.98E-04 |
| Los Angele | 2018 | Annual | LDA | 0.006885804 | 0.007676743 | 0.1451754 | 0.004517772 | 0.315948131 | 0.18050219 | 0 | 0.058410179 | 0.238912369 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 1.66E-04 | 1.89E-04 | 0 | 0 | 1.89E-04 |
| Los Angele | 2018 | Annual | LDT1 | 0.001894296 | 0.005507676 | 0.02054478 | 0.002262646 | 0.038448214 | 0.008007496 | 0 | 0.004202773 | 0.012210269 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDT1 | 0.00336203 | 0.009597243 | 0.037298985 | 0.00393908 | 0.069727764 | 0.015464164 | 0 | 0.007710221 | 0.023174385 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDT1 | 0.002535555 | 0.00702981 | 0.028933959 | 0.002895357 | 0.055413878 | 0.014092644 | 0 | 0.006883507 | 0.020976151 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDT1 | 0.002313426 | 0.006156229 | 0.027344847 | 0.002554805 | 0.053844122 | 0.015723336 | 0 | 0.007502162 | 0.023225498 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.02E-05 | 1.16E-05 | 0 | 0 | 1.16E-05 |
| Los Angele | 2018 | Annual | LDT1 | 0.001775558 | 0.004432006 | 0.021178249 | 0.001878786 | 0.043684233 | 0.014785154 | 0 | 0.006913772 | 0.021698926 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.43E-05 | 1.63E-05 | 0 | 0 | 1.63E-05 |
| Los Angele | 2018 | Annual | LDT1 | 0.001317131 | 0.002941907 | 0.014804063 | 0.001321207 | 0.03402166 | 0.014133978 | 0 | 0.006452103 | 0.02058608 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.01E-05 | 1.15E-05 | 0 | 0 | 1.15E-05 |
| Los Angele | 2018 | Annual | LDT1 | 0.001105728 | 0.002197237 | 0.013225976 | 0.001028206 | 0.030927849 | 0.013973912 | 0 | 0.00625923 | 0.020233143 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.26E-05 | 1.44E-05 | 0 | 0 | 1.44E-05 |
| Los Angele | 2018 | Annual | LDT1 | 9.49E-04 | 0.00164562 | 0.011775794 | 8.13E-04 | 0.027567067 | 0.01297229 | 0 | 0.005779924 | 0.018752214 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.16E-05 | 1.33E-05 | 0 | 0 | 1.33E-05 |
| Los Angele | 2018 | Annual | LDT1 | 8.61E-04 | 0.001280516 | 0.011091232 | 6.79E-04 | 0.02629052 | 0.013162202 | 0 | 0.005666191 | 0.018828393 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.13E-05 | 1.29E-05 | 0 | 0 | 1.29E-05 |
| Los Angele | 2018 | Annual | LDT1 | 7.86E-04 | 0.001015036 | 0.010147405 | 5.76E-04 | 0.024597005 | 0.013134116 | 0 | 0.005354263 | 0.018488379 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.35E-05 | 1.53E-05 | 0 | 0 | 1.53E-05 |
| Los Angele | 2018 | Annual | LDT1 | 7.53E-04 | 8.55E-04 | 0.009527287 | 5.19E-04 | 0.023684333 | 0.013496882 | 0 | 0.005101603 | 0.018598485 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.78E-06 | 1.00E-05 | 0 | 0 | 1.00E-05 |
| Los Angele | 2018 | Annual | LDT1 | 7.00E-04 | 7.09E-04 | 0.008993487 | 4.59E-04 | 0.022397499 | 0.013548718 | 0 | 0.004543553 | 0.018092271 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.15E-06 | 1.04E-05 | 0 | 0 | 1.04E-05 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.006465276 | 0.007226713 | 1.34E-04 | 0 | 0.007360224 |

2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | LDA | 0.028243029 | 0.1053573 | 0.2777609 | 0.033734974 | 0.657079852 | 4.49709218 | 0 | 1.441801 | 5.93889318 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDA | 0.025273334 | 0.09235274 | 0.2679247 | 0.029611172 | 0.619730773 | 4.359309293 | 0 | 1.327114 | 5.686423293 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 5.99E-06 | 4.94E-05 | 0 | 0 | 4.94E-05 |
| Los Angele | 2018 | Annual | LDA | 0.018607795 | 0.065832049 | 0.2157498 | 0.021248268 | 0.505142661 | 3.832268219 | 0 | 1.123851 | 4.956119219 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 1.97E-04 | 0.001625303 | 0 | 0 | 0.001625303 |
| Los Angele | 2018 | Annual | LDA | 0.019818004 | 0.067006648 | 0.2536105 | 0.021885766 | 0.600018737 | 4.860648129 | 0 | 1.363387 | 6.224035129 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 3.53E-04 | 0.00291097 | 0 | 0 | 0.00291097 |
| Los Angele | 2018 | Annual | LDA | 0.016152024 | 0.050942563 | 0.2272653 | 0.017091081 | 0.549448638 | 4.917954907 | 0 | 1.327426 | 6.245380907 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 3.37E-04 | 0.00277224 | 0 | 0 | 0.00277224 |
| Los Angele | 2018 | Annual | LDA | 0.013045394 | 0.03657575 | 0.1956868 | 0.013085766 | 0.506827831 | 5.155603498 | 0 | 1.330645 | 6.486248498 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 3.07E-04 | 0.0025239 | 0 | 0 | 0.0025239 |
| Los Angele | 2018 | Annual | LDA | 0.010836174 | 0.026678938 | 0.1804356 | 0.010076465 | 0.4724442 | 5.064011751 | 0 | 1.239933 | 6.303944751 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 2.82E-04 | 0.002318034 | 0 | 0 | 0.002318034 |
| Los Angele | 2018 | Annual | LDA | 0.009397251 | 0.019853678 | 0.1701393 | 0.008057274 | 0.440105746 | 4.815564347 | 0 | 1.094861 | 5.910425347 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 2.45E-04 | 0.002009443 | 0 | 0 | 0.002009443 |
| Los Angele | 2018 | Annual | LDA | 0.00830208 | 0.014701398 | 0.1619088 | 0.006542518 | 0.421771661 | 4.764826212 | 0 | 1.002413 | 5.767239212 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 2.29E-04 | 0.001875981 | 0 | 0 | 0.001875981 |
| Los Angele | 2018 | Annual | LDA | 0.007602976 | 0.011401272 | 0.1540777 | 0.00557421 | 0.408648115 | 4.797743701 | 0 | 0.9305528 | 5.728296501 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 2.02E-04 | 0.001655629 | 0 | 0 | 0.001655629 |
| Los Angele | 2018 | Annual | LDA | 0.007307047 | 0.009384989 | 0.1512131 | 0.005041878 | 0.409287107 | 5.069189676 | 0 | 0.8916906 | 5.960880276 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 1.98E-04 | 0.001613007 | 0 | 0 | 0.001613007 |
| Los Angele | 2018 | Annual | LDA | 0.006885804 | 0.007676743 | 0.1451754 | 0.004517772 | 0.403168089 | 5.487835641 | 0 | 0.8402358 | 6.328071441 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 1.89E-04 | 0.001533983 | 0 | 0 | 0.001533983 |
| Los Angele | 2018 | Annual | LDT1 | 0.001894296 | 0.005507676 | 0.02054478 | 0.002262646 | 0.042419667 | 0.273713641 | 0 | 0.076830767 | 0.350544408 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDT1 | 0.00336203 | 0.009597243 | 0.037298985 | 0.00393908 | 0.077371722 | 0.518584895 | 0 | 0.1396119 | 0.658196795 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDT1 | 0.002535555 | 0.00702981 | 0.028933959 | 0.002895357 | 0.062370832 | 0.458135768 | 0 | 0.1199447 | 0.578080468 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDT1 | 0.002313426 | 0.006156229 | 0.027344847 | 0.002554805 | 0.061594805 | 0.493596956 | 0 | 0.1250998 | 0.618696756 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.16E-05 | 9.52E-05 | 0 | 0 | 9.52E-05 |
| Los Angele | 2018 | Annual | LDT1 | 0.001775558 | 0.004432006 | 0.021178249 | 0.001878786 | 0.050963525 | 0.463053732 | 0 | 0.1142041 | 0.577257832 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.63E-05 | 1.33E-04 | 0 | 0 | 1.33E-04 |
| Los Angele | 2018 | Annual | LDT1 | 0.001317131 | 0.002941907 | 0.014804063 | 0.001321207 | 0.040970389 | 0.438908915 | 0 | 0.1047504 | 0.543659315 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.15E-05 | 9.41E-05 | 0 | 0 | 9.41E-05 |
| Los Angele | 2018 | Annual | LDT1 | 0.001105728 | 0.002197237 | 0.013225976 | 0.001028206 | 0.037790289 | 0.428381828 | 0 | 0.098240256 | 0.526622084 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.44E-05 | 1.17E-04 | 0 | 0 | 1.17E-04 |
| Los Angele | 2018 | Annual | LDT1 | 9.49E-04 | 0.00164562 | 0.011775794 | 8.13E-04 | 0.033935677 | 0.394531147 | 0 | 0.085114121 | 0.479645268 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.33E-05 | 1.08E-04 | 0 | 0 | 1.08E-04 |
| Los Angele | 2018 | Annual | LDT1 | 8.61E-04 | 0.001280516 | 0.011091232 | 6.79E-04 | 0.03273979 | 0.393628498 | 0 | 0.079814114 | 0.473442612 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.29E-05 | 1.05E-04 | 0 | 0 | 1.05E-04 |
| Los Angele | 2018 | Annual | LDT1 | 7.86E-04 | 0.001015036 | 0.010147405 | 5.76E-04 | 0.031013503 | 0.387473866 | 0 | 0.073786564 | 0.46126043 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.53E-05 | 1.24E-04 | 0 | 0 | 1.24E-04 |
| Los Angele | 2018 | Annual | LDT1 | 7.53E-04 | 8.55E-04 | 0.009527287 | 5.19E-04 | 0.030252661 | 0.398498584 | 0 | 0.070426501 | 0.468925085 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.00E-05 | 8.07E-05 | 0 | 0 | 8.07E-05 |
| Los Angele | 2018 | Annual | LDT1 | 7.00E-04 | 7.09E-04 | 0.008993487 | 4.59E-04 | 0.028954432 | 0.412667904 | 0 | 0.065577284 | 0.478245188 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.04E-05 | 8.37E-05 | 0 | 0 | 8.37E-05 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.007360224 | 0.026416283 | 0.001386811 | 0 | 0.027803094 |

2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | LDA | 0.331907657 | 0 | 0.069422826 | 0.401330483 | 2148.246332 | 0 | 96.70729 | 2244.953622 | 2008.61032 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDA | 0.343624475 | 0 | 0.069302768 | 0.412927243 | 2296.139748 | 0 | 101.0983 | 2397.238048 | 2146.890664 |
| Los Angele | 2018 | Annual | LDA | 1.61E-04 | 0 | 0 | 1.61E-04 | 0.21468343 | 0 | 0 | 0.21468343 | 0.200729007 |
| Los Angele | 2018 | Annual | LDA | 0.321023379 | 0 | 0.064081594 | 0.385104973 | 2067.791248 | 0 | 88.72925 | 2156.520498 | 1933.384817 |
| Los Angele | 2018 | Annual | LDA | 0.00530217 | 0 | 0 | 0.00530217 | 7.317390454 | 0 | 0 | 7.317390454 | 6.841760075 |
| Los Angele | 2018 | Annual | LDA | 0.434014693 | 0 | 0.084974065 | 0.518988758 | 2729.966105 | 0 | 113.9081 | 2843.874205 | 2463.180167 |
| Los Angele | 2018 | Annual | LDA | 0.009531423 | 0 | 0 | 0.009531423 | 13.62360561 | 0 | 0 | 13.62360561 | 12.29223875 |
| Los Angele | 2018 | Annual | LDA | 0.444388349 | 0 | 0.083510555 | 0.527898904 | 2840.658626 | 0 | 114.7153 | 2955.373926 | 2273.549538 |
| Los Angele | 2018 | Annual | LDA | 0.00911564 | 0 | 0 | 0.00911564 | 13.54245641 | 0 | 0 | 13.54245641 | 10.83884041 |
| Los Angele | 2018 | Annual | LDA | 0.469125112 | 0 | 0.083763883 | 0.552888995 | 3095.215342 | 0 | 120.4081 | 3215.623442 | 2161.83768 |
| Los Angele | 2018 | Annual | LDA | 0.008339736 | 0 | 0 | 0.008339736 | 12.93026449 | 0 | 0 | 12.93026449 | 9.031078584 |
| Los Angele | 2018 | Annual | LDA | 0.461317984 | 0 | 0.077206425 | 0.538524409 | 3247.157746 | 0 | 121.3273 | 3368.485046 | 2210.275335 |
| Los Angele | 2018 | Annual | LDA | 0.007705332 | 0 | 0 | 0.007705332 | 12.55270612 | 0 | 0 | 12.55270612 | 8.544376002 |
| Los Angele | 2018 | Annual | LDA | 0.46728064 | 0 | 0.072452895 | 0.539733535 | 3466.07201 | 0 | 123.4958 | 3589.56781 | 2307.433458 |
| Los Angele | 2018 | Annual | LDA | 0.00672626 | 0 | 0 | 0.00672626 | 11.57152573 | 0 | 0 | 11.57152573 | 7.70339611 |
| Los Angele | 2018 | Annual | LDA | 0.468259146 | 0 | 0.065551557 | 0.533810703 | 3739.679455 | 0 | 125.8575 | 3865.536955 | 2388.177999 |
| Los Angele | 2018 | Annual | LDA | 0.006331764 | 0 | 0 | 0.006331764 | 11.57468344 | 0 | 0 | 11.57468344 | 7.391650721 |
| Los Angele | 2018 | Annual | LDA | 0.472255691 | 0 | 0.058711044 | 0.530966735 | 4031.423798 | 0 | 126.7894 | 4158.213198 | 2476.483482 |
| Los Angele | 2018 | Annual | LDA | 0.005644694 | 0 | 0 | 0.005644694 | 11.05199038 | 0 | 0 | 11.05199038 | 6.78918243 |
| Los Angele | 2018 | Annual | LDA | 0.495103594 | 0 | 0.052840624 | 0.547944218 | 4541.922152 | 0 | 130.6985 | 4672.620652 | 2790.080068 |
| Los Angele | 2018 | Annual | LDA | 0.005569637 | 0 | 0 | 0.005569637 | 11.80524783 | 0 | 0 | 11.80524783 | 7.251904716 |
| Los Angele | 2018 | Annual | LDA | 0.525764466 | 0 | 0.0450073 | 0.570771766 | 5231.939989 | 0 | 131.3079 | 5363.247889 | 3213.954575 |
| Los Angele | 2018 | Annual | LDA | 0.005387219 | 0 | 0 | 0.005387219 | 12.56287671 | 0 | 0 | 12.56287671 | 7.717312349 |
| Los Angele | 2018 | Annual | LDT1 | 0.019958739 | 0 | 0.003663305 | 0.023622045 | 148.0292279 | 0 | 5.809238 | 153.8384659 | 138.4073281 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDT1 | 0.040526861 | 0 | 0.007243571 | 0.047770433 | 310.6012378 | 0 | 12.045 | 322.6462378 | 290.4121573 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDT1 | 0.038071025 | 0 | 0.006783707 | 0.044854732 | 283.4934941 | 0 | 10.82852 | 294.3220141 | 265.0664169 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDT1 | 0.043848229 | 0 | 0.007766398 | 0.051614627 | 317.1061904 | 0 | 11.90898 | 329.0151704 | 286.116988 |
| Los Angele | 2018 | Annual | LDT1 | 3.17E-04 | 0 | 0 | 3.17E-04 | 0.373494288 | 0 | 0 | 0.373494288 | 0.336994558 |
| Los Angele | 2018 | Annual | LDT1 | 0.041685575 | 0 | 0.007163173 | 0.048848748 | 307.1032735 | 0 | 11.29413 | 318.3974035 | 245.793176 |
| Los Angele | 2018 | Annual | LDT1 | 4.45E-04 | 0 | 0 | 4.45E-04 | 0.546545991 | 0 | 0 | 0.546545991 | 0.437433549 |
| Los Angele | 2018 | Annual | LDT1 | 0.039815596 | 0 | 0.006574292 | 0.046389888 | 303.5686255 | 0 | 10.88807 | 314.4566955 | 212.0259887 |
| Los Angele | 2018 | Annual | LDT1 | 3.16E-04 | 0 | 0 | 3.16E-04 | 0.405892237 | 0 | 0 | 0.405892237 | 0.283493404 |
| Los Angele | 2018 | Annual | LDT1 | 0.038846982 | 0 | 0.006081145 | 0.044928127 | 317.5918026 | 0 | 11.08804 | 328.6798426 | 216.1783882 |
| Los Angele | 2018 | Annual | LDT1 | 3.97E-04 | 0 | 0 | 3.97E-04 | 0.536531368 | 0 | 0 | 0.536531368 | 0.365206171 |
| Los Angele | 2018 | Annual | LDT1 | 0.03830131 | 0 | 0.005631172 | 0.043932481 | 330.5186543 | 0 | 11.1657 | 341.6843543 | 220.0328785 |
| Los Angele | 2018 | Annual | LDT1 | 3.68E-04 | 0 | 0 | 3.68E-04 | 0.526054138 | 0 | 0 | 0.526054138 | 0.350204761 |
| Los Angele | 2018 | Annual | LDT1 | 0.038707407 | 0 | 0.005213708 | 0.043921115 | 360.4914967 | 0 | 11.69112 | 372.1826167 | 230.2116722 |
| Los Angele | 2018 | Annual | LDT1 | 3.59E-04 | 0 | 0 | 3.59E-04 | 0.547258385 | 0 | 0 | 0.547258385 | 0.349481941 |
| Los Angele | 2018 | Annual | LDT1 | 0.038156202 | 0 | 0.004644054 | 0.042800255 | 380.3295893 | 0 | 11.743 | 392.0725893 | 233.6345651 |
| Los Angele | 2018 | Annual | LDT1 | 4.31E-04 | 0 | 0 | 4.31E-04 | 0.704936917 | 0 | 0 | 0.704936917 | 0.433039224 |
| Los Angele | 2018 | Annual | LDT1 | 0.038919636 | 0 | 0.00415568 | 0.043075316 | 417.2306697 | 0 | 12.05896 | 429.2896297 | 256.3027142 |
| Los Angele | 2018 | Annual | LDT1 | 2.84E-04 | 0 | 0 | 2.84E-04 | 0.504141906 | 0 | 0 | 0.504141906 | 0.309691852 |
| Los Angele | 2018 | Annual | LDT1 | 0.039517968 | 0 | 0.003494239 | 0.043012207 | 459.3538604 | 0 | 11.95705 | 471.3109104 | 282.1787796 |
| Los Angele | 2018 | Annual | LDT1 | 2.99E-04 | 0 | 0 | 2.99E-04 | 0.585079745 | 0 | 0 | 0.585079745 | 0.359411562 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.144062521 | 0.002095187 | 0 | 0.146157708 | 34.50400193 | 0.416676912 | 0 | 34.92067884 | 32.2612418 |

2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavl (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | LDA | 0 | 90.42131615 | 2099.031636 | 0.001662626 | 0 | 2.33E-04 | 0.001896029 | 0.046324495 | 0.2128032 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDA | 0 | 94.5269105 | 2241.417575 | 0.001777088 | 0 | 3.17E-04 | 0.002094288 | 0.049507111 | 0.2274233 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0.200729007 | 3.18E-06 | 0 | 0 | 3.18E-06 | 5.41E-06 | 2.48E-05 |
| Los Angele | 2018 | Annual | LDA | 0 | 82.96184875 | 2016.346666 | 0.002133812 | 0 | 4.40E-04 | 0.002573528 | 0.044503931 | 0.2044399 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 6.841760075 | 1.05E-04 | 0 | 0 | 1.05E-04 | 1.84E-04 | 8.47E-04 |
| Los Angele | 2018 | Annual | LDA | 0 | 102.7764309 | 2565.956598 | 0.002817128 | 0 | 6.96E-04 | 0.003513584 | 0.05875919 | 0.269925 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 12.29223875 | 1.89E-04 | 0 | 0 | 1.89E-04 | 3.43E-04 | 0.001576945 |
| Los Angele | 2018 | Annual | LDA | 0 | 91.81353751 | 2365.363075 | 0.004395659 | 0 | 0.0013068 | 0.005702459 | 0.06112228 | 0.2807805 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 10.83884041 | 1.81E-04 | 0 | 0 | 1.81E-04 | 3.41E-04 | 0.001567552 |
| Los Angele | 2018 | Annual | LDA | 0 | 84.0984354 | 2245.936115 | 0.006384089 | 0 | 0.001929611 | 0.0083137 | 0.066581912 | 0.3058607 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 9.031078584 | 1.65E-04 | 0 | 0 | 1.65E-04 | 3.26E-04 | 0.00149669 |
| Los Angele | 2018 | Annual | LDA | 0 | 82.58506656 | 2292.860401 | 0.010043085 | 0 | 0.003642715 | 0.0136858 | 0.069831066 | 0.3207865 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 8.544376002 | 1.53E-04 | 0 | 0 | 1.53E-04 | 3.16E-04 | 0.001452988 |
| Los Angele | 2018 | Annual | LDA | 0 | 82.21362398 | 2389.647082 | 0.01428909 | 0 | 0.005245789 | 0.019534879 | 0.074519008 | 0.3423217 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 7.70339611 | 1.33E-04 | 0 | 0 | 1.33E-04 | 2.92E-04 | 0.001339415 |
| Los Angele | 2018 | Annual | LDA | 0 | 80.37322879 | 2468.551227 | 0.019265303 | 0 | 0.00688514 | 0.026150443 | 0.080382183 | 0.3692558 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 7.391650721 | 1.26E-04 | 0 | 0 | 1.26E-04 | 2.92E-04 | 0.001339781 |
| Los Angele | 2018 | Annual | LDA | 0 | 77.88609447 | 2554.369576 | 0.023876043 | 0 | 0.008093844 | 0.031969888 | 0.086632594 | 0.3979685 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 6.78918243 | 1.12E-04 | 0 | 0 | 1.12E-04 | 2.78E-04 | 0.001279278 |
| Los Angele | 2018 | Annual | LDA | 0 | 80.28743506 | 2870.367503 | 0.029229429 | 0 | 0.009121468 | 0.038350897 | 0.097577095 | 0.4482448 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 7.251904716 | 1.11E-04 | 0 | 0 | 1.11E-04 | 2.97E-04 | 0.001366469 |
| Los Angele | 2018 | Annual | LDA | 0 | 80.66178643 | 3294.616362 | 0.035005912 | 0 | 0.009558027 | 0.044563938 | 0.1123733 | 0.5162148 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 7.717312349 | 1.07E-04 | 0 | 0 | 1.07E-04 | 3.17E-04 | 0.001454165 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 5.43163753 | 143.8389656 | 9.85E-05 | 0 | 1.20E-05 | 1.10E-04 | 0.002739361 | 0.012583943 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 11.262075 | 301.6742323 | 2.07E-04 | 0 | 3.25E-05 | 2.39E-04 | 0.005752957 | 0.026427647 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 10.1246662 | 275.1910831 | 2.51E-04 | 0 | 4.61E-05 | 2.97E-04 | 0.005241903 | 0.024079995 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 10.74517493 | 296.8621629 | 2.81E-04 | 0 | 6.25E-05 | 3.44E-04 | 0.005867032 | 0.026951686 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0.336994558 | 5.24E-06 | 0 | 0 | 5.24E-06 | 9.41E-06 | 4.32E-05 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 9.039369887 | 254.8325459 | 4.08E-04 | 0 | 1.11E-04 | 5.19E-04 | 0.005680836 | 0.026096342 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0.437433549 | 7.36E-06 | 0 | 0 | 7.36E-06 | 1.38E-05 | 6.33E-05 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 7.604718051 | 219.6307067 | 5.38E-04 | 0 | 1.50E-04 | 6.88E-04 | 0.005614165 | 0.02579008 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0.283493404 | 5.22E-06 | 0 | 0 | 5.22E-06 | 1.02E-05 | 4.70E-05 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 7.547407067 | 223.7257952 | 8.44E-04 | 0 | 2.86E-04 | 0.001130078 | 0.005872458 | 0.026976608 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0.365206171 | 6.57E-06 | 0 | 0 | 6.57E-06 | 1.35E-05 | 6.21E-05 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 7.433229804 | 227.4661083 | 0.001170994 | 0 | 4.07E-04 | 0.001578353 | 0.0061099 | 0.028067356 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0.350204761 | 6.08E-06 | 0 | 0 | 6.08E-06 | 1.33E-05 | 6.09E-05 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 7.466007688 | 237.6776799 | 0.001595997 | 0 | 5.49E-04 | 0.002145314 | 0.00666293 | 0.030607838 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0.349481941 | 5.95E-06 | 0 | 0 | 5.95E-06 | 1.38E-05 | 6.33E-05 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 7.213666185 | 240.8482312 | 0.001935814 | 0 | 6.44E-04 | 0.002579663 | 0.007027858 | 0.03228423 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0.433039224 | 7.13E-06 | 0 | 0 | 7.13E-06 | 1.78E-05 | 8.16E-05 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 7.407758833 | 263.7104731 | 0.0023076 | 0 | 7.23E-04 | 0.003030432 | 0.00770742 | 0.035405967 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0.309691852 | 4.71E-06 | 0 | 0 | 4.71E-06 | 1.27E-05 | 5.84E-05 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 7.34515603 | 289.5239357 | 0.002641398 | 0 | 7.48E-04 | 0.003388938 | 0.008484164 | 0.03897414 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0.359411562 | 4.97E-06 | 0 | 0 | 4.97E-06 | 1.47E-05 | 6.77E-05 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.389592913 | 0 | 32.65083472 | 0.001842606 | 4.92E-06 | 0 | 0.00184753 | 3.56E-04 | 0.00386333 |

2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | LDA | 0.261023724 | 0.001542643 | 0 | 2.17E-04 | 0.001759202 | 0.011581124 | 0.091201358 | 0.104541684 | 0.021517623 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDA | 0.279024699 | 0.001648845 | 0 | 2.94E-04 | 0.001943154 | 0.012376778 | 0.097467139 | 0.111787071 | 0.022991652 |
| Los Angele | 2018 | Annual | LDA | 3.34E-05 | 2.93E-06 | 0 | 0 | 2.93E-06 | 1.35E-06 | 1.06E-05 | 1.49E-05 | 2.05E-06 |
| Los Angele | 2018 | Annual | LDA | 0.251517359 | 0.001979825 | 0 | 4.08E-04 | 0.002387809 | 0.011125983 | 0.087617122 | 0.101130914 | 0.020703718 |
| Los Angele | 2018 | Annual | LDA | 0.001136444 | 9.67E-05 | 0 | 0 | 9.67E-05 | 4.61E-05 | 3.63E-04 | 5.06E-04 | 6.99E-05 |
| Los Angele | 2018 | Annual | LDA | 0.332197774 | 0.00261383 | 0 | 6.46E-04 | 0.003260026 | 0.014689798 | 0.1156822 | 0.133632024 | 0.027330581 |
| Los Angele | 2018 | Annual | LDA | 0.002109132 | 1.74E-04 | 0 | 0 | 1.74E-04 | 8.58E-05 | 6.76E-04 | 9.35E-04 | 1.30E-04 |
| Los Angele | 2018 | Annual | LDA | 0.347605239 | 0.004078447 | 0 | 0.001212495 | 0.005290942 | 0.01528057 | 0.1203345 | 0.140906012 | 0.028436437 |
| Los Angele | 2018 | Annual | LDA | 0.002089485 | 1.66E-04 | 0 | 0 | 1.66E-04 | 8.53E-05 | 6.72E-04 | 9.23E-04 | 1.29E-04 |
| Los Angele | 2018 | Annual | LDA | 0.380756312 | 0.005923381 | 0 | 0.00179036 | 0.007713741 | 0.016645478 | 0.1310831 | 0.155442319 | 0.030981343 |
| Los Angele | 2018 | Annual | LDA | 0.001987849 | 1.52E-04 | 0 | 0 | 1.52E-04 | 8.15E-05 | 6.41E-04 | 8.75E-04 | 1.23E-04 |
| Los Angele | 2018 | Annual | LDA | 0.404303366 | 0.009318326 | 0 | 0.003379838 | 0.012698164 | 0.017457766 | 0.1374799 | 0.16763583 | 0.032496538 |
| Los Angele | 2018 | Annual | LDA | 0.001922092 | 1.41E-04 | 0 | 0 | 1.41E-04 | 7.91E-05 | 6.23E-04 | 8.42E-04 | 1.20E-04 |
| Los Angele | 2018 | Annual | LDA | 0.436375587 | 0.013257918 | 0 | 0.004867226 | 0.018125144 | 0.018629752 | 0.1467093 | 0.183464196 | 0.034677591 |
| Los Angele | 2018 | Annual | LDA | 0.001764417 | 1.23E-04 | 0 | 0 | 1.23E-04 | 7.29E-05 | 5.74E-04 | 7.70E-04 | 1.10E-04 |
| Los Angele | 2018 | Annual | LDA | 0.475788426 | 0.017875023 | 0 | 0.006388274 | 0.024263297 | 0.020095546 | 0.1582525 | 0.202611343 | 0.037407909 |
| Los Angele | 2018 | Annual | LDA | 0.001757078 | 1.16E-04 | 0 | 0 | 1.16E-04 | 7.29E-05 | 5.74E-04 | 7.63E-04 | 1.10E-04 |
| Los Angele | 2018 | Annual | LDA | 0.516570982 | 0.022153028 | 0 | 0.007509752 | 0.02966278 | 0.021658149 | 0.1705579 | 0.221878829 | 0.040320646 |
| Los Angele | 2018 | Annual | LDA | 0.001669816 | 1.03E-04 | 0 | 0 | 1.03E-04 | 6.96E-05 | 5.48E-04 | 7.21E-04 | 1.06E-04 |
| Los Angele | 2018 | Annual | LDA | 0.584172792 | 0.02712009 | 0 | 0.008463218 | 0.035583308 | 0.024394274 | 0.1921049 | 0.252082482 | 0.045420833 |
| Los Angele | 2018 | Annual | LDA | 0.001774551 | 1.02E-04 | 0 | 0 | 1.02E-04 | 7.44E-05 | 5.86E-04 | 7.62E-04 | 1.13E-04 |
| Los Angele | 2018 | Annual | LDA | 0.673152038 | 0.032479712 | 0 | 0.008868272 | 0.041347984 | 0.028093316 | 0.2212349 | 0.2906762 | 0.052315254 |
| Los Angele | 2018 | Annual | LDA | 0.001877784 | 9.85E-05 | 0 | 0 | 9.85E-05 | 7.91E-05 | 6.23E-04 | 8.01E-04 | 1.20E-04 |
| Los Angele | 2018 | Annual | LDT1 | 0.0154338 | 9.13E-05 | 0 | 1.12E-05 | 1.03E-04 | 6.85E-04 | 0.005393117 | 0.00618048 | 0.001482116 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDT1 | 0.032419642 | 1.92E-04 | 0 | 3.01E-05 | 2.22E-04 | 0.001438239 | 0.011326132 | 0.01298616 | 0.003108927 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDT1 | 0.02961939 | 2.33E-04 | 0 | 4.28E-05 | 2.76E-04 | 0.001310476 | 0.010319998 | 0.011906497 | 0.002837356 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | LDT1 | 0.033162466 | 2.61E-04 | 0 | 5.80E-05 | 3.19E-04 | 0.001466758 | 0.011550724 | 0.013336423 | 0.003173473 |
| Los Angele | 2018 | Annual | LDT1 | 5.79E-05 | 4.82E-06 | 0 | 0 | 4.82E-06 | 2.35E-06 | 1.85E-05 | 2.57E-05 | 3.57E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0.032296065 | 3.79E-04 | 0 | 1.03E-04 | 4.81E-04 | 0.001420209 | 0.011184147 | 0.013085797 | 0.00307312 |
| Los Angele | 2018 | Annual | LDT1 | 8.44E-05 | 6.77E-06 | 0 | 0 | 6.77E-06 | 3.44E-06 | 2.71E-05 | 3.73E-05 | 5.22E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0.032092191 | 4.99E-04 | 0 | 1.39E-04 | 6.38E-04 | 0.001403541 | 0.01105289 | 0.013094732 | 0.003037441 |
| Los Angele | 2018 | Annual | LDT1 | 6.24E-05 | 4.81E-06 | 0 | 0 | 4.81E-06 | 2.56E-06 | 2.01E-05 | 2.75E-05 | 3.87E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0.033979144 | 7.83E-04 | 0 | 2.65E-04 | 0.001048526 | 0.001468114 | 0.011561404 | 0.014078044 | 0.003177247 |
| Los Angele | 2018 | Annual | LDT1 | 8.22E-05 | 6.04E-06 | 0 | 0 | 6.04E-06 | 3.38E-06 | 2.66E-05 | 3.60E-05 | 5.12E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0.035755608 | 0.001086489 | 0 | 3.78E-04 | 0.001464451 | 0.001527475 | 0.012028867 | 0.015020793 | 0.00330572 |
| Los Angele | 2018 | Annual | LDT1 | 8.02E-05 | 5.60E-06 | 0 | 0 | 5.60E-06 | 3.31E-06 | 2.61E-05 | 3.50E-05 | 5.02E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0.039416082 | 0.001480822 | 0 | 5.10E-04 | 0.001990497 | 0.001665733 | 0.013117644 | 0.016773874 | 0.003604893 |
| Los Angele | 2018 | Annual | LDT1 | 8.31E-05 | 5.47E-06 | 0 | 0 | 5.47E-06 | 3.45E-06 | 2.71E-05 | 3.61E-05 | 5.22E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0.04189175 | 0.001796116 | 0 | 5.97E-04 | 0.002393501 | 0.001756964 | 0.013836096 | 0.017986562 | 0.003802815 |
| Los Angele | 2018 | Annual | LDT1 | 1.06E-04 | 6.56E-06 | 0 | 0 | 6.56E-06 | 4.44E-06 | 3.50E-05 | 4.60E-05 | 6.73E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0.046143819 | 0.002141073 | 0 | 6.71E-04 | 0.002811741 | 0.001926855 | 0.015173985 | 0.019912581 | 0.004171336 |
| Los Angele | 2018 | Annual | LDT1 | 7.58E-05 | 4.33E-06 | 0 | 0 | 4.33E-06 | 3.18E-06 | 2.50E-05 | 3.25E-05 | 4.81E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0.050847242 | 0.002450781 | 0 | 6.94E-04 | 0.003144375 | 0.002121041 | 0.016703201 | 0.021968617 | 0.004592024 |
| Los Angele | 2018 | Annual | LDT1 | 8.74E-05 | 4.57E-06 | 0 | 0 | 4.57E-06 | 3.69E-06 | 2.90E-05 | 3.73E-05 | 5.59E-06 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.006066545 | 0.001695197 | 4.53E-06 | 0 | 0.001699728 | 8.89E-05 | 0.001655713 | 0.003444362 | 3.29E-04 |

2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | LDA | 0 | 9.90E-04 | 0.022507923 | 240.0797 | 0 | 2.25E-04 | 2.26E-03 | 1.53E-04 | 7.22E-07 | 9.87E-05 | 6.70E-07 | 3.91E-05 | 8.57E-06 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2018 | Annual | LDA | 0 | 0.001032161 | 0.024023813 | 256.2489 | 0 | 1.98E-04 | 2.03E-03 | 1.47E-04 | 7.46E-07 | 9.87E-05 | 6.92E-07 | 3.91E-05 | 8.56E-06 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 2.05E-06 | 0 | 0.019321511 | 1.71E-05 | 1.61E-04 | 5.24E-04 | 1.04E-05 | 9.87E-05 | 9.55E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2018 | Annual | LDA | 0 | 9.05E-04 | 0.021608964 | 230.491 | 0 | 1.77E-04 | 1.96E-03 | 1.53E-04 | 1.02E-06 | 9.87E-05 | 9.46E-07 | 3.91E-05 | 8.56E-06 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 6.99E-05 | 0 | 0.6585653 | 1.66E-05 | 1.55E-04 | 5.07E-04 | 1.01E-05 | 9.87E-05 | 9.25E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2018 | Annual | LDA | 0 | 0.001160844 | 0.028491425 | 303.9024 | 0 | 1.57E-04 | 1.87E-03 | 1.56E-04 | 1.05E-06 | 9.87E-05 | 9.79E-07 | 3.91E-05 | 8.55E-06 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 1.30E-04 | 0 | 1.226125 | 1.59E-05 | 1.50E-04 | 4.90E-04 | 9.71E-06 | 9.87E-05 | 8.93E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2018 | Annual | LDA | 0 | 0.001168288 | 0.029604725 | 315.7774 | 0 | 1.36E-04 | 1.80E-03 | 1.52E-04 | 1.65E-06 | 9.87E-05 | 1.53E-06 | 3.91E-05 | 8.54E-06 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 1.29E-04 | 0 | 1.218821 | 1.53E-05 | 1.43E-04 | 4.71E-04 | 9.34E-06 | 9.87E-05 | 8.59E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2018 | Annual | LDA | 0 | 0.001225208 | 0.032206551 | 343.5297 | 0 | 1.13E-04 | 1.72E-03 | 1.46E-04 | 2.20E-06 | 9.87E-05 | 2.04E-06 | 3.91E-05 | 8.53E-06 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 1.23E-04 | 0 | 1.163724 | 1.46E-05 | 1.37E-04 | 4.51E-04 | 8.95E-06 | 9.87E-05 | 8.23E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2018 | Annual | LDA | 0 | 0.001232869 | 0.033729407 | 359.7731 | 0 | 9.88E-05 | 1.59E-03 | 1.36E-04 | 3.46E-06 | 9.87E-05 | 3.21E-06 | 3.91E-05 | 8.52E-06 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 1.20E-04 | 0 | 1.129743 | 1.38E-05 | 1.29E-04 | 4.30E-04 | 8.52E-06 | 9.87E-05 | 7.84E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2018 | Annual | LDA | 0 | 0.001252093 | 0.035929684 | 383.2423 | 0 | 8.57E-05 | 1.40E-03 | 1.28E-04 | 4.62E-06 | 9.87E-05 | 4.29E-06 | 3.91E-05 | 8.50E-06 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 1.10E-04 | 0 | 1.041437 | 0.00E+00 | 1.22E-04 | 4.07E-04 | 8.07E-06 | 9.87E-05 | 7.43E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2018 | Annual | LDA | 0 | 0.00127412 | 0.038682029 | 412.6 | 0 | 7.54E-05 | 1.27E-03 | 1.17E-04 | 5.74E-06 | 9.87E-05 | 5.32E-06 | 3.91E-05 | 8.49E-06 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 1.10E-04 | 0 | 1.041721 | 0.00E+00 | 1.13E-04 | 3.83E-04 | 7.60E-06 | 9.87E-05 | 6.99E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2018 | Annual | LDA | 0 | 0.001282187 | 0.041602833 | 443.7546 | 0 | 6.70E-05 | 1.17E-03 | 1.08E-04 | 6.51E-06 | 9.87E-05 | 6.04E-06 | 3.91E-05 | 8.47E-06 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 1.06E-04 | 0 | 0.994679 | 0.00E+00 | 1.05E-04 | 3.57E-04 | 7.10E-06 | 9.87E-05 | 6.53E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2018 | Annual | LDA | 0 | 0.001320512 | 0.046741345 | 498.5644 | 0 | 5.89E-05 | 1.08E-03 | 9.90E-05 | 6.93E-06 | 9.87E-05 | 6.43E-06 | 3.91E-05 | 8.45E-06 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 1.13E-04 | 0 | 1.062472 | 1.03E-05 | 9.56E-05 | 3.30E-04 | 6.56E-06 | 9.87E-05 | 6.03E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2018 | Annual | LDA | 0 | 0.001325602 | 0.053640856 | 572.1577 | 0 | 4.96E-05 | 9.93E-04 | 8.96E-05 | 6.99E-06 | 9.87E-05 | 6.49E-06 | 3.91E-05 | 8.42E-06 |
| Los Angele | 2018 | Annual | LDA | 0 | 0 | 1.20E-04 | 0 | 1.130659 | 9.23E-06 | 8.55E-05 | 3.00E-04 | 5.97E-06 | 9.87E-05 | 5.49E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 5.93E-05 | 0.001541433 | 16.44162 | 0 | 2.48E-04 | 2.26E-03 | 1.52E-04 | 7.11E-07 | 9.87E-05 | 6.60E-07 | 3.91E-05 | 9.92E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2018 | Annual | LDT1 | 0 | 1.23E-04 | 0.003231576 | 34.46945 | 0 | 2.14E-04 | 2.02E-03 | 1.46E-04 | 7.33E-07 | 9.87E-05 | 6.80E-07 | 3.91E-05 | 9.91E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2018 | Annual | LDT1 | 0 | 1.10E-04 | 0.00294753 | 31.43969 | 0 | 1.86E-04 | 1.95E-03 | 1.51E-04 | 1.00E-06 | 9.87E-05 | 9.29E-07 | 3.91E-05 | 9.92E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2018 | Annual | LDT1 | 0 | 1.21E-04 | 0.003294531 | 35.14096 | 0 | 1.62E-04 | 1.86E-03 | 1.55E-04 | 1.03E-06 | 9.87E-05 | 9.59E-07 | 3.91E-05 | 9.90E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 3.57E-06 | 0 | 0.03361449 | 1.91E-05 | 1.78E-04 | 5.94E-04 | 9.81E-06 | 9.87E-05 | 9.03E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 1.15E-04 | 0.003187852 | 34.00308 | 0 | 1.36E-04 | 1.79E-03 | 1.52E-04 | 1.61E-06 | 9.87E-05 | 1.49E-06 | 3.91E-05 | 9.90E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 5.22E-06 | 0 | 0.049189143 | 1.83E-05 | 1.71E-04 | 5.70E-04 | 9.42E-06 | 9.87E-05 | 8.67E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 1.11E-04 | 0.003147958 | 33.57755 | 0 | 1.07E-04 | 1.71E-03 | 1.46E-04 | 2.16E-06 | 9.87E-05 | 2.01E-06 | 3.91E-05 | 9.89E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 3.87E-06 | 0 | 0.036530297 | 1.74E-05 | 1.62E-04 | 5.45E-04 | 9.01E-06 | 9.87E-05 | 8.29E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 1.12E-04 | 0.003289653 | 35.08892 | 0 | 9.29E-05 | 1.58E-03 | 1.35E-04 | 3.39E-06 | 9.87E-05 | 3.15E-06 | 3.91E-05 | 9.88E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 5.12E-06 | 0 | 0.048287824 | 1.65E-05 | 1.53E-04 | 5.18E-04 | 8.56E-06 | 9.87E-05 | 7.88E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 1.13E-04 | 0.00341868 | 36.4652 | 0 | 7.96E-05 | 1.38E-03 | 1.27E-04 | 4.56E-06 | 9.87E-05 | 4.23E-06 | 3.91E-05 | 9.87E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 5.02E-06 | 0 | 0.047344875 | 1.55E-05 | 1.44E-04 | 4.89E-04 | 8.10E-06 | 9.87E-05 | 7.45E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 1.18E-04 | 0.003723011 | 39.71133 | 0 | 6.96E-05 | 1.25E-03 | 1.16E-04 | 5.68E-06 | 9.87E-05 | 5.27E-06 | 3.91E-05 | 9.85E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 5.22E-06 | 0 | 0.049253255 | 1.45E-05 | 1.34E-04 | 4.59E-04 | 7.61E-06 | 9.87E-05 | 7.00E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 1.19E-04 | 0.003921348 | 41.82687 | 0 | 6.17E-05 | 1.16E-03 | 1.07E-04 | 6.47E-06 | 9.87E-05 | 6.01E-06 | 3.91E-05 | 9.84E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 6.73E-06 | 0 | 0.063444339 | 1.34E-05 | 1.23E-04 | 4.28E-04 | 7.08E-06 | 9.87E-05 | 6.52E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 1.22E-04 | 0.004292962 | 45.79068 | 0 | 5.42E-05 | 1.07E-03 | 9.86E-05 | 6.93E-06 | 9.87E-05 | 6.43E-06 | 3.91E-05 | 9.82E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 4.81E-06 | 0 | 0.045372773 | 1.22E-05 | 1.12E-04 | 3.94E-04 | 6.53E-06 | 9.87E-05 | 6.01E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 1.21E-04 | 0.00471254 | 50.26608 | 0 | 4.66E-05 | 9.94E-04 | 8.94E-05 | 7.04E-06 | 9.87E-05 | 6.54E-06 | 3.91E-05 | 9.80E-06 |
| Los Angele | 2018 | Annual | LDT1 | 0 | 0 | 5.59E-06 | 0 | 0.052657172 | 1.09E-05 | 1.00E-04 | 3.58E-04 | 5.94E-06 | 9.87E-05 | 5.47E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2018 | Annual | T6 instate heavy | 3.98E-06 | 0 | 3.33E-04 | 0 | 3.142861096 | 4.81E-04 | 2.07E-03 | 1.09E-02 | 1.37E-04 | 3.14E-04 | 1.26E-04 | 1.30E-04 | 2.48E-05 |

2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2018 | Annual | LDA | 4.00E-04 |
| Los Angele | 2018 | Annual | LDA | |
| Los Angele | 2018 | Annual | LDA | 3.99E-04 |
| Los Angele | 2018 | Annual | LDA | 3.27E-04 |
| Los Angele | 2018 | Annual | LDA | 4.00E-04 |
| Los Angele | 2018 | Annual | LDA | 3.27E-04 |
| Los Angele | 2018 | Annual | LDA | 3.85E-04 |
| Los Angele | 2018 | Annual | LDA | 3.16E-04 |
| Los Angele | 2018 | Annual | LDA | 3.41E-04 |
| Los Angele | 2018 | Annual | LDA | 2.80E-04 |
| Los Angele | 2018 | Annual | LDA | 2.97E-04 |
| Los Angele | 2018 | Annual | LDA | 2.44E-04 |
| Los Angele | 2018 | Annual | LDA | 2.90E-04 |
| Los Angele | 2018 | Annual | LDA | 2.38E-04 |
| Los Angele | 2018 | Annual | LDA | 2.83E-04 |
| Los Angele | 2018 | Annual | LDA | 0.00E+00 |
| Los Angele | 2018 | Annual | LDA | 2.71E-04 |
| Los Angele | 2018 | Annual | LDA | 0.00E+00 |
| Los Angele | 2018 | Annual | LDA | 2.60E-04 |
| Los Angele | 2018 | Annual | LDA | 0.00E+00 |
| Los Angele | 2018 | Annual | LDA | 2.59E-04 |
| Los Angele | 2018 | Annual | LDA | 2.15E-04 |
| Los Angele | 2018 | Annual | LDA | 2.59E-04 |
| Los Angele | 2018 | Annual | LDA | 2.15E-04 |
| Los Angele | 2018 | Annual | LDT1 | 4.63E-04 |
| Los Angele | 2018 | Annual | LDT1 | |
| Los Angele | 2018 | Annual | LDT1 | 4.62E-04 |
| Los Angele | 2018 | Annual | LDT1 | |
| Los Angele | 2018 | Annual | LDT1 | 4.63E-04 |
| Los Angele | 2018 | Annual | LDT1 | |
| Los Angele | 2018 | Annual | LDT1 | 4.46E-04 |
| Los Angele | 2018 | Annual | LDT1 | 3.16E-04 |
| Los Angele | 2018 | Annual | LDT1 | 3.96E-04 |
| Los Angele | 2018 | Annual | LDT1 | 2.80E-04 |
| Los Angele | 2018 | Annual | LDT1 | 3.45E-04 |
| Los Angele | 2018 | Annual | LDT1 | 2.44E-04 |
| Los Angele | 2018 | Annual | LDT1 | 3.36E-04 |
| Los Angele | 2018 | Annual | LDT1 | 2.38E-04 |
| Los Angele | 2018 | Annual | LDT1 | 3.28E-04 |
| Los Angele | 2018 | Annual | LDT1 | 2.33E-04 |
| Los Angele | 2018 | Annual | LDT1 | 3.15E-04 |
| Los Angele | 2018 | Annual | LDT1 | 2.23E-04 |
| Los Angele | 2018 | Annual | LDT1 | 3.02E-04 |
| Los Angele | 2018 | Annual | LDT1 | 2.15E-04 |
| Los Angele | 2018 | Annual | LDT1 | 3.02E-04 |
| Los Angele | 2018 | Annual | LDT1 | 2.15E-04 |
| Los Angele | 2018 | Annual | LDT1 | 3.01E-04 |
| Los Angele | 2018 | Annual | LDT1 | 2.15E-04 |
| Los Angele | 2018 | Annual | T6 instate heavy | 1.21E-03 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2008 | AllSpeeds | 486.0190015 | 25861.09081 | 0 | 0.005858999 | 1.12E-04 | 0 | 0.005971456 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2009 | AllSpeeds | 265.7311406 | 15938.85395 | 0 | 0.003449603 | 6.15E-05 | 0 | 0.003511089 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2010 | AllSpeeds | 760.1697619 | 30992.01796 | 0 | 0.003987268 | 1.76E-04 | 0 | 0.004163159 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2011 | AllSpeeds | 459.3186919 | 25961.86327 | 0 | 0.003192637 | 1.06E-04 | 0 | 0.003298916 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2012 | AllSpeeds | 395.1987909 | 28432.78381 | 0 | 0.003324793 | 9.14E-05 | 0 | 0.003416236 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2013 | AllSpeeds | 461.185651 | 35050.71624 | 0 | 0.003340652 | 1.07E-04 | 0 | 0.003447363 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2014 | AllSpeeds | 496.5065543 | 39550.92654 | 0 | 0.00359526 | 1.15E-04 | 0 | 0.003710143 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2015 | AllSpeeds | 538.8611917 | 44462.14287 | 0 | 0.003836322 | 1.25E-04 | 0 | 0.003961006 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2016 | AllSpeeds | 579.2091855 | 48687.62313 | 0 | 0.003967959 | 1.34E-04 | 0 | 0.004101979 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2017 | AllSpeeds | 657.931155 | 55067.39381 | 0 | 0.004219481 | 1.52E-04 | 0 | 0.004371716 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2018 | AllSpeeds | 589.3474467 | 49327.46164 | 0 | 0.003540261 | 1.36E-04 | 0 | 0.003676626 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2019 | AllSpeeds | 147.6418198 | 5149.253601 | 0 | 3.45E-04 | 3.42E-05 | 0 | 3.79E-04 |
| Los Angele | 2018 | Annual | LDA/LDT1 | GAS&DSI | >2007 | AllSpeeds | 2868849.146 | 104778291.3 | 18490082.87 | 1.087277957 | 0 | 0.892273928 | 1.979551885 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | >2007 | AllSpeeds | 6343.970764 | 431371.4497 | 0 | 0.049005804 | 0.001467895 | 0 | 0.050473699 |

EMFAC 2011
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Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDA | GAS | 2007 | AllSpeeds | 171915.8 | 4644224.16 | 1069209 | 0.063370736 | 0 | 0.068570904 | 0.13194164 |
| Los Angele | 2019 | Annual | LDA | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDA | GAS | 2008 | AllSpeeds | 181429.1 | 5043448.244 | 1135632 | 0.063647641 | 0 | 0.064787939 | 0.12843558 |
| Los Angele | 2019 | Annual | LDA | DSL | 2008 | AllSpeeds | 21.00125 | 583.807931 | 131.4547 | 5.16E-06 | 0 | 0 | 5.16E-06 |
| Los Angele | 2019 | Annual | LDA | GAS | 2009 | AllSpeeds | 159745.7 | 4576549.732 | 1007895 | 0.058523739 | 0 | 0.058043174 | 0.116566913 |
| Los Angele | 2019 | Annual | LDA | DSL | 2009 | AllSpeeds | 689.0125 | 19739.51951 | 4347.234 | 1.69E-04 | 0 | 0 | 1.69E-04 |
| Los Angele | 2019 | Annual | LDA | GAS | 2010 | AllSpeeds | 206743.3 | 6116038.661 | 1312689 | 0.077828268 | 0 | 0.074550137 | 0.152378405 |
| Los Angele | 2019 | Annual | LDA | DSL | 2010 | AllSpeeds | 1243.191 | 36777.07728 | 7893.474 | 3.04E-04 | 0 | 0 | 3.04E-04 |
| Los Angele | 2019 | Annual | LDA | GAS | 2011 | AllSpeeds | 208288.1 | 6376654.455 | 1330828 | 0.079301647 | 0 | 0.073916525 | 0.153218172 |
| Los Angele | 2019 | Annual | LDA | DSL | 2011 | AllSpeeds | 1145.692 | 35074.94604 | 7320.241 | 2.79E-04 | 0 | 0 | 2.79E-04 |
| Los Angele | 2019 | Annual | LDA | GAS | 2012 | AllSpeeds | 221160 | 7026333.833 | 1419705 | 0.085034499 | 0 | 0.076777644 | 0.161812143 |
| Los Angele | 2019 | Annual | LDA | DSL | 2012 | AllSpeeds | 1117.107 | 35490.94864 | 7171.108 | 2.71E-04 | 0 | 0 | 2.71E-04 |
| Los Angele | 2019 | Annual | LDA | GAS | 2013 | AllSpeeds | 221322.5 | 7319817.777 | 1425174 | 0.085931769 | 0 | 0.074794531 | 0.1607263 |
| Los Angele | 2019 | Annual | LDA | DSL | 2013 | AllSpeeds | 1037.128 | 34301.09542 | 6678.437 | 2.50E-04 | 0 | 0 | 2.50E-04 |
| Los Angele | 2019 | Annual | LDA | GAS | 2014 | AllSpeeds | 228987.3 | 7919143.525 | 1481400 | 0.088146093 | 0 | 0.074264154 | 0.162410247 |
| Los Angele | 2019 | Annual | LDA | DSL | 2014 | AllSpeeds | 909.1592 | 31441.82734 | 5881.672 | 2.17E-04 | 0 | 0 | 2.17E-04 |
| Los Angele | 2019 | Annual | LDA | GAS | 2015 | AllSpeeds | 234998.2 | 8546277.244 | 1524986 | 0.085443731 | 0 | 0.070464566 | 0.155908297 |
| Los Angele | 2019 | Annual | LDA | DSL | 2015 | AllSpeeds | 857.937 | 31201.02895 | 5567.454 | 2.03E-04 | 0 | 0 | 2.03E-04 |
| Los Angele | 2019 | Annual | LDA | GAS | 2016 | AllSpeeds | 235496.4 | 9078197.667 | 1530574 | 0.084627278 | 0 | 0.066345304 | 0.150972582 |
| Los Angele | 2019 | Annual | LDA | DSL | 2016 | AllSpeeds | 758.2899 | 29231.549 | 4928.392 | 1.78E-04 | 0 | 0 | 1.78E-04 |
| Los Angele | 2019 | Annual | LDA | GAS | 2017 | AllSpeeds | 239592.2 | 9910757.303 | 1561985 | 0.087502152 | 0 | 0.063775383 | 0.151277535 |
| Los Angele | 2019 | Annual | LDA | DSL | 2017 | AllSpeeds | 744.0703 | 30778.63333 | 4850.854 | 1.73E-04 | 0 | 0 | 1.73E-04 |
| Los Angele | 2019 | Annual | LDA | GAS | 2018 | AllSpeeds | 244485.3 | 1.11E+07 | 1598774 | 0.091796134 | 0 | 0.06065058 | 0.152446714 |
| Los Angele | 2019 | Annual | LDA | DSL | 2018 | AllSpeeds | 688.707 | 31221.8388 | 4503.693 | 1.61E-04 | 0 | 0 | 1.61E-04 |
| Los Angele | 2019 | Annual | LDA | GAS | 2019 | AllSpeeds | 246041.3 | 1.28E+07 | 1613870 | 0.096963449 | 0 | 0.055052437 | 0.152015886 |
| Los Angele | 2019 | Annual | LDA | DSL | 2019 | AllSpeeds | 657.9922 | 34295.57978 | 4315.997 | 1.58E-04 | 0 | 0 | 1.58E-04 |
| Los Angele | 2019 | Annual | LDT1 | GAS | 2007 | AllSpeeds | 9322.682 | 291911.7317 | 57981.28 | 0.004089116 | 0 | 0.003806926 | 0.007896042 |
| Los Angele | 2019 | Annual | LDT1 | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDT1 | GAS | 2008 | AllSpeeds | 19215.28 | 613075.5013 | 120275.6 | 0.007914642 | 0 | 0.00699707 | 0.014911712 |
| Los Angele | 2019 | Annual | LDT1 | DSL | 2008 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDT1 | GAS | 2009 | AllSpeeds | 17251.94 | 561476.5108 | 108848.8 | 0.007272227 | 0 | 0.006319145 | 0.013591372 |
| Los Angele | 2019 | Annual | LDT1 | DSL | 2009 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDT1 | GAS | 2010 | AllSpeeds | 18955.44 | 630301.6735 | 120355 | 0.008162583 | 0 | 0.006941977 | 0.01510456 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005971456 | 0.006670024 | 1.28E-04 | 0 | 0.006798048 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003511089 | 0.00392711 | 7.00E-05 | 0 | 0.003997107 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004163159 | 0.004539201 | 2.00E-04 | 0 | 0.00473944 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003298916 | 0.003634574 | 1.21E-04 | 0 | 0.003755564 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003416236 | 0.003785024 | 1.04E-04 | 0 | 0.003889124 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003447363 | 0.003803078 | 1.21E-04 | 0 | 0.00392456 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003710143 | 0.004092929 | 1.31E-04 | 0 | 0.004223716 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003961006 | 0.004367361 | 1.42E-04 | 0 | 0.004509304 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004101979 | 0.004517219 | 1.53E-04 | 0 | 0.00466979 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004371716 | 0.004803558 | 1.73E-04 | 0 | 0.004976866 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003676626 | 0.004030317 | 1.55E-04 | 0 | 0.004185559 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.79E-04 | 3.92E-04 | 3.89E-05 | 0 | 4.31E-04 |
| Los Angele | 2018 | Annual | LDA/LDT1 | 0.189823478 | 0.551131295 | 2.615813963 | 0.195394384 | 5.531715005 | 2.021873656 | 0 | 0.952673362 | 2.974547018 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.050473699 | 0.055789378 | 0.001671087 | 0 | 0.057460465 |

EMFAC 2011
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Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDA | 0.028446993 | 0.1074908 | 0.2671314 | 0.03442362 | 0.569434453 | 0.117940956 | 0 | 0.073212594 | 0.19115355 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDA | 0.026193738 | 0.097345434 | 0.2626538 | 0.031204563 | 0.545833115 | 0.118456315 | 0 | 0.06917353 | 0.187629845 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 5.16E-06 | 5.88E-06 | 0 | 0 | 5.88E-06 |
| Los Angele | 2019 | Annual | LDA | 0.019772327 | 0.071854733 | 0.2149927 | 0.023077358 | 0.446264031 | 0.108920087 | 0 | 0.061972208 | 0.170892295 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 1.69E-04 | 1.93E-04 | 0 | 0 | 1.93E-04 |
| Los Angele | 2019 | Annual | LDA | 0.021739071 | 0.076477692 | 0.2578853 | 0.024727687 | 0.533208155 | 0.144848257 | 0 | 0.079596549 | 0.224444806 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 3.04E-04 | 3.46E-04 | 0 | 0 | 3.46E-04 |
| Los Angele | 2019 | Annual | LDA | 0.018288754 | 0.061413113 | 0.2397279 | 0.020103393 | 0.492751332 | 0.147590409 | 0 | 0.078920066 | 0.226510475 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 2.79E-04 | 3.18E-04 | 0 | 0 | 3.18E-04 |
| Los Angele | 2019 | Annual | LDA | 0.015656725 | 0.048852634 | 0.2272352 | 0.01645235 | 0.470009052 | 0.158259964 | 0 | 0.081974834 | 0.240234798 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 2.71E-04 | 3.09E-04 | 0 | 0 | 3.09E-04 |
| Los Angele | 2019 | Annual | LDA | 0.012646698 | 0.035457913 | 0.1897062 | 0.012685837 | 0.411222948 | 0.159929892 | 0 | 0.079857491 | 0.239787383 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 2.50E-04 | 2.85E-04 | 0 | 0 | 2.85E-04 |
| Los Angele | 2019 | Annual | LDA | 0.010836285 | 0.02667922 | 0.1804375 | 0.010076569 | 0.390439821 | 0.164051031 | 0 | 0.079291232 | 0.243342263 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 2.17E-04 | 2.47E-04 | 0 | 0 | 2.47E-04 |
| Los Angele | 2019 | Annual | LDA | 0.009325121 | 0.019522211 | 0.1713984 | 0.007958786 | 0.364112814 | 0.159021595 | 0 | 0.075234435 | 0.23425603 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 2.03E-04 | 2.31E-04 | 0 | 0 | 2.31E-04 |
| Los Angele | 2019 | Annual | LDA | 0.0082678 | 0.014640695 | 0.1612402 | 0.006515505 | 0.341636783 | 0.157502076 | 0 | 0.070836335 | 0.228338411 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 1.78E-04 | 2.02E-04 | 0 | 0 | 2.02E-04 |
| Los Angele | 2019 | Annual | LDA | 0.007669826 | 0.011501522 | 0.1554325 | 0.005623223 | 0.331504606 | 0.162852589 | 0 | 0.068092443 | 0.230945032 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 1.73E-04 | 1.97E-04 | 0 | 0 | 1.97E-04 |
| Los Angele | 2019 | Annual | LDA | 0.007212157 | 0.009186666 | 0.1512289 | 0.004960295 | 0.325034732 | 0.170844226 | 0 | 0.06475611 | 0.235600336 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 1.61E-04 | 1.83E-04 | 0 | 0 | 1.83E-04 |
| Los Angele | 2019 | Annual | LDA | 0.006929286 | 0.007725221 | 0.1460922 | 0.004546301 | 0.317308892 | 0.180461238 | 0 | 0.058779027 | 0.239240265 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 1.58E-04 | 1.80E-04 | 0 | 0 | 1.80E-04 |
| Los Angele | 2019 | Annual | LDT1 | 0.002008377 | 0.005906049 | 0.021423055 | 0.002430326 | 0.039663848 | 0.007610362 | 0 | 0.004064623 | 0.011674985 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDT1 | 0.003607964 | 0.010453935 | 0.039158948 | 0.00429816 | 0.072430719 | 0.01473015 | 0 | 0.007470713 | 0.022200863 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDT1 | 0.002776732 | 0.007886559 | 0.030905029 | 0.003240875 | 0.058400566 | 0.013534534 | 0 | 0.006746899 | 0.020281433 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDT1 | 0.002590407 | 0.007144967 | 0.029722722 | 0.00294653 | 0.057509185 | 0.0151916 | 0 | 0.00741189 | 0.02260349 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.006798048 | 0.02438138 | 0.001329813 | 0 | 0.025711194 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003997107 | 0.014355026 | 7.27E-04 | 0 | 0.015082102 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00473944 | 0.016592442 | 0.002079927 | 0 | 0.018672369 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003755564 | 0.013285699 | 0.001256758 | 0 | 0.014542456 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003889124 | 0.013835649 | 0.001081317 | 0 | 0.014916966 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00392456 | 0.013901643 | 0.001261866 | 0 | 0.015163509 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004223716 | 0.014961156 | 0.001358509 | 0 | 0.016319665 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004509304 | 0.015964303 | 0.001474397 | 0 | 0.017438699 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00466979 | 0.01651209 | 0.001584794 | 0 | 0.018096884 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004976866 | 0.017558763 | 0.001800188 | 0 | 0.019358951 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004185559 | 0.014732286 | 0.001612534 | 0 | 0.016344819 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.31E-04 | 0.001433894 | 4.04E-04 | 0 | 0.001837862 |
| Los Angele | 2018 | Annual | LDA/LDT1 | 0.189823478 | 0.551131295 | 2.615813963 | 0.195394384 | 6.526710138 | 62.70505237 | 0 | 15.06731071 | 77.77236308 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.057460465 | 0.203930613 | 0.017357958 | 0 | 0.221288571 |

EMFAC 2011
2019 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDA | 0.028446993 | 0.1074908 | 0.2671314 | 0.03442362 | 0.628646363 | 4.009274164 | 0 | 1.321465 | 5.330739164 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDA | 0.026193738 | 0.097345434 | 0.2626538 | 0.031204563 | 0.60502738 | 3.965287482 | 0 | 1.242379 | 5.207666482 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 5.88E-06 | 4.84E-05 | 0 | 0 | 4.84E-05 |
| Los Angele | 2019 | Annual | LDA | 0.019772327 | 0.071854733 | 0.2149927 | 0.023077358 | 0.500589413 | 3.52722217 | 0 | 1.069001 | 4.59622317 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 1.93E-04 | 0.001583804 | 0 | 0 | 0.001583804 |
| Los Angele | 2019 | Annual | LDA | 0.021739071 | 0.076477692 | 0.2578853 | 0.024727687 | 0.605274556 | 4.549818297 | 0 | 1.323401 | 5.873219297 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 3.46E-04 | 0.002847974 | 0 | 0 | 0.002847974 |
| Los Angele | 2019 | Annual | LDA | 0.018288754 | 0.061413113 | 0.2397279 | 0.020103393 | 0.566043635 | 4.632681802 | 0 | 1.304759 | 5.937440802 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 3.18E-04 | 0.002612904 | 0 | 0 | 0.002612904 |
| Los Angele | 2019 | Annual | LDA | 0.015656725 | 0.048852634 | 0.2272352 | 0.01645235 | 0.548431707 | 4.965265891 | 0 | 1.345711 | 6.310976891 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 3.09E-04 | 0.00253298 | 0 | 0 | 0.00253298 |
| Los Angele | 2019 | Annual | LDA | 0.012646698 | 0.035457913 | 0.1897062 | 0.012685837 | 0.490284031 | 4.977597516 | 0 | 1.289954 | 6.267551516 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 2.85E-04 | 0.002334283 | 0 | 0 | 0.002334283 |
| Los Angele | 2019 | Annual | LDA | 0.010836285 | 0.02667922 | 0.1804375 | 0.010076569 | 0.471371837 | 5.043397183 | 0 | 1.239935 | 6.283332183 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 2.47E-04 | 0.002024281 | 0 | 0 | 0.002024281 |
| Los Angele | 2019 | Annual | LDA | 0.009325121 | 0.019522211 | 0.1713984 | 0.007958786 | 0.442460547 | 4.850264305 | 0 | 1.107272 | 5.957536305 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 2.31E-04 | 0.001889012 | 0 | 0 | 0.001889012 |
| Los Angele | 2019 | Annual | LDA | 0.0082678 | 0.014640695 | 0.1612402 | 0.006515505 | 0.419002612 | 4.725948584 | 0 | 0.9983131 | 5.724261684 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 2.02E-04 | 0.001651779 | 0 | 0 | 0.001651779 |
| Los Angele | 2019 | Annual | LDA | 0.007669826 | 0.011501522 | 0.1554325 | 0.005623223 | 0.411172102 | 4.820176414 | 0 | 0.9387264 | 5.758902814 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 1.97E-04 | 0.001607506 | 0 | 0 | 0.001607506 |
| Los Angele | 2019 | Annual | LDA | 0.007212157 | 0.009186666 | 0.1512289 | 0.004960295 | 0.408188354 | 5.056618856 | 0 | 0.8931171 | 5.949735956 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 1.83E-04 | 0.001487306 | 0 | 0 | 0.001487306 |
| Los Angele | 2019 | Annual | LDA | 0.006929286 | 0.007725221 | 0.1460922 | 0.004546301 | 0.404533272 | 5.49999592 | 0 | 0.8455418 | 6.34553772 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 1.80E-04 | 0.001459992 | 0 | 0 | 0.001459992 |
| Los Angele | 2019 | Annual | LDT1 | 0.002008377 | 0.005906049 | 0.021423055 | 0.002430326 | 0.043442792 | 0.260081406 | 0 | 0.074311078 | 0.334392484 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDT1 | 0.003607964 | 0.010453935 | 0.039158948 | 0.00429816 | 0.07971987 | 0.49502871 | 0 | 0.1357509 | 0.63077961 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDT1 | 0.002776732 | 0.007886559 | 0.030905029 | 0.003240875 | 0.065090627 | 0.441075856 | 0 | 0.1181264 | 0.559202256 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDT1 | 0.002590407 | 0.007144967 | 0.029722722 | 0.00294653 | 0.065008116 | 0.477971683 | 0 | 0.1242471 | 0.602218783 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | T6 instate heavy | 0.127260446 | 0.002009075 | 0 | 0.129269521 | 33.18458995 | 0.399551638 | 0 | 33.58414159 | 31.0275916 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.068371075 | 0.001098463 | 0 | 0.069469538 | 20.45251442 | 0.218455065 | 0 | 20.67096948 | 19.12310098 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.055284631 | 0.003142342 | 0 | 0.058426974 | 38.43976296 | 0.624928393 | 0 | 39.06469136 | 35.94117837 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.04082577 | 0.001898703 | 0 | 0.042724473 | 32.20080317 | 0.377601565 | 0 | 32.57840473 | 30.10775096 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.037245979 | 0.001633648 | 0 | 0.038879627 | 35.26551486 | 0.324889199 | 0 | 35.59040406 | 32.97325639 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.037182952 | 0.001906421 | 0 | 0.039089373 | 43.37375918 | 0.379136375 | 0 | 43.75289556 | 40.55446484 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.038806144 | 0.002052428 | 0 | 0.040858572 | 48.94257657 | 0.408173357 | 0 | 49.35074992 | 45.76130909 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.03991239 | 0.002227511 | 0 | 0.042139901 | 55.01999629 | 0.442992704 | 0 | 55.462989 | 51.44369654 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.039494579 | 0.002394299 | 0 | 0.041888878 | 60.24884703 | 0.47616241 | 0 | 60.72500944 | 56.33267197 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.039817694 | 0.002719715 | 0 | 0.042537409 | 68.14353983 | 0.540878999 | 0 | 68.68441883 | 63.71420974 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.03133974 | 0.002436208 | 0 | 0.033775948 | 61.04061976 | 0.484496979 | 0 | 61.52511674 | 57.07297948 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.002819779 | 6.10E-04 | 0 | 0.003430091 | 6.37198065 | 0.121374948 | 0 | 6.493355598 | 5.957801908 |
| Los Angele | 2018 | Annual | LDA/LDT1 | 5.763449821 | 0 | 0.89523998 | 6.658689801 | 43495.10804 | 0 | 1527.520548 | 45022.62859 | 31338.04658 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.702423701 | 0.026224312 | 0 | 0.728648013 | 537.1885066 | 5.215318544 | 0 | 542.4038251 | 502.2712537 |

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South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDA | 0.294319097 | 0 | 0.063264854 | 0.357583951 | 1892.060745 | 0 | 87.40945 | 1979.470195 | 1740.695885 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDA | 0.31010798 | 0 | 0.064325668 | 0.374433648 | 2055.037061 | 0 | 92.85471 | 2147.891771 | 1890.634096 |
| Los Angele | 2019 | Annual | LDA | 1.57E-04 | 0 | 0 | 1.57E-04 | 0.204517053 | 0 | 0 | 0.204517053 | 0.188155689 |
| Los Angele | 2019 | Annual | LDA | 0.29307623 | 0 | 0.060456108 | 0.353532338 | 1868.223703 | 0 | 82.56264 | 1950.786343 | 1718.765807 |
| Los Angele | 2019 | Annual | LDA | 0.005167981 | 0 | 0 | 0.005167981 | 6.915063232 | 0 | 0 | 6.915063232 | 6.361858173 |
| Los Angele | 2019 | Annual | LDA | 0.402155552 | 0 | 0.081668578 | 0.48382413 | 2496.517838 | 0 | 107.5236 | 2604.041438 | 2216.408537 |
| Los Angele | 2019 | Annual | LDA | 0.009323352 | 0 | 0 | 0.009323352 | 12.88358724 | 0 | 0 | 12.88358724 | 11.43804876 |
| Los Angele | 2019 | Annual | LDA | 0.414393863 | 0 | 0.081320032 | 0.495713895 | 2602.911138 | 0 | 109.0099 | 2711.921038 | 2049.844579 |
| Los Angele | 2019 | Annual | LDA | 0.008585393 | 0 | 0 | 0.008585393 | 12.2873029 | 0 | 0 | 12.2873029 | 9.676496778 |
| Los Angele | 2019 | Annual | LDA | 0.449443604 | 0 | 0.084656745 | 0.534100349 | 2868.874055 | 0 | 116.2847 | 2985.158755 | 1971.605006 |
| Los Angele | 2019 | Annual | LDA | 0.008358047 | 0 | 0 | 0.008358047 | 12.43303591 | 0 | 0 | 12.43303591 | 8.544479602 |
| Los Angele | 2019 | Annual | LDA | 0.453726423 | 0 | 0.081200637 | 0.53492706 | 2989.522022 | 0 | 116.7281 | 3106.250122 | 2002.262269 |
| Los Angele | 2019 | Annual | LDA | 0.007740167 | 0 | 0 | 0.007740167 | 12.01621178 | 0 | 0 | 12.01621178 | 8.047978001 |
| Los Angele | 2019 | Annual | LDA | 0.460252905 | 0 | 0.077205688 | 0.537458593 | 3235.183684 | 0 | 121.3286 | 3356.512284 | 2119.174721 |
| Los Angele | 2019 | Annual | LDA | 0.006752418 | 0 | 0 | 0.006752418 | 11.01456634 | 0 | 0 | 11.01456634 | 7.214981537 |
| Los Angele | 2019 | Annual | LDA | 0.471483004 | 0 | 0.073274516 | 0.54475752 | 3492.226463 | 0 | 124.8895 | 3617.115963 | 2194.37542 |
| Los Angele | 2019 | Annual | LDA | 0.00634526 | 0 | 0 | 0.00634526 | 10.93020807 | 0 | 0 | 10.93020807 | 6.868105543 |
| Los Angele | 2019 | Annual | LDA | 0.465247655 | 0 | 0.065280266 | 0.530527921 | 3710.466451 | 0 | 125.3378 | 3835.804251 | 2242.754342 |
| Los Angele | 2019 | Annual | LDA | 0.005594547 | 0 | 0 | 0.005594547 | 10.2402701 | 0 | 0 | 10.2402701 | 6.189628856 |
| Los Angele | 2019 | Annual | LDA | 0.475303184 | 0 | 0.059226088 | 0.534529272 | 4051.832527 | 0 | 127.9043 | 4179.736827 | 2449.089653 |
| Los Angele | 2019 | Annual | LDA | 0.005499799 | 0 | 0 | 0.005499799 | 10.78223884 | 0 | 0 | 10.78223884 | 6.517216442 |
| Los Angele | 2019 | Annual | LDA | 0.494752726 | 0 | 0.052925166 | 0.547677892 | 4532.367693 | 0 | 130.9076 | 4663.275293 | 2739.544328 |
| Los Angele | 2019 | Annual | LDA | 0.005153565 | 0 | 0 | 0.005153565 | 10.93750217 | 0 | 0 | 10.93750217 | 6.611063811 |
| Los Angele | 2019 | Annual | LDA | 0.527864941 | 0 | 0.045291509 | 0.57315645 | 5245.510422 | 0 | 132.1371 | 5377.647522 | 3170.596319 |
| Los Angele | 2019 | Annual | LDA | 0.005145306 | 0 | 0 | 0.005145306 | 12.01427936 | 0 | 0 | 12.01427936 | 7.261911016 |
| Los Angele | 2019 | Annual | LDT1 | 0.018826112 | 0 | 0.003517357 | 0.022343469 | 138.5909356 | 0 | 5.527009 | 144.1179446 | 127.5036608 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDT1 | 0.038293763 | 0 | 0.006970119 | 0.045263882 | 290.8112549 | 0 | 11.45492 | 302.2661749 | 267.5463545 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDT1 | 0.036243375 | 0 | 0.006606479 | 0.042849854 | 266.7907508 | 0 | 10.38445 | 277.1752008 | 245.4474907 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDT1 | 0.041996622 | 0 | 0.007635607 | 0.049632229 | 299.3089501 | 0 | 11.47506 | 310.7840101 | 265.7264859 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | T6 instate heavy | 0.373580782 | 0 | 31.40117239 | 0.00170314 | 4.72E-06 | 0 | 0.001707862 | 3.42E-04 | 0.003715599 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.204255486 | 0 | 19.32735646 | 0.001004448 | 2.58E-06 | 0 | 0.00100703 | 2.11E-04 | 0.002290019 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.584308048 | 0 | 36.52548642 | 0.001859587 | 7.39E-06 | 0 | 0.001866972 | 4.10E-04 | 0.004452786 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.353057464 | 0 | 30.46080842 | 0.001474492 | 4.46E-06 | 0 | 0.001478954 | 3.43E-04 | 0.003730077 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.303771402 | 0 | 33.2770278 | 0.001517873 | 3.84E-06 | 0 | 0.001521713 | 3.76E-04 | 0.004085087 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.354492511 | 0 | 40.90895735 | 0.001461503 | 4.48E-06 | 0 | 0.001465984 | 4.64E-04 | 0.005035921 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.381642088 | 0 | 46.14295118 | 0.001547511 | 4.82E-06 | 0 | 0.001552335 | 5.23E-04 | 0.00568249 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.414198179 | 0 | 51.85789471 | 0.001619917 | 5.24E-06 | 0 | 0.001625152 | 5.88E-04 | 0.00638811 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.445211853 | 0 | 56.77788383 | 0.001638033 | 5.63E-06 | 0 | 0.00164366 | 6.44E-04 | 0.006995207 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.505721864 | 0 | 64.2199316 | 0.001696157 | 6.39E-06 | 0 | 0.001702549 | 7.28E-04 | 0.007911822 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.453004675 | 0 | 57.52598415 | 0.001379761 | 5.73E-06 | 0 | 0.001385487 | 6.52E-04 | 0.007087136 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.113485576 | 0 | 6.071287484 | 1.29E-04 | 1.43E-06 | 0 | 1.31E-04 | 6.81E-05 | 7.40E-04 |
| Los Angele | 2018 | Annual | LDA/LDT1 | 0 | 1129.226582 | 32467.27316 | 0.164597377 | 0 | 0.051240486 | 0.215837864 | 0.923986466 | 4.244563153 |
| Los Angele | 2018 | Annual | T6 instate heavy | 4.876322839 | 0 | 507.1475765 | 0.018874487 | 6.16358E-05 | 0 | 0.018936123 | 0.005706068 | 0.061977404 |

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South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDA | 0 | 80.416694 | 1821.112579 | 0.001460195 | 0 | 2.11E-04 | 0.001671157 | 0.040955044 | 0.1881373 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDA | 0 | 85.4263332 | 1976.060429 | 0.001585972 | 0 | 2.91E-04 | 0.001877307 | 0.044475596 | 0.2043098 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0.188155689 | 3.12E-06 | 0 | 0 | 3.12E-06 | 5.15E-06 | 2.37E-05 |
| Los Angele | 2019 | Annual | LDA | 0 | 75.9576288 | 1794.723436 | 0.001922398 | 0 | 4.09E-04 | 0.002331555 | 0.040358264 | 0.1853958 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 6.361858173 | 1.02E-04 | 0 | 0 | 1.02E-04 | 1.74E-04 | 8.00E-04 |
| Los Angele | 2019 | Annual | LDA | 0 | 95.45945208 | 2311.867989 | 0.002568912 | 0 | 6.57E-04 | 0.00322633 | 0.053934224 | 0.2477604 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 11.43804876 | 1.85E-04 | 0 | 0 | 1.85E-04 | 3.24E-04 | 0.001489838 |
| Los Angele | 2019 | Annual | LDA | 0 | 85.84747645 | 2135.692055 | 0.004017585 | 0 | 0.001241807 | 0.005259392 | 0.056232464 | 0.2583179 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 9.676496778 | 1.70E-04 | 0 | 0 | 1.70E-04 | 3.09E-04 | 0.001420884 |
| Los Angele | 2019 | Annual | LDA | 0 | 79.91549723 | 2051.520503 | 0.005902287 | 0 | 0.001863532 | 0.007765819 | 0.061961651 | 0.2846364 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 8.544479602 | 1.66E-04 | 0 | 0 | 1.66E-04 | 3.13E-04 | 0.001437737 |
| Los Angele | 2019 | Annual | LDA | 0 | 78.17981226 | 2080.442082 | 0.009222872 | 0 | 0.003504628 | 0.0127275 | 0.064549744 | 0.2965254 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 8.047978001 | 1.53E-04 | 0 | 0 | 1.53E-04 | 3.02E-04 | 0.001389536 |
| Los Angele | 2019 | Annual | LDA | 0 | 79.47508614 | 2198.649807 | 0.013303517 | 0 | 0.005153733 | 0.018457251 | 0.069834903 | 0.3208041 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 7.214981537 | 1.34E-04 | 0 | 0 | 1.34E-04 | 2.77E-04 | 0.001273707 |
| Los Angele | 2019 | Annual | LDA | 0 | 78.47556622 | 2272.850987 | 0.017945042 | 0 | 0.006832186 | 0.024777227 | 0.075365268 | 0.3462092 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 6.868105543 | 1.26E-04 | 0 | 0 | 1.26E-04 | 2.75E-04 | 0.001263952 |
| Los Angele | 2019 | Annual | LDA | 0 | 75.75917983 | 2318.513522 | 0.021919611 | 0 | 0.008001178 | 0.029920788 | 0.080056004 | 0.3677573 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 6.189628856 | 1.11E-04 | 0 | 0 | 1.11E-04 | 2.58E-04 | 0.001184169 |
| Los Angele | 2019 | Annual | LDA | 0 | 77.31047509 | 2526.400128 | 0.026009532 | 0 | 0.008926462 | 0.034935994 | 0.087397948 | 0.4014843 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 6.517216442 | 1.09E-04 | 0 | 0 | 1.09E-04 | 2.71E-04 | 0.001246841 |
| Los Angele | 2019 | Annual | LDA | 0 | 79.12578974 | 2818.670118 | 0.030248513 | 0 | 0.009528887 | 0.0397774 | 0.097739391 | 0.4489904 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 6.611063811 | 1.02E-04 | 0 | 0 | 1.02E-04 | 2.75E-04 | 0.001264795 |
| Los Angele | 2019 | Annual | LDA | 0 | 79.86894872 | 3250.465268 | 0.034997038 | 0 | 0.009646022 | 0.04464306 | 0.1130884 | 0.5195 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 7.261911016 | 1.02E-04 | 0 | 0 | 1.02E-04 | 3.02E-04 | 0.001389312 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 5.08484828 | 132.5885091 | 9.19E-05 | 0 | 1.15E-05 | 1.03E-04 | 0.002574221 | 0.011825328 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 10.5385264 | 278.0848809 | 1.93E-04 | 0 | 3.09E-05 | 2.24E-04 | 0.005406401 | 0.024835657 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 9.553694 | 255.0011847 | 2.36E-04 | 0 | 4.42E-05 | 2.80E-04 | 0.004951375 | 0.022745386 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 10.18755827 | 275.9140441 | 2.65E-04 | 0 | 6.03E-05 | 3.25E-04 | 0.005558309 | 0.025533488 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | T6 instate heavy | 0.005765545 | 0.001566889 | 4.34E-06 | 0 | 0.001571233 | 8.55E-05 | 0.0015924 | 0.003249154 | 3.17E-04 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.003507884 | 9.24E-04 | 2.38E-06 | 0 | 9.26E-04 | 5.27E-05 | 9.81E-04 | 0.001960613 | 1.95E-04 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.006729713 | 0.00171082 | 6.79E-06 | 0 | 0.001717615 | 1.02E-04 | 0.001908337 | 0.00372844 | 3.67E-04 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.005552448 | 0.001356532 | 4.11E-06 | 0 | 0.001360638 | 8.59E-05 | 0.001598605 | 0.003045097 | 3.07E-04 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.005982901 | 0.001396443 | 3.53E-06 | 0 | 0.001399976 | 9.40E-05 | 0.001750752 | 0.003244753 | 3.36E-04 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.006965546 | 0.001344583 | 4.12E-06 | 0 | 0.001348705 | 1.16E-04 | 0.002158252 | 0.003622867 | 4.14E-04 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.007757994 | 0.00142371 | 4.44E-06 | 0 | 0.001428148 | 1.31E-04 | 0.002435353 | 0.003994293 | 4.67E-04 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.008601395 | 0.001490323 | 4.82E-06 | 0 | 0.00149514 | 1.47E-04 | 0.002737761 | 0.004379935 | 5.25E-04 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.009282894 | 0.00150699 | 5.18E-06 | 0 | 0.001512167 | 1.61E-04 | 0.002997946 | 0.00467112 | 5.75E-04 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.010342788 | 0.001560464 | 5.88E-06 | 0 | 0.001566345 | 1.82E-04 | 0.003390781 | 0.00513923 | 6.50E-04 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.009125114 | 0.00126938 | 5.27E-06 | 0 | 0.001274648 | 1.63E-04 | 0.003037344 | 0.004475115 | 5.82E-04 |
| Los Angele | 2018 | Annual | T6 instate heavy | 9.39E-04 | 1.19E-04 | 1.32E-06 | 0 | 1.20E-04 | 1.70E-05 | 3.17E-04 | 4.55E-04 | 6.08E-05 |
| Los Angele | 2018 | Annual | LDA/LDT1 | 5.384387483 | 0.152707948 | 0 | 0.047542716 | 0.200250664 | 0.230996609 | 1.819098433 | 2.250345706 | 0.435145383 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.086619594 | 0.017364528 | 5.67049E-05 | 0 | 0.017421233 | 0.001426517 | 0.026561744 | 0.045409494 | 0.005125029 |

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Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDA | 0.230763501 | 0.00135482 | 0 | 1.96E-04 | 0.001550558 | 0.010238761 | 0.080630258 | 0.092419577 | 0.018952377 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDA | 0.250662703 | 0.00147152 | 0 | 2.70E-04 | 0.001741832 | 0.011118899 | 0.087561354 | 0.100422085 | 0.020578498 |
| Los Angele | 2019 | Annual | LDA | 3.19E-05 | 2.87E-06 | 0 | 0 | 2.87E-06 | 1.29E-06 | 1.01E-05 | 1.43E-05 | 1.95E-06 |
| Los Angele | 2019 | Annual | LDA | 0.228085619 | 0.001783669 | 0 | 3.80E-04 | 0.002163298 | 0.010089566 | 0.079455324 | 0.091708188 | 0.018706623 |
| Los Angele | 2019 | Annual | LDA | 0.001076096 | 9.42E-05 | 0 | 0 | 9.42E-05 | 4.35E-05 | 3.43E-04 | 4.80E-04 | 6.60E-05 |
| Los Angele | 2019 | Annual | LDA | 0.304920954 | 0.002383526 | 0 | 6.10E-04 | 0.002993502 | 0.013483556 | 0.106183 | 0.122660058 | 0.024995176 |
| Los Angele | 2019 | Annual | LDA | 0.001998873 | 1.70E-04 | 0 | 0 | 1.70E-04 | 8.11E-05 | 6.39E-04 | 8.90E-04 | 1.23E-04 |
| Los Angele | 2019 | Annual | LDA | 0.319809756 | 0.003727657 | 0 | 0.001152192 | 0.004879849 | 0.014058116 | 0.1107077 | 0.129645665 | 0.026058553 |
| Los Angele | 2019 | Annual | LDA | 0.001900315 | 1.57E-04 | 0 | 0 | 1.57E-04 | 7.73E-05 | 6.09E-04 | 8.43E-04 | 1.17E-04 |
| Los Angele | 2019 | Annual | LDA | 0.35436387 | 0.005476348 | 0 | 0.00172905 | 0.007205398 | 0.015490413 | 0.121987 | 0.144682811 | 0.028718846 |
| Los Angele | 2019 | Annual | LDA | 0.001916359 | 1.52E-04 | 0 | 0 | 1.52E-04 | 7.82E-05 | 6.16E-04 | 8.47E-04 | 1.19E-04 |
| Los Angele | 2019 | Annual | LDA | 0.373802644 | 0.008557305 | 0 | 0.003251717 | 0.011809022 | 0.016137436 | 0.1270823 | 0.155028758 | 0.029923372 |
| Los Angele | 2019 | Annual | LDA | 0.00184545 | 1.41E-04 | 0 | 0 | 1.41E-04 | 7.56E-05 | 5.96E-04 | 8.12E-04 | 1.15E-04 |
| Los Angele | 2019 | Annual | LDA | 0.409096254 | 0.012343469 | 0 | 0.004781814 | 0.017125283 | 0.017458726 | 0.1374875 | 0.172071509 | 0.032376658 |
| Los Angele | 2019 | Annual | LDA | 0.001684859 | 1.23E-04 | 0 | 0 | 1.23E-04 | 6.93E-05 | 5.46E-04 | 7.38E-04 | 1.05E-04 |
| Los Angele | 2019 | Annual | LDA | 0.446351695 | 0.016650039 | 0 | 0.006339141 | 0.02298918 | 0.018841317 | 0.1483754 | 0.190205897 | 0.034939229 |
| Los Angele | 2019 | Annual | LDA | 0.001664943 | 1.16E-04 | 0 | 0 | 1.16E-04 | 6.88E-05 | 5.42E-04 | 7.26E-04 | 1.04E-04 |
| Los Angele | 2019 | Annual | LDA | 0.477734092 | 0.020337785 | 0 | 0.007423771 | 0.027761556 | 0.020014001 | 0.1576103 | 0.205385857 | 0.037115656 |
| Los Angele | 2019 | Annual | LDA | 0.00155294 | 1.02E-04 | 0 | 0 | 1.02E-04 | 6.44E-05 | 5.08E-04 | 6.74E-04 | 9.78E-05 |
| Los Angele | 2019 | Annual | LDA | 0.523818242 | 0.024132555 | 0 | 0.008282283 | 0.032414838 | 0.021849487 | 0.1720647 | 0.226329025 | 0.040524717 |
| Los Angele | 2019 | Annual | LDA | 0.001627419 | 1.00E-04 | 0 | 0 | 1.00E-04 | 6.79E-05 | 5.34E-04 | 7.03E-04 | 1.03E-04 |
| Los Angele | 2019 | Annual | LDA | 0.586507191 | 0.028065629 | 0 | 0.008841234 | 0.036906864 | 0.024434848 | 0.1924244 | 0.253766112 | 0.045325242 |
| Los Angele | 2019 | Annual | LDA | 0.00164246 | 9.41E-05 | 0 | 0 | 9.41E-05 | 6.88E-05 | 5.42E-04 | 7.05E-04 | 1.04E-04 |
| Los Angele | 2019 | Annual | LDA | 0.67723146 | 0.032471477 | 0 | 0.008949917 | 0.041421394 | 0.028272111 | 0.2226429 | 0.292336405 | 0.052450899 |
| Los Angele | 2019 | Annual | LDA | 0.001793985 | 9.41E-05 | 0 | 0 | 9.41E-05 | 7.56E-05 | 5.95E-04 | 7.65E-04 | 1.15E-04 |
| Los Angele | 2019 | Annual | LDT1 | 0.014502921 | 8.53E-05 | 0 | 1.06E-05 | 9.59E-05 | 6.44E-04 | 0.005067998 | 0.005807465 | 0.00138768 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDT1 | 0.030465795 | 1.79E-04 | 0 | 2.86E-05 | 2.08E-04 | 0.0013516 | 0.010643853 | 0.012203045 | 0.002910997 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDT1 | 0.027976879 | 2.19E-04 | 0 | 4.10E-05 | 2.60E-04 | 0.001237844 | 0.00974802 | 0.011245767 | 0.00267035 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | LDT1 | 0.03141673 | 2.46E-04 | 0 | 5.59E-05 | 3.01E-04 | 0.001389577 | 0.010942923 | 0.012633984 | 0.002995565 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | T6 instate heavy | 3.81E-06 | 0 | 3.20E-04 | 0 | 3.022572743 | 4.62E-04 | 1.99E-03 | 1.00E-02 | 1.32E-04 | 3.14E-04 | 1.22E-04 | 1.30E-04 | 2.48E-05 |
| Los Angele | 2018 | Annual | T6 instate heavy | 2.08E-06 | 0 | 1.97E-04 | 0 | 1.860387253 | 4.41E-04 | 1.89E-03 | 8.72E-03 | 1.26E-04 | 3.14E-04 | 1.16E-04 | 1.30E-04 | 2.47E-05 |
| Los Angele | 2018 | Annual | T6 instate heavy | 5.96E-06 | 0 | 3.73E-04 | 0 | 3.515822222 | 2.69E-04 | 1.20E-03 | 3.77E-03 | 1.20E-04 | 3.14E-04 | 1.11E-04 | 1.30E-04 | 2.41E-05 |
| Los Angele | 2018 | Annual | T6 instate heavy | 3.60E-06 | 0 | 3.11E-04 | 0 | 2.932056426 | 2.54E-04 | 1.12E-03 | 3.29E-03 | 1.14E-04 | 3.14E-04 | 1.05E-04 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2018 | Annual | T6 instate heavy | 3.10E-06 | 0 | 3.40E-04 | 0 | 3.203136365 | 2.40E-04 | 1.05E-03 | 2.73E-03 | 1.07E-04 | 3.14E-04 | 9.85E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2018 | Annual | T6 instate heavy | 3.62E-06 | 0 | 4.17E-04 | 0 | 3.9377606 | 1.97E-04 | 8.65E-04 | 2.23E-03 | 8.36E-05 | 3.14E-04 | 7.70E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2018 | Annual | T6 instate heavy | 3.89E-06 | 0 | 4.71E-04 | 0 | 4.441567493 | 1.88E-04 | 8.25E-04 | 2.07E-03 | 7.85E-05 | 3.14E-04 | 7.22E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2018 | Annual | T6 instate heavy | 4.23E-06 | 0 | 5.29E-04 | 0 | 4.99166901 | 1.78E-04 | 7.84E-04 | 1.90E-03 | 7.31E-05 | 3.14E-04 | 6.73E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2018 | Annual | T6 instate heavy | 4.54E-06 | 0 | 5.79E-04 | 0 | 5.46525085 | 1.69E-04 | 7.43E-04 | 1.72E-03 | 6.75E-05 | 3.14E-04 | 6.21E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2018 | Annual | T6 instate heavy | 5.16E-06 | 0 | 6.55E-04 | 0 | 6.181597695 | 1.59E-04 | 7.03E-04 | 1.54E-03 | 6.18E-05 | 3.14E-04 | 5.69E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2018 | Annual | T6 instate heavy | 4.62E-06 | 0 | 5.87E-04 | 0 | 5.537260507 | 1.49E-04 | 6.63E-04 | 1.37E-03 | 5.62E-05 | 3.14E-04 | 5.17E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2018 | Annual | T6 instate heavy | 1.16E-06 | 0 | 6.19E-05 | 0 | 0.584402004 | 1.47E-04 | 7.14E-04 | 1.33E-03 | 5.08E-05 | 3.14E-04 | 4.68E-05 | 1.30E-04 | 2.41E-05 |
| Los Angele | 2018 | Annual | LDA/LDT1 | 0 | 0.015512035 | 0.450657419 | 4794.34263 | 11.11296198 | 1.06E-04 | 1.48E-03 | 1.27E-04 | 4.12E-06 | 9.87E-05 | 3.82E-06 | 3.91E-05 | 8.60E-06 |
| Los Angele | 2018 | Annual | T6 instate heavy | 4.97566E-05 | 0 | 0.005174786 | 0 | 48.81634426 | 2.34E-04 | 1.03E-03 | 3.38E-03 | 8.78E-05 | 3.14E-04 | 8.08E-05 | 1.30E-04 | 2.40E-05 |

EMFAC 2011
2019 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDA | 0 | 8.95E-04 | 0.019847784 | 211.7055 | 0 | 2.45E-04 | 2.30E-03 | 1.54E-04 | 7.20E-07 | 9.87E-05 | 6.68E-07 | 3.91E-05 | 8.55E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2019 | Annual | LDA | 0 | 9.48E-04 | 0.021526898 | 229.6156 | 0 | 2.16E-04 | 2.07E-03 | 1.48E-04 | 7.44E-07 | 9.87E-05 | 6.91E-07 | 3.91E-05 | 8.54E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 1.95E-06 | 0 | 0.018406535 | 1.77E-05 | 1.66E-04 | 5.39E-04 | 1.07E-05 | 9.87E-05 | 9.82E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 8.43E-04 | 0.019549356 | 208.5223 | 0 | 1.95E-04 | 2.01E-03 | 1.54E-04 | 1.02E-06 | 9.87E-05 | 9.45E-07 | 3.91E-05 | 8.54E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 6.60E-05 | 0 | 0.6223556 | 1.71E-05 | 1.60E-04 | 5.24E-04 | 1.04E-05 | 9.87E-05 | 9.54E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0.001096402 | 0.026091578 | 278.3046 | 0 | 1.74E-04 | 1.92E-03 | 1.58E-04 | 1.06E-06 | 9.87E-05 | 9.79E-07 | 3.91E-05 | 8.53E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 1.23E-04 | 0 | 1.159523 | 1.65E-05 | 1.55E-04 | 5.07E-04 | 1.00E-05 | 9.87E-05 | 9.24E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0.001110925 | 0.027169478 | 289.802 | 0 | 1.55E-04 | 1.86E-03 | 1.55E-04 | 1.65E-06 | 9.87E-05 | 1.53E-06 | 3.91E-05 | 8.52E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 1.17E-04 | 0 | 1.105857 | 1.59E-05 | 1.49E-04 | 4.90E-04 | 9.70E-06 | 9.87E-05 | 8.92E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0.001184274 | 0.02990312 | 318.9603 | 0 | 1.34E-04 | 1.80E-03 | 1.52E-04 | 2.21E-06 | 9.87E-05 | 2.05E-06 | 3.91E-05 | 8.51E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 1.19E-04 | 0 | 1.118973 | 1.53E-05 | 1.43E-04 | 4.71E-04 | 9.33E-06 | 9.87E-05 | 8.59E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0.001187763 | 0.031111135 | 331.8454 | 0 | 1.12E-04 | 1.71E-03 | 1.46E-04 | 3.48E-06 | 9.87E-05 | 3.23E-06 | 3.91E-05 | 8.50E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 1.15E-04 | 0 | 1.081459 | 1.46E-05 | 1.36E-04 | 4.51E-04 | 8.95E-06 | 9.87E-05 | 8.23E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0.001232882 | 0.03360954 | 358.4946 | 0 | 9.86E-05 | 1.59E-03 | 1.36E-04 | 4.66E-06 | 9.87E-05 | 4.33E-06 | 3.91E-05 | 8.49E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 1.05E-04 | 0 | 0.991311 | 1.38E-05 | 1.29E-04 | 4.30E-04 | 8.52E-06 | 9.87E-05 | 7.83E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0.001266224 | 0.036205453 | 386.1837 | 0 | 8.52E-05 | 1.39E-03 | 1.27E-04 | 5.80E-06 | 9.87E-05 | 5.38E-06 | 3.91E-05 | 8.47E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 1.04E-04 | 0 | 0.9837188 | 1.30E-05 | 1.21E-04 | 4.07E-04 | 8.07E-06 | 9.87E-05 | 7.42E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0.001268859 | 0.038384515 | 409.4266 | 0 | 7.53E-05 | 1.26E-03 | 1.17E-04 | 6.59E-06 | 9.87E-05 | 6.12E-06 | 3.91E-05 | 8.46E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 9.78E-05 | 0 | 0.9216243 | 1.22E-05 | 1.13E-04 | 3.83E-04 | 7.59E-06 | 9.87E-05 | 6.99E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0.001293461 | 0.041818178 | 446.0516 | 0 | 6.69E-05 | 1.16E-03 | 1.08E-04 | 7.05E-06 | 9.87E-05 | 6.54E-06 | 3.91E-05 | 8.44E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 1.03E-04 | 0 | 0.9704016 | 1.13E-05 | 1.04E-04 | 3.57E-04 | 7.09E-06 | 9.87E-05 | 6.53E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0.001322624 | 0.046647866 | 497.5672 | 0 | 5.87E-05 | 1.07E-03 | 9.88E-05 | 7.18E-06 | 9.87E-05 | 6.66E-06 | 3.91E-05 | 8.42E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 1.04E-04 | 0 | 0.9843752 | 1.03E-05 | 9.53E-05 | 3.30E-04 | 6.56E-06 | 9.87E-05 | 6.03E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0.001333973 | 0.053784872 | 573.6938 | 0 | 4.95E-05 | 9.90E-04 | 8.94E-05 | 6.96E-06 | 9.87E-05 | 6.46E-06 | 3.91E-05 | 8.39E-06 |
| Los Angele | 2019 | Annual | LDA | 0 | 0 | 1.15E-04 | 0 | 1.081285 | 9.22E-06 | 8.51E-05 | 3.00E-04 | 5.96E-06 | 9.87E-05 | 5.49E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 5.65E-05 | 0.001444136 | 15.40381 | 0 | 2.72E-04 | 2.29E-03 | 1.53E-04 | 7.08E-07 | 9.87E-05 | 6.57E-07 | 3.91E-05 | 9.89E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2019 | Annual | LDT1 | 0 | 1.17E-04 | 0.003027689 | 32.2947 | 0 | 2.36E-04 | 2.06E-03 | 1.48E-04 | 7.30E-07 | 9.87E-05 | 6.77E-07 | 3.91E-05 | 9.88E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2019 | Annual | LDT1 | 0 | 1.06E-04 | 0.002776058 | 29.6107 | 0 | 2.08E-04 | 1.99E-03 | 1.53E-04 | 9.98E-07 | 9.87E-05 | 9.26E-07 | 3.91E-05 | 9.89E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2019 | Annual | LDT1 | 0 | 1.17E-04 | 0.003112275 | 33.19694 | 0 | 1.82E-04 | 1.91E-03 | 1.57E-04 | 1.03E-06 | 9.87E-05 | 9.57E-07 | 3.91E-05 | 9.88E-06 |

| | | | | |
|---|---|---|---|---|
| Los Angele | 2018 | Annual | T6 instate heavy | 1.21E-03 |
| Los Angele | 2018 | Annual | T6 instate heavy | 1.21E-03 |
| Los Angele | 2018 | Annual | T6 instate heavy | 1.18E-03 |
| Los Angele | 2018 | Annual | T6 instate heavy | 1.17E-03 |
| Los Angele | 2018 | Annual | T6 instate heavy | 1.17E-03 |
| Los Angele | 2018 | Annual | T6 instate heavy | 1.17E-03 |
| Los Angele | 2018 | Annual | T6 instate heavy | 1.17E-03 |
| Los Angele | 2018 | Annual | T6 instate heavy | 1.17E-03 |
| Los Angele | 2018 | Annual | T6 instate heavy | 1.17E-03 |
| Los Angele | 2018 | Annual | T6 instate heavy | 1.17E-03 |
| Los Angele | 2018 | Annual | T6 instate heavy | 1.18E-03 |
| Los Angele | 2018 | Annual | LDA/LDT1 | 3.10E-04 |
| Los Angele | 2018 | Annual | T6 instate heavy | 1.18E-03 |

EMFAC 2011
2019 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDA | 3.92E-04 |
| Los Angele | 2019 | Annual | LDA | |
| Los Angele | 2019 | Annual | LDA | 3.92E-04 |
| Los Angele | 2019 | Annual | LDA | 3.22E-04 |
| Los Angele | 2019 | Annual | LDA | 3.92E-04 |
| Los Angele | 2019 | Annual | LDA | 3.22E-04 |
| Los Angele | 2019 | Annual | LDA | 3.78E-04 |
| Los Angele | 2019 | Annual | LDA | 3.11E-04 |
| Los Angele | 2019 | Annual | LDA | 3.35E-04 |
| Los Angele | 2019 | Annual | LDA | 2.76E-04 |
| Los Angele | 2019 | Annual | LDA | 2.92E-04 |
| Los Angele | 2019 | Annual | LDA | 2.41E-04 |
| Los Angele | 2019 | Annual | LDA | 2.84E-04 |
| Los Angele | 2019 | Annual | LDA | 2.35E-04 |
| Los Angele | 2019 | Annual | LDA | 2.78E-04 |
| Los Angele | 2019 | Annual | LDA | 2.29E-04 |
| Los Angele | 2019 | Annual | LDA | 2.66E-04 |
| Los Angele | 2019 | Annual | LDA | 2.20E-04 |
| Los Angele | 2019 | Annual | LDA | 2.55E-04 |
| Los Angele | 2019 | Annual | LDA | 2.12E-04 |
| Los Angele | 2019 | Annual | LDA | 2.55E-04 |
| Los Angele | 2019 | Annual | LDA | 2.12E-04 |
| Los Angele | 2019 | Annual | LDA | 2.54E-04 |
| Los Angele | 2019 | Annual | LDA | 2.12E-04 |
| Los Angele | 2019 | Annual | LDA | 2.53E-04 |
| Los Angele | 2019 | Annual | LDA | 2.12E-04 |
| Los Angele | 2019 | Annual | LDT1 | 4.54E-04 |
| Los Angele | 2019 | Annual | LDT1 | |
| Los Angele | 2019 | Annual | LDT1 | 4.54E-04 |
| Los Angele | 2019 | Annual | LDT1 | |
| Los Angele | 2019 | Annual | LDT1 | 4.54E-04 |
| Los Angele | 2019 | Annual | LDT1 | |
| Los Angele | 2019 | Annual | LDT1 | 4.38E-04 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDT1 | DSL | 2010 | AllSpeeds | 30.35523 | 1009.367463 | 192.7365 | 1.00E-05 | 0 | 0 | 1.00E-05 |
| Los Angele | 2019 | Annual | LDT1 | GAS | 2011 | AllSpeeds | 17988.17 | 612187.5381 | 114932.9 | 0.007722362 | 0 | 0.006464803 | 0.014187165 |
| Los Angele | 2019 | Annual | LDT1 | DSL | 2011 | AllSpeeds | 42.75296 | 1455.00759 | 273.1641 | 1.39E-05 | 0 | 0 | 1.39E-05 |
| Los Angele | 2019 | Annual | LDT1 | GAS | 2012 | AllSpeeds | 17383.29 | 606783.077 | 111589.5 | 0.007433817 | 0 | 0.006099443 | 0.013533261 |
| Los Angele | 2019 | Annual | LDT1 | DSL | 2012 | AllSpeeds | 31.64026 | 1104.442547 | 203.1102 | 1.01E-05 | 0 | 0 | 1.01E-05 |
| Los Angele | 2019 | Annual | LDT1 | GAS | 2013 | AllSpeeds | 17639.02 | 633095.5638 | 113583.9 | 0.007501942 | 0 | 0.006008586 | 0.013510528 |
| Los Angele | 2019 | Annual | LDT1 | DSL | 2013 | AllSpeeds | 41.1841 | 1478.176412 | 265.1991 | 1.29E-05 | 0 | 0 | 1.29E-05 |
| Los Angele | 2019 | Annual | LDT1 | GAS | 2014 | AllSpeeds | 17747.77 | 657255.3131 | 114816.6 | 0.007361945 | 0 | 0.005785716 | 0.013147661 |
| Los Angele | 2019 | Annual | LDT1 | DSL | 2014 | AllSpeeds | 38.02504 | 1408.192501 | 245.9974 | 1.16E-05 | 0 | 0 | 1.16E-05 |
| Los Angele | 2019 | Annual | LDT1 | GAS | 2015 | AllSpeeds | 18573.1 | 712818.5869 | 120527.4 | 0.007123314 | 0 | 0.005568635 | 0.012691949 |
| Los Angele | 2019 | Annual | LDT1 | DSL | 2015 | AllSpeeds | 39.06543 | 1499.302763 | 253.5092 | 1.16E-05 | 0 | 0 | 1.16E-05 |
| Los Angele | 2019 | Annual | LDT1 | GAS | 2016 | AllSpeeds | 18626.61 | 745579.8442 | 121060.9 | 0.006933323 | 0 | 0.005236942 | 0.012170265 |
| Los Angele | 2019 | Annual | LDT1 | DSL | 2016 | AllSpeeds | 47.77551 | 1912.35264 | 310.5097 | 1.38E-05 | 0 | 0 | 1.38E-05 |
| Los Angele | 2019 | Annual | LDT1 | GAS | 2017 | AllSpeeds | 18948.56 | 798880.144 | 123532.2 | 0.007028096 | 0 | 0.005026872 | 0.012054969 |
| Los Angele | 2019 | Annual | LDT1 | DSL | 2017 | AllSpeeds | 31.89508 | 1344.718729 | 207.9351 | 8.98E-06 | 0 | 0 | 8.98E-06 |
| Los Angele | 2019 | Annual | LDT1 | GAS | 2018 | AllSpeeds | 19132.59 | 864098.3142 | 125114.6 | 0.007122182 | 0 | 0.004723337 | 0.011845519 |
| Los Angele | 2019 | Annual | LDT1 | DSL | 2018 | AllSpeeds | 33.24561 | 1501.502899 | 217.4045 | 9.15E-06 | 0 | 0 | 9.15E-06 |
| Los Angele | 2019 | Annual | LDT1 | GAS | 2019 | AllSpeeds | 18910.17 | 950903.4225 | 124038.3 | 0.007148633 | 0 | 0.004206132 | 0.011354764 |
| Los Angele | 2019 | Annual | LDT1 | DSL | 2019 | AllSpeeds | 37.61664 | 1891.575252 | 246.7405 | 1.03E-05 | 0 | 0 | 1.03E-05 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2007 | AllSpeeds | 454.3069294 | 22556.40196 | 0 | 0.00546101 | 1.05E-04 | 0 | 0.005566129 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2008 | AllSpeeds | 444.4600436 | 22525.24145 | 0 | 0.005255089 | 1.03E-04 | 0 | 0.00535793 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2009 | AllSpeeds | 257.8615255 | 14551.50721 | 0 | 0.003257903 | 5.97E-05 | 0 | 0.003317569 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2010 | AllSpeeds | 735.9126326 | 31630.71674 | 0 | 0.004188499 | 1.70E-04 | 0 | 0.004358778 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2011 | AllSpeeds | 381.7204168 | 20653.97926 | 0 | 0.002625929 | 8.83E-05 | 0 | 0.002714253 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2012 | AllSpeeds | 330.208152 | 22386.60926 | 0 | 0.002720543 | 7.64E-05 | 0 | 0.002796948 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2013 | AllSpeeds | 415.3922388 | 29883.57529 | 0 | 0.002937828 | 9.61E-05 | 0 | 0.003033943 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2014 | AllSpeeds | 497.2217843 | 37786.67345 | 0 | 0.003558989 | 1.15E-04 | 0 | 0.003674038 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2015 | AllSpeeds | 526.2535548 | 41917.30126 | 0 | 0.003765482 | 1.22E-04 | 0 | 0.003887249 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2016 | AllSpeeds | 552.6017124 | 45592.48899 | 0 | 0.003887511 | 1.28E-04 | 0 | 0.004015374 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2017 | AllSpeeds | 604.8474213 | 50838.51282 | 0 | 0.004094445 | 1.40E-04 | 0 | 0.004234398 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2018 | AllSpeeds | 659.1855675 | 55167.54547 | 0 | 0.004177359 | 1.53E-04 | 0 | 0.004329884 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2019 | AllSpeeds | 590.120438 | 49387.60231 | 0 | 0.003502822 | 1.37E-04 | 0 | 0.003639367 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2020 | AllSpeeds | 146.9933338 | 5125.959637 | 0 | 3.39E-04 | 3.40E-05 | 0 | 3.73E-04 |
| Los Angele | 2019 | Annual | LDA/LDT1 | GAS&DSI | >2007 | AllSpeeds | 3040142.665 | 109508024.6 | 19555384.3 | 1.143412148 | 0 | 0.955178862 | 2.09859101 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | >2007 | AllSpeeds | 6597.085751 | 450004.1151 | 0 | 0.049772385 | 0.001526462 | 0 | 0.051298847 |

EMFAC 2011
2020 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | LDA | GAS | 2007 | AllSpeeds | 153149.8 | 4026473.29 | 944840.2 | 0.055742779 | 0 | 0.061388474 | 0.117131253 |
| Los Angele | 2020 | Annual | LDA | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | LDA | GAS | 2008 | AllSpeeds | 165053.8 | 4458851.538 | 1026532 | 0.057171319 | 0 | 0.059423201 | 0.11659452 |
| Los Angele | 2020 | Annual | LDA | DSL | 2008 | AllSpeeds | 20.2522 | 547.1091828 | 125.9561 | 4.98E-06 | 0 | 0 | 4.98E-06 |
| Los Angele | 2020 | Annual | LDA | GAS | 2009 | AllSpeeds | 147893 | 4111231.002 | 925717.5 | 0.053484208 | 0 | 0.054182436 | 0.107666644 |
| Los Angele | 2020 | Annual | LDA | DSL | 2009 | AllSpeeds | 675.8032 | 18786.46975 | 4230.105 | 1.66E-04 | 0 | 0 | 1.66E-04 |
| Los Angele | 2020 | Annual | LDA | GAS | 2010 | AllSpeeds | 193595.9 | 5546320.459 | 1221468 | 0.072062153 | 0 | 0.070751823 | 0.142813976 |
| Los Angele | 2020 | Annual | LDA | DSL | 2010 | AllSpeeds | 1211.951 | 34721.19516 | 7646.648 | 2.97E-04 | 0 | 0 | 2.97E-04 |
| Los Angele | 2020 | Annual | LDA | GAS | 2011 | AllSpeeds | 197853.1 | 5853041.075 | 1256242 | 0.074481505 | 0 | 0.071344346 | 0.145825851 |
| Los Angele | 2020 | Annual | LDA | DSL | 2011 | AllSpeeds | 1120.16 | 33137.47255 | 7112.304 | 2.74E-04 | 0 | 0 | 2.74E-04 |
| Los Angele | 2020 | Annual | LDA | GAS | 2012 | AllSpeeds | 211148.8 | 6464230.356 | 1349106 | 0.080391228 | 0 | 0.074934699 | 0.155325927 |
| Los Angele | 2020 | Annual | LDA | DSL | 2012 | AllSpeeds | 1050.813 | 32170.24209 | 6714.021 | 2.56E-04 | 0 | 0 | 2.56E-04 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.00E-05 | 1.14E-05 | 0 | 0 | 1.14E-05 |
| Los Angele | 2019 | Annual | LDT1 | 0.002052501 | 0.005427864 | 0.024486063 | 0.002256154 | 0.048409747 | 0.014372293 | 0 | 0.006902416 | 0.021274709 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.39E-05 | 1.58E-05 | 0 | 0 | 1.58E-05 |
| Los Angele | 2019 | Annual | LDT1 | 0.001599156 | 0.00395295 | 0.019456578 | 0.00168042 | 0.040222364 | 0.013835275 | 0 | 0.006512325 | 0.0203476 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.01E-05 | 1.15E-05 | 0 | 0 | 1.15E-05 |
| Los Angele | 2019 | Annual | LDT1 | 0.001309644 | 0.002925185 | 0.014719917 | 0.001313697 | 0.033778972 | 0.013962064 | 0 | 0.006415316 | 0.02037738 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.29E-05 | 1.47E-05 | 0 | 0 | 1.47E-05 |
| Los Angele | 2019 | Annual | LDT1 | 0.001091284 | 0.002168535 | 0.013053211 | 0.001014776 | 0.030475466 | 0.013701511 | 0 | 0.006177359 | 0.019878871 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.16E-05 | 1.32E-05 | 0 | 0 | 1.32E-05 |
| Los Angele | 2019 | Annual | LDT1 | 9.58E-04 | 0.001647729 | 0.012196867 | 8.17E-04 | 0.028311363 | 0.01325739 | 0 | 0.005945584 | 0.019202974 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.16E-05 | 1.32E-05 | 0 | 0 | 1.32E-05 |
| Los Angele | 2019 | Annual | LDT1 | 8.50E-04 | 0.001263526 | 0.010944074 | 6.70E-04 | 0.025897087 | 0.012903792 | 0 | 0.005591438 | 0.01849523 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.38E-05 | 1.57E-05 | 0 | 0 | 1.57E-05 |
| Los Angele | 2019 | Annual | LDT1 | 7.88E-04 | 0.001017497 | 0.010172009 | 5.78E-04 | 0.024610461 | 0.013080177 | 0 | 0.00536715 | 0.018447327 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.98E-06 | 1.02E-05 | 0 | 0 | 1.02E-05 |
| Los Angele | 2019 | Annual | LDT1 | 7.33E-04 | 8.27E-04 | 0.009640051 | 5.04E-04 | 0.023550173 | 0.013255282 | 0 | 0.005043068 | 0.01829835 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.15E-06 | 1.04E-05 | 0 | 0 | 1.04E-05 |
| Los Angele | 2019 | Annual | LDT1 | 6.92E-04 | 7.01E-04 | 0.008889173 | 4.54E-04 | 0.022090937 | 0.01330451 | 0 | 0.004490851 | 0.017795362 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.03E-05 | 1.18E-05 | 0 | 0 | 1.18E-05 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005566129 | 0.006216944 | 1.20E-04 | 0 | 0.006336615 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00535793 | 0.005982519 | 1.17E-04 | 0 | 0.006099596 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003317569 | 0.003708875 | 6.79E-05 | 0 | 0.003776799 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004358778 | 0.004768287 | 1.94E-04 | 0 | 0.004962137 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002714253 | 0.00298942 | 1.01E-04 | 0 | 0.003089971 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002796948 | 0.003097131 | 8.70E-05 | 0 | 0.003184113 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003033943 | 0.003344494 | 1.09E-04 | 0 | 0.003453914 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003674038 | 0.004051638 | 1.31E-04 | 0 | 0.004182613 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003887249 | 0.004286715 | 1.39E-04 | 0 | 0.004425337 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004015374 | 0.004425635 | 1.46E-04 | 0 | 0.004571198 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004234398 | 0.004661214 | 1.59E-04 | 0 | 0.004820539 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004329884 | 0.004755606 | 1.74E-04 | 0 | 0.004929244 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003639367 | 0.003987696 | 1.55E-04 | 0 | 0.004143142 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.73E-04 | 3.86E-04 | 3.87E-05 | 0 | 4.25E-04 |
| Los Angele | 2019 | Annual | LDA/LDT1 | 0.214041475 | 0.639470632 | 2.869929897 | 0.224559438 | 6.046592452 | 2.126241837 | 0 | 1.019836487 | 3.146078324 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.051298847 | 0.056662072 | 0.001737761 | 0 | 0.058399833 |

EMFAC 2011
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Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | LDA | 0.027792906 | 0.1058116 | 0.2502188 | 0.033990216 | 0.534944775 | 0.103744372 | 0 | 0.065543957 | 0.169288329 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | LDA | 0.026370671 | 0.09930478 | 0.2523803 | 0.031834085 | 0.526484356 | 0.106403059 | 0 | 0.06344565 | 0.169848709 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 4.98E-06 | 5.67E-06 | 0 | 0 | 5.67E-06 |
| Los Angele | 2020 | Annual | LDA | 0.020476978 | 0.07572376 | 0.2104992 | 0.024309555 | 0.438676137 | 0.099540884 | 0 | 0.057850134 | 0.157391018 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 1.66E-04 | 1.89E-04 | 0 | 0 | 1.89E-04 |
| Los Angele | 2020 | Annual | LDA | 0.023079589 | 0.08345338 | 0.2566625 | 0.026843481 | 0.532852926 | 0.134116785 | 0 | 0.075541131 | 0.209657916 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 2.97E-04 | 3.39E-04 | 0 | 0 | 3.39E-04 |
| Los Angele | 2020 | Annual | LDA | 0.020037534 | 0.070067249 | 0.243423 | 0.022697808 | 0.502051442 | 0.138619514 | 0 | 0.076173767 | 0.214793281 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 2.74E-04 | 3.12E-04 | 0 | 0 | 3.12E-04 |
| Los Angele | 2020 | Annual | LDA | 0.017690809 | 0.058855727 | 0.2392785 | 0.019324563 | 0.490475526 | 0.14961825 | 0 | 0.080007158 | 0.229625408 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 2.56E-04 | 2.92E-04 | 0 | 0 | 2.92E-04 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.14E-05 | 9.34E-05 | 0 | 0 | 9.34E-05 |
| Los Angele | 2019 | Annual | LDT1 | 0.002052501 | 0.005427864 | 0.024486063 | 0.002256154 | 0.055497291 | 0.452286931 | 0 | 0.1150989 | 0.567385831 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.58E-05 | 1.29E-04 | 0 | 0 | 1.29E-04 |
| Los Angele | 2019 | Annual | LDT1 | 0.001599156 | 0.00395295 | 0.019456578 | 0.00168042 | 0.047036704 | 0.434399542 | 0 | 0.1075812 | 0.541980742 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.15E-05 | 9.38E-05 | 0 | 0 | 9.38E-05 |
| Los Angele | 2019 | Annual | LDT1 | 0.001309644 | 0.002925185 | 0.014719917 | 0.001313697 | 0.040645824 | 0.434632896 | 0 | 0.1041541 | 0.538786996 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.47E-05 | 1.19E-04 | 0 | 0 | 1.19E-04 |
| Los Angele | 2019 | Annual | LDT1 | 0.001091284 | 0.002168535 | 0.013053211 | 0.001014776 | 0.037206676 | 0.421060372 | 0 | 0.096956097 | 0.518016469 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.32E-05 | 1.07E-04 | 0 | 0 | 1.07E-04 |
| Los Angele | 2019 | Annual | LDT1 | 9.58E-04 | 0.001647729 | 0.012196867 | 8.17E-04 | 0.034822388 | 0.404185629 | 0 | 0.087553285 | 0.491738914 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.32E-05 | 1.07E-04 | 0 | 0 | 1.07E-04 |
| Los Angele | 2019 | Annual | LDT1 | 8.50E-04 | 0.001263526 | 0.010944074 | 6.70E-04 | 0.032222052 | 0.386842792 | 0 | 0.078760341 | 0.465603133 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.57E-05 | 1.28E-04 | 0 | 0 | 1.28E-04 |
| Los Angele | 2019 | Annual | LDT1 | 7.88E-04 | 0.001017497 | 0.010172009 | 5.78E-04 | 0.031002819 | 0.386828132 | 0 | 0.073964797 | 0.460792929 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.02E-05 | 8.26E-05 | 0 | 0 | 8.26E-05 |
| Los Angele | 2019 | Annual | LDT1 | 7.33E-04 | 8.27E-04 | 0.009640051 | 5.04E-04 | 0.030003004 | 0.392321659 | 0 | 0.069618441 | 0.4619401 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.04E-05 | 8.38E-05 | 0 | 0 | 8.38E-05 |
| Los Angele | 2019 | Annual | LDT1 | 6.92E-04 | 7.01E-04 | 0.008889173 | 4.54E-04 | 0.028531535 | 0.406220031 | 0 | 0.064816654 | 0.471036685 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.18E-05 | 9.43E-05 | 0 | 0 | 9.43E-05 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.006336615 | 0.023040954 | 0.001243045 | 0 | 0.024283999 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.006099596 | 0.022172138 | 0.001216102 | 0 | 0.023388241 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003776799 | 0.013745663 | 7.06E-04 | 0 | 0.014451207 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004962137 | 0.017672009 | 0.002013556 | 0 | 0.019685565 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003089971 | 0.011079253 | 0.001044438 | 0 | 0.012123691 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003184113 | 0.011478447 | 9.03E-04 | 0 | 0.012381941 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003453914 | 0.01239521 | 0.001136569 | 0 | 0.013531779 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004182613 | 0.015015996 | 0.001360466 | 0 | 0.016376462 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004425337 | 0.015887226 | 0.001439901 | 0 | 0.017327127 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004571198 | 0.016402088 | 0.001511993 | 0 | 0.01791408 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004820539 | 0.01727518 | 0.001654944 | 0 | 0.018930124 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004929244 | 0.017625008 | 0.00180362 | 0 | 0.019428628 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004143142 | 0.014779018 | 0.001614649 | 0 | 0.016393667 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.25E-04 | 0.001430192 | 4.02E-04 | 0 | 0.001832385 |
| Los Angele | 2019 | Annual | LDA/LDT1 | 0.214041475 | 0.639470632 | 2.869929897 | 0.224559438 | 7.094079766 | 66.03960348 | 0 | 16.17051469 | 82.21011817 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.058399833 | 0.209998383 | 0.018050514 | 0 | 0.228048897 |

EMFAC 2011
2020 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | LDA | 0.027792906 | 0.1058116 | 0.2502188 | 0.033990216 | 0.587101851 | 3.508567598 | 0 | 1.179917 | 4.688484598 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | LDA | 0.026370671 | 0.09930478 | 0.2523803 | 0.031834085 | 0.579738545 | 3.550705365 | 0 | 1.139276 | 4.689981365 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 5.67E-06 | 4.67E-05 | 0 | 0 | 4.67E-05 |
| Los Angele | 2020 | Annual | LDA | 0.020476978 | 0.07572376 | 0.2104992 | 0.024309555 | 0.488400511 | 3.22137316 | 0 | 1.000717 | 4.22209016 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 1.89E-04 | 0.001556492 | 0 | 0 | 0.001556492 |
| Los Angele | 2020 | Annual | LDA | 0.023079589 | 0.08345338 | 0.2566625 | 0.026843481 | 0.599696866 | 4.203825468 | 0 | 1.2585 | 5.462325468 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 3.39E-04 | 0.002785861 | 0 | 0 | 0.002785861 |
| Los Angele | 2020 | Annual | LDA | 0.020037534 | 0.070067249 | 0.243423 | 0.022697808 | 0.571018872 | 4.354168601 | 0 | 1.266492 | 5.620660601 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 3.12E-04 | 0.002566127 | 0 | 0 | 0.002566127 |
| Los Angele | 2020 | Annual | LDA | 0.017690809 | 0.058855727 | 0.2392785 | 0.019324563 | 0.564775007 | 4.696381896 | 0 | 1.322732 | 6.019113896 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 2.92E-04 | 0.002396519 | 0 | 0 | 0.002396519 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDT1 | 3.11E-04 | 0 | 0 | 3.11E-04 | 0.353597272 | 0 | 0 | 0.353597272 | 0.313923658 |
| Los Angele | 2019 | Annual | LDT1 | 0.04024986 | 0 | 0.007145526 | 0.047395386 | 290.676636 | 0 | 10.95694 | 301.633576 | 228.9136644 |
| Los Angele | 2019 | Annual | LDT1 | 4.32E-04 | 0 | 0 | 4.32E-04 | 0.509712007 | 0 | 0 | 0.509712007 | 0.401408399 |
| Los Angele | 2019 | Annual | LDT1 | 0.039169465 | 0 | 0.00674624 | 0.045915705 | 288.1765973 | 0 | 10.63742 | 298.8140173 | 198.0464847 |
| Los Angele | 2019 | Annual | LDT1 | 3.15E-04 | 0 | 0 | 3.15E-04 | 0.386903544 | 0 | 0 | 0.386903544 | 0.265895592 |
| Los Angele | 2019 | Annual | LDT1 | 0.039497473 | 0 | 0.006536795 | 0.046034269 | 300.7268628 | 0 | 10.82619 | 311.5530528 | 201.4148236 |
| Los Angele | 2019 | Annual | LDT1 | 4.02E-04 | 0 | 0 | 4.02E-04 | 0.517828358 | 0 | 0 | 0.517828358 | 0.346820721 |
| Los Angele | 2019 | Annual | LDT1 | 0.038250624 | 0 | 0.006001591 | 0.044252216 | 312.2839884 | 0 | 10.9432 | 323.2271884 | 204.5585038 |
| Los Angele | 2019 | Annual | LDT1 | 3.64E-04 | 0 | 0 | 3.64E-04 | 0.493311893 | 0 | 0 | 0.493311893 | 0.323139022 |
| Los Angele | 2019 | Annual | LDT1 | 0.039308595 | 0 | 0.005792621 | 0.045101215 | 338.7369229 | 0 | 11.48581 | 350.2227329 | 212.8487329 |
| Los Angele | 2019 | Annual | LDT1 | 3.67E-04 | 0 | 0 | 3.67E-04 | 0.525229278 | 0 | 0 | 0.525229278 | 0.330033069 |
| Los Angele | 2019 | Annual | LDT1 | 0.038107151 | 0 | 0.005144789 | 0.04325194 | 354.3930423 | 0 | 11.53601 | 365.9290523 | 214.2093305 |
| Los Angele | 2019 | Annual | LDT1 | 4.39E-04 | 0 | 0 | 4.39E-04 | 0.669927155 | 0 | 0 | 0.669927155 | 0.40493077 |
| Los Angele | 2019 | Annual | LDT1 | 0.038160003 | 0 | 0.00465522 | 0.042815223 | 379.8418365 | 0 | 11.77147 | 391.6133065 | 229.5915997 |
| Los Angele | 2019 | Annual | LDT1 | 2.87E-04 | 0 | 0 | 2.87E-04 | 0.471076101 | 0 | 0 | 0.471076101 | 0.284737238 |
| Los Angele | 2019 | Annual | LDT1 | 0.038384392 | 0 | 0.004107999 | 0.042492391 | 410.9182148 | 0 | 11.9206 | 422.8388148 | 248.3754057 |
| Los Angele | 2019 | Annual | LDT1 | 2.96E-04 | 0 | 0 | 2.96E-04 | 0.526000053 | 0 | 0 | 0.526000053 | 0.317935472 |
| Los Angele | 2019 | Annual | LDT1 | 0.038969573 | 0 | 0.003453709 | 0.042423283 | 452.3469895 | 0 | 11.81836 | 464.1653495 | 273.4166143 |
| Los Angele | 2019 | Annual | LDT1 | 3.38E-04 | 0 | 0 | 3.38E-04 | 0.662648513 | 0 | 0 | 0.662648513 | 0.400531267 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.121816826 | 0.001877986 | 0 | 0.123694812 | 28.81706029 | 0.373481443 | 0 | 29.19054173 | 26.51169547 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.111963159 | 0.001837281 | 0 | 0.11380044 | 28.777251 | 0.365386411 | 0 | 29.14263741 | 26.47507092 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.063254223 | 0.001065932 | 0 | 0.064320155 | 18.59036123 | 0.211985529 | 0 | 18.80234676 | 17.10313233 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.058608214 | 0.00304207 | 0 | 0.061650284 | 39.05980875 | 0.604986836 | 0 | 39.66479558 | 35.93502405 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.034044808 | 0.001577932 | 0 | 0.03562274 | 25.50496995 | 0.313808755 | 0 | 25.8187787 | 23.46457235 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.031154954 | 0.001364994 | 0 | 0.032519948 | 27.64454196 | 0.271461008 | 0 | 27.91600296 | 25.4329786 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.033704901 | 0.001717123 | 0 | 0.035422024 | 36.81738645 | 0.341490043 | 0 | 37.15887649 | 33.87199553 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.039789976 | 0.002055384 | 0 | 0.04184536 | 46.55422069 | 0.40876134 | 0 | 46.96298204 | 42.82988304 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.040824905 | 0.002175394 | 0 | 0.043000299 | 51.64326773 | 0.432628085 | 0 | 52.07589582 | 47.51180631 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.040625497 | 0.002284311 | 0 | 0.042909808 | 56.17120007 | 0.454288657 | 0 | 56.62548873 | 51.67750406 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.040935472 | 0.002500281 | 0 | 0.043435752 | 62.63444567 | 0.497239362 | 0 | 63.13168503 | 57.62369002 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.03959618 | 0.0027249 | 0 | 0.04232108 | 67.96793293 | 0.541910239 | 0 | 68.50984317 | 62.5304983 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.03114674 | 0.002439403 | 0 | 0.033586143 | 60.84688403 | 0.485132448 | 0 | 61.33201647 | 55.9791333 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.002786339 | 6.08E-04 | 0 | 0.003393971 | 6.315323219 | 0.120841834 | 0 | 6.436165052 | 5.810097361 |
| Los Angele | 2019 | Annual | LDA/LDT1 | 6.074958072 | 0 | 0.964409907 | 7.039367979 | 45292.1118 | 0 | 1615.615439 | 46907.72724 | 31511.65939 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.690252193 | 0.027270623 | 0 | 0.717522816 | 557.344654 | 5.423401989 | 0 | 562.7680559 | 512.7570816 |

EMFAC 2011
2020 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | LDA | 0.256203901 | 0 | 0.056252878 | 0.312456779 | 1640.197723 | 0 | 77.23307 | 1717.430793 | 1476.177951 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | LDA | 0.27562355 | 0 | 0.058619801 | 0.334243351 | 1816.685727 | 0 | 83.92727 | 1900.612997 | 1635.017154 |
| Los Angele | 2020 | Annual | LDA | 1.51E-04 | 0 | 0 | 1.51E-04 | 0.19166093 | 0 | 0 | 0.19166093 | 0.172494837 |
| Los Angele | 2020 | Annual | LDA | 0.265101215 | 0 | 0.056114346 | 0.321215561 | 1678.260202 | 0 | 75.83044 | 1754.090642 | 1510.434182 |
| Los Angele | 2020 | Annual | LDA | 0.00506435 | 0 | 0 | 0.00506435 | 6.581194576 | 0 | 0 | 6.581194576 | 5.923075119 |
| Los Angele | 2020 | Annual | LDA | 0.367993551 | 0 | 0.077048093 | 0.445041644 | 2263.945085 | 0 | 100.0508 | 2363.995885 | 1966.236306 |
| Los Angele | 2020 | Annual | LDA | 0.009090317 | 0 | 0 | 0.009090317 | 12.16338025 | 0 | 0 | 12.16338025 | 10.56389575 |
| Los Angele | 2020 | Annual | LDA | 0.38486212 | 0 | 0.078156665 | 0.463018785 | 2389.163276 | 0 | 102.8999 | 2492.063176 | 1840.611388 |
| Los Angele | 2020 | Annual | LDA | 0.008400675 | 0 | 0 | 0.008400675 | 11.6085763 | 0 | 0 | 11.6085763 | 8.943247184 |
| Los Angele | 2020 | Annual | LDA | 0.420076235 | 0 | 0.082436152 | 0.502512387 | 2638.522473 | 0 | 110.5013 | 2749.023773 | 1773.878658 |
| Los Angele | 2020 | Annual | LDA | 0.0078744 | 0 | 0 | 0.0078744 | 11.26973998 | 0 | 0 | 11.26973998 | 7.576646191 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0.313923658 | 5.13E-06 | 0 | 0 | 5.13E-06 | 8.90E-06 | 4.09E-05 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 8.628809389 | 237.5424738 | 3.86E-04 | 0 | 1.07E-04 | 4.93E-04 | 0.005398571 | 0.024799686 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0.401408399 | 7.13E-06 | 0 | 0 | 7.13E-06 | 1.28E-05 | 5.89E-05 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 7.310460521 | 205.3569452 | 5.10E-04 | 0 | 1.46E-04 | 6.56E-04 | 0.005350911 | 0.024580751 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0.265895592 | 5.20E-06 | 0 | 0 | 5.20E-06 | 9.74E-06 | 4.47E-05 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 7.250949014 | 208.6657726 | 7.97E-04 | 0 | 2.79E-04 | 0.001076471 | 0.005582947 | 0.025646666 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0.346820721 | 6.66E-06 | 0 | 0 | 6.66E-06 | 1.30E-05 | 5.99E-05 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 7.168233728 | 211.7267375 | 0.001103583 | 0 | 3.99E-04 | 0.001502824 | 0.005796 | 0.026625382 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0.323139022 | 6.03E-06 | 0 | 0 | 6.03E-06 | 1.24E-05 | 5.70E-05 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 7.217223572 | 220.0659565 | 0.001495878 | 0 | 5.40E-04 | 0.002035548 | 0.006285984 | 0.028876245 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0.330033069 | 6.07E-06 | 0 | 0 | 6.07E-06 | 1.32E-05 | 6.07E-05 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 6.972825884 | 221.1821564 | 0.001799224 | 0 | 6.32E-04 | 0.002431723 | 0.006574889 | 0.0302034 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0.40493077 | 7.27E-06 | 0 | 0 | 7.27E-06 | 1.69E-05 | 7.75E-05 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 7.115147327 | 236.706747 | 0.00209548 | 0 | 7.06E-04 | 0.002801079 | 0.007044917 | 0.032362591 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0.284737238 | 4.76E-06 | 0 | 0 | 4.76E-06 | 1.19E-05 | 5.45E-05 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 7.205287464 | 255.5806932 | 0.002356884 | 0 | 7.45E-04 | 0.003102145 | 0.007620043 | 0.035004575 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0.317935472 | 4.90E-06 | 0 | 0 | 4.90E-06 | 1.32E-05 | 6.08E-05 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 7.143489518 | 280.5601039 | 0.00259372 | 0 | 7.41E-04 | 0.003334713 | 0.008385534 | 0.038521051 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 0.400531267 | 5.62E-06 | 0 | 0 | 5.62E-06 | 1.67E-05 | 7.66E-05 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.343602927 | 0 | 26.85529839 | 0.001619025 | 4.41E-06 | 0 | 0.001623439 | 2.98E-04 | 0.003240797 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.336155498 | 0 | 26.81122642 | 0.00155994 | 4.32E-06 | 0 | 0.001564258 | 2.98E-04 | 0.00323632 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.195026686 | 0 | 17.29815902 | 9.68E-04 | 2.51E-06 | 0 | 9.71E-04 | 1.92E-04 | 0.002090692 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.556587889 | 0 | 36.49161194 | 0.00201449 | 7.15E-06 | 0 | 0.00202164 | 4.18E-04 | 0.004544551 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.288704055 | 0 | 23.7532764 | 0.001252438 | 3.71E-06 | 0 | 0.001256146 | 2.73E-04 | 0.002967466 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.249744127 | 0 | 25.68272273 | 0.001284933 | 3.21E-06 | 0 | 0.001288141 | 2.96E-04 | 0.003216402 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.314170839 | 0 | 34.18616637 | 0.001332745 | 4.04E-06 | 0 | 0.00133678 | 3.95E-04 | 0.00429353 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.376060433 | 0 | 43.20594347 | 0.001592309 | 4.83E-06 | 0 | 0.001597139 | 5.00E-04 | 0.00542901 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.398017838 | 0 | 47.90982415 | 0.00165751 | 5.11E-06 | 0 | 0.001662623 | 5.54E-04 | 0.006022479 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.417945564 | 0 | 52.09544963 | 0.001678732 | 5.37E-06 | 0 | 0.001684101 | 6.03E-04 | 0.006550513 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.457460213 | 0 | 58.08115023 | 0.001728552 | 5.88E-06 | 0 | 0.001734429 | 6.72E-04 | 0.007304236 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.49855742 | 0 | 63.02905572 | 0.001717279 | 6.40E-06 | 0 | 0.001723683 | 7.30E-04 | 0.007926211 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.446321852 | 0 | 56.42545516 | 0.001396108 | 5.73E-06 | 0 | 0.001401841 | 6.53E-04 | 0.007095776 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.111174487 | 0 | 5.921271848 | 1.30E-04 | 1.43E-06 | 0 | 1.32E-04 | 6.78E-05 | 7.36E-04 |
| Los Angele | 2019 | Annual | LDA/LDT1 | 0 | 1152.594993 | 32664.25439 | 0.186548602 | 0 | 0.060710147 | 0.247258749 | 0.96569548 | 4.436164206 |
| Los Angele | 2019 | Annual | T6 instate heavy | 4.98952983 | 0 | 517.7466115 | 0.019932797 | 6.4095E-05 | 0 | 0.019996892 | 0.005952536 | 0.064654457 |

EMFAC 2011
2020 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | LDA | 0 | 69.509763 | 1545.687714 | 0.00126582 | 0 | 1.86E-04 | 0.001452222 | 0.035507422 | 0.1631123 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | LDA | 0 | 75.534543 | 1710.551697 | 0.001402024 | 0 | 2.63E-04 | 0.00166535 | 0.039320339 | 0.1806278 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0.172494837 | 3.00E-06 | 0 | 0 | 3.00E-06 | 4.82E-06 | 2.22E-05 |
| Los Angele | 2020 | Annual | LDA | 0 | 68.247396 | 1578.681578 | 0.001726926 | 0 | 3.76E-04 | 0.002102719 | 0.036254853 | 0.1665458 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 5.923075119 | 1.00E-04 | 0 | 0 | 1.00E-04 | 1.66E-04 | 7.61E-04 |
| Los Angele | 2020 | Annual | LDA | 0 | 86.8941198 | 2053.130426 | 0.002329595 | 0 | 6.12E-04 | 0.002941323 | 0.048910171 | 0.2246812 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 10.56389575 | 1.80E-04 | 0 | 0 | 1.80E-04 | 3.06E-04 | 0.001406554 |
| Los Angele | 2020 | Annual | LDA | 0 | 79.27408296 | 1919.885471 | 0.003687666 | 0 | 0.001172204 | 0.00485987 | 0.051614989 | 0.2371064 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 8.943247184 | 1.66E-04 | 0 | 0 | 1.66E-04 | 2.92E-04 | 0.001342397 |
| Los Angele | 2020 | Annual | LDA | 0 | 74.29002399 | 1848.168682 | 0.005430069 | 0 | 0.001770849 | 0.007200918 | 0.05700475 | 0.2618656 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 7.576646191 | 1.56E-04 | 0 | 0 | 1.56E-04 | 2.84E-04 | 0.001303215 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDT1 | 5.49E-05 | 4.72E-06 | 0 | 0 | 4.72E-06 | 2.23E-06 | 1.75E-05 | 2.45E-05 | 3.38E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0.03069102 | 3.58E-04 | 0 | 9.95E-05 | 4.57E-04 | 0.001349643 | 0.010628437 | 0.012435283 | 0.002908973 |
| Los Angele | 2019 | Annual | LDT1 | 7.89E-05 | 6.56E-06 | 0 | 0 | 6.56E-06 | 3.21E-06 | 2.53E-05 | 3.50E-05 | 4.87E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0.03058758 | 4.73E-04 | 0 | 1.36E-04 | 6.09E-04 | 0.001337728 | 0.010534607 | 0.012480918 | 0.002883722 |
| Los Angele | 2019 | Annual | LDT1 | 5.97E-05 | 4.78E-06 | 0 | 0 | 4.78E-06 | 2.43E-06 | 1.92E-05 | 2.64E-05 | 3.69E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0.032306084 | 7.40E-04 | 0 | 2.59E-04 | 9.99E-04 | 0.001395737 | 0.010991428 | 0.013385952 | 0.003009003 |
| Los Angele | 2019 | Annual | LDT1 | 7.96E-05 | 6.12E-06 | 0 | 0 | 6.12E-06 | 3.26E-06 | 2.57E-05 | 3.50E-05 | 4.94E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0.033924207 | 0.001023943 | 0 | 3.70E-04 | 0.001394373 | 0.001449 | 0.011410877 | 0.01425425 | 0.003124143 |
| Los Angele | 2019 | Annual | LDT1 | 7.55E-05 | 5.55E-06 | 0 | 0 | 5.55E-06 | 3.10E-06 | 2.44E-05 | 3.31E-05 | 4.71E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0.037197777 | 0.001387928 | 0 | 5.01E-04 | 0.001888653 | 0.001571496 | 0.012375533 | 0.015835682 | 0.003387912 |
| Los Angele | 2019 | Annual | LDT1 | 8.00E-05 | 5.58E-06 | 0 | 0 | 5.58E-06 | 3.31E-06 | 2.60E-05 | 3.49E-05 | 5.01E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0.039210012 | 0.001669383 | 0 | 5.87E-04 | 0.002256238 | 0.001643722 | 0.012944313 | 0.016844273 | 0.003543906 |
| Los Angele | 2019 | Annual | LDT1 | 1.02E-04 | 6.69E-06 | 0 | 0 | 6.69E-06 | 4.22E-06 | 3.32E-05 | 4.41E-05 | 6.40E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0.042208587 | 0.00194426 | 0 | 6.55E-04 | 0.002598939 | 0.001761229 | 0.013869681 | 0.01822985 | 0.003797934 |
| Los Angele | 2019 | Annual | LDT1 | 7.11E-05 | 4.38E-06 | 0 | 0 | 4.38E-06 | 2.96E-06 | 2.33E-05 | 3.07E-05 | 4.50E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0.045726762 | 0.002186799 | 0 | 6.91E-04 | 0.002878278 | 0.001905011 | 0.015001958 | 0.019785247 | 0.004108223 |
| Los Angele | 2019 | Annual | LDT1 | 7.90E-05 | 4.51E-06 | 0 | 0 | 4.51E-06 | 3.31E-06 | 2.61E-05 | 3.39E-05 | 5.02E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0.050241297 | 0.002406544 | 0 | 6.88E-04 | 0.003094063 | 0.002096383 | 0.016509021 | 0.021699468 | 0.004521975 |
| Los Angele | 2019 | Annual | LDT1 | 9.89E-05 | 5.17E-06 | 0 | 0 | 5.17E-06 | 4.17E-06 | 3.28E-05 | 4.22E-05 | 6.33E-06 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.005162606 | 0.001489503 | 4.06E-06 | 0 | 0.001493564 | 7.46E-05 | 0.001388913 | 0.002957069 | 2.75E-04 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.005098536 | 0.001435144 | 3.97E-06 | 0 | 0.001439117 | 7.45E-05 | 0.001386994 | 0.002900601 | 2.75E-04 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.003254175 | 8.91E-04 | 2.30E-06 | 0 | 8.93E-04 | 4.81E-05 | 8.96E-04 | 0.001837452 | 1.77E-04 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.006984594 | 0.001853331 | 6.58E-06 | 0 | 0.001859909 | 1.05E-04 | 0.001947665 | 0.003912174 | 3.73E-04 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.004496817 | 0.001152243 | 3.41E-06 | 0 | 0.001155655 | 6.83E-05 | 0.001271771 | 0.002495727 | 2.43E-04 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.004800667 | 0.001182139 | 2.95E-06 | 0 | 0.00118509 | 7.40E-05 | 0.001378458 | 0.002637579 | 2.64E-04 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.006025603 | 0.001226125 | 3.71E-06 | 0 | 0.001229838 | 9.88E-05 | 0.001840084 | 0.003168745 | 3.51E-04 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.007525982 | 0.001464924 | 4.44E-06 | 0 | 0.001469368 | 1.25E-04 | 0.002326719 | 0.003921045 | 4.44E-04 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.008239573 | 0.001524909 | 4.70E-06 | 0 | 0.001529613 | 1.39E-04 | 0.002581062 | 0.004249293 | 4.93E-04 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.008837699 | 0.001544433 | 4.94E-06 | 0 | 0.001549373 | 1.51E-04 | 0.002807363 | 0.004507507 | 5.36E-04 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.009711144 | 0.001590268 | 5.41E-06 | 0 | 0.001595675 | 1.68E-04 | 0.003130387 | 0.004894181 | 5.98E-04 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.010379636 | 0.001579897 | 5.89E-06 | 0 | 0.001585789 | 1.82E-04 | 0.003396948 | 0.005165172 | 6.48E-04 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.009150904 | 0.001284419 | 5.27E-06 | 0 | 0.001289694 | 1.63E-04 | 0.003041047 | 0.004494062 | 5.81E-04 |
| Los Angele | 2019 | Annual | T6 instate heavy | 9.36E-04 | 1.20E-04 | 1.31E-06 | 0 | 1.21E-04 | 1.70E-05 | 3.16E-04 | 4.54E-04 | 6.03E-05 |
| Los Angele | 2019 | Annual | LDA/LDT1 | 5.649118434 | 0.173074401 | 0 | 0.056328996 | 0.229403397 | 0.241423882 | 1.901213227 | 2.372040506 | 0.453136048 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.090603884 | 0.018338173 | 5.89674E-05 | 0 | 0.01839714 | 0.001488134 | 0.027709053 | 0.047594327 | 0.005317329 |

EMFAC 2011
2020 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | LDA | 0.200071944 | 0.001174472 | 0 | 1.73E-04 | 0.001347422 | 0.008876856 | 0.069905229 | 0.080129507 | 0.01643008 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | LDA | 0.221613489 | 0.001300847 | 0 | 2.44E-04 | 0.00154517 | 0.009830085 | 0.077411935 | 0.088787189 | 0.018192479 |
| Los Angele | 2020 | Annual | LDA | 3.00E-05 | 2.76E-06 | 0 | 0 | 2.76E-06 | 1.21E-06 | 9.50E-06 | 1.35E-05 | 1.83E-06 |
| Los Angele | 2020 | Annual | LDA | 0.204903372 | 0.001602303 | 0 | 3.49E-04 | 0.001950977 | 0.009063713 | 0.071376756 | 0.082391446 | 0.016805382 |
| Los Angele | 2020 | Annual | LDA | 0.001027018 | 9.23E-05 | 0 | 0 | 9.23E-05 | 4.14E-05 | 3.26E-04 | 4.60E-04 | 6.28E-05 |
| Los Angele | 2020 | Annual | LDA | 0.276532694 | 0.00216148 | 0 | 5.68E-04 | 0.002729063 | 0.012227543 | 0.096291915 | 0.111248521 | 0.022667959 |
| Los Angele | 2020 | Annual | LDA | 0.001892818 | 1.66E-04 | 0 | 0 | 1.66E-04 | 7.65E-05 | 6.03E-04 | 8.45E-04 | 1.16E-04 |
| Los Angele | 2020 | Annual | LDA | 0.293581259 | 0.003421546 | 0 | 0.001087612 | 0.004509158 | 0.012903747 | 0.101617 | 0.119029905 | 0.023920342 |
| Los Angele | 2020 | Annual | LDA | 0.001801056 | 1.53E-04 | 0 | 0 | 1.53E-04 | 7.31E-05 | 5.75E-04 | 8.01E-04 | 1.11E-04 |
| Los Angele | 2020 | Annual | LDA | 0.326071268 | 0.005038208 | 0 | 0.001643056 | 0.006681264 | 0.014251187 | 0.1122281 | 0.133160551 | 0.026415074 |
| Los Angele | 2020 | Annual | LDA | 0.001742941 | 1.44E-04 | 0 | 0 | 1.44E-04 | 7.09E-05 | 5.59E-04 | 7.73E-04 | 1.08E-04 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 3.38E-06 | 0 | 0.031823754 | 1.99E-05 | 1.85E-04 | 6.15E-04 | 1.02E-05 | 9.87E-05 | 9.35E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 1.11E-04 | 0.003020353 | 32.21645 | 0 | 1.58E-04 | 1.85E-03 | 1.55E-04 | 1.61E-06 | 9.87E-05 | 1.49E-06 | 3.91E-05 | 9.87E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 4.87E-06 | 0 | 0.045874082 | 1.91E-05 | 1.78E-04 | 5.93E-04 | 9.81E-06 | 9.87E-05 | 9.02E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 1.08E-04 | 0.002991784 | 31.91171 | 0 | 1.33E-04 | 1.79E-03 | 1.51E-04 | 2.16E-06 | 9.87E-05 | 2.01E-06 | 3.91E-05 | 9.86E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 3.69E-06 | 0 | 0.03482132 | 1.83E-05 | 1.70E-04 | 5.70E-04 | 9.42E-06 | 9.87E-05 | 8.66E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 1.10E-04 | 0.003118892 | 33.26751 | 0 | 1.07E-04 | 1.70E-03 | 1.45E-04 | 3.40E-06 | 9.87E-05 | 3.16E-06 | 3.91E-05 | 9.85E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 4.94E-06 | 0 | 0.046604555 | 1.74E-05 | 1.62E-04 | 5.45E-04 | 9.00E-06 | 9.87E-05 | 8.28E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 1.11E-04 | 0.00323508 | 34.50683 | 0 | 9.27E-05 | 1.58E-03 | 1.35E-04 | 4.57E-06 | 9.87E-05 | 4.24E-06 | 3.91E-05 | 9.84E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 4.71E-06 | 0 | 0.044398077 | 1.65E-05 | 1.53E-04 | 5.17E-04 | 8.56E-06 | 9.87E-05 | 7.88E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 1.16E-04 | 0.003504111 | 37.37644 | 0 | 7.94E-05 | 1.38E-03 | 1.27E-04 | 5.71E-06 | 9.87E-05 | 5.30E-06 | 3.91E-05 | 9.83E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 5.01E-06 | 0 | 0.047270641 | 1.55E-05 | 1.43E-04 | 4.89E-04 | 8.09E-06 | 9.87E-05 | 7.44E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 1.17E-04 | 0.003660458 | 39.04409 | 0 | 6.95E-05 | 1.25E-03 | 1.16E-04 | 6.52E-06 | 9.87E-05 | 6.05E-06 | 3.91E-05 | 9.82E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 6.40E-06 | 0 | 0.060293444 | 1.45E-05 | 1.33E-04 | 4.59E-04 | 7.60E-06 | 9.87E-05 | 7.00E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 1.19E-04 | 0.003916754 | 41.77787 | 0 | 6.16E-05 | 1.15E-03 | 1.07E-04 | 7.01E-06 | 9.87E-05 | 6.51E-06 | 3.91E-05 | 9.81E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 4.50E-06 | 0 | 0.042396855 | 1.34E-05 | 1.23E-04 | 4.27E-04 | 7.08E-06 | 9.87E-05 | 6.51E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 1.20E-04 | 0.004228454 | 45.1026 | 0 | 5.45E-05 | 1.07E-03 | 9.84E-05 | 7.18E-06 | 9.87E-05 | 6.66E-06 | 3.91E-05 | 9.79E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 5.02E-06 | 0 | 0.047340006 | 1.22E-05 | 1.12E-04 | 3.94E-04 | 6.53E-06 | 9.87E-05 | 6.01E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 1.19E-04 | 0.004641093 | 49.50399 | 0 | 4.65E-05 | 9.91E-04 | 8.92E-05 | 7.01E-06 | 9.87E-05 | 6.51E-06 | 3.91E-05 | 9.76E-06 |
| Los Angele | 2019 | Annual | LDT1 | 0 | 0 | 6.33E-06 | 0 | 0.059638362 | 1.09E-05 | 9.97E-05 | 3.58E-04 | 5.94E-06 | 9.87E-05 | 5.46E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2019 | Annual | T6 instate heavy | 3.56E-06 | 0 | 2.78E-04 | 0 | 2.627148756 | 4.94E-04 | 2.15E-03 | 1.10E-02 | 1.44E-04 | 3.14E-04 | 1.32E-04 | 1.30E-04 | 2.47E-05 |
| Los Angele | 2019 | Annual | T6 instate heavy | 3.49E-06 | 0 | 2.78E-04 | 0 | 2.622837367 | 4.76E-04 | 2.08E-03 | 1.01E-02 | 1.39E-04 | 3.14E-04 | 1.28E-04 | 1.30E-04 | 2.47E-05 |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.02E-06 | 0 | 1.79E-04 | 0 | 1.692211208 | 4.56E-04 | 1.99E-03 | 8.84E-03 | 1.33E-04 | 3.14E-04 | 1.23E-04 | 1.30E-04 | 2.47E-05 |
| Los Angele | 2019 | Annual | T6 instate heavy | 5.77E-06 | 0 | 3.78E-04 | 0 | 3.569831602 | 2.76E-04 | 1.24E-03 | 3.90E-03 | 1.28E-04 | 3.14E-04 | 1.18E-04 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.99E-06 | 0 | 2.46E-04 | 0 | 2.323690083 | 2.63E-04 | 1.17E-03 | 3.45E-03 | 1.22E-04 | 3.14E-04 | 1.12E-04 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.59E-06 | 0 | 2.66E-04 | 0 | 2.512440267 | 2.50E-04 | 1.11E-03 | 2.91E-03 | 1.15E-04 | 3.14E-04 | 1.06E-04 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2019 | Annual | T6 instate heavy | 3.26E-06 | 0 | 3.55E-04 | 0 | 3.344298884 | 2.03E-04 | 9.06E-04 | 2.37E-03 | 8.95E-05 | 3.14E-04 | 8.23E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2019 | Annual | T6 instate heavy | 3.90E-06 | 0 | 4.48E-04 | 0 | 4.226668383 | 1.94E-04 | 8.67E-04 | 2.21E-03 | 8.45E-05 | 3.14E-04 | 7.78E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2019 | Annual | T6 instate heavy | 4.13E-06 | 0 | 4.97E-04 | 0 | 4.686830623 | 1.85E-04 | 8.27E-04 | 2.05E-03 | 7.93E-05 | 3.14E-04 | 7.30E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2019 | Annual | T6 instate heavy | 4.33E-06 | 0 | 5.40E-04 | 0 | 5.096293985 | 1.76E-04 | 7.86E-04 | 1.88E-03 | 7.39E-05 | 3.14E-04 | 6.80E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2019 | Annual | T6 instate heavy | 4.74E-06 | 0 | 6.02E-04 | 0 | 5.681851653 | 1.67E-04 | 7.45E-04 | 1.71E-03 | 6.82E-05 | 3.14E-04 | 6.28E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2019 | Annual | T6 instate heavy | 5.17E-06 | 0 | 6.54E-04 | 0 | 6.165885885 | 1.57E-04 | 7.04E-04 | 1.53E-03 | 6.25E-05 | 3.14E-04 | 5.75E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2019 | Annual | T6 instate heavy | 4.63E-06 | 0 | 5.85E-04 | 0 | 5.519881483 | 1.47E-04 | 6.64E-04 | 1.36E-03 | 5.68E-05 | 3.14E-04 | 5.22E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2019 | Annual | T6 instate heavy | 1.15E-06 | 0 | 6.14E-05 | 0 | 0.579254855 | 1.46E-04 | 7.15E-04 | 1.32E-03 | 5.14E-05 | 3.14E-04 | 4.73E-05 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2019 | Annual | LDA/LDT1 | 0 | 0.016410681 | 0.469546728 | 4995.38684 | 11.49975113 | 1.10E-04 | 1.50E-03 | 1.29E-04 | 4.52E-06 | 9.87E-05 | 4.19E-06 | 3.91E-05 | 8.58E-06 |
| Los Angele | 2019 | Annual | T6 instate heavy | 5.17418E-05 | 0 | 0.00536907 | 0 | 50.64912503 | 2.28E-04 | 1.01E-03 | 3.19E-03 | 8.89E-05 | 3.14E-04 | 8.18E-05 | 1.30E-04 | 2.39E-05 |

EMFAC 2011
2020 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | LDA | 0 | 7.91E-04 | 0.01722146 | 183.6919 | 0 | 2.66E-04 | 2.33E-03 | 1.55E-04 | 7.21E-07 | 9.87E-05 | 6.69E-07 | 3.91E-05 | 8.55E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2020 | Annual | LDA | 0 | 8.58E-04 | 0.019049979 | 203.1957 | 0 | 2.36E-04 | 2.10E-03 | 1.50E-04 | 7.47E-07 | 9.87E-05 | 6.93E-07 | 3.91E-05 | 8.54E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 1.83E-06 | 0 | 0.017249484 | 1.82E-05 | 1.71E-04 | 5.54E-04 | 1.10E-05 | 9.87E-05 | 1.01E-05 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 7.74E-04 | 0.017579722 | 187.5133 | 0 | 2.13E-04 | 2.05E-03 | 1.56E-04 | 1.02E-06 | 9.87E-05 | 9.49E-07 | 3.91E-05 | 8.55E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 6.28E-05 | 0 | 0.5923075 | 1.77E-05 | 1.66E-04 | 5.39E-04 | 1.07E-05 | 9.87E-05 | 9.82E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0.001020672 | 0.023688631 | 252.6736 | 0 | 1.92E-04 | 1.97E-03 | 1.60E-04 | 1.06E-06 | 9.87E-05 | 9.84E-07 | 3.91E-05 | 8.54E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 1.16E-04 | 0 | 1.094704 | 1.71E-05 | 1.60E-04 | 5.24E-04 | 1.04E-05 | 9.87E-05 | 9.54E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0.001049255 | 0.024969597 | 266.337 | 0 | 1.72E-04 | 1.92E-03 | 1.58E-04 | 1.66E-06 | 9.87E-05 | 1.54E-06 | 3.91E-05 | 8.53E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 1.11E-04 | 0 | 1.044772 | 1.65E-05 | 1.55E-04 | 5.07E-04 | 1.00E-05 | 9.87E-05 | 9.24E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0.001126127 | 0.027541201 | 293.7669 | 0 | 1.52E-04 | 1.86E-03 | 1.55E-04 | 2.23E-06 | 9.87E-05 | 2.07E-06 | 3.91E-05 | 8.52E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 1.08E-04 | 0 | 1.014277 | 1.59E-05 | 1.49E-04 | 4.90E-04 | 9.70E-06 | 9.87E-05 | 8.92E-06 | 3.91E-05 | 6.69E-06 |

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|---|---|---|---|---|
| Los Angele | 2019 | Annual | LDT1 | 3.11E-04 |
| Los Angele | 2019 | Annual | LDT1 | 3.88E-04 |
| Los Angele | 2019 | Annual | LDT1 | 2.76E-04 |
| Los Angele | 2019 | Annual | LDT1 | 3.38E-04 |
| Los Angele | 2019 | Annual | LDT1 | 2.41E-04 |
| Los Angele | 2019 | Annual | LDT1 | 3.30E-04 |
| Los Angele | 2019 | Annual | LDT1 | 2.35E-04 |
| Los Angele | 2019 | Annual | LDT1 | 3.22E-04 |
| Los Angele | 2019 | Annual | LDT1 | 2.29E-04 |
| Los Angele | 2019 | Annual | LDT1 | 3.09E-04 |
| Los Angele | 2019 | Annual | LDT1 | 2.20E-04 |
| Los Angele | 2019 | Annual | LDT1 | 2.97E-04 |
| Los Angele | 2019 | Annual | LDT1 | 2.12E-04 |
| Los Angele | 2019 | Annual | LDT1 | 2.96E-04 |
| Los Angele | 2019 | Annual | LDT1 | 2.12E-04 |
| Los Angele | 2019 | Annual | LDT1 | 2.96E-04 |
| Los Angele | 2019 | Annual | LDT1 | 2.12E-04 |
| Los Angele | 2019 | Annual | LDT1 | 2.95E-04 |
| Los Angele | 2019 | Annual | LDT1 | 2.12E-04 |
| Los Angele | 2019 | Annual | T6 instate heavy | 1.19E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 1.19E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 1.19E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 1.15E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 1.15E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 1.15E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 1.14E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 1.14E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 1.14E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 1.14E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 1.14E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 1.14E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 1.14E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 1.16E-03 |
| Los Angele | 2019 | Annual | LDA/LDT1 | 2.98E-04 |
| Los Angele | 2019 | Annual | T6 instate heavy | 1.15E-03 |

EMFAC 2011
2020 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2020 | Annual | LDA | 3.84E-04 |
| Los Angele | 2020 | Annual | LDA | |
| Los Angele | 2020 | Annual | LDA | 3.84E-04 |
| Los Angele | 2020 | Annual | LDA | 3.15E-04 |
| Los Angele | 2020 | Annual | LDA | 3.84E-04 |
| Los Angele | 2020 | Annual | LDA | 3.15E-04 |
| Los Angele | 2020 | Annual | LDA | 3.70E-04 |
| Los Angele | 2020 | Annual | LDA | 3.04E-04 |
| Los Angele | 2020 | Annual | LDA | 3.28E-04 |
| Los Angele | 2020 | Annual | LDA | 2.70E-04 |
| Los Angele | 2020 | Annual | LDA | 2.86E-04 |
| Los Angele | 2020 | Annual | LDA | 2.36E-04 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | LDA | GAS | 2013 | AllSpeeds | 214410 | 6811883.632 | 1376375 | 0.082433318 | 0 | 0.074428491 | 0.156861809 |
| Los Angele | 2020 | Annual | LDA | DSL | 2013 | AllSpeeds | 1037.128 | 32949.99374 | 6657.696 | 2.52E-04 | 0 | 0 | 2.52E-04 |
| Los Angele | 2020 | Annual | LDA | GAS | 2014 | AllSpeeds | 221334.8 | 7320224.353 | 1425254 | 0.085931435 | 0 | 0.074793987 | 0.160725422 |
| Los Angele | 2020 | Annual | LDA | DSL | 2014 | AllSpeeds | 909.1592 | 30068.7631 | 5854.401 | 2.19E-04 | 0 | 0 | 2.19E-04 |
| Los Angele | 2020 | Annual | LDA | GAS | 2015 | AllSpeeds | 231587.8 | 8009076.028 | 1498223 | 0.089145137 | 0 | 0.075107314 | 0.164252451 |
| Los Angele | 2020 | Annual | LDA | DSL | 2015 | AllSpeeds | 857.937 | 29670.38693 | 5550.296 | 2.05E-04 | 0 | 0 | 2.05E-04 |
| Los Angele | 2020 | Annual | LDA | GAS | 2016 | AllSpeeds | 234044.6 | 8511593.488 | 1518797 | 0.08509174 | 0 | 0.070175275 | 0.155267015 |
| Los Angele | 2020 | Annual | LDA | DSL | 2016 | AllSpeeds | 758.2899 | 27577.1106 | 4920.809 | 1.79E-04 | 0 | 0 | 1.79E-04 |
| Los Angele | 2020 | Annual | LDA | GAS | 2017 | AllSpeeds | 237576.8 | 9158394.497 | 1544095 | 0.08537016 | 0 | 0.06692747 | 0.15229763 |
| Los Angele | 2020 | Annual | LDA | DSL | 2017 | AllSpeeds | 739.0627 | 28490.35046 | 4803.427 | 1.73E-04 | 0 | 0 | 1.73E-04 |
| Los Angele | 2020 | Annual | LDA | GAS | 2018 | AllSpeeds | 239990.7 | 9927236.109 | 1564583 | 0.087642151 | 0 | 0.063877411 | 0.151519562 |
| Los Angele | 2020 | Annual | LDA | DSL | 2018 | AllSpeeds | 688.707 | 28488.52031 | 4489.92 | 1.60E-04 | 0 | 0 | 1.60E-04 |
| Los Angele | 2020 | Annual | LDA | GAS | 2019 | AllSpeeds | 246041.3 | 1.12E+07 | 1608949 | 0.092375802 | 0 | 0.061033573 | 0.153409375 |
| Los Angele | 2020 | Annual | LDA | DSL | 2019 | AllSpeeds | 657.9922 | 29829.41588 | 4302.838 | 1.53E-04 | 0 | 0 | 1.53E-04 |
| Los Angele | 2020 | Annual | LDA | GAS | 2020 | AllSpeeds | 246566.5 | 1.29E+07 | 1617315 | 0.097169318 | 0 | 0.055169329 | 0.152338647 |
| Los Angele | 2020 | Annual | LDA | DSL | 2020 | AllSpeeds | 594.3916 | 30980.61828 | 3898.819 | 1.43E-04 | 0 | 0 | 1.43E-04 |
| Los Angele | 2020 | Annual | LDT1 | GAS | 2007 | AllSpeeds | 8785.877 | 270267.164 | 54203.44 | 0.003847981 | 0 | 0.003611499 | 0.00745948 |
| Los Angele | 2020 | Annual | LDT1 | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | LDT1 | GAS | 2008 | AllSpeeds | 18399.31 | 576116.7055 | 114432.3 | 0.007571324 | 0 | 0.006767186 | 0.014338509 |
| Los Angele | 2020 | Annual | LDT1 | DSL | 2008 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | LDT1 | GAS | 2009 | AllSpeeds | 16537.82 | 527653.511 | 103516.4 | 0.006972379 | 0 | 0.006122886 | 0.013095264 |
| Los Angele | 2020 | Annual | LDT1 | DSL | 2009 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | LDT1 | GAS | 2010 | AllSpeeds | 18293.33 | 595367.7995 | 115419.4 | 0.007890619 | 0 | 0.006804253 | 0.014694872 |
| Los Angele | 2020 | Annual | LDT1 | DSL | 2010 | AllSpeeds | 28.7782 | 936.6070995 | 181.5723 | 9.64E-06 | 0 | 0 | 9.64E-06 |
| Los Angele | 2020 | Annual | LDT1 | GAS | 2011 | AllSpeeds | 17441.92 | 579974.2734 | 110745.1 | 0.00751004 | 0 | 0.006387013 | 0.013897053 |
| Los Angele | 2020 | Annual | LDT1 | DSL | 2011 | AllSpeeds | 41.38587 | 1376.156511 | 262.774 | 1.37E-05 | 0 | 0 | 1.37E-05 |
| Los Angele | 2020 | Annual | LDT1 | GAS | 2012 | AllSpeeds | 16943.48 | 576633.7476 | 108258 | 0.007273532 | 0 | 0.006089425 | 0.013362957 |
| Los Angele | 2020 | Annual | LDT1 | DSL | 2012 | AllSpeeds | 30.23569 | 1029.008288 | 193.1867 | 9.83E-06 | 0 | 0 | 9.83E-06 |
| Los Angele | 2020 | Annual | LDT1 | GAS | 2013 | AllSpeeds | 17286.64 | 603409.0658 | 110969.1 | 0.007391461 | 0 | 0.006064669 | 0.01345613 |
| Los Angele | 2020 | Annual | LDT1 | DSL | 2013 | AllSpeeds | 40.3267 | 1407.653513 | 258.8716 | 1.29E-05 | 0 | 0 | 1.29E-05 |
| Los Angele | 2020 | Annual | LDT1 | GAS | 2014 | AllSpeeds | 17409.37 | 624852.7948 | 112105.1 | 0.007403843 | 0 | 0.005929994 | 0.013333837 |
| Los Angele | 2020 | Annual | LDT1 | DSL | 2014 | AllSpeeds | 37.82977 | 1357.782793 | 243.5993 | 1.18E-05 | 0 | 0 | 1.18E-05 |
| Los Angele | 2020 | Annual | LDT1 | GAS | 2015 | AllSpeeds | 18259.26 | 676197.1138 | 118125.6 | 0.007572979 | 0 | 0.005951542 | 0.013524521 |
| Los Angele | 2020 | Annual | LDT1 | DSL | 2015 | AllSpeeds | 37.92851 | 1404.617408 | 245.3729 | 1.16E-05 | 0 | 0 | 1.16E-05 |
| Los Angele | 2020 | Annual | LDT1 | GAS | 2016 | AllSpeeds | 18327.69 | 703399.6438 | 118934.8 | 0.007029164 | 0 | 0.005495169 | 0.012524333 |
| Los Angele | 2020 | Annual | LDT1 | DSL | 2016 | AllSpeeds | 47.77551 | 1833.589473 | 310.0321 | 1.42E-05 | 0 | 0 | 1.42E-05 |
| Los Angele | 2020 | Annual | LDT1 | GAS | 2017 | AllSpeeds | 18671.82 | 747389.622 | 121354.7 | 0.006950034 | 0 | 0.005249545 | 0.01219958 |
| Los Angele | 2020 | Annual | LDT1 | DSL | 2017 | AllSpeeds | 31.89508 | 1276.692618 | 207.2973 | 9.23E-06 | 0 | 0 | 9.23E-06 |
| Los Angele | 2020 | Annual | LDT1 | GAS | 2018 | AllSpeeds | 18733.75 | 789823.4508 | 122131.9 | 0.006947457 | 0 | 0.004969195 | 0.011916652 |
| Los Angele | 2020 | Annual | LDT1 | DSL | 2018 | AllSpeeds | 33.24561 | 1401.657952 | 216.7397 | 9.36E-06 | 0 | 0 | 9.36E-06 |
| Los Angele | 2020 | Annual | LDT1 | GAS | 2019 | AllSpeeds | 18910.17 | 854052.8545 | 123660.1 | 0.007039573 | 0 | 0.004668552 | 0.011708125 |
| Los Angele | 2020 | Annual | LDT1 | DSL | 2019 | AllSpeeds | 37.61664 | 1698.916099 | 245.9882 | 1.04E-05 | 0 | 0 | 1.04E-05 |
| Los Angele | 2020 | Annual | LDT1 | GAS | 2020 | AllSpeeds | 19016.31 | 956240.5747 | 124734.5 | 0.007188317 | 0 | 0.004229482 | 0.0114178 |
| Los Angele | 2020 | Annual | LDT1 | DSL | 2020 | AllSpeeds | 31.59509 | 1588.778183 | 207.2431 | 8.69E-06 | 0 | 0 | 8.69E-06 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2007 | AllSpeeds | 442.372846 | 20333.34343 | 0 | 0.005088552 | 1.02E-04 | 0 | 0.00519091 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2008 | AllSpeeds | 394.3362312 | 18871.85001 | 0 | 0.004568963 | 9.12E-05 | 0 | 0.004660206 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2009 | AllSpeeds | 242.0823914 | 12845.32353 | 0 | 0.002996786 | 5.60E-05 | 0 | 0.0030528 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2010 | AllSpeeds | 635.9135926 | 26969.55746 | 0 | 0.003705247 | 1.47E-04 | 0 | 0.003852387 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2011 | AllSpeeds | 457.6823515 | 24823.24686 | 0 | 0.003287063 | 1.06E-04 | 0 | 0.003392963 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2012 | AllSpeeds | 280.7007946 | 17905.89109 | 0 | 0.002276539 | 6.49E-05 | 0 | 0.002341489 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2013 | AllSpeeds | 742.4097278 | 37132.8717 | 0 | 0.003794771 | 1.72E-04 | 0 | 0.003966553 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2014 | AllSpeeds | 448.7060889 | 32290.81063 | 0 | 0.003174481 | 1.04E-04 | 0 | 0.003278305 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2015 | AllSpeeds | 815.8625535 | 49814.04999 | 0 | 0.004691804 | 1.89E-04 | 0 | 0.004880582 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2016 | AllSpeeds | 540.7040036 | 43084.29861 | 0 | 0.003870315 | 1.25E-04 | 0 | 0.003995425 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2017 | AllSpeeds | 578.1650604 | 47718.77402 | 0 | 0.004068812 | 1.34E-04 | 0 | 0.00420259 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2018 | AllSpeeds | 607.1588018 | 51053.27546 | 0 | 0.004111742 | 1.40E-04 | 0 | 0.004252229 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | LDA | 0.01517822 | 0.047359593 | 0.2202904 | 0.015949529 | 0.455639551 | 0.153418836 | 0 | 0.079466686 | 0.232885522 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 2.52E-04 | 2.86E-04 | 0 | 0 | 2.86E-04 |
| Los Angele | 2020 | Annual | LDA | 0.012646832 | 0.035458289 | 0.1897082 | 0.01268597 | 0.411224713 | 0.159929276 | 0 | 0.07985691 | 0.239786186 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 2.19E-04 | 2.49E-04 | 0 | 0 | 2.49E-04 |
| Los Angele | 2020 | Annual | LDA | 0.010731333 | 0.026199227 | 0.1815415 | 0.009933566 | 0.392658077 | 0.165910375 | 0 | 0.080191441 | 0.246101816 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 2.05E-04 | 2.33E-04 | 0 | 0 | 2.33E-04 |
| Los Angele | 2020 | Annual | LDA | 0.009286619 | 0.019441601 | 0.1706907 | 0.007925924 | 0.362611859 | 0.158366497 | 0 | 0.074925564 | 0.233292061 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 1.79E-04 | 2.04E-04 | 0 | 0 | 2.04E-04 |
| Los Angele | 2020 | Annual | LDA | 0.008340497 | 0.014769427 | 0.162658 | 0.006572793 | 0.344638347 | 0.158884668 | 0 | 0.071457893 | 0.230342561 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 1.73E-04 | 1.97E-04 | 0 | 0 | 1.97E-04 |
| Los Angele | 2020 | Annual | LDA | 0.007560604 | 0.01123246 | 0.155357 | 0.005521333 | 0.331190959 | 0.163113136 | 0 | 0.068201385 | 0.231314521 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 1.60E-04 | 1.82E-04 | 0 | 0 | 1.82E-04 |
| Los Angele | 2020 | Annual | LDA | 0.007257701 | 0.009244677 | 0.1521839 | 0.004991618 | 0.327087271 | 0.171923063 | 0 | 0.065165043 | 0.237088106 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 1.53E-04 | 1.75E-04 | 0 | 0 | 1.75E-04 |
| Los Angele | 2020 | Annual | LDA | 0.006943998 | 0.007741623 | 0.1464024 | 0.004555953 | 0.317982622 | 0.180844404 | 0 | 0.058903821 | 0.239748225 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 0 | 0 | 1.43E-04 | 1.63E-04 | 0 | 0 | 1.63E-04 |
| Los Angele | 2020 | Annual | LDT1 | 0.002076048 | 0.00614378 | 0.021777133 | 0.002538961 | 0.039995402 | 0.00716158 | 0 | 0.003855967 | 0.011017547 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | LDT1 | 0.003823475 | 0.011208364 | 0.040755242 | 0.004615603 | 0.074741193 | 0.014091191 | 0 | 0.007225268 | 0.021316459 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | LDT1 | 0.002977609 | 0.008588316 | 0.032348122 | 0.003534912 | 0.060544224 | 0.012976478 | 0 | 0.006537355 | 0.019513833 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | LDT1 | 0.002834347 | 0.008013218 | 0.031638492 | 0.003296582 | 0.060477511 | 0.01468544 | 0 | 0.007264844 | 0.021950284 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.64E-06 | 1.10E-05 | 0 | 0 | 1.10E-05 |
| Los Angele | 2020 | Annual | LDT1 | 0.002295486 | 0.006296663 | 0.026492443 | 0.002600248 | 0.051581893 | 0.013977135 | 0 | 0.00681936 | 0.020796494 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.37E-05 | 1.56E-05 | 0 | 0 | 1.56E-05 |
| Los Angele | 2020 | Annual | LDT1 | 0.001844714 | 0.004837305 | 0.022279233 | 0.002015075 | 0.044339283 | 0.013536963 | 0 | 0.006501629 | 0.020038592 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.83E-06 | 1.12E-05 | 0 | 0 | 1.12E-05 |
| Los Angele | 2020 | Annual | LDT1 | 0.001590066 | 0.003930482 | 0.019345988 | 0.001670868 | 0.039993534 | 0.013756445 | 0 | 0.006475195 | 0.02023164 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.29E-05 | 1.47E-05 | 0 | 0 | 1.47E-05 |
| Los Angele | 2020 | Annual | LDT1 | 0.001292537 | 0.002886975 | 0.014527638 | 0.001296537 | 0.033337524 | 0.013779489 | 0 | 0.006331404 | 0.020110893 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.18E-05 | 1.35E-05 | 0 | 0 | 1.35E-05 |
| Los Angele | 2020 | Annual | LDT1 | 0.001099291 | 0.002167995 | 0.013444481 | 0.00101757 | 0.031253858 | 0.014094273 | 0 | 0.006354412 | 0.020448685 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.16E-05 | 1.32E-05 | 0 | 0 | 1.32E-05 |
| Los Angele | 2020 | Annual | LDT1 | 9.45E-04 | 0.001625867 | 0.01203504 | 8.06E-04 | 0.02793651 | 0.013082163 | 0 | 0.005867146 | 0.01894931 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.42E-05 | 1.62E-05 | 0 | 0 | 1.62E-05 |
| Los Angele | 2020 | Annual | LDT1 | 8.52E-04 | 0.00126659 | 0.01097061 | 6.71E-04 | 0.025959684 | 0.012934893 | 0 | 0.005604896 | 0.018539789 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.23E-06 | 1.05E-05 | 0 | 0 | 1.05E-05 |
| Los Angele | 2020 | Annual | LDT1 | 7.67E-04 | 9.82E-04 | 0.010237754 | 5.60E-04 | 0.024463331 | 0.012930097 | 0 | 0.005305567 | 0.018235664 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.36E-06 | 1.07E-05 | 0 | 0 | 1.07E-05 |
| Los Angele | 2020 | Annual | LDT1 | 7.25E-04 | 8.17E-04 | 0.009528238 | 4.98E-04 | 0.023277019 | 0.013101537 | 0 | 0.004984574 | 0.018086111 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.04E-05 | 1.18E-05 | 0 | 0 | 1.18E-05 |
| Los Angele | 2020 | Annual | LDT1 | 6.96E-04 | 7.05E-04 | 0.00893852 | 4.57E-04 | 0.022213573 | 0.013378369 | 0 | 0.004515783 | 0.017894152 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.69E-06 | 9.89E-06 | 0 | 0 | 9.89E-06 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00519091 | 0.005792929 | 1.17E-04 | 0 | 0.005909456 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004660206 | 0.005201416 | 1.04E-04 | 0 | 0.00530529 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.0030528 | 0.003411612 | 6.38E-05 | 0 | 0.00347538 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003852387 | 0.004218141 | 1.68E-04 | 0 | 0.004385649 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003392963 | 0.003742071 | 1.21E-04 | 0 | 0.00386263 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002341489 | 0.002591667 | 7.39E-05 | 0 | 0.002665607 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003966553 | 0.004320058 | 1.96E-04 | 0 | 0.004515619 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003278305 | 0.003613905 | 1.18E-04 | 0 | 0.003732101 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004880582 | 0.005341262 | 2.15E-04 | 0 | 0.005556171 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003995425 | 0.004406059 | 1.42E-04 | 0 | 0.004548488 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00420259 | 0.004632033 | 1.52E-04 | 0 | 0.004784329 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004252229 | 0.004680905 | 1.60E-04 | 0 | 0.004840839 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 Annual | LDA | 0.01517822 | 0.047359593 | 0.2202904 | 0.015949529 | 0.531663264 | 4.813440893 | 0 | 1.304559 | 6.117999893 |
| Los Angele | 2020 Annual | LDA | 0 | 0 | 0 | 0 | 2.86E-04 | 0.002351633 | 0 | 0 | 0.002351633 |
| Los Angele | 2020 Annual | LDA | 0.012646832 | 0.035458289 | 0.1897082 | 0.01268597 | 0.490285477 | 4.977610904 | 0 | 1.289956 | 6.267566904 |
| Los Angele | 2020 Annual | LDA | 0 | 0 | 0 | 0 | 2.49E-04 | 0.002046261 | 0 | 0 | 0.002046261 |
| Los Angele | 2020 Annual | LDA | 0.010731333 | 0.026199227 | 0.1815415 | 0.009933566 | 0.474507442 | 5.100513871 | 0 | 1.253991 | 6.354504871 |
| Los Angele | 2020 Annual | LDA | 0 | 0 | 0 | 0 | 2.33E-04 | 0.001910233 | 0 | 0 | 0.001910233 |
| Los Angele | 2020 Annual | LDA | 0.009286619 | 0.019441601 | 0.1706907 | 0.007925924 | 0.440636905 | 4.830365012 | 0 | 1.102744 | 5.933109012 |
| Los Angele | 2020 Annual | LDA | 0 | 0 | 0 | 0 | 2.04E-04 | 0.001669609 | 0 | 0 | 0.001669609 |
| Los Angele | 2020 Annual | LDA | 0.008340497 | 0.014769427 | 0.162658 | 0.006572793 | 0.422683277 | 4.767464833 | 0 | 1.007082 | 5.774546833 |
| Los Angele | 2020 Annual | LDA | 0 | 0 | 0 | 0 | 1.97E-04 | 0.001609896 | 0 | 0 | 0.001609896 |
| Los Angele | 2020 Annual | LDA | 0.007560604 | 0.01123246 | 0.155357 | 0.005521333 | 0.410985918 | 4.827888108 | 0 | 0.9402281 | 5.768116208 |
| Los Angele | 2020 Annual | LDA | 0 | 0 | 0 | 0 | 1.82E-04 | 0.001487898 | 0 | 0 | 0.001487898 |
| Los Angele | 2020 Annual | LDA | 0.007257701 | 0.009244677 | 0.1521839 | 0.004991618 | 0.410766001 | 5.088552197 | 0 | 0.8987569 | 5.987309097 |
| Los Angele | 2020 Annual | LDA | 0 | 0 | 0 | 0 | 1.75E-04 | 0.001420975 | 0 | 0 | 0.001420975 |
| Los Angele | 2020 Annual | LDA | 0.006943998 | 0.007741623 | 0.1464024 | 0.004555953 | 0.4053922 | 5.511673711 | 0 | 0.8473369 | 6.359010611 |
| Los Angele | 2020 Annual | LDA | 0 | 0 | 0 | 0 | 1.63E-04 | 0.001318871 | 0 | 0 | 0.001318871 |
| Los Angele | 2020 Annual | LDT1 | 0.002076048 | 0.00614378 | 0.021777133 | 0.002538961 | 0.043553469 | 0.244011544 | 0 | 0.070467912 | 0.314479456 |
| Los Angele | 2020 Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 Annual | LDT1 | 0.003823475 | 0.011208364 | 0.040755242 | 0.004615603 | 0.081719143 | 0.472249631 | 0 | 0.1313026 | 0.603552231 |
| Los Angele | 2020 Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 Annual | LDT1 | 0.002977609 | 0.008588316 | 0.032348122 | 0.003534912 | 0.066962793 | 0.42273903 | 0 | 0.1148582 | 0.53759723 |
| Los Angele | 2020 Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 Annual | LDT1 | 0.002834347 | 0.008013218 | 0.031638492 | 0.003296582 | 0.067732923 | 0.462042039 | 0 | 0.122366 | 0.584408039 |
| Los Angele | 2020 Annual | LDT1 | 0 | 0 | 0 | 0 | 1.10E-05 | 8.99E-05 | 0 | 0 | 8.99E-05 |
| Los Angele | 2020 Annual | LDT1 | 0.002295486 | 0.006296663 | 0.026492443 | 0.002600248 | 0.058481335 | 0.439761067 | 0 | 0.1143144 | 0.554075467 |
| Los Angele | 2020 Annual | LDT1 | 0 | 0 | 0 | 0 | 1.56E-05 | 1.27E-04 | 0 | 0 | 1.27E-04 |
| Los Angele | 2020 Annual | LDT1 | 0.001844714 | 0.004837305 | 0.022279233 | 0.002015075 | 0.051014918 | 0.426034881 | 0 | 0.1084241 | 0.534458981 |
| Los Angele | 2020 Annual | LDT1 | 0 | 0 | 0 | 0 | 1.12E-05 | 9.15E-05 | 0 | 0 | 9.15E-05 |
| Los Angele | 2020 Annual | LDT1 | 0.001590066 | 0.003930482 | 0.019345988 | 0.001670868 | 0.046769045 | 0.431927114 | 0 | 0.1069688 | 0.538895914 |
| Los Angele | 2020 Annual | LDT1 | 0 | 0 | 0 | 0 | 1.47E-05 | 1.20E-04 | 0 | 0 | 1.20E-04 |
| Los Angele | 2020 Annual | LDT1 | 0.001292537 | 0.002886975 | 0.014527638 | 0.001296537 | 0.04011458 | 0.428952096 | 0 | 0.1027927 | 0.531744796 |
| Los Angele | 2020 Annual | LDT1 | 0 | 0 | 0 | 0 | 1.35E-05 | 1.10E-04 | 0 | 0 | 1.10E-04 |
| Los Angele | 2020 Annual | LDT1 | 0.001099291 | 0.002167995 | 0.013444481 | 0.00101757 | 0.038178022 | 0.433128421 | 0 | 0.099734619 | 0.53286304 |
| Los Angele | 2020 Annual | LDT1 | 0 | 0 | 0 | 0 | 1.32E-05 | 1.07E-04 | 0 | 0 | 1.07E-04 |
| Los Angele | 2020 Annual | LDT1 | 9.45E-04 | 0.001625867 | 0.01203504 | 8.06E-04 | 0.034361487 | 0.398842682 | 0 | 0.08639732 | 0.485240002 |
| Los Angele | 2020 Annual | LDT1 | 0 | 0 | 0 | 0 | 1.62E-05 | 1.31E-04 | 0 | 0 | 1.31E-04 |
| Los Angele | 2020 Annual | LDT1 | 8.52E-04 | 0.00126659 | 0.01097061 | 6.71E-04 | 0.032299894 | 0.38777765 | 0 | 0.078950569 | 0.466728219 |
| Los Angele | 2020 Annual | LDT1 | 0 | 0 | 0 | 0 | 1.05E-05 | 8.51E-05 | 0 | 0 | 8.51E-05 |
| Los Angele | 2020 Annual | LDT1 | 7.67E-04 | 9.82E-04 | 0.010237754 | 5.60E-04 | 0.030782343 | 0.382389694 | 0 | 0.073116146 | 0.45550584 |
| Los Angele | 2020 Annual | LDT1 | 0 | 0 | 0 | 0 | 1.07E-05 | 8.61E-05 | 0 | 0 | 8.61E-05 |
| Los Angele | 2020 Annual | LDT1 | 7.25E-04 | 8.17E-04 | 0.009528238 | 4.98E-04 | 0.029655004 | 0.387771189 | 0 | 0.068810947 | 0.456582136 |
| Los Angele | 2020 Annual | LDT1 | 0 | 0 | 0 | 0 | 1.18E-05 | 9.49E-05 | 0 | 0 | 9.49E-05 |
| Los Angele | 2020 Annual | LDT1 | 6.96E-04 | 7.05E-04 | 0.00893852 | 4.57E-04 | 0.028689925 | 0.40847515 | 0 | 0.06517648 | 0.47365163 |
| Los Angele | 2020 Annual | LDT1 | 0 | 0 | 0 | 0 | 9.89E-06 | 7.92E-05 | 0 | 0 | 7.92E-05 |
| Los Angele | 2020 Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005909456 | 0.02146949 | 0.001210392 | 0 | 0.022679882 |
| Los Angele | 2020 Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00530529 | 0.019277251 | 0.001078957 | 0 | 0.020356208 |
| Los Angele | 2020 Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00347538 | 0.012643962 | 6.62E-04 | 0 | 0.013306332 |
| Los Angele | 2020 Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004385649 | 0.015633082 | 0.001739945 | 0 | 0.017373028 |
| Los Angele | 2020 Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00386263 | 0.013868691 | 0.00125228 | 0 | 0.015120972 |
| Los Angele | 2020 Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002665607 | 0.009605117 | 7.68E-04 | 0 | 0.010373152 |
| Los Angele | 2020 Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004515619 | 0.016010802 | 0.002031333 | 0 | 0.018042135 |
| Los Angele | 2020 Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003732101 | 0.013393691 | 0.00122772 | 0 | 0.014621412 |
| Los Angele | 2020 Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005556171 | 0.01979554 | 0.00223231 | 0 | 0.022027849 |
| Los Angele | 2020 Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004548488 | 0.016329534 | 0.001479439 | 0 | 0.017808973 |
| Los Angele | 2020 Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004784329 | 0.017167028 | 0.001581937 | 0 | 0.018748965 |
| Los Angele | 2020 Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004840839 | 0.017348157 | 0.001661268 | 0 | 0.019009426 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | LDA | 0.435695265 | 0 | 0.082066171 | 0.517761436 | 2781.194967 | 0 | 112.7308 | 2893.925767 | 1822.238942 |
| Los Angele | 2020 | Annual | LDA | 0.007759658 | 0 | 0 | 0.007759658 | 11.54289943 | 0 | 0 | 11.54289943 | 7.562907705 |
| Los Angele | 2020 | Annual | LDA | 0.453724756 | 0 | 0.081199884 | 0.53492464 | 2989.553342 | 0 | 116.7293 | 3106.282642 | 1915.705782 |
| Los Angele | 2020 | Annual | LDA | 0.006785126 | 0 | 0 | 0.006785126 | 10.53355886 | 0 | 0 | 10.53355886 | 6.74990452 |
| Los Angele | 2020 | Annual | LDA | 0.465465047 | 0 | 0.078081235 | 0.543546282 | 3271.694302 | 0 | 122.6979 | 3394.392202 | 2011.110487 |
| Los Angele | 2020 | Annual | LDA | 0.006371984 | 0 | 0 | 0.006371984 | 10.39400264 | 0 | 0 | 10.39400264 | 6.389193422 |
| Los Angele | 2020 | Annual | LDA | 0.469533132 | 0 | 0.072971299 | 0.542504431 | 3477.807373 | 0 | 124.3738 | 3602.181173 | 2056.4275 |
| Los Angele | 2020 | Annual | LDA | 0.005608275 | 0 | 0 | 0.005608275 | 9.66069434 | 0 | 0 | 9.66069434 | 5.712368563 |
| Los Angele | 2020 | Annual | LDA | 0.469331732 | 0 | 0.065852925 | 0.535184657 | 3743.091674 | 0 | 126.4399 | 3869.531574 | 2213.290107 |
| Los Angele | 2020 | Annual | LDA | 0.005452691 | 0 | 0 | 0.005452691 | 9.980617214 | 0 | 0 | 9.980617214 | 5.901538959 |
| Los Angele | 2020 | Annual | LDA | 0.476063632 | 0 | 0.059320845 | 0.535384477 | 4058.315417 | 0 | 128.1089 | 4186.424317 | 2399.681906 |
| Los Angele | 2020 | Annual | LDA | 0.00509058 | 0 | 0 | 0.00509058 | 9.979975683 | 0 | 0 | 9.979975683 | 5.901159621 |
| Los Angele | 2020 | Annual | LDA | 0.49787699 | 0 | 0.053259373 | 0.551136363 | 4560.98806 | 0 | 131.7342 | 4692.72226 | 2696.91224 |
| Los Angele | 2020 | Annual | LDA | 0.004923727 | 0 | 0 | 0.004923727 | 10.44971201 | 0 | 0 | 10.44971201 | 6.17891471 |
| Los Angele | 2020 | Annual | LDA | 0.528985819 | 0 | 0.045387678 | 0.574373497 | 5256.647776 | 0 | 132.4176 | 5389.065376 | 3108.25583 |
| Los Angele | 2020 | Annual | LDA | 0.004647968 | 0 | 0 | 0.004647968 | 10.85299701 | 0 | 0 | 10.85299701 | 6.417377133 |
| Los Angele | 2020 | Annual | LDT1 | 0.017511852 | 0 | 0.003311378 | 0.02082323 | 128.3147407 | 0 | 5.166889 | 133.4816297 | 115.4832666 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | LDT1 | 0.036204105 | 0 | 0.006692426 | 0.042896531 | 273.279906 | 0 | 10.89841 | 284.178316 | 245.9519154 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | LDT1 | 0.034325442 | 0 | 0.006357079 | 0.040682521 | 250.7194562 | 0 | 9.875723 | 260.5951792 | 225.6475106 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | LDT1 | 0.040072906 | 0 | 0.007436124 | 0.04750903 | 282.7200463 | 0 | 11.00448 | 293.7245263 | 245.5423602 |
| Los Angele | 2020 | Annual | LDT1 | 2.98E-04 | 0 | 0 | 2.98E-04 | 0.328108157 | 0 | 0 | 0.328108157 | 0.284961934 |
| Los Angele | 2020 | Annual | LDT1 | 0.038639275 | 0 | 0.007025193 | 0.045664468 | 275.3812513 | 0 | 10.55771 | 285.9389613 | 212.153716 |
| Los Angele | 2020 | Annual | LDT1 | 4.23E-04 | 0 | 0 | 4.23E-04 | 0.482089189 | 0 | 0 | 0.482089189 | 0.371401511 |
| Los Angele | 2020 | Annual | LDT1 | 0.037907795 | 0 | 0.00672962 | 0.044637415 | 273.7748959 | 0 | 10.31983 | 284.0947259 | 184.0588625 |
| Los Angele | 2020 | Annual | LDT1 | 3.05E-04 | 0 | 0 | 3.05E-04 | 0.360477749 | 0 | 0 | 0.360477749 | 0.24234919 |
| Los Angele | 2020 | Annual | LDT1 | 0.038946285 | 0 | 0.006707763 | 0.045654049 | 286.5386405 | 0 | 10.57696 | 297.1156005 | 187.7401172 |
| Los Angele | 2020 | Annual | LDT1 | 4.01E-04 | 0 | 0 | 4.01E-04 | 0.493123164 | 0 | 0 | 0.493123164 | 0.323094297 |
| Los Angele | 2020 | Annual | LDT1 | 0.038980981 | 0 | 0.00645128 | 0.045432261 | 296.7985402 | 0 | 10.68477 | 307.4833102 | 190.1885045 |
| Los Angele | 2020 | Annual | LDT1 | 3.70E-04 | 0 | 0 | 3.70E-04 | 0.475652597 | 0 | 0 | 0.475652597 | 0.304798184 |
| Los Angele | 2020 | Annual | LDT1 | 0.039347273 | 0 | 0.00617366 | 0.045520932 | 321.2368548 | 0 | 11.25693 | 332.4937848 | 197.4642947 |
| Los Angele | 2020 | Annual | LDT1 | 3.63E-04 | 0 | 0 | 3.63E-04 | 0.4920595 | 0 | 0 | 0.4920595 | 0.302468975 |
| Los Angele | 2020 | Annual | LDT1 | 0.038788422 | 0 | 0.005716049 | 0.044504471 | 334.2425505 | 0 | 11.33341 | 345.5759605 | 197.6376201 |
| Los Angele | 2020 | Annual | LDT1 | 4.48E-04 | 0 | 0 | 4.48E-04 | 0.642335129 | 0 | 0 | 0.642335129 | 0.379812762 |
| Los Angele | 2020 | Annual | LDT1 | 0.038198999 | 0 | 0.005157159 | 0.043356158 | 355.2522672 | 0 | 11.56397 | 366.8162372 | 210.0606656 |
| Los Angele | 2020 | Annual | LDT1 | 2.93E-04 | 0 | 0 | 2.93E-04 | 0.447245437 | 0 | 0 | 0.447245437 | 0.264456227 |
| Los Angele | 2020 | Annual | LDT1 | 0.03772216 | 0 | 0.004601806 | 0.042323967 | 375.483536 | 0 | 11.63641 | 387.119946 | 222.0234148 |
| Los Angele | 2020 | Annual | LDT1 | 3.00E-04 | 0 | 0 | 3.00E-04 | 0.491022743 | 0 | 0 | 0.491022743 | 0.290341748 |
| Los Angele | 2020 | Annual | LDT1 | 0.037939179 | 0 | 0.00406035 | 0.041999529 | 406.1520666 | 0 | 11.78233 | 417.9343966 | 240.157717 |
| Los Angele | 2020 | Annual | LDT1 | 3.35E-04 | 0 | 0 | 3.35E-04 | 0.59515694 | 0 | 0 | 0.59515694 | 0.351916298 |
| Los Angele | 2020 | Annual | LDT1 | 0.039185909 | 0 | 0.003472883 | 0.042658791 | 454.8581564 | 0 | 11.88397 | 466.7421264 | 268.9576279 |
| Los Angele | 2020 | Annual | LDT1 | 2.84E-04 | 0 | 0 | 2.84E-04 | 0.556573918 | 0 | 0 | 0.556573918 | 0.329102157 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.111362158 | 0.001828653 | 0 | 0.113190812 | 25.97697916 | 0.363670545 | 0 | 26.3406497 | 23.37928124 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.095320928 | 0.001630083 | 0 | 0.096951011 | 24.10983988 | 0.324180097 | 0 | 24.43401997 | 21.69885589 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.056911603 | 0.001000705 | 0 | 0.057912308 | 16.41061651 | 0.199013651 | 0 | 16.60963016 | 14.76955486 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.052057441 | 0.0026287 | 0 | 0.054686141 | 33.30388512 | 0.522778568 | 0 | 33.82666369 | 29.97349661 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.042957629 | 0.001891939 | 0 | 0.044849568 | 30.65347153 | 0.376256345 | 0 | 31.02972787 | 27.58812437 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.02645813 | 0.001160343 | 0 | 0.027618473 | 22.11143956 | 0.230761476 | 0 | 22.34220103 | 19.9002956 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.044500739 | 0.003068927 | 0 | 0.047569666 | 45.74871895 | 0.610328037 | 0 | 46.35904699 | 41.17384706 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.036419959 | 0.001854833 | 0 | 0.038274792 | 39.78316658 | 0.368877045 | 0 | 40.15204362 | 35.80484992 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.052454997 | 0.003372562 | 0 | 0.055827559 | 61.37227929 | 0.670712912 | 0 | 62.0429922 | 55.23505136 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.041961489 | 0.002235129 | 0 | 0.044196618 | 53.08104055 | 0.444507663 | 0 | 53.52554821 | 47.7729365 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.042520138 | 0.002389983 | 0 | 0.044910121 | 58.79084169 | 0.475304044 | 0 | 59.26614574 | 52.91175753 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.0411084 | 0.002509835 | 0 | 0.043618235 | 62.89903915 | 0.499139526 | 0 | 63.39817868 | 56.60913524 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | LDA | 0 | 73.86122016 | 1896.100162 | 0.008582849 | 0 | 0.003384613 | 0.011967463 | 0.060070526 | 0.275949 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 7.562907705 | 1.54E-04 | 0 | 0 | 1.54E-04 | 2.91E-04 | 0.001334803 |
| Los Angele | 2020 | Annual | LDA | 0 | 74.80013544 | 1990.505917 | 0.012297291 | 0 | 0.004958367 | 0.017255659 | 0.064553335 | 0.296542 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 6.74990452 | 1.34E-04 | 0 | 0 | 1.34E-04 | 2.65E-04 | 0.001218084 |
| Los Angele | 2020 | Annual | LDA | 0 | 75.42239913 | 2086.532886 | 0.01681707 | 0 | 0.006712291 | 0.023529361 | 0.070627958 | 0.3244473 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 6.389193422 | 1.26E-04 | 0 | 0 | 1.26E-04 | 2.62E-04 | 0.001201946 |
| Los Angele | 2020 | Annual | LDA | 0 | 73.54222794 | 2129.969728 | 0.020551587 | 0 | 0.007939638 | 0.028491224 | 0.075059414 | 0.3448042 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 5.712368563 | 1.11E-04 | 0 | 0 | 1.11E-04 | 2.43E-04 | 0.001117147 |
| Los Angele | 2020 | Annual | LDA | 0 | 74.76391287 | 2288.05402 | 0.024035157 | 0 | 0.008824261 | 0.032859417 | 0.080763213 | 0.3710061 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 5.901538959 | 1.08E-04 | 0 | 0 | 1.08E-04 | 2.51E-04 | 0.001154143 |
| Los Angele | 2020 | Annual | LDA | 0 | 75.75079257 | 2475.432699 | 0.02709319 | 0 | 0.009325169 | 0.036418359 | 0.087543249 | 0.4021519 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 5.901159621 | 1.01E-04 | 0 | 0 | 1.01E-04 | 2.51E-04 | 0.001154069 |
| Los Angele | 2020 | Annual | LDA | 0 | 77.89443246 | 2774.806672 | 0.030439528 | 0 | 0.009616613 | 0.040056141 | 0.09836141 | 0.4518479 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 6.17891471 | 9.78E-05 | 0 | 0 | 9.78E-05 | 2.63E-04 | 0.001208388 |
| Los Angele | 2020 | Annual | LDA | 0 | 78.29852688 | 3186.554357 | 0.035071346 | 0 | 0.009666504 | 0.04473785 | 0.1133299 | 0.520609 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 6.417377133 | 9.24E-05 | 0 | 0 | 9.24E-05 | 2.73E-04 | 0.001255023 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 4.6502001 | 120.1334667 | 8.51E-05 | 0 | 1.07E-05 | 9.58E-05 | 0.002383348 | 0.010948509 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 9.808569 | 255.7604844 | 1.81E-04 | 0 | 2.94E-05 | 2.11E-04 | 0.00508048 | 0.023338458 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 8.8881507 | 234.5356613 | 2.22E-04 | 0 | 4.20E-05 | 2.64E-04 | 0.004653108 | 0.021375215 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 9.55739088 | 255.0997511 | 2.50E-04 | 0 | 5.78E-05 | 3.08E-04 | 0.005250245 | 0.024118317 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0.284961934 | 4.92E-06 | 0 | 0 | 4.92E-06 | 8.26E-06 | 3.79E-05 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 8.133659784 | 220.2873757 | 3.65E-04 | 0 | 1.03E-04 | 4.69E-04 | 0.005114497 | 0.023494726 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0.371401511 | 7.00E-06 | 0 | 0 | 7.00E-06 | 1.21E-05 | 5.57E-05 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 6.938021709 | 190.9968842 | 4.84E-04 | 0 | 1.42E-04 | 6.26E-04 | 0.005085039 | 0.023359401 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0.24234919 | 5.05E-06 | 0 | 0 | 5.05E-06 | 9.07E-06 | 4.17E-05 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 6.930024192 | 194.6701414 | 7.60E-04 | 0 | 2.73E-04 | 0.001032658 | 0.005321157 | 0.024444064 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0.323094297 | 6.63E-06 | 0 | 0 | 6.63E-06 | 1.24E-05 | 5.70E-05 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 6.846800616 | 197.0353051 | 0.001049176 | 0 | 3.90E-04 | 0.00143899 | 0.005510259 | 0.025312755 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0.304798184 | 6.11E-06 | 0 | 0 | 6.11E-06 | 1.20E-05 | 5.50E-05 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 6.919634871 | 204.3839295 | 0.001419027 | 0 | 5.29E-04 | 0.001947942 | 0.005963038 | 0.027392711 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0.302468975 | 6.01E-06 | 0 | 0 | 6.01E-06 | 1.24E-05 | 5.69E-05 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 6.701445333 | 204.3390654 | 0.001697435 | 0 | 6.21E-04 | 0.002318827 | 0.006202924 | 0.028494686 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0.379812762 | 7.42E-06 | 0 | 0 | 7.42E-06 | 1.62E-05 | 7.43E-05 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 6.837775461 | 216.8984411 | 0.001960419 | 0 | 6.93E-04 | 0.002653581 | 0.006590849 | 0.030276716 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0.264456227 | 4.85E-06 | 0 | 0 | 4.85E-06 | 1.13E-05 | 5.17E-05 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 6.880609233 | 228.9040241 | 0.002154294 | 0 | 7.27E-04 | 0.002881788 | 0.006965051 | 0.031995706 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0.290341748 | 4.96E-06 | 0 | 0 | 4.96E-06 | 1.24E-05 | 5.68E-05 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 6.966891729 | 247.1246087 | 0.002329547 | 0 | 7.39E-04 | 0.00306828 | 0.007531455 | 0.034597632 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0.351916298 | 5.55E-06 | 0 | 0 | 5.55E-06 | 1.50E-05 | 6.88E-05 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 7.026991461 | 275.9846193 | 0.002608119 | 0 | 7.45E-04 | 0.003353225 | 0.0084326 | 0.03873726 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0.329102157 | 4.72E-06 | 0 | 0 | 4.72E-06 | 1.40E-05 | 6.44E-05 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.327303491 | 0 | 23.70658473 | 0.001506961 | 4.30E-06 | 0 | 0.001511259 | 2.69E-04 | 0.002921398 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.291762088 | 0 | 21.99061798 | 0.00135456 | 3.83E-06 | 0 | 0.001358391 | 2.50E-04 | 0.002711418 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.179112286 | 0 | 14.94866715 | 8.90E-04 | 2.35E-06 | 0 | 8.92E-04 | 1.70E-04 | 0.001845555 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.470500711 | 0 | 30.44399732 | 0.001794994 | 6.18E-06 | 0 | 0.001801173 | 3.57E-04 | 0.003874858 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.338630711 | 0 | 27.92675508 | 0.001580938 | 4.45E-06 | 0 | 0.001585384 | 3.28E-04 | 0.003566486 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.207685329 | 0 | 20.10798093 | 0.001085796 | 2.73E-06 | 0 | 0.001088523 | 2.37E-04 | 0.002572633 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.549295233 | 0 | 41.72314229 | 0.001742079 | 7.21E-06 | 0 | 0.001749292 | 4.91E-04 | 0.005335075 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.33198934 | 0 | 36.13683926 | 0.001440102 | 4.36E-06 | 0 | 0.001444462 | 4.27E-04 | 0.00463939 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.603641621 | 0 | 55.83869298 | 0.002099135 | 7.93E-06 | 0 | 0.002107062 | 6.59E-04 | 0.007157046 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.400056897 | 0 | 48.17299339 | 0.001703656 | 5.25E-06 | 0 | 0.001708909 | 5.70E-04 | 0.006190148 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.42777364 | 0 | 53.33953117 | 0.001757022 | 5.62E-06 | 0 | 0.00176264 | 6.31E-04 | 0.006856007 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.449225573 | 0 | 57.05836081 | 0.001735855 | 5.90E-06 | 0 | 0.001741754 | 6.75E-04 | 0.007335092 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | LDA | 0.347986989 | 0.007963469 | 0 | 0.003140362 | 0.011103832 | 0.015017631 | 0.1182639 | 0.144385363 | 0.02784114 |
| Los Angele | 2020 | Annual | LDA | 0.001779158 | 1.41E-04 | 0 | 0 | 1.41E-04 | 7.26E-05 | 5.72E-04 | 7.86E-04 | 1.10E-04 |
| Los Angele | 2020 | Annual | LDA | 0.378350994 | 0.011409857 | 0 | 0.004600547 | 0.016010405 | 0.016138334 | 0.1270894 | 0.159238139 | 0.029923683 |
| Los Angele | 2020 | Annual | LDA | 0.001617744 | 1.24E-04 | 0 | 0 | 1.24E-04 | 6.63E-05 | 5.22E-04 | 7.12E-04 | 1.01E-04 |
| Los Angele | 2020 | Annual | LDA | 0.418604619 | 0.015603466 | 0 | 0.006227899 | 0.021831365 | 0.017656989 | 0.1390488 | 0.178537154 | 0.03274205 |
| Los Angele | 2020 | Annual | LDA | 0.001589934 | 1.16E-04 | 0 | 0 | 1.16E-04 | 6.54E-05 | 5.15E-04 | 6.97E-04 | 9.92E-05 |
| Los Angele | 2020 | Annual | LDA | 0.448354838 | 0.019068484 | 0 | 0.007366675 | 0.026435159 | 0.018764853 | 0.1477732 | 0.192973212 | 0.034794968 |
| Los Angele | 2020 | Annual | LDA | 0.001471564 | 1.02E-04 | 0 | 0 | 1.02E-04 | 6.08E-05 | 4.79E-04 | 6.42E-04 | 9.22E-05 |
| Los Angele | 2020 | Annual | LDA | 0.48462873 | 0.022300659 | 0 | 0.008187459 | 0.030488118 | 0.020190803 | 0.1590026 | 0.209681521 | 0.037441995 |
| Los Angele | 2020 | Annual | LDA | 0.001513563 | 9.95E-05 | 0 | 0 | 9.95E-05 | 6.28E-05 | 4.95E-04 | 6.57E-04 | 9.53E-05 |
| Los Angele | 2020 | Annual | LDA | 0.526113508 | 0.025138011 | 0 | 0.008652219 | 0.03379023 | 0.021885812 | 0.1723508 | 0.228026842 | 0.040589552 |
| Los Angele | 2020 | Annual | LDA | 0.001506329 | 9.30E-05 | 0 | 0 | 9.30E-05 | 6.28E-05 | 4.95E-04 | 6.50E-04 | 9.53E-05 |
| Los Angele | 2020 | Annual | LDA | 0.590265451 | 0.028242858 | 0 | 0.008922631 | 0.037165489 | 0.024590353 | 0.1936491 | 0.255404942 | 0.04561146 |
| Los Angele | 2020 | Annual | LDA | 0.00156921 | 8.99E-05 | 0 | 0 | 8.99E-05 | 6.58E-05 | 5.18E-04 | 6.74E-04 | 9.98E-05 |
| Los Angele | 2020 | Annual | LDA | 0.67867675 | 0.032540422 | 0 | 0.00896892 | 0.041509342 | 0.028332463 | 0.2231181 | 0.292959905 | 0.05256227 |
| Los Angele | 2020 | Annual | LDA | 0.001620581 | 8.50E-05 | 0 | 0 | 8.50E-05 | 6.83E-05 | 5.38E-04 | 6.91E-04 | 1.04E-04 |
| Los Angele | 2020 | Annual | LDT1 | 0.013427667 | 7.90E-05 | 0 | 9.94E-06 | 8.89E-05 | 5.96E-04 | 0.004692217 | 0.00537695 | 0.001284841 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | LDT1 | 0.028629548 | 1.68E-04 | 0 | 2.72E-05 | 1.95E-04 | 0.00127012 | 0.010002197 | 0.011467729 | 0.002735628 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | LDT1 | 0.026292064 | 2.06E-04 | 0 | 3.90E-05 | 2.45E-04 | 0.001163277 | 0.009160806 | 0.01056879 | 0.002509626 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | LDT1 | 0.029676354 | 2.32E-04 | 0 | 5.36E-05 | 2.86E-04 | 0.001312561 | 0.01033642 | 0.011934561 | 0.002829714 |
| Los Angele | 2020 | Annual | LDT1 | 5.11E-05 | 4.53E-06 | 0 | 0 | 4.53E-06 | 2.06E-06 | 1.63E-05 | 2.29E-05 | 3.13E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0.029077792 | 3.39E-04 | 0 | 9.58E-05 | 4.35E-04 | 0.001278624 | 0.010069168 | 0.011782547 | 0.002756089 |
| Los Angele | 2020 | Annual | LDT1 | 7.49E-05 | 6.44E-06 | 0 | 0 | 6.44E-06 | 3.03E-06 | 2.39E-05 | 3.34E-05 | 4.60E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0.02907067 | 4.49E-04 | 0 | 1.32E-04 | 5.81E-04 | 0.00127126 | 0.010011172 | 0.01186347 | 0.002739828 |
| Los Angele | 2020 | Annual | LDT1 | 5.58E-05 | 4.64E-06 | 0 | 0 | 4.64E-06 | 2.27E-06 | 1.79E-05 | 2.48E-05 | 3.44E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0.030797879 | 7.05E-04 | 0 | 2.53E-04 | 9.58E-04 | 0.001330289 | 0.010476028 | 0.012764454 | 0.002867331 |
| Los Angele | 2020 | Annual | LDT1 | 7.61E-05 | 6.10E-06 | 0 | 0 | 6.10E-06 | 3.10E-06 | 2.44E-05 | 3.36E-05 | 4.71E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0.032262004 | 9.73E-04 | 0 | 3.62E-04 | 0.001335145 | 0.001377565 | 0.010848325 | 0.013561035 | 0.002969697 |
| Los Angele | 2020 | Annual | LDT1 | 7.31E-05 | 5.62E-06 | 0 | 0 | 5.62E-06 | 2.99E-06 | 2.36E-05 | 3.22E-05 | 4.54E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0.035303691 | 0.001316623 | 0 | 4.91E-04 | 0.001807369 | 0.00149076 | 0.011739734 | 0.015037863 | 0.00321371 |
| Los Angele | 2020 | Annual | LDT1 | 7.53E-05 | 5.53E-06 | 0 | 0 | 5.53E-06 | 3.10E-06 | 2.44E-05 | 3.30E-05 | 4.70E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0.037016437 | 0.00157494 | 0 | 5.77E-04 | 0.002151489 | 0.001550731 | 0.012212007 | 0.015914227 | 0.003342962 |
| Los Angele | 2020 | Annual | LDT1 | 9.79E-05 | 6.83E-06 | 0 | 0 | 6.83E-06 | 4.04E-06 | 3.18E-05 | 4.27E-05 | 6.13E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0.039521146 | 0.001818946 | 0 | 6.43E-04 | 0.002462085 | 0.001647712 | 0.012975733 | 0.01708553 | 0.003552498 |
| Los Angele | 2020 | Annual | LDT1 | 6.78E-05 | 4.47E-06 | 0 | 0 | 4.47E-06 | 2.81E-06 | 2.22E-05 | 2.94E-05 | 4.27E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0.041842544 | 0.00199883 | 0 | 6.75E-04 | 0.002673824 | 0.001741263 | 0.013712443 | 0.018127529 | 0.003754357 |
| Los Angele | 2020 | Annual | LDT1 | 7.41E-05 | 4.57E-06 | 0 | 0 | 4.57E-06 | 3.09E-06 | 2.43E-05 | 3.20E-05 | 4.69E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0.045197368 | 0.002161435 | 0 | 6.85E-04 | 0.002846858 | 0.001882864 | 0.014827558 | 0.01955728 | 0.004060572 |
| Los Angele | 2020 | Annual | LDT1 | 8.94E-05 | 5.10E-06 | 0 | 0 | 5.10E-06 | 3.75E-06 | 2.95E-05 | 3.83E-05 | 5.68E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0.050523085 | 0.002419904 | 0 | 6.91E-04 | 0.00311124 | 0.00210815 | 0.01660168 | 0.02182107 | 0.004547078 |
| Los Angele | 2020 | Annual | LDT1 | 8.31E-05 | 4.34E-06 | 0 | 0 | 4.34E-06 | 3.50E-06 | 2.76E-05 | 3.54E-05 | 5.31E-06 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.004701622 | 0.001386404 | 3.95E-06 | 0 | 0.001390359 | 6.72E-05 | 0.001252028 | 0.002709627 | 2.48E-04 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.004319441 | 0.001246195 | 3.52E-06 | 0 | 0.00124972 | 6.24E-05 | 0.001162036 | 0.002474164 | 2.30E-04 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.002907398 | 8.18E-04 | 2.16E-06 | 0 | 8.21E-04 | 4.25E-05 | 7.91E-04 | 0.001654005 | 1.57E-04 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.006032777 | 0.001651395 | 5.68E-06 | 0 | 0.001657079 | 8.92E-05 | 0.001660653 | 0.003406919 | 3.18E-04 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.005480226 | 0.001454463 | 4.09E-06 | 0 | 0.001458553 | 8.21E-05 | 0.001528494 | 0.003069136 | 2.92E-04 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.003898011 | 9.99E-04 | 2.51E-06 | 0 | 0.001001441 | 5.92E-05 | 0.001102557 | 0.002163212 | 2.11E-04 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.007575551 | 0.001602713 | 6.64E-06 | 0 | 0.001609349 | 1.23E-04 | 0.002286461 | 0.004018605 | 4.36E-04 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.006510987 | 0.001324894 | 4.01E-06 | 0 | 0.001328905 | 1.07E-04 | 0.00198831 | 0.003423999 | 3.80E-04 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.009923035 | 0.001931205 | 7.29E-06 | 0 | 0.001938497 | 1.65E-04 | 0.003067306 | 0.005170534 | 5.86E-04 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.008468964 | 0.001567363 | 4.83E-06 | 0 | 0.001572196 | 1.42E-04 | 0.00265292 | 0.004367594 | 5.06E-04 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.009249858 | 0.001616461 | 5.17E-06 | 0 | 0.001621628 | 1.58E-04 | 0.002938289 | 0.00471772 | 5.61E-04 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.009752165 | 0.001596986 | 5.43E-06 | 0 | 0.001602413 | 1.69E-04 | 0.003143611 | 0.004914854 | 6.00E-04 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | LDA | 0 | 0.00114808 | 0.02898922 | 309.2121 | 0 | 1.34E-04 | 1.80E-03 | 1.52E-04 | 3.51E-06 | 9.87E-05 | 3.26E-06 | 3.91E-05 | 8.51E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 1.10E-04 | 0 | 1.038861 | 1.53E-05 | 1.43E-04 | 4.71E-04 | 9.33E-06 | 9.87E-05 | 8.59E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0.001187775 | 0.031111458 | 331.8489 | 0 | 1.12E-04 | 1.71E-03 | 1.46E-04 | 4.71E-06 | 9.87E-05 | 4.37E-06 | 3.91E-05 | 8.50E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 1.01E-04 | 0 | 0.9480204 | 1.46E-05 | 1.36E-04 | 4.51E-04 | 8.95E-06 | 9.87E-05 | 8.23E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0.001246797 | 0.033988847 | 362.5404 | 0 | 9.81E-05 | 1.59E-03 | 1.36E-04 | 5.88E-06 | 9.87E-05 | 5.45E-06 | 3.91E-05 | 8.49E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 9.92E-05 | 0 | 0.9354602 | 1.38E-05 | 1.29E-04 | 4.30E-04 | 8.52E-06 | 9.87E-05 | 7.83E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0.001260997 | 0.036055965 | 384.5892 | 0 | 8.52E-05 | 1.39E-03 | 1.27E-04 | 6.69E-06 | 9.87E-05 | 6.21E-06 | 3.91E-05 | 8.47E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 9.22E-05 | 0 | 0.8694625 | 1.30E-05 | 1.21E-04 | 4.07E-04 | 8.07E-06 | 9.87E-05 | 7.42E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0.001280016 | 0.038722011 | 413.0265 | 0 | 7.53E-05 | 1.26E-03 | 1.17E-04 | 7.18E-06 | 9.87E-05 | 6.66E-06 | 3.91E-05 | 8.46E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 9.53E-05 | 0 | 0.8982555 | 1.22E-05 | 1.13E-04 | 3.83E-04 | 7.59E-06 | 9.87E-05 | 6.99E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0.00129553 | 0.041885082 | 446.7653 | 0 | 6.67E-05 | 1.16E-03 | 1.08E-04 | 7.34E-06 | 9.87E-05 | 6.81E-06 | 3.91E-05 | 8.44E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 9.53E-05 | 0 | 0.8981977 | 1.13E-05 | 1.04E-04 | 3.57E-04 | 7.09E-06 | 9.87E-05 | 6.53E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0.001330976 | 0.046942436 | 500.7093 | 0 | 5.86E-05 | 1.07E-03 | 9.88E-05 | 7.18E-06 | 9.87E-05 | 6.66E-06 | 3.91E-05 | 8.42E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 9.98E-05 | 0 | 0.940474 | 1.03E-05 | 9.53E-05 | 3.30E-04 | 6.56E-06 | 9.87E-05 | 6.03E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0.001336805 | 0.053899075 | 574.9119 | 0 | 4.95E-05 | 9.90E-04 | 8.94E-05 | 6.96E-06 | 9.87E-05 | 6.46E-06 | 3.91E-05 | 8.39E-06 |
| Los Angele | 2020 | Annual | LDA | 0 | 0 | 1.04E-04 | 0 | 0.9767697 | 9.22E-06 | 8.51E-05 | 3.00E-04 | 5.96E-06 | 9.87E-05 | 5.49E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 5.28E-05 | 0.001337635 | 14.26782 | 0 | 2.96E-04 | 2.33E-03 | 1.54E-04 | 7.09E-07 | 9.87E-05 | 6.58E-07 | 3.91E-05 | 9.90E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2020 | Annual | LDT1 | 0 | 1.11E-04 | 0.002846687 | 30.36406 | 0 | 2.59E-04 | 2.10E-03 | 1.49E-04 | 7.31E-07 | 9.87E-05 | 6.78E-07 | 3.91E-05 | 9.88E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2020 | Annual | LDT1 | 0 | 1.01E-04 | 0.002610199 | 27.84156 | 0 | 2.29E-04 | 2.04E-03 | 1.54E-04 | 1.00E-06 | 9.87E-05 | 9.28E-07 | 3.91E-05 | 9.89E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2020 | Annual | LDT1 | 0 | 1.12E-04 | 0.002941693 | 31.37743 | 0 | 2.03E-04 | 1.96E-03 | 1.60E-04 | 1.03E-06 | 9.87E-05 | 9.59E-07 | 3.91E-05 | 9.88E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 3.13E-06 | 0 | 0.029529737 | 2.06E-05 | 1.92E-04 | 6.36E-04 | 1.05E-05 | 9.87E-05 | 9.66E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 1.07E-04 | 0.00286347 | 30.54307 | 0 | 1.78E-04 | 1.91E-03 | 1.57E-04 | 1.62E-06 | 9.87E-05 | 1.50E-06 | 3.91E-05 | 9.87E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 4.60E-06 | 0 | 0.043388028 | 1.99E-05 | 1.85E-04 | 6.15E-04 | 1.02E-05 | 9.87E-05 | 9.35E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 1.05E-04 | 0.002844732 | 30.3432 | 0 | 1.54E-04 | 1.85E-03 | 1.55E-04 | 2.17E-06 | 9.87E-05 | 2.02E-06 | 3.91E-05 | 9.87E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 3.44E-06 | 0 | 0.032442998 | 1.91E-05 | 1.78E-04 | 5.93E-04 | 9.81E-06 | 9.87E-05 | 9.02E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 1.07E-04 | 0.002974779 | 31.73033 | 0 | 1.33E-04 | 1.79E-03 | 1.51E-04 | 3.42E-06 | 9.87E-05 | 3.18E-06 | 3.91E-05 | 9.86E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 4.71E-06 | 0 | 0.04438109 | 1.83E-05 | 1.70E-04 | 5.70E-04 | 9.42E-06 | 9.87E-05 | 8.66E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 1.08E-04 | 0.003078151 | 32.83295 | 0 | 1.07E-04 | 1.70E-03 | 1.45E-04 | 4.61E-06 | 9.87E-05 | 4.27E-06 | 3.91E-05 | 9.85E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 4.54E-06 | 0 | 0.042808734 | 1.74E-05 | 1.62E-04 | 5.45E-04 | 9.00E-06 | 9.87E-05 | 8.28E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 1.14E-04 | 0.003327827 | 35.49611 | 0 | 9.24E-05 | 1.58E-03 | 1.35E-04 | 5.76E-06 | 9.87E-05 | 5.35E-06 | 3.91E-05 | 9.84E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 4.70E-06 | 0 | 0.044285361 | 1.65E-05 | 1.53E-04 | 5.17E-04 | 8.56E-06 | 9.87E-05 | 7.88E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 1.15E-04 | 0.003457619 | 36.88053 | 0 | 7.94E-05 | 1.38E-03 | 1.27E-04 | 6.59E-06 | 9.87E-05 | 6.12E-06 | 3.91E-05 | 9.83E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 6.13E-06 | 0 | 0.057810161 | 1.55E-05 | 1.43E-04 | 4.89E-04 | 8.09E-06 | 9.87E-05 | 7.44E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 1.17E-04 | 0.003669332 | 39.13876 | 0 | 6.95E-05 | 1.25E-03 | 1.16E-04 | 7.10E-06 | 9.87E-05 | 6.59E-06 | 3.91E-05 | 9.82E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 4.27E-06 | 0 | 0.040252093 | 1.45E-05 | 1.33E-04 | 4.59E-04 | 7.60E-06 | 9.87E-05 | 7.00E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 1.17E-04 | 0.003871814 | 41.29852 | 0 | 6.19E-05 | 1.15E-03 | 1.07E-04 | 7.30E-06 | 9.87E-05 | 6.77E-06 | 3.91E-05 | 9.80E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 4.69E-06 | 0 | 0.044192046 | 1.34E-05 | 1.23E-04 | 4.27E-04 | 7.08E-06 | 9.87E-05 | 6.51E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 1.19E-04 | 0.004179408 | 44.57946 | 0 | 5.45E-05 | 1.07E-03 | 9.84E-05 | 7.19E-06 | 9.87E-05 | 6.67E-06 | 3.91E-05 | 9.79E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 5.68E-06 | 0 | 0.053564128 | 1.22E-05 | 1.12E-04 | 3.94E-04 | 6.53E-06 | 9.87E-05 | 6.01E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 1.20E-04 | 0.004666858 | 49.77881 | 0 | 4.65E-05 | 9.91E-04 | 8.92E-05 | 7.01E-06 | 9.87E-05 | 6.51E-06 | 3.91E-05 | 9.76E-06 |
| Los Angele | 2020 | Annual | LDT1 | 0 | 0 | 5.31E-06 | 0 | 0.050091654 | 1.09E-05 | 9.97E-05 | 3.58E-04 | 5.94E-06 | 9.87E-05 | 5.46E-06 | 3.91E-05 | 6.69E-06 |
| Los Angele | 2020 | Annual | T6 instate heavy | 3.47E-06 | 0 | 2.51E-04 | 0 | 2.370658473 | 5.11E-04 | 2.23E-03 | 1.11E-02 | 1.49E-04 | 3.14E-04 | 1.37E-04 | 1.30E-04 | 2.47E-05 |
| Los Angele | 2020 | Annual | T6 instate heavy | 3.09E-06 | 0 | 2.33E-04 | 0 | 2.199061798 | 4.94E-04 | 2.16E-03 | 1.03E-02 | 1.44E-04 | 3.14E-04 | 1.32E-04 | 1.30E-04 | 2.47E-05 |
| Los Angele | 2020 | Annual | T6 instate heavy | 1.90E-06 | 0 | 1.58E-04 | 0 | 1.494866715 | 4.75E-04 | 2.07E-03 | 9.02E-03 | 1.39E-04 | 3.14E-04 | 1.28E-04 | 1.30E-04 | 2.47E-05 |
| Los Angele | 2020 | Annual | T6 instate heavy | 4.99E-06 | 0 | 3.23E-04 | 0 | 3.044399732 | 2.86E-04 | 1.29E-03 | 4.06E-03 | 1.34E-04 | 3.14E-04 | 1.23E-04 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2020 | Annual | T6 instate heavy | 3.59E-06 | 0 | 2.96E-04 | 0 | 2.792675508 | 2.73E-04 | 1.22E-03 | 3.61E-03 | 1.28E-04 | 3.14E-04 | 1.18E-04 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.20E-06 | 0 | 2.13E-04 | 0 | 2.010798093 | 2.62E-04 | 1.16E-03 | 3.08E-03 | 1.22E-04 | 3.14E-04 | 1.12E-04 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2020 | Annual | T6 instate heavy | 5.82E-06 | 0 | 4.42E-04 | 0 | 4.172314229 | 2.14E-04 | 9.72E-04 | 2.56E-03 | 9.42E-05 | 3.14E-04 | 8.67E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2020 | Annual | T6 instate heavy | 3.52E-06 | 0 | 3.83E-04 | 0 | 3.613683926 | 2.03E-04 | 9.06E-04 | 2.37E-03 | 8.95E-05 | 3.14E-04 | 8.23E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2020 | Annual | T6 instate heavy | 6.40E-06 | 0 | 5.92E-04 | 0 | 5.583869298 | 1.96E-04 | 8.84E-04 | 2.24E-03 | 8.46E-05 | 3.14E-04 | 7.78E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2020 | Annual | T6 instate heavy | 4.24E-06 | 0 | 5.11E-04 | 0 | 4.817299339 | 1.85E-04 | 8.27E-04 | 2.05E-03 | 7.93E-05 | 3.14E-04 | 7.30E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2020 | Annual | T6 instate heavy | 4.53E-06 | 0 | 5.65E-04 | 0 | 5.333953117 | 1.76E-04 | 7.86E-04 | 1.88E-03 | 7.39E-05 | 3.14E-04 | 6.80E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2020 | Annual | T6 instate heavy | 4.76E-06 | 0 | 6.05E-04 | 0 | 5.705836081 | 1.67E-04 | 7.45E-04 | 1.71E-03 | 6.82E-05 | 3.14E-04 | 6.28E-05 | 1.30E-04 | 2.37E-05 |

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|---|---|---|---|---|
| Los Angele | 2020 | Annual | LDA | 2.78E-04 |
| Los Angele | 2020 | Annual | LDA | 2.30E-04 |
| Los Angele | 2020 | Annual | LDA | 2.72E-04 |
| Los Angele | 2020 | Annual | LDA | 2.24E-04 |
| Los Angele | 2020 | Annual | LDA | 2.61E-04 |
| Los Angele | 2020 | Annual | LDA | 2.15E-04 |
| Los Angele | 2020 | Annual | LDA | 2.50E-04 |
| Los Angele | 2020 | Annual | LDA | 2.07E-04 |
| Los Angele | 2020 | Annual | LDA | 2.50E-04 |
| Los Angele | 2020 | Annual | LDA | 2.07E-04 |
| Los Angele | 2020 | Annual | LDA | 2.49E-04 |
| Los Angele | 2020 | Annual | LDA | 2.07E-04 |
| Los Angele | 2020 | Annual | LDA | 2.49E-04 |
| Los Angele | 2020 | Annual | LDA | 2.07E-04 |
| Los Angele | 2020 | Annual | LDA | 2.48E-04 |
| Los Angele | 2020 | Annual | LDA | 2.07E-04 |
| Los Angele | 2020 | Annual | LDT1 | 4.44E-04 |
| Los Angele | 2020 | Annual | LDT1 | |
| Los Angele | 2020 | Annual | LDT1 | 4.44E-04 |
| Los Angele | 2020 | Annual | LDT1 | |
| Los Angele | 2020 | Annual | LDT1 | 4.44E-04 |
| Los Angele | 2020 | Annual | LDT1 | |
| Los Angele | 2020 | Annual | LDT1 | 4.28E-04 |
| Los Angele | 2020 | Annual | LDT1 | 3.04E-04 |
| Los Angele | 2020 | Annual | LDT1 | 3.80E-04 |
| Los Angele | 2020 | Annual | LDT1 | 2.70E-04 |
| Los Angele | 2020 | Annual | LDT1 | 3.31E-04 |
| Los Angele | 2020 | Annual | LDT1 | 2.36E-04 |
| Los Angele | 2020 | Annual | LDT1 | 3.23E-04 |
| Los Angele | 2020 | Annual | LDT1 | 2.30E-04 |
| Los Angele | 2020 | Annual | LDT1 | 3.15E-04 |
| Los Angele | 2020 | Annual | LDT1 | 2.24E-04 |
| Los Angele | 2020 | Annual | LDT1 | 3.02E-04 |
| Los Angele | 2020 | Annual | LDT1 | 2.15E-04 |
| Los Angele | 2020 | Annual | LDT1 | 2.91E-04 |
| Los Angele | 2020 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2020 | Annual | LDT1 | 2.90E-04 |
| Los Angele | 2020 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2020 | Annual | LDT1 | 2.90E-04 |
| Los Angele | 2020 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2020 | Annual | LDT1 | 2.89E-04 |
| Los Angele | 2020 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2020 | Annual | LDT1 | 2.89E-04 |
| Los Angele | 2020 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2020 | Annual | T6 instate heavy | 1.17E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 1.17E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 1.16E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 1.12E-03 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2019 | AllSpeeds | 661.3116349 | 55368.90746 | 0 | 0.004192607 | 1.53E-04 | 0 | 0.004345624 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2020 | AllSpeeds | 588.6513306 | 49286.58918 | 0 | 0.003495658 | 1.36E-04 | 0 | 0.003631862 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2021 | AllSpeeds | 145.1944889 | 5066.456815 | 0 | 3.35E-04 | 3.36E-05 | 0 | 3.69E-04 |
| Los Angele | 2020 | Annual | LDA/LDT1 | GAS&DSI | >2007 | AllSpeeds | 3193983.907 | 113658048.3 | 20504967.06 | 1.1996858 | 0 | 1.011878239 | 2.211564039 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | >2007 | AllSpeeds | 7581.251898 | 492565.2463 | 0 | 0.053658378 | 0.001754183 | 0 | 0.055412561 |

EMFAC 2011
2021 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDA | GAS | 2007 | AllSpeeds | 133957.2 | 3431530.167 | 821075.4 | 0.048340984 | 0 | 0.053974725 | 0.102315709 |
| Los Angele | 2021 | Annual | LDA | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDA | GAS | 2008 | AllSpeeds | 147036.3 | 3865741.881 | 907123 | 0.050500259 | 0 | 0.05319979 | 0.103700049 |
| Los Angele | 2021 | Annual | LDA | DSL | 2008 | AllSpeeds | 19.50717 | 512.8699202 | 120.3472 | 4.79E-06 | 0 | 0 | 4.79E-06 |
| Los Angele | 2021 | Annual | LDA | GAS | 2009 | AllSpeeds | 134535.1 | 3634434.155 | 836724.7 | 0.048243376 | 0 | 0.049696174 | 0.09793955 |
| Los Angele | 2021 | Annual | LDA | DSL | 2009 | AllSpeeds | 651.6995 | 17605.53413 | 4053.166 | 1.60E-04 | 0 | 0 | 1.60E-04 |
| Los Angele | 2021 | Annual | LDA | GAS | 2010 | AllSpeeds | 179231.9 | 4982409.108 | 1121879 | 0.066132785 | 0 | 0.066046208 | 0.132178993 |
| Los Angele | 2021 | Annual | LDA | DSL | 2010 | AllSpeeds | 1188.717 | 33044.80816 | 7440.624 | 2.92E-04 | 0 | 0 | 2.92E-04 |
| Los Angele | 2021 | Annual | LDA | GAS | 2011 | AllSpeeds | 185271 | 5307821.51 | 1168943 | 0.069252425 | 0 | 0.067709379 | 0.136961804 |
| Los Angele | 2021 | Annual | LDA | DSL | 2011 | AllSpeeds | 1092.012 | 31285.0482 | 6889.905 | 2.68E-04 | 0 | 0 | 2.68E-04 |
| Los Angele | 2021 | Annual | LDA | GAS | 2012 | AllSpeeds | 200570.6 | 5933429.946 | 1273496 | 0.075821369 | 0 | 0.0723271 | 0.148148469 |
| Los Angele | 2021 | Annual | LDA | DSL | 2012 | AllSpeeds | 1027.395 | 30393.21687 | 6523.304 | 2.52E-04 | 0 | 0 | 2.52E-04 |
| Los Angele | 2021 | Annual | LDA | GAS | 2013 | AllSpeeds | 204704.5 | 6266941.52 | 1307931 | 0.078258758 | 0 | 0.072641961 | 0.150900719 |
| Los Angele | 2021 | Annual | LDA | DSL | 2013 | AllSpeeds | 975.5803 | 29867.03147 | 6233.334 | 2.38E-04 | 0 | 0 | 2.38E-04 |
| Los Angele | 2021 | Annual | LDA | GAS | 2014 | AllSpeeds | 214422.1 | 6812265.165 | 1376452 | 0.082778541 | 0 | 0.074427962 | 0.157206503 |
| Los Angele | 2021 | Annual | LDA | DSL | 2014 | AllSpeeds | 909.1592 | 28884.37117 | 5836.219 | 2.21E-04 | 0 | 0 | 2.21E-04 |
| Los Angele | 2021 | Annual | LDA | GAS | 2015 | AllSpeeds | 223848.7 | 7403364.106 | 1441441 | 0.087269667 | 0 | 0.075643152 | 0.162912819 |
| Los Angele | 2021 | Annual | LDA | DSL | 2015 | AllSpeeds | 857.937 | 28374.67998 | 5524.562 | 2.07E-04 | 0 | 0 | 2.07E-04 |
| Los Angele | 2021 | Annual | LDA | GAS | 2016 | AllSpeeds | 230648 | 7976571.582 | 1492143 | 0.089150013 | 0 | 0.074798957 | 0.16394897 |
| Los Angele | 2021 | Annual | LDA | DSL | 2016 | AllSpeeds | 758.2899 | 26224.24881 | 4905.645 | 1.81E-04 | 0 | 0 | 1.81E-04 |
| Los Angele | 2021 | Annual | LDA | GAS | 2017 | AllSpeeds | 236112.1 | 8586783.324 | 1532214 | 0.086198491 | 0 | 0.070791051 | 0.156989542 |
| Los Angele | 2021 | Annual | LDA | DSL | 2017 | AllSpeeds | 739.0627 | 26877.8675 | 4796.036 | 1.75E-04 | 0 | 0 | 1.75E-04 |
| Los Angele | 2021 | Annual | LDA | GAS | 2018 | AllSpeeds | 237971.8 | 9173618.262 | 1546662 | 0.085865156 | 0 | 0.067034535 | 0.152899691 |
| Los Angele | 2021 | Annual | LDA | DSL | 2018 | AllSpeeds | 684.072 | 26370.49987 | 4446.023 | 1.60E-04 | 0 | 0 | 1.60E-04 |
| Los Angele | 2021 | Annual | LDA | GAS | 2019 | AllSpeeds | 241518 | 9990411.108 | 1574540 | 0.088565285 | 0 | 0.064280801 | 0.152846086 |
| Los Angele | 2021 | Annual | LDA | DSL | 2019 | AllSpeeds | 657.9922 | 27217.99524 | 4289.68 | 1.53E-04 | 0 | 0 | 1.53E-04 |
| Los Angele | 2021 | Annual | LDA | GAS | 2020 | AllSpeeds | 246566.5 | 1.12E+07 | 1612384 | 0.092959988 | 0 | 0.061163161 | 0.154123149 |
| Los Angele | 2021 | Annual | LDA | DSL | 2020 | AllSpeeds | 594.3916 | 26946.14681 | 3886.932 | 1.39E-04 | 0 | 0 | 1.39E-04 |
| Los Angele | 2021 | Annual | LDA | GAS | 2021 | AllSpeeds | 233684.1 | 1.22E+07 | 1532814 | 0.092479824 | 0 | 0.052287616 | 0.14476744 |
| Los Angele | 2021 | Annual | LDA | DSL | 2021 | AllSpeeds | 527.5645 | 27497.48043 | 3460.477 | 1.27E-04 | 0 | 0 | 1.27E-04 |
| Los Angele | 2021 | Annual | LDT1 | GAS | 2007 | AllSpeeds | 8280.188 | 250487.2063 | 50752.48 | 0.00363483 | 0 | 0.003426438 | 0.007061268 |
| Los Angele | 2021 | Annual | LDT1 | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDT1 | GAS | 2008 | AllSpeeds | 17339.87 | 533399.02 | 106976.3 | 0.007154688 | 0 | 0.006419911 | 0.013574599 |
| Los Angele | 2021 | Annual | LDT1 | DSL | 2008 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDT1 | GAS | 2009 | AllSpeeds | 15835.54 | 495844.2586 | 98487.25 | 0.006697882 | 0 | 0.005921762 | 0.012619644 |
| Los Angele | 2021 | Annual | LDT1 | DSL | 2009 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDT1 | GAS | 2010 | AllSpeeds | 17536.11 | 559503.18 | 109765 | 0.007596972 | 0 | 0.006592972 | 0.014189944 |
| Los Angele | 2021 | Annual | LDT1 | DSL | 2010 | AllSpeeds | 27.49653 | 877.3009792 | 172.1111 | 9.32E-06 | 0 | 0 | 9.32E-06 |
| Los Angele | 2021 | Annual | LDT1 | GAS | 2011 | AllSpeeds | 16832.68 | 547829.7449 | 106203.6 | 0.007290246 | 0 | 0.006260299 | 0.013550545 |
| Los Angele | 2021 | Annual | LDT1 | DSL | 2011 | AllSpeeds | 39.23577 | 1276.955995 | 247.5529 | 1.31E-05 | 0 | 0 | 1.31E-05 |
| Los Angele | 2021 | Annual | LDT1 | GAS | 2012 | AllSpeeds | 16428.96 | 546291.1635 | 104313.5 | 0.007103198 | 0 | 0.006016152 | 0.013119349 |
| Los Angele | 2021 | Annual | LDT1 | DSL | 2012 | AllSpeeds | 29.26885 | 973.2433716 | 185.8386 | 9.67E-06 | 0 | 0 | 9.67E-06 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004345624 | 0.004772964 | 1.74E-04 | 0 | 0.004947162 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003631862 | 0.00397954 | 1.55E-04 | 0 | 0.004134599 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.69E-04 | 3.81E-04 | 3.82E-05 | 0 | 4.20E-04 |
| Los Angele | 2020 | Annual | LDA/LDT1 | 0.237211822 | 0.724133408 | 3.105613335 | 0.252715338 | 6.531237942 | 2.230884612 | 0 | 1.080373941 | 3.311258553 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.055412561 | 0.061085979 | 0.001997003 | 0 | 0.063082983 |

EMFAC 2011
2021 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDA | 0.026453251 | 0.1013548 | 0.2297346 | 0.03263738 | 0.49249574 | 0.089968692 | 0 | 0.057628352 | 0.147597044 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDA | 0.025754478 | 0.097744115 | 0.2362174 | 0.03142735 | 0.494843392 | 0.093987371 | 0 | 0.056800976 | 0.150788347 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 4.79E-06 | 5.45E-06 | 0 | 0 | 5.45E-06 |
| Los Angele | 2021 | Annual | LDA | 0.020602763 | 0.077235661 | 0.2020427 | 0.02479231 | 0.422612984 | 0.08978703 | 0 | 0.053060185 | 0.142847215 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 1.60E-04 | 1.82E-04 | 0 | 0 | 1.82E-04 |
| Los Angele | 2021 | Annual | LDA | 0.02388576 | 0.087930359 | 0.2510253 | 0.028266553 | 0.523286965 | 0.123081483 | 0 | 0.070516981 | 0.193598464 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 2.92E-04 | 3.33E-04 | 0 | 0 | 3.33E-04 |
| Los Angele | 2021 | Annual | LDA | 0.021253521 | 0.076437563 | 0.2419639 | 0.024627294 | 0.501244082 | 0.128887528 | 0 | 0.072292745 | 0.201180273 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 2.68E-04 | 3.05E-04 | 0 | 0 | 3.05E-04 |
| Los Angele | 2021 | Annual | LDA | 0.019351173 | 0.067115076 | 0.242528 | 0.021797512 | 0.49894023 | 0.141113166 | 0 | 0.077223048 | 0.218336214 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 2.52E-04 | 2.86E-04 | 0 | 0 | 2.86E-04 |
| Los Angele | 2021 | Annual | LDA | 0.017150141 | 0.057056967 | 0.2319656 | 0.018733963 | 0.47580739 | 0.145649451 | 0 | 0.07755921 | 0.223208661 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 2.38E-04 | 2.71E-04 | 0 | 0 | 2.71E-04 |
| Los Angele | 2021 | Annual | LDA | 0.015178381 | 0.047360092 | 0.2202927 | 0.015949698 | 0.455987374 | 0.154061345 | 0 | 0.079466112 | 0.233527457 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 2.21E-04 | 2.51E-04 | 0 | 0 | 2.51E-04 |
| Los Angele | 2021 | Annual | LDA | 0.012498731 | 0.034786105 | 0.1905781 | 0.012484458 | 0.413260213 | 0.162419896 | 0 | 0.080763556 | 0.243183452 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 2.07E-04 | 2.35E-04 | 0 | 0 | 2.35E-04 |
| Los Angele | 2021 | Annual | LDA | 0.010687024 | 0.026091048 | 0.1807919 | 0.00989255 | 0.391411492 | 0.16591945 | 0 | 0.079862215 | 0.245781665 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 1.81E-04 | 2.06E-04 | 0 | 0 | 2.06E-04 |
| Los Angele | 2021 | Annual | LDA | 0.009368273 | 0.019612543 | 0.1721915 | 0.007995615 | 0.366157473 | 0.1604263 | 0 | 0.075583003 | 0.236009303 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 1.75E-04 | 1.99E-04 | 0 | 0 | 1.99E-04 |
| Los Angele | 2021 | Annual | LDA | 0.008208422 | 0.014393474 | 0.1624509 | 0.006439521 | 0.344392008 | 0.159805922 | 0 | 0.071572214 | 0.231378136 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 1.60E-04 | 1.82E-04 | 0 | 0 | 1.82E-04 |
| Los Angele | 2021 | Annual | LDA | 0.007608348 | 0.01130339 | 0.1563381 | 0.0055562 | 0.333652124 | 0.164831197 | 0 | 0.068632059 | 0.233463256 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 1.53E-04 | 1.74E-04 | 0 | 0 | 1.74E-04 |
| Los Angele | 2021 | Annual | LDA | 0.007273111 | 0.009264307 | 0.1525071 | 0.005002217 | 0.328169884 | 0.173010304 | 0 | 0.0653034 | 0.238313704 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 1.39E-04 | 1.58E-04 | 0 | 0 | 1.58E-04 |
| Los Angele | 2021 | Annual | LDA | 0.006581286 | 0.007337248 | 0.1387552 | 0.004317978 | 0.301759153 | 0.172116662 | 0 | 0.055827055 | 0.227943717 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 1.27E-04 | 1.44E-04 | 0 | 0 | 1.44E-04 |
| Los Angele | 2021 | Annual | LDT1 | 0.002129317 | 0.006335523 | 0.022025652 | 0.002627094 | 0.040178853 | 0.006764879 | 0 | 0.003658379 | 0.010423258 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDT1 | 0.003950794 | 0.0116581 | 0.041362766 | 0.004821012 | 0.07536727 | 0.013315779 | 0 | 0.006854485 | 0.020170265 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDT1 | 0.003153549 | 0.00920625 | 0.033582773 | 0.003794811 | 0.062357027 | 0.012465608 | 0 | 0.006322615 | 0.018788223 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDT1 | 0.003037315 | 0.008724163 | 0.033025231 | 0.003594374 | 0.062571027 | 0.014138927 | 0 | 0.007039261 | 0.021178188 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.32E-06 | 1.06E-05 | 0 | 0 | 1.06E-05 |
| Los Angele | 2021 | Annual | LDT1 | 0.002509339 | 0.007059427 | 0.028097665 | 0.002907671 | 0.054124647 | 0.013568071 | 0 | 0.006684069 | 0.020252139 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.31E-05 | 1.50E-05 | 0 | 0 | 1.50E-05 |
| Los Angele | 2021 | Annual | LDT1 | 0.002059775 | 0.005607986 | 0.023957802 | 0.00232017 | 0.047065082 | 0.013219949 | 0 | 0.006423394 | 0.019643344 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.67E-06 | 1.10E-05 | 0 | 0 | 1.10E-05 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004947162 | 0.017689339 | 0.001809438 | 0 | 0.019498777 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004134599 | 0.01474879 | 0.001610629 | 0 | 0.016359419 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.20E-04 | 0.00141359 | 3.97E-04 | 0 | 0.001810862 |
| Los Angele | 2020 | Annual | LDA/LDT1 | 0.237211822 | 0.724133408 | 3.105613335 | 0.252715338 | 7.630932455 | 69.20292257 | 0 | 17.15596869 | 86.35889126 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.063082983 | 0.226394066 | 0.020743325 | 0 | 0.247137391 |

EMFAC 2011
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South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDA | 0.026453251 | 0.1013548 | 0.2297346 | 0.03263738 | 0.537777075 | 3.019711238 | 0 | 1.034642 | 4.054353238 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDA | 0.025754478 | 0.097744115 | 0.2362174 | 0.03142735 | 0.54193169 | 3.112687133 | 0 | 1.017086 | 4.129773133 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 5.45E-06 | 4.50E-05 | 0 | 0 | 4.50E-05 |
| Los Angele | 2021 | Annual | LDA | 0.020602763 | 0.077235661 | 0.2020427 | 0.02479231 | 0.467520649 | 2.890842398 | 0 | 0.918041 | 3.808883398 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 1.82E-04 | 0.001504389 | 0 | 0 | 0.001504389 |
| Los Angele | 2021 | Annual | LDA | 0.02388576 | 0.087930359 | 0.2510253 | 0.028266553 | 0.584706436 | 3.846434786 | 0 | 1.17807 | 5.024504786 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 3.33E-04 | 0.002742596 | 0 | 0 | 0.002742596 |
| Los Angele | 2021 | Annual | LDA | 0.021253521 | 0.076437563 | 0.2419639 | 0.024627294 | 0.565462551 | 4.030784635 | 0 | 1.204382 | 5.235166635 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 3.05E-04 | 0.00251454 | 0 | 0 | 0.00251454 |
| Los Angele | 2021 | Annual | LDA | 0.019351173 | 0.067115076 | 0.242528 | 0.021797512 | 0.569127975 | 4.422520557 | 0 | 1.283938 | 5.706458557 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 2.86E-04 | 0.002357721 | 0 | 0 | 0.002357721 |
| Los Angele | 2021 | Annual | LDA | 0.017150141 | 0.057056967 | 0.2319656 | 0.018733963 | 0.548115332 | 4.561526778 | 0 | 1.282283 | 5.843809778 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 2.71E-04 | 0.002228823 | 0 | 0 | 0.002228823 |
| Los Angele | 2021 | Annual | LDA | 0.015178381 | 0.047360092 | 0.2202927 | 0.015949698 | 0.532308328 | 4.822704604 | 0 | 1.304561 | 6.127265604 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 2.51E-04 | 0.002065067 | 0 | 0 | 0.002065067 |
| Los Angele | 2021 | Annual | LDA | 0.012498731 | 0.034786105 | 0.1905781 | 0.012484458 | 0.493530846 | 5.043658385 | 0 | 1.304579 | 6.348237385 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 2.35E-04 | 0.001934343 | 0 | 0 | 0.001934343 |
| Los Angele | 2021 | Annual | LDA | 0.010687024 | 0.026091048 | 0.1807919 | 0.00989255 | 0.473244187 | 5.089352045 | 0 | 1.248863 | 6.338215045 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 2.06E-04 | 0.00169131 | 0 | 0 | 0.00169131 |
| Los Angele | 2021 | Annual | LDA | 0.009368273 | 0.019612543 | 0.1721915 | 0.007995615 | 0.445177234 | 4.88216523 | 0 | 1.11243 | 5.99459523 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 1.99E-04 | 0.001630113 | 0 | 0 | 0.001630113 |
| Los Angele | 2021 | Annual | LDA | 0.008208422 | 0.014393474 | 0.1624509 | 0.006439521 | 0.422870453 | 4.784272438 | 0 | 1.008693 | 5.792965438 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 1.82E-04 | 0.00149271 | 0 | 0 | 0.00149271 |
| Los Angele | 2021 | Annual | LDA | 0.007608348 | 0.01130339 | 0.1563381 | 0.0055562 | 0.414269293 | 4.867716549 | 0 | 0.9461655 | 5.813882049 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 1.74E-04 | 0.001424021 | 0 | 0 | 0.001424021 |
| Los Angele | 2021 | Annual | LDA | 0.007273111 | 0.009264307 | 0.1525071 | 0.005002217 | 0.412360439 | 5.109160808 | 0 | 0.9006653 | 6.009826108 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 1.58E-04 | 0.001285865 | 0 | 0 | 0.001285865 |
| Los Angele | 2021 | Annual | LDA | 0.006581286 | 0.007337248 | 0.1387552 | 0.004317978 | 0.38493543 | 5.233823222 | 0 | 0.8030773 | 6.036900522 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 1.44E-04 | 0.001172633 | 0 | 0 | 0.001172633 |
| Los Angele | 2021 | Annual | LDT1 | 0.002129317 | 0.006335523 | 0.022025652 | 0.002627094 | 0.043540843 | 0.229210033 | 0 | 0.066775553 | 0.295985586 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDT1 | 0.003950794 | 0.0116581 | 0.041362766 | 0.004821012 | 0.081962936 | 0.443840215 | 0 | 0.124504 | 0.568344215 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDT1 | 0.003153549 | 0.00920625 | 0.033582773 | 0.003794811 | 0.068525606 | 0.404012014 | 0 | 0.1110871 | 0.515099114 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDT1 | 0.003037315 | 0.008724163 | 0.033025231 | 0.003594374 | 0.069559271 | 0.443654878 | 0 | 0.1189788 | 0.562633678 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.06E-05 | 8.71E-05 | 0 | 0 | 8.71E-05 |
| Los Angele | 2021 | Annual | LDT1 | 0.002509339 | 0.007059427 | 0.028097665 | 0.002907671 | 0.06082624 | 0.425921647 | 0 | 0.1125836 | 0.538505247 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.50E-05 | 1.23E-04 | 0 | 0 | 1.23E-04 |
| Los Angele | 2021 | Annual | LDT1 | 0.002059775 | 0.005607986 | 0.023957802 | 0.00232017 | 0.053589076 | 0.415032116 | 0 | 0.1076851 | 0.522717216 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.10E-05 | 9.02E-05 | 0 | 0 | 9.02E-05 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | T6 instate heavy | 0.039740706 | 0.002733689 | 0 | 0.042474395 | 68.21601644 | 0.543658059 | 0 | 68.7596745 | 61.3944148 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.031083035 | 0.00243333 | 0 | 0.033516366 | 60.72243308 | 0.483924708 | 0 | 61.20635779 | 54.65018977 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.002753995 | 6.00E-04 | 0 | 0.003354191 | 6.242014106 | 0.11936302 | 0 | 6.361377126 | 5.617812695 |
| Los Angele | 2020 | Annual | LDA/LDT1 | 6.361348954 | 0 | 1.026660115 | 7.388009069 | 47011.39316 | 0 | 1694.216972 | 48705.61013 | 31456.48345 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.717611347 | 0.031338907 | 0 | 0.748950254 | 609.4217816 | 6.232475698 | 0 | 615.6542573 | 548.4796034 |

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Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDA | 0.219271812 | 0 | 0.049120255 | 0.268392067 | 1400.469919 | 0 | 67.10817 | 1467.578089 | 1260.422927 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDA | 0.240188761 | 0 | 0.052122682 | 0.292311443 | 1578.002474 | 0 | 74.15627 | 1652.158744 | 1420.202226 |
| Los Angele | 2021 | Annual | LDA | 1.45E-04 | 0 | 0 | 1.45E-04 | 0.179554536 | 0 | 0 | 0.179554536 | 0.161599083 |
| Los Angele | 2021 | Annual | LDA | 0.235876269 | 0 | 0.051136877 | 0.287013146 | 1486.572777 | 0 | 68.53979 | 1555.112567 | 1337.9155 |
| Los Angele | 2021 | Annual | LDA | 0.004874335 | 0 | 0 | 0.004874335 | 6.163655333 | 0 | 0 | 6.163655333 | 5.5472898 |
| Los Angele | 2021 | Annual | LDA | 0.333227203 | 0 | 0.071514755 | 0.404741958 | 2037.807071 | 0 | 91.8926 | 2129.699671 | 1769.835441 |
| Los Angele | 2021 | Annual | LDA | 0.008908694 | 0 | 0 | 0.008908694 | 11.56890876 | 0 | 0 | 11.56890876 | 10.04759726 |
| Los Angele | 2021 | Annual | LDA | 0.352549756 | 0 | 0.073734909 | 0.426284665 | 2170.920019 | 0 | 95.74844 | 2266.668459 | 1672.476783 |
| Los Angele | 2021 | Annual | LDA | 0.008191311 | 0 | 0 | 0.008191311 | 10.95281976 | 0 | 0 | 10.95281976 | 8.438052342 |
| Los Angele | 2021 | Annual | LDA | 0.390561143 | 0 | 0.079229407 | 0.46979055 | 2426.689002 | 0 | 104.3077 | 2530.996702 | 1631.463016 |
| Los Angele | 2021 | Annual | LDA | 0.007705552 | 0 | 0 | 0.007705552 | 10.64059331 | 0 | 0 | 10.64059331 | 7.15367088 |
| Los Angele | 2021 | Annual | LDA | 0.407666221 | 0 | 0.079913542 | 0.487579763 | 2562.993891 | 0 | 107.1241 | 2670.117991 | 1679.273598 |
| Los Angele | 2021 | Annual | LDA | 0.00731118 | 0 | 0 | 0.00731118 | 10.45637636 | 0 | 0 | 10.45637636 | 6.851017793 |
| Los Angele | 2021 | Annual | LDA | 0.436164455 | 0 | 0.082065418 | 0.518229873 | 2786.780918 | 0 | 112.732 | 2899.512918 | 1785.769212 |
| Los Angele | 2021 | Annual | LDA | 0.006802716 | 0 | 0 | 0.006802716 | 10.11234918 | 0 | 0 | 10.11234918 | 6.479993357 |
| Los Angele | 2021 | Annual | LDA | 0.45935868 | 0 | 0.082120687 | 0.541479367 | 3029.332443 | 0 | 118.0467 | 3147.379143 | 1862.130652 |
| Los Angele | 2021 | Annual | LDA | 0.006403326 | 0 | 0 | 0.006403326 | 9.933907584 | 0 | 0 | 9.933907584 | 6.106372992 |
| Los Angele | 2021 | Annual | LDA | 0.464040792 | 0 | 0.077758066 | 0.541798858 | 3264.695464 | 0 | 122.1913 | 3386.886764 | 1930.414428 |
| Los Angele | 2021 | Annual | LDA | 0.005632314 | 0 | 0 | 0.005632314 | 9.181047422 | 0 | 0 | 9.181047422 | 5.428753341 |
| Los Angele | 2021 | Annual | LDA | 0.474166567 | 0 | 0.073611423 | 0.54777799 | 3515.396449 | 0 | 125.4674 | 3640.863849 | 2078.65392 |
| Los Angele | 2021 | Annual | LDA | 0.005466478 | 0 | 0 | 0.005466478 | 9.40987665 | 0 | 0 | 9.40987665 | 5.564060063 |
| Los Angele | 2021 | Annual | LDA | 0.470590585 | 0 | 0.065958284 | 0.536548869 | 3756.570922 | 0 | 126.6422 | 3883.213122 | 2221.260386 |
| Los Angele | 2021 | Annual | LDA | 0.005047354 | 0 | 0 | 0.005047354 | 9.23224973 | 0 | 0 | 9.23224973 | 5.459029265 |
| Los Angele | 2021 | Annual | LDA | 0.479587537 | 0 | 0.059695445 | 0.539282982 | 4092.103215 | 0 | 128.9179 | 4221.021115 | 2419.660631 |
| Los Angele | 2021 | Annual | LDA | 0.004863913 | 0 | 0 | 0.004863913 | 9.528955611 | 0 | 0 | 9.528955611 | 5.634471453 |
| Los Angele | 2021 | Annual | LDA | 0.499473298 | 0 | 0.053372461 | 0.552845759 | 4579.805374 | 0 | 132.0139 | 4711.819274 | 2708.038918 |
| Los Angele | 2021 | Annual | LDA | 0.004448137 | 0 | 0 | 0.004448137 | 9.433781766 | 0 | 0 | 9.433781766 | 5.578195158 |
| Los Angele | 2021 | Annual | LDA | 0.501896607 | 0 | 0.043016896 | 0.544913503 | 4992.028889 | 0 | 125.501 | 5117.529889 | 2951.786682 |
| Los Angele | 2021 | Annual | LDA | 0.004125706 | 0 | 0 | 0.004125706 | 9.626803005 | 0 | 0 | 9.626803005 | 5.692328617 |
| Los Angele | 2021 | Annual | LDT1 | 0.016307183 | 0 | 0.003117598 | 0.019424781 | 119.1614141 | 0 | 4.837929 | 123.9993431 | 107.2452726 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDT1 | 0.033713071 | 0 | 0.006300515 | 0.040013586 | 253.5223501 | 0 | 10.18831 | 263.7106601 | 228.1701151 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDT1 | 0.032487392 | 0 | 0.00610381 | 0.038591202 | 236.0757024 | 0 | 9.395931 | 245.4716334 | 212.4681322 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDT1 | 0.037993328 | 0 | 0.007155405 | 0.045148733 | 266.2199562 | 0 | 10.46538 | 276.6853362 | 231.212032 |
| Los Angele | 2021 | Annual | LDT1 | 2.87E-04 | 0 | 0 | 2.87E-04 | 0.307140973 | 0 | 0 | 0.307140973 | 0.266751935 |
| Los Angele | 2021 | Annual | LDT1 | 0.036909184 | 0 | 0.006841656 | 0.04375084 | 260.638173 | 0 | 10.12474 | 270.762913 | 200.7956484 |
| Los Angele | 2021 | Annual | LDT1 | 4.06E-04 | 0 | 0 | 4.06E-04 | 0.447059221 | 0 | 0 | 0.447059221 | 0.344414424 |
| Los Angele | 2021 | Annual | LDT1 | 0.036430243 | 0 | 0.00661629 | 0.043046534 | 259.8870164 | 0 | 9.943814 | 269.8308304 | 174.7220411 |
| Los Angele | 2021 | Annual | LDT1 | 2.99E-04 | 0 | 0 | 2.99E-04 | 0.340730145 | 0 | 0 | 0.340730145 | 0.229072876 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | T6 instate heavy | 0.489292253 | 0 | 61.88370705 | 0.001723547 | 6.43E-06 | 0 | 0.001729972 | 7.32E-04 | 0.007955142 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.435532237 | 0 | 55.08572201 | 0.001393252 | 5.72E-06 | 0 | 0.001398971 | 6.52E-04 | 0.007081263 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.107426718 | 0 | 5.725239413 | 1.29E-04 | 1.41E-06 | 0 | 1.30E-04 | 6.70E-05 | 7.28E-04 |
| Los Angele | 2020 | Annual | LDA/LDT1 | 0 | 1161.169741 | 32617.6532 | 0.207889821 | 0 | 0.069910364 | 0.277800185 | 1.002292486 | 4.604281892 |
| Los Angele | 2020 | Annual | T6 instate heavy | 5.609228128 | 0 | 554.0888316 | 0.021936205 | 7.36568E-05 | 0 | 0.022009862 | 0.006515523 | 0.070769438 |

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South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavl (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDA | 0 | 60.397353 | 1320.82028 | 0.001083173 | 0 | 1.62E-04 | 0.001245138 | 0.030260919 | 0.1390111 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDA | 0 | 66.740643 | 1486.942869 | 0.001220483 | 0 | 2.33E-04 | 0.001453151 | 0.034090009 | 0.156601 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0.161599083 | 2.88E-06 | 0 | 0 | 2.88E-06 | 4.52E-06 | 2.08E-05 |
| Los Angele | 2021 | Annual | LDA | 0 | 61.685811 | 1399.601311 | 0.001533024 | 0 | 3.40E-04 | 0.001872687 | 0.032050226 | 0.1472307 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 5.5472898 | 9.65E-05 | 0 | 0 | 9.65E-05 | 1.55E-04 | 7.13E-04 |
| Los Angele | 2021 | Annual | LDA | 0 | 79.8087231 | 1849.644164 | 0.002101482 | 0 | 5.62E-04 | 0.00266333 | 0.043937333 | 0.2018371 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 10.04759726 | 1.76E-04 | 0 | 0 | 1.76E-04 | 2.91E-04 | 0.001338643 |
| Los Angele | 2021 | Annual | LDA | 0 | 73.76459818 | 1746.241381 | 0.003358132 | 0 | 0.001090736 | 0.004448868 | 0.046806969 | 0.2150196 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 8.438052342 | 1.62E-04 | 0 | 0 | 1.62E-04 | 2.76E-04 | 0.001267356 |
| Los Angele | 2021 | Annual | LDA | 0 | 70.12606671 | 1701.589083 | 0.005005031 | 0 | 0.001671593 | 0.006676624 | 0.0523239 | 0.2403629 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 7.15367088 | 1.53E-04 | 0 | 0 | 1.53E-04 | 2.68E-04 | 0.001231228 |
| Los Angele | 2021 | Annual | LDA | 0 | 70.18771032 | 1749.461308 | 0.007929238 | 0 | 0.00321628 | 0.011145518 | 0.055264957 | 0.2538734 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 6.851017793 | 1.45E-04 | 0 | 0 | 1.45E-04 | 2.63E-04 | 0.001209912 |
| Los Angele | 2021 | Annual | LDA | 0 | 72.2386656 | 1858.007878 | 0.011491845 | 0 | 0.004788571 | 0.016280416 | 0.060073897 | 0.2759645 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 6.479993357 | 1.35E-04 | 0 | 0 | 1.35E-04 | 2.55E-04 | 0.001170104 |
| Los Angele | 2021 | Annual | LDA | 0 | 72.56330649 | 1934.693959 | 0.015610191 | 0 | 0.006457844 | 0.022068035 | 0.065286502 | 0.2999099 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 6.106372992 | 1.27E-04 | 0 | 0 | 1.27E-04 | 2.50E-04 | 0.001149457 |
| Los Angele | 2021 | Annual | LDA | 0 | 72.25171569 | 2002.666144 | 0.019340433 | 0 | 0.00780031 | 0.027140743 | 0.070341326 | 0.3231305 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 5.428753341 | 1.12E-04 | 0 | 0 | 1.12E-04 | 2.31E-04 | 0.001062343 |
| Los Angele | 2021 | Annual | LDA | 0 | 74.18887362 | 2152.842794 | 0.022629471 | 0 | 0.008756394 | 0.031385865 | 0.075722463 | 0.3478501 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 5.564060063 | 1.08E-04 | 0 | 0 | 1.08E-04 | 2.37E-04 | 0.001088821 |
| Los Angele | 2021 | Annual | LDA | 0 | 74.88353286 | 2296.143919 | 0.025141403 | 0 | 0.009218403 | 0.034359806 | 0.080897473 | 0.3716228 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 5.459029265 | 1.00E-04 | 0 | 0 | 1.00E-04 | 2.33E-04 | 0.001068268 |
| Los Angele | 2021 | Annual | LDA | 0 | 76.22915427 | 2495.889785 | 0.027378456 | 0 | 0.00941102 | 0.036789476 | 0.088100344 | 0.404711 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 5.634471453 | 9.65E-05 | 0 | 0 | 9.65E-05 | 2.40E-04 | 0.001102599 |
| Los Angele | 2021 | Annual | LDA | 0 | 78.05981907 | 2786.098737 | 0.030631901 | 0 | 0.009637032 | 0.040268933 | 0.098571397 | 0.4528124 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 5.578195158 | 8.83E-05 | 0 | 0 | 8.83E-05 | 2.38E-04 | 0.001091587 |
| Los Angele | 2021 | Annual | LDA | 0 | 74.2087413 | 3025.995423 | 0.033378635 | 0 | 0.009161585 | 0.04254022 | 0.1074087 | 0.4934087 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 5.692328617 | 8.20E-05 | 0 | 0 | 8.20E-05 | 2.42E-04 | 0.001113922 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 4.3541361 | 111.5994087 | 7.92E-05 | 0 | 1.00E-05 | 8.92E-05 | 0.002208919 | 0.010147223 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 9.169479 | 237.3395941 | 1.69E-04 | 0 | 2.75E-05 | 1.96E-04 | 0.004703774 | 0.021607967 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 8.4563379 | 220.9244701 | 2.09E-04 | 0 | 4.00E-05 | 2.49E-04 | 0.004372598 | 0.020086626 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 9.08918253 | 240.3012145 | 2.36E-04 | 0 | 5.50E-05 | 2.91E-04 | 0.004933973 | 0.022665445 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0.266751935 | 4.75E-06 | 0 | 0 | 4.75E-06 | 7.74E-06 | 3.55E-05 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 7.800099696 | 208.5957481 | 3.46E-04 | 0 | 9.91E-05 | 4.46E-04 | 0.004831031 | 0.022192556 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0.344414424 | 6.71E-06 | 0 | 0 | 6.71E-06 | 1.13E-05 | 5.17E-05 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 6.685226152 | 181.4072673 | 4.61E-04 | 0 | 1.37E-04 | 5.97E-04 | 0.004817464 | 0.022130229 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0.229072876 | 4.95E-06 | 0 | 0 | 4.95E-06 | 8.58E-06 | 3.94E-05 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | T6 instate heavy | 0.010417519 | 0.001585663 | 5.91E-06 | 0 | 0.001591574 | 1.83E-04 | 0.003409347 | 0.005184022 | 6.51E-04 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.009132185 | 0.001281792 | 5.26E-06 | 0 | 0.001287054 | 1.63E-04 | 0.003034827 | 0.004484868 | 5.79E-04 |
| Los Angele | 2020 | Annual | T6 instate heavy | 9.25E-04 | 1.18E-04 | 1.30E-06 | 0 | 1.20E-04 | 1.68E-05 | 3.12E-04 | 4.48E-04 | 5.96E-05 |
| Los Angele | 2020 | Annual | LDA/LDT1 | 5.884374564 | 0.192874966 | 0 | 0.064865285 | 0.257740251 | 0.250573108 | 1.973263424 | 2.481576783 | 0.470348893 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.099294823 | 0.020181308 | 6.77642E-05 | 0 | 0.020249073 | 0.001628881 | 0.030329759 | 0.052207713 | 0.005814169 |

EMFAC 2011
2021 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDA | 0.170517157 | 0.001005006 | 0 | 1.50E-04 | 0.001155282 | 0.00756523 | 0.059576191 | 0.068296703 | 0.014029108 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDA | 0.19214416 | 0.001132407 | 0 | 2.16E-04 | 0.001348284 | 0.008522502 | 0.067114711 | 0.076985498 | 0.015802773 |
| Los Angele | 2021 | Annual | LDA | 2.82E-05 | 2.65E-06 | 0 | 0 | 2.65E-06 | 1.13E-06 | 8.90E-06 | 1.27E-05 | 1.71E-06 |
| Los Angele | 2021 | Annual | LDA | 0.181153613 | 0.001422393 | 0 | 3.15E-04 | 0.001737544 | 0.008012557 | 0.063098885 | 0.072848986 | 0.014886542 |
| Los Angele | 2021 | Annual | LDA | 9.65E-04 | 8.88E-05 | 0 | 0 | 8.88E-05 | 3.88E-05 | 3.06E-04 | 4.33E-04 | 5.88E-05 |
| Los Angele | 2021 | Annual | LDA | 0.248437763 | 0.001949829 | 0 | 5.21E-04 | 0.002471131 | 0.010984333 | 0.086501621 | 0.099957085 | 0.020404778 |
| Los Angele | 2021 | Annual | LDA | 0.001806525 | 1.62E-04 | 0 | 0 | 1.62E-04 | 7.29E-05 | 5.74E-04 | 8.09E-04 | 1.10E-04 |
| Los Angele | 2021 | Annual | LDA | 0.266275437 | 0.003115793 | 0 | 0.001012023 | 0.004127816 | 0.011701742 | 0.092151247 | 0.107980805 | 0.021736538 |
| Los Angele | 2021 | Annual | LDA | 0.001705526 | 1.49E-04 | 0 | 0 | 1.49E-04 | 6.90E-05 | 5.43E-04 | 7.61E-04 | 1.05E-04 |
| Los Angele | 2021 | Annual | LDA | 0.299363424 | 0.004643842 | 0 | 0.001550962 | 0.006194805 | 0.013080975 | 0.1030127 | 0.12228848 | 0.024296058 |
| Los Angele | 2021 | Annual | LDA | 0.001651931 | 1.40E-04 | 0 | 0 | 1.40E-04 | 6.70E-05 | 5.28E-04 | 7.35E-04 | 1.02E-04 |
| Los Angele | 2021 | Annual | LDA | 0.320283875 | 0.007357026 | 0 | 0.002984177 | 0.010341203 | 0.013816239 | 0.1088029 | 0.132960342 | 0.025658933 |
| Los Angele | 2021 | Annual | LDA | 0.001618182 | 1.33E-04 | 0 | 0 | 1.33E-04 | 6.58E-05 | 5.19E-04 | 7.18E-04 | 9.98E-05 |
| Los Angele | 2021 | Annual | LDA | 0.352318813 | 0.010662535 | 0 | 0.004443003 | 0.015105538 | 0.015018474 | 0.1182705 | 0.148394512 | 0.027897058 |
| Los Angele | 2021 | Annual | LDA | 0.001559656 | 1.24E-04 | 0 | 0 | 1.24E-04 | 6.37E-05 | 5.01E-04 | 6.89E-04 | 9.65E-05 |
| Los Angele | 2021 | Annual | LDA | 0.387264437 | 0.014483683 | 0 | 0.005991814 | 0.020475496 | 0.016321626 | 0.1285328 | 0.165329922 | 0.030321857 |
| Los Angele | 2021 | Annual | LDA | 0.001526623 | 1.17E-04 | 0 | 0 | 1.17E-04 | 6.26E-05 | 4.93E-04 | 6.72E-04 | 9.48E-05 |
| Los Angele | 2021 | Annual | LDA | 0.420612569 | 0.017944731 | 0 | 0.007237401 | 0.025182132 | 0.017585332 | 0.1384845 | 0.181251964 | 0.03267201 |
| Los Angele | 2021 | Annual | LDA | 0.001405287 | 1.03E-04 | 0 | 0 | 1.03E-04 | 5.78E-05 | 4.55E-04 | 6.16E-04 | 8.76E-05 |
| Los Angele | 2021 | Annual | LDA | 0.454958428 | 0.020996418 | 0 | 0.008124488 | 0.029120905 | 0.018930616 | 0.1490786 | 0.197130121 | 0.035171047 |
| Los Angele | 2021 | Annual | LDA | 0.001434271 | 9.98E-05 | 0 | 0 | 9.98E-05 | 5.93E-05 | 4.67E-04 | 6.26E-04 | 8.98E-05 |
| Los Angele | 2021 | Annual | LDA | 0.486880079 | 0.023327075 | 0 | 0.008553158 | 0.031880233 | 0.020224368 | 0.1592669 | 0.211371501 | 0.037576839 |
| Los Angele | 2021 | Annual | LDA | 0.001400963 | 9.21E-05 | 0 | 0 | 9.21E-05 | 5.81E-05 | 4.58E-04 | 6.08E-04 | 8.81E-05 |
| Los Angele | 2021 | Annual | LDA | 0.52960082 | 0.02540269 | 0 | 0.008731874 | 0.034134564 | 0.022025086 | 0.1734476 | 0.22960725 | 0.040927496 |
| Los Angele | 2021 | Annual | LDA | 0.001439167 | 8.88E-05 | 0 | 0 | 8.88E-05 | 6.00E-05 | 4.73E-04 | 6.21E-04 | 9.10E-05 |
| Los Angele | 2021 | Annual | LDA | 0.59165273 | 0.02842135 | 0 | 0.008941574 | 0.037362924 | 0.024642849 | 0.1940624 | 0.256068173 | 0.045799643 |
| Los Angele | 2021 | Annual | LDA | 0.001417548 | 8.13E-05 | 0 | 0 | 8.13E-05 | 5.94E-05 | 4.68E-04 | 6.08E-04 | 9.01E-05 |
| Los Angele | 2021 | Annual | LDA | 0.64335762 | 0.030969867 | 0 | 0.008500439 | 0.039470306 | 0.026852172 | 0.2114609 | 0.277783378 | 0.049916286 |
| Los Angele | 2021 | Annual | LDA | 0.001438395 | 7.54E-05 | 0 | 0 | 7.54E-05 | 6.06E-05 | 4.77E-04 | 6.13E-04 | 9.19E-05 |
| Los Angele | 2021 | Annual | LDT1 | 0.012445372 | 7.35E-05 | 0 | 9.30E-06 | 8.28E-05 | 5.52E-04 | 0.00434881 | 0.004983831 | 0.001193231 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDT1 | 0.026507702 | 1.56E-04 | 0 | 2.55E-05 | 1.82E-04 | 0.001175944 | 0.009260558 | 0.010618321 | 0.002537945 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDT1 | 0.02470843 | 1.94E-04 | 0 | 3.71E-05 | 2.31E-04 | 0.00109315 | 0.008608554 | 0.009932925 | 0.002363147 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | LDT1 | 0.027890303 | 2.19E-04 | 0 | 5.10E-05 | 2.70E-04 | 0.001233493 | 0.00971376 | 0.011217146 | 0.00266471 |
| Los Angele | 2021 | Annual | LDT1 | 4.80E-05 | 4.37E-06 | 0 | 0 | 4.37E-06 | 1.93E-06 | 1.52E-05 | 2.15E-05 | 2.93E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0.02746912 | 3.21E-04 | 0 | 9.19E-05 | 4.13E-04 | 0.001207758 | 0.009511094 | 0.011132233 | 0.002608699 |
| Los Angele | 2021 | Annual | LDT1 | 6.97E-05 | 6.17E-06 | 0 | 0 | 6.17E-06 | 2.82E-06 | 2.22E-05 | 3.12E-05 | 4.27E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0.027545191 | 4.27E-04 | 0 | 1.27E-04 | 5.54E-04 | 0.001204366 | 0.009484382 | 0.011243128 | 0.002601021 |
| Los Angele | 2021 | Annual | LDT1 | 5.30E-05 | 4.55E-06 | 0 | 0 | 4.55E-06 | 2.15E-06 | 1.69E-05 | 2.36E-05 | 3.25E-06 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | T6 instate heavy | 5.19E-06 | 0 | 6.56E-04 | 0 | 6.188370705 | 1.57E-04 | 7.04E-04 | 1.53E-03 | 6.25E-05 | 3.14E-04 | 5.75E-05 | 1.30E-04 | 2.37E-05 | |
| Los Angele | 2020 | Annual | T6 instate heavy | 4.62E-06 | 0 | 5.84E-04 | 0 | 5.508572201 | 1.47E-04 | 6.64E-04 | 1.36E-03 | 5.68E-05 | 3.14E-04 | 5.22E-05 | 1.30E-04 | 2.37E-05 | |
| Los Angele | 2020 | Annual | T6 instate heavy | 1.14E-06 | 0 | 6.07E-05 | 0 | 0.572523941 | 1.46E-04 | 7.15E-04 | 1.32E-03 | 5.14E-05 | 3.14E-04 | 4.73E-05 | 1.30E-04 | 2.40E-05 | |
| Los Angele | 2020 | Annual | LDA/LDT1 | 0 | 0.017212522 | 0.487561415 | 5187.25461 | 11.75155701 | 1.15E-04 | 1.52E-03 | 1.30E-04 | 4.89E-06 | 9.87E-05 | 4.54E-06 | 3.91E-05 | 8.58E-06 | |
| Los Angele | 2020 | Annual | T6 instate heavy | 5.94607E-05 | 0 | 0.005873629 | 0 | 55.40888316 | 2.25E-04 | 1.00E-03 | 3.04E-03 | 8.94E-05 | 3.14E-04 | 8.22E-05 | 1.30E-04 | 2.38E-05 | |

EMFAC 2011
2021 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDA | 0 | 6.88E-04 | 0.01471691 | 156.9772 | 0 | 2.87E-04 | 2.36E-03 | 1.56E-04 | 7.26E-07 | 9.87E-05 | 6.73E-07 | 3.91E-05 | 8.58E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2021 | Annual | LDA | 0 | 7.58E-04 | 0.016560627 | 176.6432 | 0 | 2.56E-04 | 2.14E-03 | 1.51E-04 | 7.52E-07 | 9.87E-05 | 6.98E-07 | 3.91E-05 | 8.57E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 1.71E-06 | 0 | 0.016159911 | 1.87E-05 | 1.75E-04 | 5.67E-04 | 1.12E-05 | 9.87E-05 | 1.03E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 7.00E-04 | 0.015586669 | 166.2545 | 0 | 2.33E-04 | 2.10E-03 | 1.58E-04 | 1.03E-06 | 9.87E-05 | 9.56E-07 | 3.91E-05 | 8.58E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 5.88E-05 | 0 | 0.554729 | 1.82E-05 | 1.71E-04 | 5.54E-04 | 1.10E-05 | 9.87E-05 | 1.01E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 9.38E-04 | 0.021342605 | 227.6499 | 0 | 2.10E-04 | 2.02E-03 | 1.62E-04 | 1.07E-06 | 9.87E-05 | 9.92E-07 | 3.91E-05 | 8.57E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 1.10E-04 | 0 | 1.041202 | 1.77E-05 | 1.66E-04 | 5.39E-04 | 1.07E-05 | 9.87E-05 | 9.83E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 9.77E-04 | 0.022713319 | 242.2706 | 0 | 1.89E-04 | 1.97E-03 | 1.61E-04 | 1.68E-06 | 9.87E-05 | 1.56E-06 | 3.91E-05 | 8.56E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 1.05E-04 | 0 | 0.9857539 | 1.71E-05 | 1.61E-04 | 5.24E-04 | 1.04E-05 | 9.87E-05 | 9.54E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0.001063612 | 0.02535967 | 270.4977 | 0 | 1.68E-04 | 1.92E-03 | 1.58E-04 | 2.25E-06 | 9.87E-05 | 2.09E-06 | 3.91E-05 | 8.55E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 1.02E-04 | 0 | 0.9576535 | 1.66E-05 | 1.55E-04 | 5.07E-04 | 1.00E-05 | 9.87E-05 | 9.24E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0.001091709 | 0.026750642 | 285.3345 | 0 | 1.52E-04 | 1.86E-03 | 1.56E-04 | 3.56E-06 | 9.87E-05 | 3.30E-06 | 3.91E-05 | 8.54E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 9.98E-05 | 0 | 0.9410739 | 1.59E-05 | 1.49E-04 | 4.90E-04 | 9.70E-06 | 9.87E-05 | 8.93E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0.001148092 | 0.02904515 | 309.8087 | 0 | 1.34E-04 | 1.80E-03 | 1.52E-04 | 4.78E-06 | 9.87E-05 | 4.43E-06 | 3.91E-05 | 8.53E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 9.65E-05 | 0 | 0.9101115 | 1.53E-05 | 1.43E-04 | 4.71E-04 | 9.34E-06 | 9.87E-05 | 8.59E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0.001201181 | 0.031523038 | 336.239 | 0 | 1.12E-04 | 1.71E-03 | 1.46E-04 | 5.96E-06 | 9.87E-05 | 5.53E-06 | 3.91E-05 | 8.52E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 9.48E-05 | 0 | 0.8940517 | 1.46E-05 | 1.36E-04 | 4.51E-04 | 8.95E-06 | 9.87E-05 | 8.23E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0.00124165 | 0.03391366 | 361.7385 | 0 | 9.81E-05 | 1.59E-03 | 1.36E-04 | 6.81E-06 | 9.87E-05 | 6.31E-06 | 3.91E-05 | 8.50E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 8.76E-05 | 0 | 0.8262943 | 1.38E-05 | 1.29E-04 | 4.30E-04 | 8.52E-06 | 9.87E-05 | 7.84E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0.001272084 | 0.036443131 | 388.7189 | 0 | 8.53E-05 | 1.40E-03 | 1.28E-04 | 7.31E-06 | 9.87E-05 | 6.78E-06 | 3.91E-05 | 8.49E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 8.98E-05 | 0 | 0.846889 | 1.30E-05 | 1.21E-04 | 4.07E-04 | 8.07E-06 | 9.87E-05 | 7.42E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0.001282064 | 0.038858903 | 414.4866 | 0 | 7.51E-05 | 1.26E-03 | 1.17E-04 | 7.49E-06 | 9.87E-05 | 6.95E-06 | 3.91E-05 | 8.47E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 8.81E-05 | 0 | 0.8309026 | 1.22E-05 | 1.13E-04 | 3.83E-04 | 7.60E-06 | 9.87E-05 | 6.99E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0.001303711 | 0.042231207 | 450.4572 | 0 | 6.68E-05 | 1.16E-03 | 1.08E-04 | 7.36E-06 | 9.87E-05 | 6.83E-06 | 3.91E-05 | 8.45E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 9.10E-05 | 0 | 0.857606 | 1.13E-05 | 1.05E-04 | 3.57E-04 | 7.09E-06 | 9.87E-05 | 6.53E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0.001333802 | 0.047133445 | 502.7466 | 0 | 5.87E-05 | 1.08E-03 | 9.89E-05 | 7.21E-06 | 9.87E-05 | 6.69E-06 | 3.91E-05 | 8.43E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 9.01E-05 | 0 | 0.8490403 | 1.03E-05 | 9.54E-05 | 3.30E-04 | 6.56E-06 | 9.87E-05 | 6.03E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0.001266979 | 0.051183265 | 545.9438 | 0 | 4.96E-05 | 9.91E-04 | 8.95E-05 | 6.99E-06 | 9.87E-05 | 6.48E-06 | 3.91E-05 | 8.40E-06 |
| Los Angele | 2021 | Annual | LDA | 0 | 0 | 9.19E-05 | 0 | 0.8664123 | 9.23E-06 | 8.53E-05 | 3.00E-04 | 5.96E-06 | 9.87E-05 | 5.49E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 4.94E-05 | 0.001242678 | 13.25496 | 0 | 3.21E-04 | 2.36E-03 | 1.55E-04 | 7.12E-07 | 9.87E-05 | 6.61E-07 | 3.91E-05 | 9.92E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2021 | Annual | LDT1 | 0 | 1.04E-04 | 0.002641799 | 28.17862 | 0 | 2.83E-04 | 2.13E-03 | 1.50E-04 | 7.35E-07 | 9.87E-05 | 6.82E-07 | 3.91E-05 | 9.91E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2021 | Annual | LDT1 | 0 | 9.57E-05 | 0.002458866 | 26.22738 | 0 | 2.52E-04 | 2.08E-03 | 1.56E-04 | 1.01E-06 | 9.87E-05 | 9.33E-07 | 3.91E-05 | 9.92E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2021 | Annual | LDT1 | 0 | 1.07E-04 | 0.002771248 | 29.55939 | 0 | 2.24E-04 | 2.01E-03 | 1.61E-04 | 1.04E-06 | 9.87E-05 | 9.65E-07 | 3.91E-05 | 9.91E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 2.93E-06 | 0 | 0.02764269 | 2.13E-05 | 1.99E-04 | 6.55E-04 | 1.08E-05 | 9.87E-05 | 9.96E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 1.03E-04 | 0.002711727 | 28.92451 | 0 | 1.98E-04 | 1.97E-03 | 1.60E-04 | 1.63E-06 | 9.87E-05 | 1.51E-06 | 3.91E-05 | 9.90E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 4.27E-06 | 0 | 0.040235329 | 2.06E-05 | 1.92E-04 | 6.36E-04 | 1.05E-05 | 9.87E-05 | 9.67E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 1.01E-04 | 0.002702158 | 28.82244 | 0 | 1.72E-04 | 1.91E-03 | 1.58E-04 | 2.19E-06 | 9.87E-05 | 2.03E-06 | 3.91E-05 | 9.89E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 3.25E-06 | 0 | 0.030665714 | 1.99E-05 | 1.85E-04 | 6.15E-04 | 1.02E-05 | 9.87E-05 | 9.36E-06 | 3.91E-05 | 6.68E-06 |

| | | | | |
|---|---|---|---|---|
| Los Angele | 2020 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2020 | Annual | LDA/LDT1 | 2.87E-04 |
| Los Angele | 2020 | Annual | T6 instate heavy | 1.12E-03 |

EMFAC 2011
2021 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDA | 3.85E-04 |
| Los Angele | 2021 | Annual | LDA | |
| Los Angele | 2021 | Annual | LDA | 3.85E-04 |
| Los Angele | 2021 | Annual | LDA | 3.15E-04 |
| Los Angele | 2021 | Annual | LDA | 3.85E-04 |
| Los Angele | 2021 | Annual | LDA | 3.15E-04 |
| Los Angele | 2021 | Annual | LDA | 3.71E-04 |
| Los Angele | 2021 | Annual | LDA | 3.04E-04 |
| Los Angele | 2021 | Annual | LDA | 3.29E-04 |
| Los Angele | 2021 | Annual | LDA | 2.70E-04 |
| Los Angele | 2021 | Annual | LDA | 2.87E-04 |
| Los Angele | 2021 | Annual | LDA | 2.35E-04 |
| Los Angele | 2021 | Annual | LDA | 2.79E-04 |
| Los Angele | 2021 | Annual | LDA | 2.29E-04 |
| Los Angele | 2021 | Annual | LDA | 2.73E-04 |
| Los Angele | 2021 | Annual | LDA | 2.24E-04 |
| Los Angele | 2021 | Annual | LDA | 2.61E-04 |
| Los Angele | 2021 | Annual | LDA | 2.15E-04 |
| Los Angele | 2021 | Annual | LDA | 2.51E-04 |
| Los Angele | 2021 | Annual | LDA | 2.07E-04 |
| Los Angele | 2021 | Annual | LDA | 2.51E-04 |
| Los Angele | 2021 | Annual | LDA | 2.07E-04 |
| Los Angele | 2021 | Annual | LDA | 2.50E-04 |
| Los Angele | 2021 | Annual | LDA | 2.07E-04 |
| Los Angele | 2021 | Annual | LDA | 2.50E-04 |
| Los Angele | 2021 | Annual | LDA | 2.07E-04 |
| Los Angele | 2021 | Annual | LDA | 2.49E-04 |
| Los Angele | 2021 | Annual | LDA | 2.07E-04 |
| Los Angele | 2021 | Annual | LDA | 2.48E-04 |
| Los Angele | 2021 | Annual | LDA | 2.07E-04 |
| Los Angele | 2021 | Annual | LDT1 | 4.46E-04 |
| Los Angele | 2021 | Annual | LDT1 | |
| Los Angele | 2021 | Annual | LDT1 | 4.45E-04 |
| Los Angele | 2021 | Annual | LDT1 | |
| Los Angele | 2021 | Annual | LDT1 | 4.46E-04 |
| Los Angele | 2021 | Annual | LDT1 | |
| Los Angele | 2021 | Annual | LDT1 | 4.29E-04 |
| Los Angele | 2021 | Annual | LDT1 | 3.04E-04 |
| Los Angele | 2021 | Annual | LDT1 | 3.81E-04 |
| Los Angele | 2021 | Annual | LDT1 | 2.70E-04 |
| Los Angele | 2021 | Annual | LDT1 | 3.32E-04 |
| Los Angele | 2021 | Annual | LDT1 | 2.35E-04 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDT1 | GAS | 2013 | AllSpeeds | 16849.27 | 573427.2736 | 107656.1 | 0.007262401 | 0 | 0.006054707 | 0.013317108 |
| Los Angele | 2021 | Annual | LDT1 | DSL | 2013 | AllSpeeds | 38.53652 | 1311.509901 | 246.2238 | 1.25E-05 | 0 | 0 | 1.25E-05 |
| Los Angele | 2021 | Annual | LDT1 | GAS | 2014 | AllSpeeds | 17061.57 | 595552.8035 | 109524.3 | 0.007325382 | 0 | 0.005985341 | 0.013310723 |
| Los Angele | 2021 | Annual | LDT1 | DSL | 2014 | AllSpeeds | 37.0422 | 1293.004098 | 237.7871 | 1.18E-05 | 0 | 0 | 1.18E-05 |
| Los Angele | 2021 | Annual | LDT1 | GAS | 2015 | AllSpeeds | 17911.11 | 642860.8718 | 115336 | 0.007648002 | 0 | 0.006099955 | 0.013747957 |
| Los Angele | 2021 | Annual | LDT1 | DSL | 2015 | AllSpeeds | 37.73373 | 1354.335731 | 242.9809 | 1.18E-05 | 0 | 0 | 1.18E-05 |
| Los Angele | 2021 | Annual | LDT1 | GAS | 2016 | AllSpeeds | 18018 | 667262.1094 | 116564.8 | 0.007504208 | 0 | 0.005873026 | 0.013377234 |
| Los Angele | 2021 | Annual | LDT1 | DSL | 2016 | AllSpeeds | 46.3851 | 1717.79282 | 300.0816 | 1.42E-05 | 0 | 0 | 1.42E-05 |
| Los Angele | 2021 | Annual | LDT1 | GAS | 2017 | AllSpeeds | 18372.18 | 705107.2205 | 119223.5 | 0.00707564 | 0 | 0.005508395 | 0.012584035 |
| Los Angele | 2021 | Annual | LDT1 | DSL | 2017 | AllSpeeds | 31.89508 | 1224.109976 | 206.9784 | 9.48E-06 | 0 | 0 | 9.48E-06 |
| Los Angele | 2021 | Annual | LDT1 | GAS | 2018 | AllSpeeds | 18460.16 | 738916.6557 | 119979 | 0.006899089 | 0 | 0.005189313 | 0.012088402 |
| Los Angele | 2021 | Annual | LDT1 | DSL | 2018 | AllSpeeds | 33.24561 | 1330.751217 | 216.0748 | 9.62E-06 | 0 | 0 | 9.62E-06 |
| Los Angele | 2021 | Annual | LDT1 | GAS | 2019 | AllSpeeds | 18515.96 | 780641.3337 | 120712 | 0.006895657 | 0 | 0.004911557 | 0.011807215 |
| Los Angele | 2021 | Annual | LDT1 | DSL | 2019 | AllSpeeds | 37.61664 | 1585.943694 | 245.236 | 1.06E-05 | 0 | 0 | 1.06E-05 |
| Los Angele | 2021 | Annual | LDT1 | GAS | 2020 | AllSpeeds | 19016.31 | 858846.3785 | 124354.2 | 0.007108324 | 0 | 0.004694469 | 0.011802793 |
| Los Angele | 2021 | Annual | LDT1 | DSL | 2020 | AllSpeeds | 31.59509 | 1426.959322 | 206.6112 | 8.70E-06 | 0 | 0 | 8.70E-06 |
| Los Angele | 2021 | Annual | LDT1 | GAS | 2021 | AllSpeeds | 19776.72 | 994478.4593 | 129722.3 | 0.007507458 | 0 | 0.004398821 | 0.011906279 |
| Los Angele | 2021 | Annual | LDT1 | DSL | 2021 | AllSpeeds | 23.60095 | 1186.788053 | 154.8068 | 6.49E-06 | 0 | 0 | 6.49E-06 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2007 | AllSpeeds | 794.9316354 | 33089.2899 | 0 | 0.008549578 | 1.84E-04 | 0 | 0.008733513 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2008 | AllSpeeds | 377.3886684 | 16908.2242 | 0 | 0.004243629 | 8.73E-05 | 0 | 0.004330951 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2009 | AllSpeeds | 218.0162861 | 10835.9762 | 0 | 0.002631026 | 5.04E-05 | 0 | 0.002681471 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2010 | AllSpeeds | 544.968074 | 22599.48798 | 0 | 0.003219679 | 1.26E-04 | 0 | 0.003345776 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2011 | AllSpeeds | 425.6114315 | 22269.2957 | 0 | 0.003068342 | 9.85E-05 | 0 | 0.003166822 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2012 | AllSpeeds | 389.7235858 | 23410.81395 | 0 | 0.003108994 | 9.02E-05 | 0 | 0.00319917 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2013 | AllSpeeds | 612.0706749 | 29602.47456 | 0 | 0.003142456 | 1.42E-04 | 0 | 0.003284079 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2014 | AllSpeeds | 1320.11291 | 59038.44669 | 0 | 0.006050844 | 3.05E-04 | 0 | 0.006356297 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2015 | AllSpeeds | 710.6598918 | 42142.58689 | 0 | 0.00415498 | 1.64E-04 | 0 | 0.004319416 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2016 | AllSpeeds | 1218.867965 | 64513.70269 | 0 | 0.00609388 | 2.82E-04 | 0 | 0.006375907 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2017 | AllSpeeds | 567.317426 | 45276.7995 | 0 | 0.00407903 | 1.31E-04 | 0 | 0.004210299 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2018 | AllSpeeds | 582.0164058 | 48110.76159 | 0 | 0.004114097 | 1.35E-04 | 0 | 0.004248766 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2019 | AllSpeeds | 610.8403124 | 51451.1838 | 0 | 0.004155771 | 1.41E-04 | 0 | 0.004297109 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2020 | AllSpeeds | 661.5315468 | 55487.78397 | 0 | 0.004213757 | 1.53E-04 | 0 | 0.004366825 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2021 | AllSpeeds | 583.0926195 | 48914.3133 | 0 | 0.003479285 | 1.35E-04 | 0 | 0.003614204 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2022 | AllSpeeds | 143.8552483 | 5033.427711 | 0 | 3.34E-04 | 3.33E-05 | 0 | 3.67E-04 |
| Los Angele | 2021 | Annual | LDA/LDT1 | GAS&DSI | >2007 | AllSpeeds | 3317409.56 | 116590175.1 | 21256460.97 | 1.249225258 | 0 | 1.059375688 | 2.308600946 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | >2007 | AllSpeeds | 9761.004681 | 578684.5686 | 0 | 0.064639164 | 0.002258543 | 0 | 0.066897707 |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed | Pop | VMT | Trips | ROG_RUNEX | ROG_IDLEX | ROG_STREX | ROG_TOTEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | (Miles/hr) | (Vehicles) | (Miles/day) | (Trips/day) | (Tons/day) | (Tons/day) | (Tons/day) | (Tons/day) |
| Los Angele | 2022 | Annual | LDA | GAS | 2007 | AllSpeeds | 114889.8 | 2870239.439 | 698460 | 0.040923732 | 0 | 0.046398204 | 0.087321936 |
| Los Angele | 2022 | Annual | LDA | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDA | GAS | 2008 | AllSpeeds | 128609.2 | 3294534.261 | 788295.5 | 0.043611691 | 0 | 0.046775736 | 0.090387427 |
| Los Angele | 2022 | Annual | LDA | DSL | 2008 | AllSpeeds | 18.52156 | 474.4651941 | 113.5258 | 4.54E-06 | 0 | 0 | 4.54E-06 |
| Los Angele | 2022 | Annual | LDA | GAS | 2009 | AllSpeeds | 119837.4 | 3150682.716 | 739322.8 | 0.04243617 | 0 | 0.044491742 | 0.086927912 |
| Los Angele | 2022 | Annual | LDA | DSL | 2009 | AllSpeeds | 627.725 | 16503.73979 | 3872.677 | 1.54E-04 | 0 | 0 | 1.54E-04 |
| Los Angele | 2022 | Annual | LDA | GAS | 2010 | AllSpeeds | 163043.9 | 4404590.784 | 1014031 | 0.059403478 | 0 | 0.060578074 | 0.119981552 |
| Los Angele | 2022 | Annual | LDA | DSL | 2010 | AllSpeeds | 1146.319 | 30967.58157 | 7129.39 | 2.82E-04 | 0 | 0 | 2.82E-04 |
| Los Angele | 2022 | Annual | LDA | GAS | 2011 | AllSpeeds | 171524.7 | 4768159.647 | 1073637 | 0.06328896 | 0 | 0.063206114 | 0.126495074 |
| Los Angele | 2022 | Annual | LDA | DSL | 2011 | AllSpeeds | 1071.077 | 29774.56318 | 6704.269 | 2.63E-04 | 0 | 0 | 2.63E-04 |
| Los Angele | 2022 | Annual | LDA | GAS | 2012 | AllSpeeds | 187815.9 | 5380728.499 | 1185000 | 0.070203947 | 0 | 0.068642065 | 0.138846012 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDT1 | 0.001834228 | 0.00480981 | 0.022152593 | 0.002003621 | 0.04411736 | 0.013516247 | 0 | 0.006464559 | 0.019980806 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.25E-05 | 1.43E-05 | 0 | 0 | 1.43E-05 |
| Los Angele | 2021 | Annual | LDT1 | 0.001569295 | 0.003879139 | 0.019093277 | 0.001649043 | 0.039501477 | 0.013633463 | 0 | 0.006390499 | 0.020023962 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.18E-05 | 1.35E-05 | 0 | 0 | 1.35E-05 |
| Los Angele | 2021 | Annual | LDT1 | 0.001299359 | 0.002882854 | 0.014885461 | 0.001297875 | 0.034113505 | 0.014233899 | 0 | 0.006512871 | 0.020746769 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.18E-05 | 1.34E-05 | 0 | 0 | 1.34E-05 |
| Los Angele | 2021 | Annual | LDT1 | 0.001084706 | 0.00213923 | 0.013266097 | 0.001004069 | 0.030871335 | 0.013966282 | 0 | 0.006270579 | 0.020236861 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.42E-05 | 1.61E-05 | 0 | 0 | 1.61E-05 |
| Los Angele | 2021 | Annual | LDT1 | 9.47E-04 | 0.001629809 | 0.012064218 | 8.08E-04 | 0.028033578 | 0.013168662 | 0 | 0.005881266 | 0.019049929 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.48E-06 | 1.08E-05 | 0 | 0 | 1.08E-05 |
| Los Angele | 2021 | Annual | LDT1 | 8.27E-04 | 0.001219884 | 0.010987454 | 6.49E-04 | 0.025772023 | 0.012840077 | 0 | 0.005540586 | 0.018380662 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.62E-06 | 1.10E-05 | 0 | 0 | 1.10E-05 |
| Los Angele | 2021 | Annual | LDT1 | 7.58E-04 | 9.71E-04 | 0.010119009 | 5.53E-04 | 0.024208368 | 0.012833692 | 0 | 0.005244029 | 0.018077721 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.06E-05 | 1.21E-05 | 0 | 0 | 1.21E-05 |
| Los Angele | 2021 | Annual | LDT1 | 7.29E-04 | 8.22E-04 | 0.009581134 | 5.01E-04 | 0.02343591 | 0.013229491 | 0 | 0.005012246 | 0.018241736 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.70E-06 | 9.90E-06 | 0 | 0 | 9.90E-06 |
| Los Angele | 2021 | Annual | LDT1 | 7.24E-04 | 7.33E-04 | 0.009296397 | 4.75E-04 | 0.023134289 | 0.01397233 | 0 | 0.004696584 | 0.018668914 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 6.49E-06 | 7.39E-06 | 0 | 0 | 7.39E-06 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.008733513 | 0.009733044 | 2.09E-04 | 0 | 0.009942439 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004330951 | 0.004831048 | 9.94E-05 | 0 | 0.004930458 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002681471 | 0.002995223 | 5.74E-05 | 0 | 0.003052651 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003345776 | 0.003665359 | 1.44E-04 | 0 | 0.003808911 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003166822 | 0.003493073 | 1.12E-04 | 0 | 0.003605185 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00319917 | 0.003539353 | 1.03E-04 | 0 | 0.003642011 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003284079 | 0.003577447 | 1.61E-04 | 0 | 0.003738675 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.006356297 | 0.006888425 | 3.48E-04 | 0 | 0.00723616 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004319416 | 0.004730129 | 1.87E-04 | 0 | 0.004917326 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.006375907 | 0.006937419 | 3.21E-04 | 0 | 0.007258485 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004210299 | 0.004643665 | 1.49E-04 | 0 | 0.004793104 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004248766 | 0.004683586 | 1.53E-04 | 0 | 0.004836897 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004297109 | 0.004731028 | 1.61E-04 | 0 | 0.004891932 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004366825 | 0.004797042 | 1.74E-04 | 0 | 0.004971298 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003614204 | 0.003960901 | 1.54E-04 | 0 | 0.004114496 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.67E-04 | 3.80E-04 | 3.79E-05 | 0 | 4.18E-04 |
| Los Angele | 2021 | Annual | LDA/LDT1 | 0.258467148 | 0.802700754 | 3.312880528 | 0.278927238 | 6.961576614 | 2.323011883 | 0 | 1.131086533 | 3.454098416 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.066897707 | 0.073586768 | 0.00257118 | 0 | 0.076157947 |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | LDA | 0.024524644 | 0.094212212 | 0.205863 | 0.030482929 | 0.442404721 | 0.076164241 | 0 | 0.049538966 | 0.125703207 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDA | 0.024505224 | 0.093619891 | 0.2167285 | 0.030171834 | 0.455412876 | 0.081166877 | 0 | 0.049942065 | 0.131108942 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 4.54E-06 | 5.16E-06 | 0 | 0 | 5.16E-06 |
| Los Angele | 2022 | Annual | LDA | 0.020111255 | 0.076012231 | 0.1889182 | 0.024469448 | 0.396439046 | 0.078979082 | 0 | 0.04750346 | 0.126482542 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 1.54E-04 | 1.75E-04 | 0 | 0 | 1.75E-04 |
| Los Angele | 2022 | Annual | LDA | 0.024019187 | 0.089672938 | 0.2407099 | 0.028819712 | 0.503203289 | 0.110557395 | 0 | 0.064678691 | 0.175236086 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 2.82E-04 | 3.21E-04 | 0 | 0 | 3.21E-04 |
| Los Angele | 2022 | Annual | LDA | 0.021979848 | 0.080521815 | 0.2363875 | 0.025922801 | 0.491307038 | 0.117788769 | 0 | 0.06748464 | 0.185273409 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 2.63E-04 | 3.00E-04 | 0 | 0 | 3.00E-04 |
| Los Angele | 2022 | Annual | LDA | 0.020499999 | 0.073189966 | 0.240687 | 0.023633972 | 0.496856949 | 0.130658429 | 0 | 0.073288552 | 0.203946981 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDT1 | 0.001834228 | 0.00480981 | 0.022152593 | 0.002003621 | 0.050781059 | 0.42442403 | 0 | 0.1078069 | 0.53223093 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.43E-05 | 1.17E-04 | 0 | 0 | 1.17E-04 |
| Los Angele | 2021 | Annual | LDT1 | 0.001569295 | 0.003879139 | 0.019093277 | 0.001649043 | 0.046214716 | 0.427100787 | 0 | 0.1055705 | 0.532671287 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.35E-05 | 1.10E-04 | 0 | 0 | 1.10E-04 |
| Los Angele | 2021 | Annual | LDT1 | 0.001299359 | 0.002882854 | 0.014885461 | 0.001297875 | 0.041112318 | 0.442094284 | 0 | 0.1057384 | 0.547832684 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.34E-05 | 1.10E-04 | 0 | 0 | 1.10E-04 |
| Los Angele | 2021 | Annual | LDT1 | 0.001084706 | 0.00213923 | 0.013266097 | 0.001004069 | 0.037730962 | 0.428224277 | 0 | 0.098417804 | 0.526642081 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.61E-05 | 1.31E-04 | 0 | 0 | 1.31E-04 |
| Los Angele | 2021 | Annual | LDT1 | 9.47E-04 | 0.001629809 | 0.012064218 | 8.08E-04 | 0.034499471 | 0.400574957 | 0 | 0.086605996 | 0.487180953 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.08E-05 | 8.78E-05 | 0 | 0 | 8.78E-05 |
| Los Angele | 2021 | Annual | LDT1 | 8.27E-04 | 0.001219884 | 0.010987454 | 6.49E-04 | 0.032064284 | 0.384065162 | 0 | 0.078044698 | 0.46210986 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.10E-05 | 8.89E-05 | 0 | 0 | 8.89E-05 |
| Los Angele | 2021 | Annual | LDT1 | 7.58E-04 | 9.71E-04 | 0.010119009 | 5.53E-04 | 0.030478874 | 0.378680947 | 0 | 0.072268061 | 0.450949008 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.21E-05 | 9.75E-05 | 0 | 0 | 9.75E-05 |
| Los Angele | 2021 | Annual | LDT1 | 7.29E-04 | 8.22E-04 | 0.009581134 | 5.01E-04 | 0.029874854 | 0.390673495 | 0 | 0.069192939 | 0.459866434 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.90E-06 | 7.98E-05 | 0 | 0 | 7.98E-05 |
| Los Angele | 2021 | Annual | LDT1 | 7.24E-04 | 7.33E-04 | 0.009296397 | 4.75E-04 | 0.029896924 | 0.425646322 | 0 | 0.067786001 | 0.493432323 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0 | 0 | 7.39E-06 | 5.93E-05 | 0 | 0 | 5.93E-05 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.009942439 | 0.035976024 | 0.00217504 | 0 | 0.038151064 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004930458 | 0.017856892 | 0.001032586 | 0 | 0.018889478 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003052651 | 0.011071172 | 5.97E-04 | 0 | 0.011667694 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003808911 | 0.013548181 | 0.001491106 | 0 | 0.015039287 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003605185 | 0.012911366 | 0.00116453 | 0 | 0.014075897 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003642011 | 0.013082428 | 0.001066336 | 0 | 0.014148764 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003738675 | 0.013223234 | 0.001674708 | 0 | 0.014897942 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00723616 | 0.025461525 | 0.003612007 | 0 | 0.029073531 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004917326 | 0.017483866 | 0.001944461 | 0 | 0.019428327 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.007258485 | 0.02564262 | 0.003334987 | 0 | 0.028977606 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004793104 | 0.017164273 | 0.001552257 | 0 | 0.01871653 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004836897 | 0.017311831 | 0.001592475 | 0 | 0.018904306 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004891932 | 0.017487191 | 0.001671341 | 0 | 0.019158532 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004971298 | 0.017731194 | 0.001810039 | 0 | 0.019541233 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004114496 | 0.014640588 | 0.00159542 | 0 | 0.016236008 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.18E-04 | 0.001404681 | 3.94E-04 | 0 | 0.001798289 |
| Los Angele | 2021 | Annual | LDA/LDT1 | 0.258467148 | 0.802700754 | 3.312880528 | 0.278927238 | 8.107074084 | 71.80578625 | 0 | 17.98052155 | 89.78630781 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.076157947 | 0.271997064 | 0.026707422 | 0 | 0.298704487 |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | LDA | 0.024524644 | 0.094212212 | 0.205863 | 0.030482929 | 0.480785992 | 2.541074389 | 0 | 0.8859234 | 3.426997789 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDA | 0.024505224 | 0.093619891 | 0.2167285 | 0.030171834 | 0.496134391 | 2.673067047 | 0 | 0.8916034 | 3.564670447 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 5.16E-06 | 4.26E-05 | 0 | 0 | 4.26E-05 |
| Los Angele | 2022 | Annual | LDA | 0.020111255 | 0.076012231 | 0.1889182 | 0.024469448 | 0.435993676 | 2.528638014 | 0 | 0.8193262 | 3.347964214 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 1.75E-04 | 0.001447658 | 0 | 0 | 0.001447658 |
| Los Angele | 2022 | Annual | LDA | 0.024019187 | 0.089672938 | 0.2407099 | 0.028819712 | 0.558457823 | 3.446112081 | 0 | 1.081244 | 4.527356081 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 3.21E-04 | 0.002646174 | 0 | 0 | 0.002646174 |
| Los Angele | 2022 | Annual | LDA | 0.021979848 | 0.080521815 | 0.2363875 | 0.025922801 | 0.550085373 | 3.681031557 | 0 | 1.127411 | 4.808442557 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 3.00E-04 | 0.002471178 | 0 | 0 | 0.002471178 |
| Los Angele | 2022 | Annual | LDA | 0.020499999 | 0.073189966 | 0.240687 | 0.023633972 | 0.561957918 | 4.086209243 | 0 | 1.220972 | 5.307181243 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDT1 | 0.037732527 | 0 | 0.006691238 | 0.044423765 | 272.7626587 | 0 | 10.26118 | 283.0238387 | 178.714094 |
| Los Angele | 2021 | Annual | LDT1 | 3.89E-04 | 0 | 0 | 3.89E-04 | 0.459156498 | 0 | 0 | 0.459156498 | 0.300839337 |
| Los Angele | 2021 | Annual | LDT1 | 0.038478529 | 0 | 0.00662001 | 0.045098539 | 283.3606741 | 0 | 10.43879 | 293.7994641 | 181.57752 |
| Los Angele | 2021 | Annual | LDT1 | 3.68E-04 | 0 | 0 | 3.68E-04 | 0.452677606 | 0 | 0 | 0.452677606 | 0.29007581 |
| Los Angele | 2021 | Annual | LDT1 | 0.040141898 | 0 | 0.006636242 | 0.04677814 | 305.9174651 | 0 | 10.99109 | 316.9085551 | 188.0474658 |
| Los Angele | 2021 | Annual | LDT1 | 3.69E-04 | 0 | 0 | 3.69E-04 | 0.47414973 | 0 | 0 | 0.47414973 | 0.291459839 |
| Los Angele | 2021 | Annual | LDT1 | 0.038868541 | 0 | 0.006092049 | 0.044960591 | 317.6079743 | 0 | 11.10757 | 328.7155443 | 187.8015952 |
| Los Angele | 2021 | Annual | LDT1 | 4.44E-04 | 0 | 0 | 4.44E-04 | 0.601395224 | 0 | 0 | 0.601395224 | 0.355604996 |
| Los Angele | 2021 | Annual | LDT1 | 0.03892392 | 0 | 0.005729793 | 0.044653713 | 335.7223523 | 0 | 11.36089 | 347.0832423 | 198.5126269 |
| Los Angele | 2021 | Annual | LDT1 | 2.99E-04 | 0 | 0 | 2.99E-04 | 0.428558011 | 0 | 0 | 0.428558011 | 0.253406352 |
| Los Angele | 2021 | Annual | LDT1 | 0.037801515 | 0 | 0.005097987 | 0.042899503 | 351.8778263 | 0 | 11.43129 | 363.3091163 | 208.0653587 |
| Los Angele | 2021 | Annual | LDT1 | 3.06E-04 | 0 | 0 | 3.06E-04 | 0.465892864 | 0 | 0 | 0.465892864 | 0.275482451 |
| Los Angele | 2021 | Annual | LDT1 | 0.037324915 | 0 | 0.00454843 | 0.041873345 | 371.869899 | 0 | 11.50144 | 383.371339 | 219.8866713 |
| Los Angele | 2021 | Annual | LDT1 | 3.39E-04 | 0 | 0 | 3.39E-04 | 0.555235104 | 0 | 0 | 0.555235104 | 0.328310517 |
| Los Angele | 2021 | Annual | LDT1 | 0.038191019 | 0 | 0.004082892 | 0.042273911 | 409.2228539 | 0 | 11.84774 | 421.0705939 | 241.9734735 |
| Los Angele | 2021 | Annual | LDT1 | 2.81E-04 | 0 | 0 | 2.81E-04 | 0.49957502 | 0 | 0 | 0.49957502 | 0.295398709 |
| Los Angele | 2021 | Annual | LDT1 | 0.040798858 | 0 | 0.003611929 | 0.044410787 | 474.0149202 | 0 | 12.35978 | 486.3747002 | 280.2850223 |
| Los Angele | 2021 | Annual | LDT1 | 2.12E-04 | 0 | 0 | 2.12E-04 | 0.415491682 | 0 | 0 | 0.415491682 | 0.245680231 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.183686926 | 0.003286039 | 0 | 0.186972964 | 42.29847263 | 0.653505802 | 0 | 42.95197843 | 38.06862537 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.086745193 | 0.001560026 | 0 | 0.088305219 | 21.61400444 | 0.310247666 | 0 | 21.9242521 | 19.45260399 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.048904549 | 9.01E-04 | 0 | 0.049805772 | 13.85177028 | 0.179229133 | 0 | 14.03099942 | 12.46659325 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.045309316 | 0.002252755 | 0 | 0.047562071 | 27.92396388 | 0.448013115 | 0 | 28.371977 | 25.1315675 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.040299361 | 0.001759366 | 0 | 0.042058728 | 27.51597777 | 0.349891145 | 0 | 27.86586892 | 24.76438 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.036520055 | 0.001611015 | 0 | 0.03813107 | 28.92643957 | 0.320388085 | 0 | 29.24682765 | 26.03379561 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.037476958 | 0.00253014 | 0 | 0.040007097 | 36.49268392 | 0.50317753 | 0 | 36.99586145 | 32.84341553 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.070821563 | 0.005457001 | 0 | 0.076278563 | 72.78011066 | 1.085252375 | 0 | 73.86536303 | 65.50209959 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.047577717 | 0.002937682 | 0 | 0.050515398 | 51.95160627 | 0.584226796 | 0 | 52.53583307 | 46.75644565 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.067999995 | 0.005038481 | 0 | 0.073038475 | 79.52977567 | 1.00201986 | 0 | 80.53179553 | 71.5767981 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.044139711 | 0.002345141 | 0 | 0.046484852 | 55.81533158 | 0.466386306 | 0 | 56.28171788 | 50.23379842 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.042911087 | 0.002405903 | 0 | 0.04531699 | 59.30892069 | 0.478470199 | 0 | 59.78739089 | 53.37802862 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.041469064 | 0.002525054 | 0 | 0.043994117 | 63.4268525 | 0.502166061 | 0 | 63.92901856 | 57.08416725 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.039864737 | 0.002734598 | 0 | 0.042599335 | 68.4030032 | 0.543838847 | 0 | 68.94684204 | 61.56270288 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.030878238 | 0.002410352 | 0 | 0.03328859 | 60.29950539 | 0.479354944 | 0 | 60.77886033 | 54.26955485 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.0027387 | 5.95E-04 | 0 | 0.00333336 | 6.204997697 | 0.118262043 | 0 | 6.32325974 | 5.584497927 |
| Los Angele | 2021 | Annual | LDA/LDT1 | 6.590648977 | 0 | 1.079616952 | 7.670265929 | 48329.898 | 0 | 1756.645344 | 50086.54335 | 31856.40032 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.867343169 | 0.040349434 | 0 | 0.907692602 | 716.3434161 | 8.024429907 | 0 | 724.367846 | 644.7090745 |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | LDA | 0.183837416 | 0 | 0.041936968 | 0.225774384 | 1171.205714 | 0 | 57.07721 | 1228.282924 | 1054.085142 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDA | 0.205343383 | 0 | 0.045513742 | 0.250857125 | 1344.678337 | 0 | 64.43475 | 1409.113087 | 1210.210503 |
| Los Angele | 2022 | Annual | LDA | 1.37E-04 | 0 | 0 | 1.37E-04 | 0.166109125 | 0 | 0 | 0.166109125 | 0.149498212 |
| Los Angele | 2022 | Annual | LDA | 0.205329598 | 0 | 0.045469113 | 0.250798711 | 1288.686622 | 0 | 60.56023 | 1349.246852 | 1159.81796 |
| Los Angele | 2022 | Annual | LDA | 0.004680149 | 0 | 0 | 0.004680149 | 5.777920777 | 0 | 0 | 5.777920777 | 5.200128699 |
| Los Angele | 2022 | Annual | LDA | 0.296172002 | 0 | 0.065171242 | 0.361343244 | 1801.454105 | 0 | 83.05767 | 1884.511775 | 1564.56289 |
| Los Angele | 2022 | Annual | LDA | 0.008573803 | 0 | 0 | 0.008573803 | 10.8416772 | 0 | 0 | 10.8416772 | 9.415996644 |
| Los Angele | 2022 | Annual | LDA | 0.318897837 | 0 | 0.068439513 | 0.38733735 | 1950.177902 | 0 | 87.94105 | 2038.118952 | 1502.417056 |
| Los Angele | 2022 | Annual | LDA | 0.008027054 | 0 | 0 | 0.008027054 | 10.42400325 | 0 | 0 | 10.42400325 | 8.030652104 |
| Los Angele | 2022 | Annual | LDA | 0.357384127 | 0 | 0.074746929 | 0.432131056 | 2200.621298 | 0 | 97.05843 | 2297.679728 | 1479.477699 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDT1 | 0 | 6.723125136 | 185.4372191 | 7.25E-04 | 0 | 2.65E-04 | 9.90E-04 | 0.005056763 | 0.023229506 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0.300839337 | 6.43E-06 | 0 | 0 | 6.43E-06 | 1.16E-05 | 5.31E-05 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 6.689176632 | 188.2666966 | 0.001004167 | 0 | 3.81E-04 | 0.001385006 | 0.005251877 | 0.024125811 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0.29007581 | 6.09E-06 | 0 | 0 | 6.09E-06 | 1.14E-05 | 5.24E-05 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 6.756223023 | 194.8036888 | 0.001354718 | 0 | 5.16E-04 | 0.001871144 | 0.005669063 | 0.02604226 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0.291459839 | 6.10E-06 | 0 | 0 | 6.10E-06 | 1.19E-05 | 5.49E-05 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 6.567906141 | 194.3695013 | 0.001616972 | 0 | 6.09E-04 | 0.002225981 | 0.005884246 | 0.027030753 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0.355604996 | 7.35E-06 | 0 | 0 | 7.35E-06 | 1.51E-05 | 6.96E-05 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 6.717694257 | 205.2303212 | 0.001857257 | 0 | 6.81E-04 | 0.002538245 | 0.00621798 | 0.02856385 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0.253406352 | 4.95E-06 | 0 | 0 | 4.95E-06 | 1.08E-05 | 4.96E-05 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 6.759321777 | 214.8246805 | 0.002023883 | 0 | 7.15E-04 | 0.002738553 | 0.00651613 | 0.029933479 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0.275482451 | 5.06E-06 | 0 | 0 | 5.06E-06 | 1.17E-05 | 5.39E-05 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 6.800801472 | 226.6874728 | 0.002138224 | 0 | 7.21E-04 | 0.002859346 | 0.006884079 | 0.031623743 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0.328310517 | 5.62E-06 | 0 | 0 | 5.62E-06 | 1.40E-05 | 6.42E-05 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 7.005568662 | 248.9790422 | 0.002352289 | 0 | 7.43E-04 | 0.003095123 | 0.007573729 | 0.034791823 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0.295398709 | 4.66E-06 | 0 | 0 | 4.66E-06 | 1.26E-05 | 5.78E-05 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 7.308337914 | 287.5933602 | 0.002723901 | 0 | 7.75E-04 | 0.00349884 | 0.008769798 | 0.040286269 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 0.245680231 | 3.52E-06 | 0 | 0 | 3.52E-06 | 1.05E-05 | 4.81E-05 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.588155221 | 0 | 38.65678059 | 0.002518229 | 7.72E-06 | 0 | 0.002525952 | 4.38E-04 | 0.004754112 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.279222899 | 0 | 19.73182689 | 0.001251095 | 3.67E-06 | 0 | 0.001254762 | 2.24E-04 | 0.002429293 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.16130622 | 0 | 12.62789947 | 7.77E-04 | 2.12E-06 | 0 | 7.79E-04 | 1.43E-04 | 0.001556862 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.403211803 | 0 | 25.5347793 | 0.001562557 | 5.29E-06 | 0 | 0.001567852 | 2.99E-04 | 0.003246987 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.31490203 | 0 | 25.07928203 | 0.001479772 | 4.14E-06 | 0 | 0.001483907 | 2.95E-04 | 0.003199547 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.288349276 | 0 | 26.32214489 | 0.001488578 | 3.79E-06 | 0 | 0.001492365 | 3.10E-04 | 0.003363555 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.452859777 | 0 | 33.2962753 | 0.001450964 | 5.95E-06 | 0 | 0.00145691 | 3.92E-04 | 0.004253143 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.976727138 | 0 | 66.47882673 | 0.002765307 | 1.28E-05 | 0 | 0.002778132 | 7.81E-04 | 0.008482364 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.525804116 | 0 | 47.28224976 | 0.00187644 | 6.90E-06 | 0 | 0.001883344 | 5.57E-04 | 0.006054847 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.901817874 | 0 | 72.47861597 | 0.002714186 | 1.18E-05 | 0 | 0.002726028 | 8.53E-04 | 0.009269023 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.419747676 | 0 | 50.65354609 | 0.001787465 | 5.51E-06 | 0 | 0.001792977 | 5.99E-04 | 0.006505156 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.430623179 | 0 | 53.8086518 | 0.001768599 | 5.65E-06 | 0 | 0.001774253 | 6.36E-04 | 0.006912326 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.451949455 | 0 | 57.53611671 | 0.001746563 | 5.93E-06 | 0 | 0.001752497 | 6.81E-04 | 0.007392262 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.489454962 | 0 | 62.05215784 | 0.001724462 | 6.43E-06 | 0 | 0.001730889 | 7.34E-04 | 0.007972222 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.43141945 | 0 | 54.7009743 | 0.001380499 | 5.67E-06 | 0 | 0.001386164 | 6.47E-04 | 0.007027776 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.106435839 | 0 | 5.690933766 | 1.28E-04 | 1.40E-06 | 0 | 1.29E-04 | 6.66E-05 | 7.23E-04 |
| Los Angele | 2021 | Annual | LDA/LDT1 | 0 | 1184.217331 | 33040.61765 | 0.226780294 | 0 | 0.078279706 | 0.30506 | 1.028149416 | 4.723061737 |
| Los Angele | 2021 | Annual | T6 instate heavy | 7.221986916 | 0 | 651.9310614 | 0.026418916 | 9.48345E-05 | 0 | 0.026513751 | 0.007654687 | 0.083142654 |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavl (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | LDA | 0 | 51.369489 | 1105.454631 | 9.06E-04 | 0 | 1.38E-04 | 0.001043607 | 0.025311181 | 0.1162732 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDA | 0 | 57.991275 | 1268.201778 | 0.001040021 | 0 | 2.02E-04 | 0.001242188 | 0.029052816 | 0.1334614 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0.149498212 | 2.72E-06 | 0 | 0 | 2.72E-06 | 4.18E-06 | 1.92E-05 |
| Los Angele | 2022 | Annual | LDA | 0 | 54.504207 | 1214.322167 | 0.001328954 | 0 | 3.00E-04 | 0.001629073 | 0.027784269 | 0.127634 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 5.200128699 | 9.27E-05 | 0 | 0 | 9.27E-05 | 1.46E-04 | 6.69E-04 |
| Los Angele | 2022 | Annual | LDA | 0 | 72.1355864 | 1636.698476 | 0.001857744 | 0 | 5.08E-04 | 0.002365574 | 0.03884184 | 0.1784298 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 9.415996644 | 1.70E-04 | 0 | 0 | 1.70E-04 | 2.73E-04 | 0.001254495 |
| Los Angele | 2022 | Annual | LDA | 0 | 67.74978492 | 1570.166841 | 0.003016672 | 0 | 0.001001797 | 0.004018469 | 0.04204797 | 0.1931579 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 8.030652104 | 1.59E-04 | 0 | 0 | 1.59E-04 | 2.63E-04 | 0.001206166 |
| Los Angele | 2022 | Annual | LDA | 0 | 65.25238249 | 1544.730081 | 0.004538768 | 0 | 0.001555419 | 0.006094187 | 0.047449905 | 0.2179731 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDT1 | 0.02927605 | 6.73E-04 | 0 | 2.46E-04 | 9.18E-04 | 0.001264191 | 0.009955502 | 0.012138047 | 0.002729698 |
| Los Angele | 2021 | Annual | LDT1 | 7.11E-05 | 5.92E-06 | 0 | 0 | 5.92E-06 | 2.89E-06 | 2.28E-05 | 3.16E-05 | 4.38E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0.030762694 | 9.32E-04 | 0 | 3.53E-04 | 0.001285057 | 0.001312969 | 0.010339633 | 0.012937659 | 0.00283553 |
| Los Angele | 2021 | Annual | LDT1 | 6.99E-05 | 5.60E-06 | 0 | 0 | 5.60E-06 | 2.85E-06 | 2.24E-05 | 3.09E-05 | 4.32E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0.033582466 | 0.001256955 | 0 | 4.79E-04 | 0.001736113 | 0.001417266 | 0.011160966 | 0.014314344 | 0.003060939 |
| Los Angele | 2021 | Annual | LDT1 | 7.29E-05 | 5.61E-06 | 0 | 0 | 5.61E-06 | 2.99E-06 | 2.35E-05 | 3.21E-05 | 4.53E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0.03514098 | 0.001500283 | 0 | 5.65E-04 | 0.002065343 | 0.001471062 | 0.011584608 | 0.015121012 | 0.003177406 |
| Los Angele | 2021 | Annual | LDT1 | 9.21E-05 | 6.77E-06 | 0 | 0 | 6.77E-06 | 3.79E-06 | 2.98E-05 | 4.04E-05 | 5.74E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0.037320075 | 0.001723228 | 0 | 6.32E-04 | 0.002355073 | 0.001554495 | 0.012241649 | 0.016151217 | 0.003357763 |
| Los Angele | 2021 | Annual | LDT1 | 6.53E-05 | 4.56E-06 | 0 | 0 | 4.56E-06 | 2.70E-06 | 2.13E-05 | 2.85E-05 | 4.09E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0.039188162 | 0.00187783 | 0 | 6.63E-04 | 0.002540926 | 0.001629033 | 0.012828632 | 0.01699859 | 0.003518754 |
| Los Angele | 2021 | Annual | LDT1 | 7.07E-05 | 4.66E-06 | 0 | 0 | 4.66E-06 | 2.93E-06 | 2.31E-05 | 3.07E-05 | 4.45E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0.041367168 | 0.001983919 | 0 | 6.69E-04 | 0.002653001 | 0.00172102 | 0.013553031 | 0.017927052 | 0.003718226 |
| Los Angele | 2021 | Annual | LDT1 | 8.38E-05 | 5.17E-06 | 0 | 0 | 5.17E-06 | 3.50E-06 | 2.75E-05 | 3.62E-05 | 5.30E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0.045460675 | 0.002182536 | 0 | 6.89E-04 | 0.002871764 | 0.001893432 | 0.014910778 | 0.019675974 | 0.004091274 |
| Los Angele | 2021 | Annual | LDT1 | 7.50E-05 | 4.29E-06 | 0 | 0 | 4.29E-06 | 3.15E-06 | 2.48E-05 | 3.22E-05 | 4.77E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0.052554907 | 0.002527331 | 0 | 7.19E-04 | 0.003246346 | 0.00219245 | 0.017265541 | 0.022704337 | 0.004738582 |
| Los Angele | 2021 | Annual | LDT1 | 6.21E-05 | 3.24E-06 | 0 | 0 | 3.24E-06 | 2.62E-06 | 2.06E-05 | 2.65E-05 | 3.97E-06 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.007717761 | 0.002316771 | 7.11E-06 | 0 | 0.002323876 | 1.09E-04 | 0.002037477 | 0.004470777 | 4.04E-04 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.003907713 | 0.001151008 | 3.37E-06 | 0 | 0.001154381 | 5.59E-05 | 0.001041126 | 0.002251421 | 2.06E-04 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.002478832 | 7.14E-04 | 1.95E-06 | 0 | 7.16E-04 | 3.58E-05 | 6.67E-04 | 0.001419404 | 1.32E-04 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.005113779 | 0.001437553 | 4.87E-06 | 0 | 0.001442424 | 7.47E-05 | 0.001391566 | 0.002908725 | 2.66E-04 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.004978026 | 0.00136139 | 3.80E-06 | 0 | 0.001365194 | 7.36E-05 | 0.001371234 | 0.002810072 | 2.63E-04 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.005165591 | 0.001369492 | 3.48E-06 | 0 | 0.001372976 | 7.74E-05 | 0.001441523 | 0.002891917 | 2.76E-04 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.006101627 | 0.001334886 | 5.47E-06 | 0 | 0.001340357 | 9.79E-05 | 0.001822776 | 0.003261026 | 3.48E-04 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.012041441 | 0.002544082 | 1.18E-05 | 0 | 0.002555882 | 1.95E-04 | 0.003635299 | 0.006386417 | 6.94E-04 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.008495642 | 0.001726325 | 6.35E-06 | 0 | 0.001732677 | 1.39E-04 | 0.002594934 | 0.004466974 | 4.96E-04 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.012848421 | 0.002497051 | 1.09E-05 | 0 | 0.002507946 | 2.13E-04 | 0.003972438 | 0.006693727 | 7.59E-04 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.008897042 | 0.001644468 | 5.07E-06 | 0 | 0.001649539 | 1.50E-04 | 0.002787924 | 0.00458719 | 5.33E-04 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.009322976 | 0.001627111 | 5.20E-06 | 0 | 0.001632313 | 1.59E-04 | 0.002962425 | 0.004753838 | 5.66E-04 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.009825342 | 0.001606838 | 5.46E-06 | 0 | 0.001612297 | 1.70E-04 | 0.003168112 | 0.004950555 | 6.05E-04 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.010437088 | 0.001586505 | 5.91E-06 | 0 | 0.001592418 | 1.83E-04 | 0.003416666 | 0.005192579 | 6.53E-04 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.009060966 | 0.001270059 | 5.21E-06 | 0 | 0.001275271 | 1.62E-04 | 0.003011904 | 0.004448931 | 5.75E-04 |
| Los Angele | 2021 | Annual | T6 instate heavy | 9.19E-04 | 1.17E-04 | 1.29E-06 | 0 | 1.19E-04 | 1.66E-05 | 3.10E-04 | 4.45E-04 | 5.92E-05 |
| Los Angele | 2021 | Annual | LDA/LDT1 | 6.056271153 | 0.210401769 | 0 | 0.072630648 | 0.283032417 | 0.25703735 | 2.024169308 | 2.564239075 | 0.483552783 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.117311091 | 0.024305403 | 8.72477E-05 | 0 | 0.024392651 | 0.001913672 | 0.035632566 | 0.061938888 | 0.006834251 |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | LDA | 0.142627988 | 8.40E-04 | 0 | 1.28E-04 | 9.68E-04 | 0.006327795 | 0.049831394 | 0.057127485 | 0.011732745 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDA | 0.163756404 | 9.65E-04 | 0 | 1.88E-04 | 0.001152546 | 0.007263204 | 0.057197742 | 0.065613492 | 0.013466519 |
| Los Angele | 2022 | Annual | LDA | 2.61E-05 | 2.50E-06 | 0 | 0 | 2.50E-06 | 1.05E-06 | 8.24E-06 | 1.18E-05 | 1.59E-06 |
| Los Angele | 2022 | Annual | LDA | 0.157047342 | 0.00123305 | 0 | 2.78E-04 | 0.001511511 | 0.006946067 | 0.054700285 | 0.063157863 | 0.012905297 |
| Los Angele | 2022 | Annual | LDA | 9.07E-04 | 8.53E-05 | 0 | 0 | 8.53E-05 | 3.64E-05 | 2.87E-04 | 4.08E-04 | 5.52E-05 |
| Los Angele | 2022 | Annual | LDA | 0.219637214 | 0.00172368 | 0 | 4.71E-04 | 0.002194862 | 0.00971046 | 0.076469883 | 0.088375205 | 0.018038917 |
| Los Angele | 2022 | Annual | LDA | 0.001697407 | 1.56E-04 | 0 | 0 | 1.56E-04 | 6.83E-05 | 5.38E-04 | 7.62E-04 | 1.04E-04 |
| Los Angele | 2022 | Annual | LDA | 0.239224339 | 0.002798975 | 0 | 9.30E-04 | 0.003728477 | 0.010511992 | 0.082781956 | 0.097022425 | 0.019527338 |
| Los Angele | 2022 | Annual | LDA | 0.001627744 | 1.46E-04 | 0 | 0 | 1.46E-04 | 6.56E-05 | 5.17E-04 | 7.29E-04 | 9.95E-05 |
| Los Angele | 2022 | Annual | LDA | 0.271517192 | 0.004211227 | 0 | 0.001443172 | 0.005654399 | 0.011862476 | 0.093417019 | 0.110933894 | 0.02203393 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDT1 | 0 | 1.04E-04 | 0.002834006 | 30.22879 | 0 | 1.54E-04 | 1.86E-03 | 1.55E-04 | 3.45E-06 | 9.87E-05 | 3.20E-06 | 3.91E-05 | 9.88E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 4.38E-06 | 0 | 0.041324083 | 1.91E-05 | 1.78E-04 | 5.93E-04 | 9.81E-06 | 9.87E-05 | 9.02E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 1.06E-04 | 0.002941574 | 31.37616 | 0 | 1.33E-04 | 1.79E-03 | 1.51E-04 | 4.65E-06 | 9.87E-05 | 4.32E-06 | 3.91E-05 | 9.88E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 4.32E-06 | 0 | 0.040740985 | 1.83E-05 | 1.70E-04 | 5.70E-04 | 9.42E-06 | 9.87E-05 | 8.67E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 1.12E-04 | 0.003172502 | 33.83934 | 0 | 1.06E-04 | 1.70E-03 | 1.46E-04 | 5.82E-06 | 9.87E-05 | 5.40E-06 | 3.91E-05 | 9.87E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 4.53E-06 | 0 | 0.042673472 | 1.74E-05 | 1.62E-04 | 5.45E-04 | 9.01E-06 | 9.87E-05 | 8.29E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 1.13E-04 | 0.003290009 | 35.09273 | 0 | 9.25E-05 | 1.58E-03 | 1.35E-04 | 6.67E-06 | 9.87E-05 | 6.19E-06 | 3.91E-05 | 9.86E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 5.74E-06 | 0 | 0.054125577 | 1.65E-05 | 1.53E-04 | 5.17E-04 | 8.56E-06 | 9.87E-05 | 7.88E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 1.15E-04 | 0.003472698 | 37.04137 | 0 | 7.95E-05 | 1.38E-03 | 1.27E-04 | 7.20E-06 | 9.87E-05 | 6.68E-06 | 3.91E-05 | 9.85E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 4.09E-06 | 0 | 0.038570222 | 1.55E-05 | 1.43E-04 | 4.89E-04 | 8.09E-06 | 9.87E-05 | 7.45E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 1.15E-04 | 0.003634248 | 38.76453 | 0 | 6.98E-05 | 1.25E-03 | 1.16E-04 | 7.41E-06 | 9.87E-05 | 6.88E-06 | 3.91E-05 | 9.84E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 4.45E-06 | 0 | 0.041930355 | 1.45E-05 | 1.34E-04 | 4.59E-04 | 7.61E-06 | 9.87E-05 | 7.00E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 1.16E-04 | 0.00383432 | 40.89859 | 0 | 6.20E-05 | 1.16E-03 | 1.07E-04 | 7.33E-06 | 9.87E-05 | 6.80E-06 | 3.91E-05 | 9.82E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 5.30E-06 | 0 | 0.049971156 | 1.34E-05 | 1.23E-04 | 4.27E-04 | 7.08E-06 | 9.87E-05 | 6.52E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 1.19E-04 | 0.00421077 | 44.91397 | 0 | 5.46E-05 | 1.07E-03 | 9.84E-05 | 7.21E-06 | 9.87E-05 | 6.69E-06 | 3.91E-05 | 9.81E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 4.77E-06 | 0 | 0.044961758 | 1.22E-05 | 1.12E-04 | 3.94E-04 | 6.53E-06 | 9.87E-05 | 6.01E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 1.25E-04 | 0.004863158 | 51.87264 | 0 | 4.65E-05 | 9.92E-04 | 8.93E-05 | 7.04E-06 | 9.87E-05 | 6.53E-06 | 3.91E-05 | 9.78E-06 |
| Los Angele | 2021 | Annual | LDT1 | 0 | 0 | 3.97E-06 | 0 | 0.037394255 | 1.09E-05 | 9.99E-05 | 3.58E-04 | 5.94E-06 | 9.87E-05 | 5.46E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2021 | Annual | T6 instate heavy | 6.23E-06 | 0 | 4.10E-04 | 0 | 3.865678059 | 5.28E-04 | 2.31E-03 | 1.13E-02 | 1.53E-04 | 3.14E-04 | 1.40E-04 | 1.30E-04 | 2.48E-05 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.96E-06 | 0 | 2.09E-04 | 0 | 1.973182689 | 5.12E-04 | 2.23E-03 | 1.04E-02 | 1.48E-04 | 3.14E-04 | 1.37E-04 | 1.30E-04 | 2.47E-05 |
| Los Angele | 2021 | Annual | T6 instate heavy | 1.71E-06 | 0 | 1.34E-04 | 0 | 1.262789947 | 4.95E-04 | 2.15E-03 | 9.19E-03 | 1.44E-04 | 3.14E-04 | 1.32E-04 | 1.30E-04 | 2.47E-05 |
| Los Angele | 2021 | Annual | T6 instate heavy | 4.27E-06 | 0 | 2.71E-04 | 0 | 2.55347793 | 2.96E-04 | 1.33E-03 | 4.21E-03 | 1.39E-04 | 3.14E-04 | 1.28E-04 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2021 | Annual | T6 instate heavy | 3.34E-06 | 0 | 2.66E-04 | 0 | 2.507928203 | 2.84E-04 | 1.26E-03 | 3.78E-03 | 1.33E-04 | 3.14E-04 | 1.23E-04 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2021 | Annual | T6 instate heavy | 3.06E-06 | 0 | 2.79E-04 | 0 | 2.632214489 | 2.73E-04 | 1.21E-03 | 3.26E-03 | 1.27E-04 | 3.14E-04 | 1.17E-04 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2021 | Annual | T6 instate heavy | 4.80E-06 | 0 | 3.53E-04 | 0 | 3.32962753 | 2.22E-04 | 1.01E-03 | 2.70E-03 | 9.84E-05 | 3.14E-04 | 9.06E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2021 | Annual | T6 instate heavy | 1.04E-05 | 0 | 7.05E-04 | 0 | 6.647882673 | 2.15E-04 | 9.85E-04 | 2.58E-03 | 9.41E-05 | 3.14E-04 | 8.66E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2021 | Annual | T6 instate heavy | 5.57E-06 | 0 | 5.01E-04 | 0 | 4.728224976 | 2.05E-04 | 9.22E-04 | 2.40E-03 | 8.94E-05 | 3.14E-04 | 8.22E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2021 | Annual | T6 instate heavy | 9.56E-06 | 0 | 7.68E-04 | 0 | 7.247861597 | 1.98E-04 | 8.98E-04 | 2.26E-03 | 8.45E-05 | 3.14E-04 | 7.77E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2021 | Annual | T6 instate heavy | 4.45E-06 | 0 | 5.37E-04 | 0 | 5.065354609 | 1.86E-04 | 8.27E-04 | 2.05E-03 | 7.92E-05 | 3.14E-04 | 7.29E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2021 | Annual | T6 instate heavy | 4.56E-06 | 0 | 5.70E-04 | 0 | 5.38086518 | 1.77E-04 | 7.86E-04 | 1.88E-03 | 7.38E-05 | 3.14E-04 | 6.79E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2021 | Annual | T6 instate heavy | 4.79E-06 | 0 | 6.10E-04 | 0 | 5.753611671 | 1.67E-04 | 7.45E-04 | 1.71E-03 | 6.81E-05 | 3.14E-04 | 6.27E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2021 | Annual | T6 instate heavy | 5.19E-06 | 0 | 6.58E-04 | 0 | 6.205215784 | 1.57E-04 | 7.04E-04 | 1.54E-03 | 6.24E-05 | 3.14E-04 | 5.74E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2021 | Annual | T6 instate heavy | 4.57E-06 | 0 | 5.80E-04 | 0 | 5.47009743 | 1.48E-04 | 6.64E-04 | 1.36E-03 | 5.67E-05 | 3.14E-04 | 5.21E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2021 | Annual | T6 instate heavy | 1.13E-06 | 0 | 6.03E-05 | 0 | 0.569093377 | 1.46E-04 | 7.15E-04 | 1.32E-03 | 5.13E-05 | 3.14E-04 | 4.72E-05 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2021 | Annual | LDA/LDT1 | 0 | 0.017850109 | 0.501402892 | 5334.76232 | 11.86811551 | 1.19E-04 | 1.54E-03 | 1.32E-04 | 5.23E-06 | 9.87E-05 | 4.86E-06 | 3.91E-05 | 8.60E-06 |
| Los Angele | 2021 | Annual | T6 instate heavy | 7.65568E-05 | 0 | 0.006910808 | 0 | 65.19310614 | 2.31E-04 | 1.03E-03 | 3.14E-03 | 9.16E-05 | 3.14E-04 | 8.43E-05 | 1.30E-04 | 2.39E-05 |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | LDA | 0 | 5.85E-04 | 0.012317847 | 131.3877 | 0 | 3.08E-04 | 2.39E-03 | 1.57E-04 | 7.27E-07 | 9.87E-05 | 6.75E-07 | 3.91E-05 | 8.58E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2022 | Annual | LDA | 0 | 6.59E-04 | 0.014125163 | 150.6654 | 0 | 2.76E-04 | 2.16E-03 | 1.52E-04 | 7.54E-07 | 9.87E-05 | 7.00E-07 | 3.91E-05 | 8.57E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 1.59E-06 | 0 | 0.014949822 | 1.91E-05 | 1.80E-04 | 5.80E-04 | 1.15E-05 | 9.87E-05 | 1.06E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 6.19E-04 | 0.01352406 | 144.2537 | 0 | 2.52E-04 | 2.13E-03 | 1.59E-04 | 1.03E-06 | 9.87E-05 | 9.59E-07 | 3.91E-05 | 8.58E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 5.52E-05 | 0 | 0.5200129 | 1.87E-05 | 1.75E-04 | 5.67E-04 | 1.12E-05 | 9.87E-05 | 1.03E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 8.48E-04 | 0.018886864 | 201.4559 | 0 | 2.28E-04 | 2.06E-03 | 1.64E-04 | 1.07E-06 | 9.87E-05 | 9.97E-07 | 3.91E-05 | 8.58E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 1.04E-04 | 0 | 0.975751 | 1.82E-05 | 1.71E-04 | 5.54E-04 | 1.10E-05 | 9.87E-05 | 1.01E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 8.97E-04 | 0.020424837 | 217.8606 | 0 | 2.06E-04 | 2.02E-03 | 1.62E-04 | 1.69E-06 | 9.87E-05 | 1.56E-06 | 3.91E-05 | 8.57E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 9.95E-05 | 0 | 0.9381604 | 1.77E-05 | 1.66E-04 | 5.39E-04 | 1.07E-05 | 9.87E-05 | 9.83E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 9.90E-04 | 0.023024077 | 245.5852 | 0 | 1.85E-04 | 1.97E-03 | 1.61E-04 | 2.27E-06 | 9.87E-05 | 2.10E-06 | 3.91E-05 | 8.56E-06 |

| | | | | |
|---|---|---|---|---|
| Los Angele | 2021 | Annual | LDT1 | 3.23E-04 |
| Los Angele | 2021 | Annual | LDT1 | 2.29E-04 |
| Los Angele | 2021 | Annual | LDT1 | 3.16E-04 |
| Los Angele | 2021 | Annual | LDT1 | 2.24E-04 |
| Los Angele | 2021 | Annual | LDT1 | 3.03E-04 |
| Los Angele | 2021 | Annual | LDT1 | 2.15E-04 |
| Los Angele | 2021 | Annual | LDT1 | 2.91E-04 |
| Los Angele | 2021 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2021 | Annual | LDT1 | 2.91E-04 |
| Los Angele | 2021 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2021 | Annual | LDT1 | 2.91E-04 |
| Los Angele | 2021 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2021 | Annual | LDT1 | 2.90E-04 |
| Los Angele | 2021 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2021 | Annual | LDT1 | 2.90E-04 |
| Los Angele | 2021 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2021 | Annual | LDT1 | 2.89E-04 |
| Los Angele | 2021 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2021 | Annual | T6 instate heavy | 1.17E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 1.17E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 1.17E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2021 | Annual | LDA/LDT1 | 2.83E-04 |
| Los Angele | 2021 | Annual | T6 instate heavy | 1.13E-03 |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2022 | Annual | LDA | 3.85E-04 |
| Los Angele | 2022 | Annual | LDA | |
| Los Angele | 2022 | Annual | LDA | 3.85E-04 |
| Los Angele | 2022 | Annual | LDA | 3.15E-04 |
| Los Angele | 2022 | Annual | LDA | 3.85E-04 |
| Los Angele | 2022 | Annual | LDA | 3.15E-04 |
| Los Angele | 2022 | Annual | LDA | 3.72E-04 |
| Los Angele | 2022 | Annual | LDA | 3.04E-04 |
| Los Angele | 2022 | Annual | LDA | 3.29E-04 |
| Los Angele | 2022 | Annual | LDA | 2.70E-04 |
| Los Angele | 2022 | Annual | LDA | 2.87E-04 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | LDA | DSL | 2012 | AllSpeeds | 1001.578 | 28694.20129 | 6319.323 | 2.46E-04 | 0 | 0 | 2.46E-04 |
| Los Angele | 2022 | Annual | LDA | GAS | 2013 | AllSpeeds | 194449.3 | 5752344.373 | 1234630 | 0.073502022 | 0 | 0.070114143 | 0.143616165 |
| Los Angele | 2022 | Annual | LDA | DSL | 2013 | AllSpeeds | 953.8389 | 28217.23264 | 6056.271 | 2.34E-04 | 0 | 0 | 2.34E-04 |
| Los Angele | 2022 | Annual | LDA | GAS | 2014 | AllSpeeds | 204716.2 | 6267297.885 | 1308006 | 0.078258469 | 0 | 0.072641455 | 0.150899924 |
| Los Angele | 2022 | Annual | LDA | DSL | 2014 | AllSpeeds | 855.2057 | 26181.80718 | 5464.218 | 2.09E-04 | 0 | 0 | 2.09E-04 |
| Los Angele | 2022 | Annual | LDA | GAS | 2015 | AllSpeeds | 216857.6 | 6889638.03 | 1392086 | 0.083716749 | 0 | 0.075272955 | 0.158989704 |
| Los Angele | 2022 | Annual | LDA | DSL | 2015 | AllSpeeds | 857.937 | 27257.01651 | 5507.405 | 2.08E-04 | 0 | 0 | 2.08E-04 |
| Los Angele | 2022 | Annual | LDA | GAS | 2016 | AllSpeeds | 222940.5 | 7373326.097 | 1435594 | 0.086910153 | 0 | 0.075332612 | 0.162242765 |
| Los Angele | 2022 | Annual | LDA | DSL | 2016 | AllSpeeds | 758.2899 | 25079.03563 | 4882.898 | 1.83E-04 | 0 | 0 | 1.83E-04 |
| Los Angele | 2022 | Annual | LDA | GAS | 2017 | AllSpeeds | 232685.5 | 8047034.43 | 1505324 | 0.089932595 | 0 | 0.075455293 | 0.165387888 |
| Los Angele | 2022 | Annual | LDA | DSL | 2017 | AllSpeeds | 739.0627 | 25559.31024 | 4781.257 | 1.76E-04 | 0 | 0 | 1.76E-04 |
| Los Angele | 2022 | Annual | LDA | GAS | 2018 | AllSpeeds | 236504.6 | 8601053.404 | 1534761 | 0.086336401 | 0 | 0.070904307 | 0.157240708 |
| Los Angele | 2022 | Annual | LDA | DSL | 2018 | AllSpeeds | 684.072 | 24877.99451 | 4439.183 | 1.62E-04 | 0 | 0 | 1.62E-04 |
| Los Angele | 2022 | Annual | LDA | GAS | 2019 | AllSpeeds | 239486.2 | 9231993.078 | 1556504 | 0.086407376 | 0 | 0.067457847 | 0.153865223 |
| Los Angele | 2022 | Annual | LDA | DSL | 2019 | AllSpeeds | 653.5639 | 25194.43498 | 4247.741 | 1.53E-04 | 0 | 0 | 1.53E-04 |
| Los Angele | 2022 | Annual | LDA | GAS | 2020 | AllSpeeds | 242033.6 | 1.00E+07 | 1577901 | 0.08875332 | 0 | 0.064417273 | 0.153170593 |
| Los Angele | 2022 | Annual | LDA | DSL | 2020 | AllSpeeds | 594.3916 | 24587.14151 | 3875.046 | 1.38E-04 | 0 | 0 | 1.38E-04 |
| Los Angele | 2022 | Annual | LDA | GAS | 2021 | AllSpeeds | 233684.1 | 1.06E+07 | 1528142 | 0.088104321 | 0 | 0.057968374 | 0.146072695 |
| Los Angele | 2022 | Annual | LDA | DSL | 2021 | AllSpeeds | 527.5645 | 23916.60464 | 3449.926 | 1.23E-04 | 0 | 0 | 1.23E-04 |
| Los Angele | 2022 | Annual | LDA | GAS | 2022 | AllSpeeds | 236051.5 | 1.23E+07 | 1548343 | 0.093417277 | 0 | 0.052817658 | 0.146234935 |
| Los Angele | 2022 | Annual | LDA | DSL | 2022 | AllSpeeds | 506.1973 | 26383.79048 | 3320.322 | 1.22E-04 | 0 | 0 | 1.22E-04 |
| Los Angele | 2022 | Annual | LDT1 | GAS | 2007 | AllSpeeds | 7807.61 | 232500.3069 | 47465.52 | 0.003419761 | 0 | 0.003242677 | 0.006662438 |
| Los Angele | 2022 | Annual | LDT1 | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDT1 | GAS | 2008 | AllSpeeds | 16341.84 | 494361.3879 | 100165.5 | 0.006730143 | 0 | 0.006091053 | 0.012821196 |
| Los Angele | 2022 | Annual | LDT1 | DSL | 2008 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDT1 | GAS | 2009 | AllSpeeds | 14923.73 | 459078.6291 | 92070.2 | 0.006302887 | 0 | 0.005617912 | 0.011920799 |
| Los Angele | 2022 | Annual | LDT1 | DSL | 2009 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDT1 | GAS | 2010 | AllSpeeds | 16791.44 | 525773.9248 | 104432.3 | 0.007267419 | 0 | 0.006376455 | 0.013643873 |
| Los Angele | 2022 | Annual | LDT1 | DSL | 2010 | AllSpeeds | 26.33161 | 824.4981975 | 163.7662 | 9.02E-06 | 0 | 0 | 9.02E-06 |
| Los Angele | 2022 | Annual | LDT1 | GAS | 2011 | AllSpeeds | 16135.91 | 514828.7779 | 101000.7 | 0.006989646 | 0 | 0.006065908 | 0.013055555 |
| Los Angele | 2022 | Annual | LDT1 | DSL | 2011 | AllSpeeds | 37.48836 | 1196.098831 | 234.6536 | 1.27E-05 | 0 | 0 | 1.27E-05 |
| Los Angele | 2022 | Annual | LDT1 | GAS | 2012 | AllSpeeds | 15855.1 | 516013.5378 | 100035.7 | 0.00686653 | 0 | 0.005896795 | 0.012763325 |
| Los Angele | 2022 | Annual | LDT1 | DSL | 2012 | AllSpeeds | 27.74826 | 903.0869682 | 175.074 | 9.29E-06 | 0 | 0 | 9.29E-06 |
| Los Angele | 2022 | Annual | LDT1 | GAS | 2013 | AllSpeeds | 16337.61 | 543253.4002 | 103733.5 | 0.007062725 | 0 | 0.005981851 | 0.013044576 |
| Los Angele | 2022 | Annual | LDT1 | DSL | 2013 | AllSpeeds | 37.30425 | 1240.435116 | 236.8583 | 1.23E-05 | 0 | 0 | 1.23E-05 |
| Los Angele | 2022 | Annual | LDT1 | GAS | 2014 | AllSpeeds | 16629.9 | 565961.3684 | 106254.4 | 0.007167433 | 0 | 0.005975511 | 0.013142944 |
| Los Angele | 2022 | Annual | LDT1 | DSL | 2014 | AllSpeeds | 35.39782 | 1204.690857 | 226.1695 | 1.15E-05 | 0 | 0 | 1.15E-05 |
| Los Angele | 2022 | Annual | LDT1 | GAS | 2015 | AllSpeeds | 17553.29 | 612716.3158 | 112680.9 | 0.007535368 | 0 | 0.00615689 | 0.013692258 |
| Los Angele | 2022 | Annual | LDT1 | DSL | 2015 | AllSpeeds | 36.94816 | 1289.721344 | 237.1835 | 1.18E-05 | 0 | 0 | 1.18E-05 |
| Los Angele | 2022 | Annual | LDT1 | GAS | 2016 | AllSpeeds | 17674.44 | 634366.2848 | 113812 | 0.007546916 | 0 | 0.00601948 | 0.013566395 |
| Los Angele | 2022 | Annual | LDT1 | DSL | 2016 | AllSpeeds | 46.14689 | 1656.30019 | 297.1562 | 1.44E-05 | 0 | 0 | 1.44E-05 |
| Los Angele | 2022 | Annual | LDT1 | GAS | 2017 | AllSpeeds | 18061.73 | 668881.8028 | 116847.7 | 0.007522295 | 0 | 0.005887159 | 0.013409454 |
| Los Angele | 2022 | Annual | LDT1 | DSL | 2017 | AllSpeeds | 30.96684 | 1146.803814 | 200.3354 | 9.45E-06 | 0 | 0 | 9.45E-06 |
| Los Angele | 2022 | Annual | LDT1 | GAS | 2018 | AllSpeeds | 18163.91 | 697113.5347 | 117872 | 0.006994456 | 0 | 0.005445193 | 0.012439649 |
| Los Angele | 2022 | Annual | LDT1 | DSL | 2018 | AllSpeeds | 33.24561 | 1275.942202 | 215.7424 | 9.88E-06 | 0 | 0 | 9.88E-06 |
| Los Angele | 2022 | Annual | LDT1 | GAS | 2019 | AllSpeeds | 18245.55 | 730326.4594 | 118584.2 | 0.006819066 | 0 | 0.005129122 | 0.011948188 |
| Los Angele | 2022 | Annual | LDT1 | DSL | 2019 | AllSpeeds | 37.61664 | 1505.714634 | 244.4837 | 1.09E-05 | 0 | 0 | 1.09E-05 |
| Los Angele | 2022 | Annual | LDT1 | GAS | 2020 | AllSpeeds | 18619.89 | 785022.9229 | 121389.6 | 0.006933938 | 0 | 0.004938824 | 0.011872762 |
| Los Angele | 2022 | Annual | LDT1 | DSL | 2020 | AllSpeeds | 31.59509 | 1332.071099 | 205.9794 | 8.90E-06 | 0 | 0 | 8.90E-06 |
| Los Angele | 2022 | Annual | LDT1 | GAS | 2021 | AllSpeeds | 19776.72 | 893189.6105 | 129326.8 | 0.007392924 | 0 | 0.004882425 | 0.012275349 |
| Los Angele | 2022 | Annual | LDT1 | DSL | 2021 | AllSpeeds | 23.60095 | 1065.91224 | 154.3348 | 6.50E-06 | 0 | 0 | 6.50E-06 |
| Los Angele | 2022 | Annual | LDT1 | GAS | 2022 | AllSpeeds | 19993.03 | 1005355.92 | 131141.2 | 0.007590001 | 0 | 0.004447184 | 0.012037185 |
| Los Angele | 2022 | Annual | LDT1 | DSL | 2022 | AllSpeeds | 19.83228 | 997.2778776 | 130.0867 | 5.46E-06 | 0 | 0 | 5.46E-06 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2007 | AllSpeeds | 748.2822263 | 27038.7271 | 0 | 0.007159793 | 1.73E-04 | 0 | 0.007332934 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2008 | AllSpeeds | 641.662506 | 26481.90647 | 0 | 0.006842369 | 1.48E-04 | 0 | 0.006990839 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2009 | AllSpeeds | 213.6689477 | 9835.394378 | 0 | 0.002468489 | 4.94E-05 | 0 | 0.002517928 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 2.46E-04 | 2.80E-04 | 0 | 0 | 2.80E-04 |
| Los Angele | 2022 | Annual | LDA | 0.018759759 | 0.065063894 | 0.2351159 | 0.021131329 | 0.483687047 | 0.136796557 | 0 | 0.074860275 | 0.211656832 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 2.34E-04 | 2.66E-04 | 0 | 0 | 2.66E-04 |
| Los Angele | 2022 | Annual | LDA | 0.017150322 | 0.057057563 | 0.231968 | 0.018734159 | 0.475809968 | 0.145648926 | 0 | 0.077558659 | 0.223207585 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 2.09E-04 | 2.37E-04 | 0 | 0 | 2.37E-04 |
| Los Angele | 2022 | Annual | LDA | 0.014976736 | 0.046443559 | 0.2211443 | 0.01567539 | 0.457229689 | 0.155807467 | 0 | 0.080368318 | 0.236175785 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 2.08E-04 | 2.37E-04 | 0 | 0 | 2.37E-04 |
| Los Angele | 2022 | Annual | LDA | 0.012447125 | 0.034642473 | 0.1897912 | 0.012432911 | 0.411556474 | 0.161750793 | 0 | 0.080431998 | 0.242182791 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 1.83E-04 | 2.08E-04 | 0 | 0 | 2.08E-04 |
| Los Angele | 2022 | Annual | LDA | 0.010780992 | 0.026320459 | 0.1823815 | 0.009979532 | 0.394850372 | 0.167375938 | 0 | 0.080562986 | 0.247938924 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 1.76E-04 | 2.01E-04 | 0 | 0 | 2.01E-04 |
| Los Angele | 2022 | Annual | LDA | 0.009202129 | 0.019079201 | 0.171795 | 0.007815851 | 0.365132889 | 0.160682972 | 0 | 0.075703919 | 0.236386891 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 1.62E-04 | 1.84E-04 | 0 | 0 | 1.84E-04 |
| Los Angele | 2022 | Annual | LDA | 0.008260255 | 0.014484366 | 0.1634768 | 0.006480184 | 0.346566827 | 0.160815058 | 0 | 0.072024181 | 0.232839239 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 1.53E-04 | 1.74E-04 | 0 | 0 | 1.74E-04 |
| Los Angele | 2022 | Annual | LDA | 0.007624502 | 0.011327391 | 0.15667 | 0.005567996 | 0.334360482 | 0.165181171 | 0 | 0.068777785 | 0.233958956 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 1.38E-04 | 1.58E-04 | 0 | 0 | 1.58E-04 |
| Los Angele | 2022 | Annual | LDA | 0.006893207 | 0.008780396 | 0.144541 | 0.004740931 | 0.311028229 | 0.163973298 | 0 | 0.061892349 | 0.225865647 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 1.23E-04 | 1.40E-04 | 0 | 0 | 1.40E-04 |
| Los Angele | 2022 | Annual | LDA | 0.006648 | 0.007411625 | 0.1401617 | 0.004361749 | 0.304818008 | 0.173861378 | 0 | 0.056392964 | 0.230254342 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 1.22E-04 | 1.39E-04 | 0 | 0 | 1.39E-04 |
| Los Angele | 2022 | Annual | LDT1 | 0.002170686 | 0.006470343 | 0.022124534 | 0.002698055 | 0.040126056 | 0.006364608 | 0 | 0.00346218 | 0.009826788 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDT1 | 0.004050869 | 0.012020748 | 0.041778117 | 0.004987585 | 0.075658515 | 0.012525649 | 0 | 0.006503366 | 0.019029015 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDT1 | 0.003256927 | 0.009574112 | 0.034011871 | 0.003962704 | 0.062726413 | 0.01173047 | 0 | 0.005998198 | 0.017728668 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDT1 | 0.003215002 | 0.009350141 | 0.03420788 | 0.003857551 | 0.064274447 | 0.013525587 | 0 | 0.006808088 | 0.020333675 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.02E-06 | 1.03E-05 | 0 | 0 | 1.03E-05 |
| Los Angele | 2022 | Annual | LDT1 | 0.002687069 | 0.007683775 | 0.029243875 | 0.003169099 | 0.055839373 | 0.013008616 | 0 | 0.006476521 | 0.019485136 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.27E-05 | 1.45E-05 | 0 | 0 | 1.45E-05 |
| Los Angele | 2022 | Annual | LDT1 | 0.00224887 | 0.006284405 | 0.025286479 | 0.002592671 | 0.049175749 | 0.012779482 | 0 | 0.006295959 | 0.01907544 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.29E-06 | 1.06E-05 | 0 | 0 | 1.06E-05 |
| Los Angele | 2022 | Annual | LDT1 | 0.002048067 | 0.00557611 | 0.023821624 | 0.002306982 | 0.046797359 | 0.013144625 | 0 | 0.006386774 | 0.019531399 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.23E-05 | 1.40E-05 | 0 | 0 | 1.40E-05 |
| Los Angele | 2022 | Annual | LDT1 | 0.001810268 | 0.004746981 | 0.021863222 | 0.001977449 | 0.043540863 | 0.013339499 | 0 | 0.006380002 | 0.019719501 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.15E-05 | 1.31E-05 | 0 | 0 | 1.31E-05 |
| Los Angele | 2022 | Annual | LDT1 | 0.001575065 | 0.003871685 | 0.019377846 | 0.001648541 | 0.040165394 | 0.014024273 | 0 | 0.006573659 | 0.020597933 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.18E-05 | 1.34E-05 | 0 | 0 | 1.34E-05 |
| Los Angele | 2022 | Annual | LDT1 | 0.001282119 | 0.002844604 | 0.014687958 | 0.001280654 | 0.03366173 | 0.014045764 | 0 | 0.006426948 | 0.020472712 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.44E-05 | 1.64E-05 | 0 | 0 | 1.64E-05 |
| Los Angele | 2022 | Annual | LDT1 | 0.001087335 | 0.002144416 | 0.013298258 | 0.001006503 | 0.030945966 | 0.013999943 | 0 | 0.00628567 | 0.020285613 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.45E-06 | 1.08E-05 | 0 | 0 | 1.08E-05 |
| Los Angele | 2022 | Annual | LDT1 | 9.18E-04 | 0.001566591 | 0.012008251 | 7.80E-04 | 0.027712577 | 0.013017568 | 0 | 0.005813786 | 0.018831354 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.88E-06 | 1.13E-05 | 0 | 0 | 1.13E-05 |
| Los Angele | 2022 | Annual | LDT1 | 8.18E-04 | 0.001205734 | 0.010860011 | 6.41E-04 | 0.025473094 | 0.012691145 | 0 | 0.005476321 | 0.018167465 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.09E-05 | 1.24E-05 | 0 | 0 | 1.24E-05 |
| Los Angele | 2022 | Annual | LDT1 | 7.62E-04 | 9.76E-04 | 0.010175183 | 5.57E-04 | 0.024342759 | 0.012904937 | 0 | 0.005273141 | 0.018178078 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.90E-06 | 1.01E-05 | 0 | 0 | 1.01E-05 |
| Los Angele | 2022 | Annual | LDT1 | 7.58E-04 | 8.55E-04 | 0.009964739 | 5.21E-04 | 0.024374229 | 0.013759168 | 0 | 0.005212924 | 0.018972092 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 6.50E-06 | 7.40E-06 | 0 | 0 | 7.40E-06 |
| Los Angele | 2022 | Annual | LDT1 | 7.32E-04 | 7.41E-04 | 0.009398608 | 4.80E-04 | 0.023388643 | 0.014125951 | 0 | 0.004748222 | 0.018874174 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 5.46E-06 | 6.21E-06 | 0 | 0 | 6.21E-06 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.007332934 | 0.008150879 | 1.97E-04 | 0 | 0.008347987 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.006990839 | 0.007789516 | 1.69E-04 | 0 | 0.007958539 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002517928 | 0.002810187 | 5.63E-05 | 0 | 0.00286647 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 2.80E-04 | 0.0023063 | 0 | 0 | 0.0023063 |
| Los Angele | 2022 | Annual | LDA | 0.018759759 | 0.065063894 | 0.2351159 | 0.021131329 | 0.551727714 | 4.287291023 | 0 | 1.244675 | 5.531966023 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 2.66E-04 | 0.002188921 | 0 | 0 | 0.002188921 |
| Los Angele | 2022 | Annual | LDA | 0.017150322 | 0.057057563 | 0.231968 | 0.018734159 | 0.548117629 | 4.561539344 | 0 | 1.282285 | 5.843824344 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 2.37E-04 | 0.001953814 | 0 | 0 | 0.001953814 |
| Los Angele | 2022 | Annual | LDA | 0.014976736 | 0.046443559 | 0.2211443 | 0.01567539 | 0.53441577 | 4.877322981 | 0 | 1.31935 | 6.196672981 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 2.37E-04 | 0.00194872 | 0 | 0 | 0.00194872 |
| Los Angele | 2022 | Annual | LDA | 0.012447125 | 0.034642473 | 0.1897912 | 0.012432911 | 0.4914965 | 5.022967201 | 0 | 1.299244 | 6.322211201 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 2.08E-04 | 0.001709674 | 0 | 0 | 0.001709674 |
| Los Angele | 2022 | Annual | LDA | 0.010780992 | 0.026320459 | 0.1823815 | 0.009979532 | 0.477401407 | 5.13406016 | 0 | 1.259832 | 6.39389216 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 2.01E-04 | 0.001648425 | 0 | 0 | 0.001648425 |
| Los Angele | 2022 | Annual | LDA | 0.009202129 | 0.019079201 | 0.171795 | 0.007815851 | 0.444279072 | 4.889977579 | 0 | 1.11421 | 6.004187579 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 1.84E-04 | 0.001508823 | 0 | 0 | 0.001508823 |
| Los Angele | 2022 | Annual | LDA | 0.008260255 | 0.014484366 | 0.1634768 | 0.006480184 | 0.425540843 | 4.81448387 | 0 | 1.015063 | 5.82954687 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 1.74E-04 | 0.001426138 | 0 | 0 | 0.001426138 |
| Los Angele | 2022 | Annual | LDA | 0.007624502 | 0.011327391 | 0.15667 | 0.005567996 | 0.415148845 | 4.878052735 | 0 | 0.9481744 | 5.826227135 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 1.58E-04 | 0.001286377 | 0 | 0 | 0.001286377 |
| Los Angele | 2022 | Annual | LDA | 0.006893207 | 0.008780396 | 0.144541 | 0.004740931 | 0.390821181 | 4.84228938 | 0 | 0.8536201 | 5.69590948 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 1.40E-04 | 0.001141296 | 0 | 0 | 0.001141296 |
| Los Angele | 2022 | Annual | LDA | 0.006648 | 0.007411625 | 0.1401617 | 0.004361749 | 0.388837415 | 5.286878351 | 0 | 0.811218 | 6.098096351 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 0 | 0 | 1.39E-04 | 0.00112514 | 0 | 0 | 0.00112514 |
| Los Angele | 2022 | Annual | LDT1 | 0.002170686 | 0.006470343 | 0.022124534 | 0.002698055 | 0.043290405 | 0.21483827 | 0 | 0.063077047 | 0.277915317 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDT1 | 0.004050869 | 0.012020748 | 0.041778117 | 0.004987585 | 0.081866335 | 0.416131701 | 0 | 0.1180059 | 0.534137601 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDT1 | 0.003256927 | 0.009574112 | 0.034011871 | 0.003962704 | 0.068534282 | 0.378971276 | 0 | 0.1053367 | 0.484307976 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDT1 | 0.003215002 | 0.009350141 | 0.03420788 | 0.003857551 | 0.070964249 | 0.42312777 | 0 | 0.1150632 | 0.53819097 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.03E-05 | 8.43E-05 | 0 | 0 | 8.43E-05 |
| Los Angele | 2022 | Annual | LDT1 | 0.002687069 | 0.007683775 | 0.029243875 | 0.003169099 | 0.062268955 | 0.408187672 | 0 | 0.1094672 | 0.517654872 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.45E-05 | 1.19E-04 | 0 | 0 | 1.19E-04 |
| Los Angele | 2022 | Annual | LDT1 | 0.00224887 | 0.006284405 | 0.025286479 | 0.002592671 | 0.055487864 | 0.401200155 | 0 | 0.1060548 | 0.507254955 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.06E-05 | 8.68E-05 | 0 | 0 | 8.68E-05 |
| Los Angele | 2022 | Annual | LDT1 | 0.002048067 | 0.00557611 | 0.023821624 | 0.002306982 | 0.053284182 | 0.412669905 | 0 | 0.1070721 | 0.519742005 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.40E-05 | 1.15E-04 | 0 | 0 | 1.15E-04 |
| Los Angele | 2022 | Annual | LDT1 | 0.001810268 | 0.004746981 | 0.021863222 | 0.001977449 | 0.050117421 | 0.418876598 | 0 | 0.1063977 | 0.525274298 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.31E-05 | 1.07E-04 | 0 | 0 | 1.07E-04 |
| Los Angele | 2022 | Annual | LDT1 | 0.001575065 | 0.003871685 | 0.019377846 | 0.001648541 | 0.047071069 | 0.439342029 | 0 | 0.1085959 | 0.547937929 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.34E-05 | 1.10E-04 | 0 | 0 | 1.10E-04 |
| Los Angele | 2022 | Annual | LDT1 | 0.001282119 | 0.002844604 | 0.014687958 | 0.001280654 | 0.040568047 | 0.436250157 | 0 | 0.1043423 | 0.540592457 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.64E-05 | 1.34E-04 | 0 | 0 | 1.34E-04 |
| Los Angele | 2022 | Annual | LDT1 | 0.001087335 | 0.002144416 | 0.013298258 | 0.001006503 | 0.037822125 | 0.429259105 | 0 | 0.098655522 | 0.527914627 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.08E-05 | 8.77E-05 | 0 | 0 | 8.77E-05 |
| Los Angele | 2022 | Annual | LDT1 | 9.18E-04 | 0.001566591 | 0.012008251 | 7.80E-04 | 0.034104282 | 0.39597886 | 0 | 0.085612297 | 0.481591157 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.13E-05 | 9.15E-05 | 0 | 0 | 9.15E-05 |
| Los Angele | 2022 | Annual | LDT1 | 8.18E-04 | 0.001205734 | 0.010860011 | 6.41E-04 | 0.031692371 | 0.379610408 | 0 | 0.077139474 | 0.456749882 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.24E-05 | 1.01E-04 | 0 | 0 | 1.01E-04 |
| Los Angele | 2022 | Annual | LDT1 | 7.62E-04 | 9.76E-04 | 0.010175183 | 5.57E-04 | 0.030648074 | 0.380783146 | 0 | 0.07266926 | 0.453452406 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.01E-05 | 8.19E-05 | 0 | 0 | 8.19E-05 |
| Los Angele | 2022 | Annual | LDT1 | 7.58E-04 | 8.55E-04 | 0.009964739 | 5.21E-04 | 0.031070972 | 0.406315142 | 0 | 0.071963266 | 0.478278408 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 7.40E-06 | 5.96E-05 | 0 | 0 | 5.96E-05 |
| Los Angele | 2022 | Annual | LDT1 | 7.32E-04 | 7.41E-04 | 0.009398608 | 4.80E-04 | 0.030225632 | 0.430326148 | 0 | 0.068531282 | 0.49885743 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 6.21E-06 | 4.98E-05 | 0 | 0 | 4.98E-05 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.008347987 | 0.030127905 | 0.002047401 | 0 | 0.032175306 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.007958539 | 0.028792208 | 0.001755675 | 0 | 0.030547882 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00286647 | 0.010387228 | 5.85E-04 | 0 | 0.010971855 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | LDA | 0.007512953 | 0 | 0 | 0.007512953 | 10.04577016 | 0 | 0 | 10.04577016 | 6.753771279 |
| Los Angele | 2022 | Annual | LDA | 0.378614001 | 0 | 0.076804928 | 0.455418929 | 2352.523726 | 0 | 101.1199 | 2453.643626 | 1541.373545 |
| Los Angele | 2022 | Annual | LDA | 0.007153878 | 0 | 0 | 0.007153878 | 9.87878577 | 0 | 0 | 9.87878577 | 6.472580437 |
| Los Angele | 2022 | Annual | LDA | 0.407664754 | 0 | 0.079912797 | 0.487577551 | 2563.021012 | 0 | 107.1253 | 2670.146312 | 1642.383864 |
| Los Angele | 2022 | Annual | LDA | 0.006409071 | 0 | 0 | 0.006409071 | 9.166188598 | 0 | 0 | 9.166188598 | 5.873693654 |
| Los Angele | 2022 | Annual | LDA | 0.441103704 | 0 | 0.082996033 | 0.524099737 | 2818.230819 | 0 | 114.0042 | 2932.235019 | 1732.366485 |
| Los Angele | 2022 | Annual | LDA | 0.006419449 | 0 | 0 | 0.006419449 | 9.542616719 | 0 | 0 | 9.542616719 | 5.865846497 |
| Los Angele | 2022 | Annual | LDA | 0.457458865 | 0 | 0.081780821 | 0.539239686 | 3016.824543 | 0 | 117.5593 | 3134.383843 | 1783.848352 |
| Los Angele | 2022 | Annual | LDA | 0.005659596 | 0 | 0 | 0.005659596 | 8.780110764 | 0 | 0 | 8.780110764 | 5.191679495 |
| Los Angele | 2022 | Annual | LDA | 0.468114261 | 0 | 0.078440189 | 0.54655445 | 3293.40087 | 0 | 123.2656 | 3416.66647 | 1947.387934 |
| Los Angele | 2022 | Annual | LDA | 0.005489501 | 0 | 0 | 0.005489501 | 8.948253569 | 0 | 0 | 8.948253569 | 5.291102335 |
| Los Angele | 2022 | Annual | LDA | 0.474925192 | 0 | 0.073729187 | 0.548654379 | 3521.020961 | 0 | 125.6681 | 3646.689061 | 2081.979694 |
| Los Angele | 2022 | Annual | LDA | 0.005059739 | 0 | 0 | 0.005059739 | 8.709725782 | 0 | 0 | 8.709725782 | 5.150060855 |
| Los Angele | 2022 | Annual | LDA | 0.473562229 | 0 | 0.066374801 | 0.53993703 | 3780.293144 | 0 | 127.4419 | 3907.735044 | 2235.287336 |
| Los Angele | 2022 | Annual | LDA | 0.004822252 | 0 | 0 | 0.004822252 | 8.820511542 | 0 | 0 | 8.820511542 | 5.215568475 |
| Los Angele | 2022 | Annual | LDA | 0.480605819 | 0 | 0.059822191 | 0.54042801 | 4100.791646 | 0 | 129.1916 | 4229.983246 | 2424.7981 |
| Los Angele | 2022 | Annual | LDA | 0.004393774 | 0 | 0 | 0.004393774 | 8.607899279 | 0 | 0 | 8.607899279 | 5.089850844 |
| Los Angele | 2022 | Annual | LDA | 0.473383852 | 0 | 0.050584611 | 0.523968463 | 4340.584457 | 0 | 125.1183 | 4465.702757 | 2566.587589 |
| Los Angele | 2022 | Annual | LDA | 0.003948035 | 0 | 0 | 0.003948035 | 8.373145371 | 0 | 0 | 8.373145371 | 4.951040858 |
| Los Angele | 2022 | Annual | LDA | 0.506984234 | 0 | 0.043452956 | 0.55043719 | 5042.632504 | 0 | 126.7731 | 5169.405604 | 2981.708599 |
| Los Angele | 2022 | Annual | LDA | 0.003958608 | 0 | 0 | 0.003958608 | 9.236902531 | 0 | 0 | 9.236902531 | 5.461780466 |
| Los Angele | 2022 | Annual | LDT1 | 0.015178585 | 0 | 0.00292795 | 0.018106535 | 110.6046928 | 0 | 4.524604 | 115.1292968 | 99.54422355 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDT1 | 0.031360008 | 0 | 0.005931811 | 0.037291819 | 234.9679263 | 0 | 9.539651 | 244.5075773 | 211.4711337 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDT1 | 0.030219442 | 0 | 0.005746368 | 0.03596581 | 218.571258 | 0 | 8.783729 | 227.354987 | 196.7141322 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDT1 | 0.035920067 | 0 | 0.006870331 | 0.042790398 | 250.1710794 | 0 | 9.956934 | 260.1280134 | 217.2735824 |
| Los Angele | 2022 | Annual | LDT1 | 2.77E-04 | 0 | 0 | 2.77E-04 | 0.288654856 | 0 | 0 | 0.288654856 | 0.250696743 |
| Los Angele | 2022 | Annual | LDT1 | 0.034956017 | 0 | 0.006583379 | 0.041539397 | 244.9374745 | 0 | 9.628737 | 254.5662115 | 188.6998304 |
| Los Angele | 2022 | Annual | LDT1 | 3.92E-04 | 0 | 0 | 3.92E-04 | 0.418751352 | 0 | 0 | 0.418751352 | 0.322606042 |
| Los Angele | 2022 | Annual | LDT1 | 0.034761504 | 0 | 0.006443438 | 0.041204942 | 245.4830205 | 0 | 9.536028 | 255.0190485 | 165.0382347 |
| Los Angele | 2022 | Annual | LDT1 | 2.87E-04 | 0 | 0 | 2.87E-04 | 0.316168546 | 0 | 0 | 0.316168546 | 0.212560114 |
| Los Angele | 2022 | Annual | LDT1 | 0.036222671 | 0 | 0.006578554 | 0.042801225 | 258.4098755 | 0 | 9.887295 | 268.2971705 | 169.3101504 |
| Los Angele | 2022 | Annual | LDT1 | 3.82E-04 | 0 | 0 | 3.82E-04 | 0.434273412 | 0 | 0 | 0.434273412 | 0.28453594 |
| Los Angele | 2022 | Annual | LDT1 | 0.037239113 | 0 | 0.006603701 | 0.043842814 | 269.1996132 | 0 | 10.12714 | 279.3267532 | 172.5031122 |
| Los Angele | 2022 | Annual | LDT1 | 3.57E-04 | 0 | 0 | 3.57E-04 | 0.421759388 | 0 | 0 | 0.421759388 | 0.270263416 |
| Los Angele | 2022 | Annual | LDT1 | 0.039581713 | 0 | 0.00680981 | 0.046391524 | 291.4843298 | 0 | 10.73806 | 302.2223898 | 179.1754175 |
| Los Angele | 2022 | Annual | LDT1 | 3.67E-04 | 0 | 0 | 3.67E-04 | 0.451528385 | 0 | 0 | 0.451528385 | 0.277554498 |
| Los Angele | 2022 | Annual | LDT1 | 0.039610695 | 0 | 0.006548519 | 0.046159214 | 301.8585083 | 0 | 10.84526 | 312.7037683 | 178.488936 |
| Los Angele | 2022 | Annual | LDT1 | 4.51E-04 | 0 | 0 | 4.51E-04 | 0.579866784 | 0 | 0 | 0.579866784 | 0.34287523 |
| Los Angele | 2022 | Annual | LDT1 | 0.038962223 | 0 | 0.006106699 | 0.045068923 | 318.3779541 | 0 | 11.1345 | 329.5124541 | 188.2568843 |
| Los Angele | 2022 | Annual | LDT1 | 2.97E-04 | 0 | 0 | 2.97E-04 | 0.401493326 | 0 | 0 | 0.401493326 | 0.237403004 |
| Los Angele | 2022 | Annual | LDT1 | 0.038477316 | 0 | 0.005664051 | 0.044141367 | 331.8703212 | 0 | 11.23054 | 343.1008612 | 196.2349209 |
| Los Angele | 2022 | Annual | LDT1 | 3.12E-04 | 0 | 0 | 3.12E-04 | 0.446704315 | 0 | 0 | 0.446704315 | 0.264136262 |
| Los Angele | 2022 | Annual | LDT1 | 0.037363056 | 0 | 0.005038856 | 0.042401912 | 347.7963952 | 0 | 11.2987 | 359.0950952 | 205.6520085 |
| Los Angele | 2022 | Annual | LDT1 | 3.46E-04 | 0 | 0 | 3.46E-04 | 0.527147061 | 0 | 0 | 0.527147061 | 0.311702057 |
| Los Angele | 2022 | Annual | LDT1 | 0.037532121 | 0 | 0.004573681 | 0.042105802 | 373.9343534 | 0 | 11.56529 | 385.4996434 | 221.1073831 |
| Los Angele | 2022 | Annual | LDT1 | 2.85E-04 | 0 | 0 | 2.85E-04 | 0.466354935 | 0 | 0 | 0.466354935 | 0.275755673 |
| Los Angele | 2022 | Annual | LDT1 | 0.039720099 | 0 | 0.004246361 | 0.04396646 | 425.6072117 | 0 | 12.3221 | 437.9293117 | 251.6615443 |
| Los Angele | 2022 | Annual | LDT1 | 2.10E-04 | 0 | 0 | 2.10E-04 | 0.373173349 | 0 | 0 | 0.373173349 | 0.220657401 |
| Los Angele | 2022 | Annual | LDT1 | 0.041247427 | 0 | 0.00365164 | 0.044899068 | 479.2265766 | 0 | 12.49567 | 491.7222466 | 283.3666747 |
| Los Angele | 2022 | Annual | LDT1 | 1.78E-04 | 0 | 0 | 1.78E-04 | 0.349144632 | 0 | 0 | 0.349144632 | 0.206449221 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.151719655 | 0.003093203 | 0 | 0.154812858 | 34.56395896 | 0.615155762 | 0 | 35.17911472 | 31.10756306 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.137646774 | 0.002652465 | 0 | 0.140299239 | 33.85216785 | 0.527504696 | 0 | 34.37967255 | 30.46695107 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.045101851 | 8.83E-04 | 0 | 0.045985103 | 12.57271344 | 0.175655227 | 0 | 12.74836867 | 11.3154421 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 6.753771279 | 1.49E-04 | 0 | 0 | 1.49E-04 | 2.53E-04 | 0.001162401 |
| Los Angele | 2022 | Annual | LDA | 0 | 66.25375848 | 1607.627304 | 0.007278098 | 0 | 0.003036008 | 0.010314106 | 0.050726991 | 0.2330272 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 6.472580437 | 1.42E-04 | 0 | 0 | 1.42E-04 | 2.49E-04 | 0.001143079 |
| Los Angele | 2022 | Annual | LDA | 0 | 68.64589224 | 1711.029757 | 0.01057243 | 0 | 0.004550411 | 0.015122841 | 0.055268105 | 0.2538879 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 5.873693654 | 1.27E-04 | 0 | 0 | 1.27E-04 | 2.31E-04 | 0.001060624 |
| Los Angele | 2022 | Annual | LDA | 0 | 70.07838174 | 1802.444866 | 0.014526919 | 0 | 0.006236698 | 0.020763617 | 0.060756214 | 0.2790989 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 5.865846497 | 1.27E-04 | 0 | 0 | 1.27E-04 | 2.40E-04 | 0.00110418 |
| Los Angele | 2022 | Annual | LDA | 0 | 69.51281409 | 1853.361166 | 0.017877598 | 0 | 0.00750462 | 0.025382218 | 0.065021612 | 0.2986931 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 5.191679495 | 1.12E-04 | 0 | 0 | 1.12E-04 | 2.21E-04 | 0.001015951 |
| Los Angele | 2022 | Annual | LDA | 0 | 72.88694928 | 2020.274884 | 0.021207052 | 0 | 0.008602732 | 0.029809784 | 0.07096269 | 0.3259849 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 5.291102335 | 1.09E-04 | 0 | 0 | 1.09E-04 | 2.25E-04 | 0.001035406 |
| Los Angele | 2022 | Annual | LDA | 0 | 74.30754753 | 2156.287242 | 0.023572304 | 0 | 0.009147504 | 0.032719808 | 0.075848311 | 0.3484282 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 5.150060855 | 1.00E-04 | 0 | 0 | 1.00E-04 | 2.19E-04 | 0.001007806 |
| Los Angele | 2022 | Annual | LDA | 0 | 75.35639547 | 2310.643732 | 0.025300164 | 0 | 0.009303274 | 0.034603438 | 0.081412256 | 0.3739876 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 5.215568475 | 9.57E-05 | 0 | 0 | 9.57E-05 | 2.22E-04 | 0.001020625 |
| Los Angele | 2022 | Annual | LDA | 0 | 76.39099308 | 2501.189093 | 0.027436586 | 0 | 0.009431003 | 0.036867589 | 0.088288411 | 0.405575 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 5.089850844 | 8.72E-05 | 0 | 0 | 8.72E-05 | 2.17E-04 | 9.96E-04 |
| Los Angele | 2022 | Annual | LDA | 0 | 73.98245079 | 2640.57004 | 0.029031877 | 0 | 0.009133654 | 0.038165531 | 0.093421318 | 0.4291542 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 4.951040858 | 7.84E-05 | 0 | 0 | 7.84E-05 | 2.11E-04 | 9.69E-04 |
| Los Angele | 2022 | Annual | LDA | 0 | 74.96093403 | 3056.669533 | 0.03371699 | 0 | 0.009254455 | 0.042971444 | 0.1084968 | 0.4984073 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 5.461780466 | 7.87E-05 | 0 | 0 | 7.87E-05 | 2.33E-04 | 0.001068806 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 4.0721436 | 103.6163671 | 7.35E-05 | 0 | 9.38E-06 | 8.29E-05 | 0.002050302 | 0.009418574 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 8.5856859 | 220.0568196 | 1.56E-04 | 0 | 2.57E-05 | 1.82E-04 | 0.004359521 | 0.020026555 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 7.9053561 | 204.6194883 | 1.94E-04 | 0 | 3.74E-05 | 2.31E-04 | 0.004048381 | 0.018597255 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 8.647597179 | 225.9211796 | 2.22E-04 | 0 | 5.23E-05 | 2.74E-04 | 0.004636533 | 0.021299075 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0.250696743 | 4.58E-06 | 0 | 0 | 4.58E-06 | 7.27E-06 | 3.34E-05 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 7.417978985 | 196.1178094 | 3.26E-04 | 0 | 9.42E-05 | 4.20E-04 | 0.004540013 | 0.020855686 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0.322606042 | 6.47E-06 | 0 | 0 | 6.47E-06 | 1.05E-05 | 4.85E-05 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 6.411071624 | 171.4493063 | 4.35E-04 | 0 | 1.31E-04 | 5.66E-04 | 0.00455046 | 0.020903679 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0.212560114 | 4.74E-06 | 0 | 0 | 4.74E-06 | 7.96E-06 | 3.66E-05 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 6.478155684 | 175.7883061 | 6.87E-04 | 0 | 2.55E-04 | 9.42E-04 | 0.004790675 | 0.022007169 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0.28453594 | 6.31E-06 | 0 | 0 | 6.31E-06 | 1.09E-05 | 5.02E-05 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 6.489471312 | 178.9925835 | 9.54E-04 | 0 | 3.69E-04 | 0.001323742 | 0.004990925 | 0.022927063 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0.270263416 | 5.91E-06 | 0 | 0 | 5.91E-06 | 1.06E-05 | 4.88E-05 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 6.600685482 | 185.776103 | 0.001291194 | 0 | 5.05E-04 | 0.001795731 | 0.005403233 | 0.024821106 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0.277554498 | 6.07E-06 | 0 | 0 | 6.07E-06 | 1.14E-05 | 5.22E-05 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 6.412802238 | 184.9017382 | 0.001537255 | 0 | 5.95E-04 | 0.002131882 | 0.005594153 | 0.025698142 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0.34287523 | 7.46E-06 | 0 | 0 | 7.46E-06 | 1.46E-05 | 6.71E-05 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 6.58382985 | 194.8407141 | 0.001761839 | 0 | 6.67E-04 | 0.002429257 | 0.005898527 | 0.027096368 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0.237403004 | 4.91E-06 | 0 | 0 | 4.91E-06 | 1.01E-05 | 4.65E-05 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 6.640618302 | 202.8755392 | 0.001909385 | 0 | 7.02E-04 | 0.002611504 | 0.006147489 | 0.028240032 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0.264136262 | 5.16E-06 | 0 | 0 | 5.16E-06 | 1.13E-05 | 5.17E-05 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 6.68092131 | 212.3329298 | 0.002000408 | 0 | 7.08E-04 | 0.002708819 | 0.006440377 | 0.029585488 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0.311702057 | 5.73E-06 | 0 | 0 | 5.73E-06 | 1.33E-05 | 6.10E-05 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 6.838555977 | 227.9459391 | 0.002150094 | 0 | 7.25E-04 | 0.002875219 | 0.006922717 | 0.031801239 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0.275755673 | 4.72E-06 | 0 | 0 | 4.72E-06 | 1.17E-05 | 5.40E-05 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 7.28605773 | 258.947602 | 0.002446469 | 0 | 7.73E-04 | 0.003219045 | 0.007876584 | 0.036183067 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0.220657401 | 3.48E-06 | 0 | 0 | 3.48E-06 | 9.40E-06 | 4.32E-05 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 7.388689671 | 290.7553644 | 0.00275385 | 0 | 7.83E-04 | 0.003537309 | 0.00886572 | 0.040726911 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0.206449221 | 2.96E-06 | 0 | 0 | 2.96E-06 | 8.79E-06 | 4.04E-05 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.553640186 | 0 | 31.66120325 | 0.002107268 | 7.27E-06 | 0 | 0.002114538 | 3.58E-04 | 0.003884796 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.474754226 | 0 | 30.94170529 | 0.00201538 | 6.23E-06 | 0 | 0.002021615 | 3.50E-04 | 0.003804795 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.158089704 | 0 | 11.4735318 | 7.28E-04 | 2.08E-06 | 0 | 7.30E-04 | 1.30E-04 | 0.001413103 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | LDA | 0.001564285 | 1.37E-04 | 0 | 0 | 1.37E-04 | 6.33E-05 | 4.98E-04 | 6.98E-04 | 9.59E-05 |
| Los Angele | 2022 | Annual | LDA | 0.294068297 | 0.006752876 | 0 | 0.002816914 | 0.00956979 | 0.012681748 | 0.099868767 | 0.122120305 | 0.023553517 |
| Los Angele | 2022 | Annual | LDA | 0.001533662 | 1.30E-04 | 0 | 0 | 1.30E-04 | 6.22E-05 | 4.90E-04 | 6.83E-04 | 9.43E-05 |
| Los Angele | 2022 | Annual | LDA | 0.324278846 | 0.009809469 | 0 | 0.004222031 | 0.014031501 | 0.013817026 | 0.1088091 | 0.136657627 | 0.025659205 |
| Los Angele | 2022 | Annual | LDA | 0.001418519 | 1.17E-04 | 0 | 0 | 1.17E-04 | 5.77E-05 | 4.55E-04 | 6.29E-04 | 8.75E-05 |
| Los Angele | 2022 | Annual | LDA | 0.360618731 | 0.013478585 | 0 | 0.005786627 | 0.019265212 | 0.015189053 | 0.1196138 | 0.154068065 | 0.028211894 |
| Los Angele | 2022 | Annual | LDA | 0.001471785 | 1.17E-04 | 0 | 0 | 1.17E-04 | 6.01E-05 | 4.73E-04 | 6.50E-04 | 9.11E-05 |
| Los Angele | 2022 | Annual | LDA | 0.38909693 | 0.016587461 | 0 | 0.00696305 | 0.02355051 | 0.016255403 | 0.1280113 | 0.167817213 | 0.030196663 |
| Los Angele | 2022 | Annual | LDA | 0.00134931 | 1.03E-04 | 0 | 0 | 1.03E-04 | 5.53E-05 | 4.35E-04 | 5.94E-04 | 8.38E-05 |
| Los Angele | 2022 | Annual | LDA | 0.426757374 | 0.019676647 | 0 | 0.007981917 | 0.027658564 | 0.017740672 | 0.1397078 | 0.185107036 | 0.032959286 |
| Los Angele | 2022 | Annual | LDA | 0.001369655 | 1.00E-04 | 0 | 0 | 1.00E-04 | 5.63E-05 | 4.44E-04 | 6.00E-04 | 8.54E-05 |
| Los Angele | 2022 | Annual | LDA | 0.456996319 | 0.021871206 | 0 | 0.008487374 | 0.03035858 | 0.018962078 | 0.1493264 | 0.198647058 | 0.035227314 |
| Los Angele | 2022 | Annual | LDA | 0.001327553 | 9.23E-05 | 0 | 0 | 9.23E-05 | 5.48E-05 | 4.32E-04 | 5.79E-04 | 8.31E-05 |
| Los Angele | 2022 | Annual | LDA | 0.490003294 | 0.023474379 | 0 | 0.008631903 | 0.032106281 | 0.020353064 | 0.1602804 | 0.212739745 | 0.037814129 |
| Los Angele | 2022 | Annual | LDA | 0.001338483 | 8.80E-05 | 0 | 0 | 8.80E-05 | 5.55E-05 | 4.37E-04 | 5.81E-04 | 8.42E-05 |
| Los Angele | 2022 | Annual | LDA | 0.530731 | 0.025456624 | 0 | 0.008750415 | 0.034207039 | 0.022072103 | 0.1738178 | 0.230096942 | 0.041014396 |
| Los Angele | 2022 | Annual | LDA | 0.001300059 | 8.02E-05 | 0 | 0 | 8.02E-05 | 5.42E-05 | 4.27E-04 | 5.61E-04 | 8.22E-05 |
| Los Angele | 2022 | Annual | LDA | 0.560741049 | 0.026936795 | 0 | 0.008474522 | 0.035411317 | 0.023355329 | 0.1839232 | 0.242689846 | 0.043407347 |
| Los Angele | 2022 | Annual | LDA | 0.001258174 | 7.21E-05 | 0 | 0 | 7.21E-05 | 5.27E-05 | 4.15E-04 | 5.40E-04 | 7.99E-05 |
| Los Angele | 2022 | Annual | LDA | 0.649875544 | 0.031283804 | 0 | 0.008586606 | 0.03987041 | 0.027124198 | 0.2136031 | 0.280597708 | 0.050422277 |
| Los Angele | 2022 | Annual | LDA | 0.001380137 | 7.24E-05 | 0 | 0 | 7.24E-05 | 5.82E-05 | 4.58E-04 | 5.89E-04 | 8.82E-05 |
| Los Angele | 2022 | Annual | LDT1 | 0.011551769 | 6.82E-05 | 0 | 8.70E-06 | 7.69E-05 | 5.13E-04 | 0.004036531 | 0.004626018 | 0.001107583 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDT1 | 0.024567957 | 1.45E-04 | 0 | 2.39E-05 | 1.69E-04 | 0.00108988 | 0.008582809 | 0.009841445 | 0.002352281 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDT1 | 0.022876723 | 1.80E-04 | 0 | 3.47E-05 | 2.14E-04 | 0.001012095 | 0.00797025 | 0.009196756 | 0.002188008 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | LDT1 | 0.0262096 | 2.06E-04 | 0 | 4.85E-05 | 2.54E-04 | 0.001159133 | 0.009128174 | 0.010541527 | 0.002504174 |
| Los Angele | 2022 | Annual | LDT1 | 4.53E-05 | 4.22E-06 | 0 | 0 | 4.22E-06 | 1.82E-06 | 1.43E-05 | 2.03E-05 | 2.76E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0.025815507 | 3.02E-04 | 0 | 8.74E-05 | 3.90E-04 | 0.001135003 | 0.008938151 | 0.010462667 | 0.002451684 |
| Los Angele | 2022 | Annual | LDT1 | 6.55E-05 | 5.96E-06 | 0 | 0 | 5.96E-06 | 2.64E-06 | 2.08E-05 | 2.94E-05 | 4.00E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0.026020494 | 4.04E-04 | 0 | 1.22E-04 | 5.25E-04 | 0.001137615 | 0.008958721 | 0.01062182 | 0.002457014 |
| Los Angele | 2022 | Annual | LDT1 | 4.93E-05 | 4.36E-06 | 0 | 0 | 4.36E-06 | 1.99E-06 | 1.57E-05 | 2.20E-05 | 3.02E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0.027739826 | 6.37E-04 | 0 | 2.37E-04 | 8.74E-04 | 0.001197669 | 0.009431643 | 0.011503315 | 0.002586237 |
| Los Angele | 2022 | Annual | LDT1 | 6.75E-05 | 5.80E-06 | 0 | 0 | 5.80E-06 | 2.73E-06 | 2.15E-05 | 3.01E-05 | 4.15E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0.02924173 | 8.85E-04 | 0 | 3.43E-04 | 0.001228214 | 0.001247731 | 0.009825883 | 0.012301829 | 0.002694041 |
| Los Angele | 2022 | Annual | LDT1 | 6.53E-05 | 5.44E-06 | 0 | 0 | 5.44E-06 | 2.66E-06 | 2.09E-05 | 2.90E-05 | 4.03E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0.03202007 | 0.001198015 | 0 | 4.68E-04 | 0.001666142 | 0.001350808 | 0.010637618 | 0.013654568 | 0.002916822 |
| Los Angele | 2022 | Annual | LDT1 | 6.97E-05 | 5.59E-06 | 0 | 0 | 5.59E-06 | 2.84E-06 | 2.24E-05 | 3.08E-05 | 4.31E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0.033424177 | 0.001426319 | 0 | 5.52E-04 | 0.001978035 | 0.001398538 | 0.01101349 | 0.014390063 | 0.003020326 |
| Los Angele | 2022 | Annual | LDT1 | 8.92E-05 | 6.86E-06 | 0 | 0 | 6.86E-06 | 3.65E-06 | 2.88E-05 | 3.93E-05 | 5.54E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0.035424152 | 0.001634696 | 0 | 6.19E-04 | 0.00225395 | 0.001474632 | 0.011612726 | 0.015341308 | 0.003185109 |
| Los Angele | 2022 | Annual | LDT1 | 6.15E-05 | 4.52E-06 | 0 | 0 | 4.52E-06 | 2.53E-06 | 1.99E-05 | 2.70E-05 | 3.83E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0.036999025 | 0.001771594 | 0 | 6.51E-04 | 0.002423045 | 0.001536872 | 0.012102868 | 0.016062785 | 0.003319236 |
| Los Angele | 2022 | Annual | LDT1 | 6.81E-05 | 4.75E-06 | 0 | 0 | 4.75E-06 | 2.81E-06 | 2.22E-05 | 2.97E-05 | 4.26E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0.038734684 | 0.001856049 | 0 | 6.57E-04 | 0.002513337 | 0.001610094 | 0.012679493 | 0.016802924 | 0.00347794 |
| Los Angele | 2022 | Annual | LDT1 | 8.00E-05 | 5.27E-06 | 0 | 0 | 5.27E-06 | 3.32E-06 | 2.61E-05 | 3.47E-05 | 5.03E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0.041599175 | 0.001994933 | 0 | 6.73E-04 | 0.002667729 | 0.001730679 | 0.0136291 | 0.018027508 | 0.003738867 |
| Los Angele | 2022 | Annual | LDT1 | 7.04E-05 | 4.34E-06 | 0 | 0 | 4.34E-06 | 2.94E-06 | 2.31E-05 | 3.04E-05 | 4.45E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0.047278696 | 0.00226992 | 0 | 7.17E-04 | 0.002986743 | 0.001969146 | 0.015507027 | 0.020462916 | 0.004255079 |
| Los Angele | 2022 | Annual | LDT1 | 5.61E-05 | 3.20E-06 | 0 | 0 | 3.20E-06 | 2.35E-06 | 1.85E-05 | 2.41E-05 | 3.56E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0.053129939 | 0.002555118 | 0 | 7.27E-04 | 0.003282039 | 0.00221643 | 0.017454391 | 0.02295286 | 0.004790682 |
| Los Angele | 2022 | Annual | LDT1 | 5.22E-05 | 2.72E-06 | 0 | 0 | 2.72E-06 | 2.20E-06 | 1.73E-05 | 2.22E-05 | 3.33E-06 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.006356996 | 0.001938687 | 6.69E-06 | 0 | 0.001945375 | 8.94E-05 | 0.001664913 | 0.003699703 | 3.30E-04 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.006176705 | 0.00185415 | 5.74E-06 | 0 | 0.001859885 | 8.76E-05 | 0.001630626 | 0.003578086 | 3.23E-04 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.002273032 | 6.70E-04 | 1.91E-06 | 0 | 6.71E-04 | 3.25E-05 | 6.06E-04 | 0.001309583 | 1.20E-04 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 9.59E-05 | 0 | 0.9041194 | 1.71E-05 | 1.61E-04 | 5.24E-04 | 1.04E-05 | 9.87E-05 | 9.54E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0.001031105 | 0.024584622 | 262.2307 | 0 | 1.68E-04 | 1.92E-03 | 1.58E-04 | 3.59E-06 | 9.87E-05 | 3.33E-06 | 3.91E-05 | 8.55E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 9.43E-05 | 0 | 0.8890908 | 1.66E-05 | 1.55E-04 | 5.07E-04 | 1.00E-05 | 9.87E-05 | 9.24E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0.00109172 | 0.026750925 | 285.3375 | 0 | 1.52E-04 | 1.86E-03 | 1.56E-04 | 4.83E-06 | 9.87E-05 | 4.48E-06 | 3.91E-05 | 8.54E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 8.75E-05 | 0 | 0.8249569 | 1.59E-05 | 1.49E-04 | 4.90E-04 | 9.70E-06 | 9.87E-05 | 8.93E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0.00116105 | 0.029372944 | 313.3051 | 0 | 1.33E-04 | 1.80E-03 | 1.52E-04 | 6.03E-06 | 9.87E-05 | 5.59E-06 | 3.91E-05 | 8.53E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 9.11E-05 | 0 | 0.8588356 | 1.53E-05 | 1.43E-04 | 4.71E-04 | 9.34E-06 | 9.87E-05 | 8.59E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0.001196222 | 0.031392885 | 334.8507 | 0 | 1.12E-04 | 1.71E-03 | 1.46E-04 | 6.88E-06 | 9.87E-05 | 6.39E-06 | 3.91E-05 | 8.52E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 8.38E-05 | 0 | 0.7902101 | 1.46E-05 | 1.36E-04 | 4.51E-04 | 8.95E-06 | 9.87E-05 | 8.23E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0.001252567 | 0.034211853 | 364.9191 | 0 | 9.81E-05 | 1.59E-03 | 1.36E-04 | 7.41E-06 | 9.87E-05 | 6.87E-06 | 3.91E-05 | 8.50E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 8.54E-05 | 0 | 0.8053428 | 1.38E-05 | 1.29E-04 | 4.30E-04 | 8.52E-06 | 9.87E-05 | 7.84E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0.001274119 | 0.036501433 | 389.3408 | 0 | 8.49E-05 | 1.40E-03 | 1.28E-04 | 7.61E-06 | 9.87E-05 | 7.06E-06 | 3.91E-05 | 8.49E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 8.31E-05 | 0 | 0.7838753 | 1.30E-05 | 1.21E-04 | 4.07E-04 | 8.07E-06 | 9.87E-05 | 7.42E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0.00129016 | 0.039104289 | 417.1041 | 0 | 7.51E-05 | 1.26E-03 | 1.17E-04 | 7.50E-06 | 9.87E-05 | 6.96E-06 | 3.91E-05 | 8.47E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 8.42E-05 | 0 | 0.793846 | 1.22E-05 | 1.13E-04 | 3.83E-04 | 7.60E-06 | 9.87E-05 | 6.99E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0.001306479 | 0.042320875 | 451.4135 | 0 | 6.68E-05 | 1.16E-03 | 1.08E-04 | 7.36E-06 | 9.87E-05 | 6.83E-06 | 3.91E-05 | 8.45E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 8.22E-05 | 0 | 0.7747111 | 1.13E-05 | 1.05E-04 | 3.57E-04 | 7.09E-06 | 9.87E-05 | 6.53E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0.001264133 | 0.04467148 | 476.4863 | 0 | 5.87E-05 | 1.08E-03 | 9.89E-05 | 7.21E-06 | 9.87E-05 | 6.69E-06 | 3.91E-05 | 8.43E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 7.99E-05 | 0 | 0.7535831 | 1.03E-05 | 9.54E-05 | 3.30E-04 | 6.56E-06 | 9.87E-05 | 6.03E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0.001279822 | 0.051702099 | 551.478 | 0 | 4.96E-05 | 9.91E-04 | 8.95E-05 | 6.99E-06 | 9.87E-05 | 6.48E-06 | 3.91E-05 | 8.40E-06 |
| Los Angele | 2022 | Annual | LDA | 0 | 0 | 8.82E-05 | 0 | 0.8313212 | 9.23E-06 | 8.53E-05 | 3.00E-04 | 5.96E-06 | 9.87E-05 | 5.49E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 4.63E-05 | 0.001153839 | 12.30737 | 0 | 3.45E-04 | 2.39E-03 | 1.56E-04 | 7.13E-07 | 9.87E-05 | 6.62E-07 | 3.91E-05 | 9.93E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2022 | Annual | LDT1 | 0 | 9.73E-05 | 0.002449548 | 26.12799 | 0 | 3.06E-04 | 2.16E-03 | 1.51E-04 | 7.36E-07 | 9.87E-05 | 6.83E-07 | 3.91E-05 | 9.91E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2022 | Annual | LDT1 | 0 | 8.95E-05 | 0.002277516 | 24.29301 | 0 | 2.73E-04 | 2.11E-03 | 1.57E-04 | 1.01E-06 | 9.87E-05 | 9.34E-07 | 3.91E-05 | 9.92E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2022 | Annual | LDT1 | 0 | 1.01E-04 | 0.002605569 | 27.79218 | 0 | 2.44E-04 | 2.05E-03 | 1.63E-04 | 1.04E-06 | 9.87E-05 | 9.67E-07 | 3.91E-05 | 9.91E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 2.76E-06 | 0 | 0.025978936 | 2.19E-05 | 2.05E-04 | 6.73E-04 | 1.11E-05 | 9.87E-05 | 1.02E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 9.80E-05 | 0.002549706 | 27.19632 | 0 | 2.17E-04 | 2.01E-03 | 1.61E-04 | 1.63E-06 | 9.87E-05 | 1.51E-06 | 3.91E-05 | 9.91E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 4.00E-06 | 0 | 0.037687618 | 2.13E-05 | 1.99E-04 | 6.55E-04 | 1.08E-05 | 9.87E-05 | 9.96E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 9.70E-05 | 0.002554051 | 27.24267 | 0 | 1.91E-04 | 1.97E-03 | 1.60E-04 | 2.20E-06 | 9.87E-05 | 2.04E-06 | 3.91E-05 | 9.90E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 3.02E-06 | 0 | 0.028455172 | 2.06E-05 | 1.92E-04 | 6.36E-04 | 1.05E-05 | 9.87E-05 | 9.67E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 1.01E-04 | 0.002686799 | 28.65861 | 0 | 1.72E-04 | 1.91E-03 | 1.58E-04 | 3.47E-06 | 9.87E-05 | 3.22E-06 | 3.91E-05 | 9.89E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 4.15E-06 | 0 | 0.03908461 | 1.99E-05 | 1.85E-04 | 6.15E-04 | 1.02E-05 | 9.87E-05 | 9.36E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 1.03E-04 | 0.002796986 | 29.83391 | 0 | 1.54E-04 | 1.86E-03 | 1.55E-04 | 4.68E-06 | 9.87E-05 | 4.34E-06 | 3.91E-05 | 9.88E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 4.03E-06 | 0 | 0.037958346 | 1.91E-05 | 1.78E-04 | 5.93E-04 | 9.81E-06 | 9.87E-05 | 9.02E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 1.09E-04 | 0.003025906 | 32.27568 | 0 | 1.31E-04 | 1.79E-03 | 1.51E-04 | 5.86E-06 | 9.87E-05 | 5.44E-06 | 3.91E-05 | 9.88E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 4.31E-06 | 0 | 0.04063756 | 1.83E-05 | 1.70E-04 | 5.70E-04 | 9.42E-06 | 9.87E-05 | 8.67E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 1.10E-04 | 0.003130409 | 33.39036 | 0 | 1.06E-04 | 1.70E-03 | 1.46E-04 | 6.72E-06 | 9.87E-05 | 6.24E-06 | 3.91E-05 | 9.87E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 5.54E-06 | 0 | 0.052188016 | 1.74E-05 | 1.62E-04 | 5.45E-04 | 9.01E-06 | 9.87E-05 | 8.29E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 1.13E-04 | 0.003297985 | 35.1778 | 0 | 9.25E-05 | 1.58E-03 | 1.35E-04 | 7.26E-06 | 9.87E-05 | 6.74E-06 | 3.91E-05 | 9.86E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 3.83E-06 | 0 | 0.036134399 | 1.65E-05 | 1.53E-04 | 5.17E-04 | 8.56E-06 | 9.87E-05 | 7.88E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 1.14E-04 | 0.003432853 | 36.61636 | 0 | 7.95E-05 | 1.38E-03 | 1.27E-04 | 7.49E-06 | 9.87E-05 | 6.95E-06 | 3.91E-05 | 9.85E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 4.26E-06 | 0 | 0.040203389 | 1.55E-05 | 1.43E-04 | 4.89E-04 | 8.09E-06 | 9.87E-05 | 7.45E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 1.14E-04 | 0.003592094 | 38.3149 | 0 | 6.98E-05 | 1.25E-03 | 1.16E-04 | 7.42E-06 | 9.87E-05 | 6.88E-06 | 3.91E-05 | 9.84E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 5.03E-06 | 0 | 0.047443237 | 1.45E-05 | 1.34E-04 | 4.59E-04 | 7.61E-06 | 9.87E-05 | 7.00E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 1.17E-04 | 0.003855606 | 41.12564 | 0 | 6.20E-05 | 1.16E-03 | 1.07E-04 | 7.33E-06 | 9.87E-05 | 6.80E-06 | 3.91E-05 | 9.82E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 4.45E-06 | 0 | 0.041971948 | 1.34E-05 | 1.23E-04 | 4.27E-04 | 7.08E-06 | 9.87E-05 | 6.52E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 1.24E-04 | 0.004379359 | 46.71223 | 0 | 5.46E-05 | 1.07E-03 | 9.84E-05 | 7.21E-06 | 9.87E-05 | 6.69E-06 | 3.91E-05 | 9.81E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 3.56E-06 | 0 | 0.033585604 | 1.22E-05 | 1.12E-04 | 3.94E-04 | 6.53E-06 | 9.87E-05 | 6.01E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 1.26E-04 | 0.004916627 | 52.44297 | 0 | 4.65E-05 | 9.92E-04 | 8.93E-05 | 7.04E-06 | 9.87E-05 | 6.53E-06 | 3.91E-05 | 9.78E-06 |
| Los Angele | 2022 | Annual | LDT1 | 0 | 0 | 3.33E-06 | 0 | 0.031423017 | 1.09E-05 | 9.99E-05 | 3.58E-04 | 5.94E-06 | 9.87E-05 | 5.46E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2022 | Annual | T6 instate heavy | 5.87E-06 | 0 | 3.36E-04 | 0 | 3.166120325 | 5.42E-04 | 2.38E-03 | 1.15E-02 | 1.56E-04 | 3.14E-04 | 1.44E-04 | 1.30E-04 | 2.48E-05 |
| Los Angele | 2022 | Annual | T6 instate heavy | 5.03E-06 | 0 | 3.28E-04 | 0 | 3.094170529 | 5.28E-04 | 2.31E-03 | 1.06E-02 | 1.53E-04 | 3.14E-04 | 1.40E-04 | 1.30E-04 | 2.48E-05 |
| Los Angele | 2022 | Annual | T6 instate heavy | 1.68E-06 | 0 | 1.22E-04 | 0 | 1.14735318 | 5.12E-04 | 2.23E-03 | 9.35E-03 | 1.48E-04 | 3.14E-04 | 1.37E-04 | 1.30E-04 | 2.47E-05 |

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|---|---|---|---|---|
| Los Angele | 2022 | Annual | LDA | 2.35E-04 |
| Los Angele | 2022 | Annual | LDA | 2.79E-04 |
| Los Angele | 2022 | Annual | LDA | 2.29E-04 |
| Los Angele | 2022 | Annual | LDA | 2.73E-04 |
| Los Angele | 2022 | Annual | LDA | 2.24E-04 |
| Los Angele | 2022 | Annual | LDA | 2.62E-04 |
| Los Angele | 2022 | Annual | LDA | 2.15E-04 |
| Los Angele | 2022 | Annual | LDA | 2.51E-04 |
| Los Angele | 2022 | Annual | LDA | 2.07E-04 |
| Los Angele | 2022 | Annual | LDA | 2.51E-04 |
| Los Angele | 2022 | Annual | LDA | 2.07E-04 |
| Los Angele | 2022 | Annual | LDA | 2.51E-04 |
| Los Angele | 2022 | Annual | LDA | 2.07E-04 |
| Los Angele | 2022 | Annual | LDA | 2.50E-04 |
| Los Angele | 2022 | Annual | LDA | 2.07E-04 |
| Los Angele | 2022 | Annual | LDA | 2.50E-04 |
| Los Angele | 2022 | Annual | LDA | 2.07E-04 |
| Los Angele | 2022 | Annual | LDA | 2.49E-04 |
| Los Angele | 2022 | Annual | LDA | 2.07E-04 |
| Los Angele | 2022 | Annual | LDA | 2.48E-04 |
| Los Angele | 2022 | Annual | LDA | 2.07E-04 |
| Los Angele | 2022 | Annual | LDT1 | 4.46E-04 |
| Los Angele | 2022 | Annual | LDT1 | |
| Los Angele | 2022 | Annual | LDT1 | 4.45E-04 |
| Los Angele | 2022 | Annual | LDT1 | |
| Los Angele | 2022 | Annual | LDT1 | 4.46E-04 |
| Los Angele | 2022 | Annual | LDT1 | |
| Los Angele | 2022 | Annual | LDT1 | 4.30E-04 |
| Los Angele | 2022 | Annual | LDT1 | 3.04E-04 |
| Los Angele | 2022 | Annual | LDT1 | 3.81E-04 |
| Los Angele | 2022 | Annual | LDT1 | 2.70E-04 |
| Los Angele | 2022 | Annual | LDT1 | 3.32E-04 |
| Los Angele | 2022 | Annual | LDT1 | 2.35E-04 |
| Los Angele | 2022 | Annual | LDT1 | 3.24E-04 |
| Los Angele | 2022 | Annual | LDT1 | 2.29E-04 |
| Los Angele | 2022 | Annual | LDT1 | 3.16E-04 |
| Los Angele | 2022 | Annual | LDT1 | 2.24E-04 |
| Los Angele | 2022 | Annual | LDT1 | 3.03E-04 |
| Los Angele | 2022 | Annual | LDT1 | 2.15E-04 |
| Los Angele | 2022 | Annual | LDT1 | 2.91E-04 |
| Los Angele | 2022 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2022 | Annual | LDT1 | 2.91E-04 |
| Los Angele | 2022 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2022 | Annual | LDT1 | 2.91E-04 |
| Los Angele | 2022 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2022 | Annual | LDT1 | 2.91E-04 |
| Los Angele | 2022 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2022 | Annual | LDT1 | 2.90E-04 |
| Los Angele | 2022 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2022 | Annual | LDT1 | 2.90E-04 |
| Los Angele | 2022 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2022 | Annual | LDT1 | 2.89E-04 |
| Los Angele | 2022 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2022 | Annual | T6 instate heavy | 1.17E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 1.17E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 1.17E-03 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2010 | AllSpeeds | 457.5300073 | 18330.20173 | 0 | 0.002691791 | 1.06E-04 | 0 | 0.002797656 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2011 | AllSpeeds | 387.8467309 | 19443.02386 | 0 | 0.002769987 | 8.97E-05 | 0 | 0.002859729 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2012 | AllSpeeds | 381.3672397 | 21575.58807 | 0 | 0.00297276 | 8.82E-05 | 0 | 0.003061003 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2013 | AllSpeeds | 669.4335251 | 33328.17879 | 0 | 0.003652847 | 1.55E-04 | 0 | 0.003807743 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2014 | AllSpeeds | 1086.605128 | 47523.40896 | 0 | 0.005044856 | 2.51E-04 | 0 | 0.005296279 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2015 | AllSpeeds | 1384.729557 | 62002.80525 | 0 | 0.00635466 | 3.20E-04 | 0 | 0.006675065 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2016 | AllSpeeds | 1045.882835 | 54353.16539 | 0 | 0.005358863 | 2.42E-04 | 0 | 0.005600864 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2017 | AllSpeeds | 1143.016953 | 63294.9286 | 0 | 0.005978756 | 2.64E-04 | 0 | 0.006243232 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2018 | AllSpeeds | 573.1865086 | 45809.42132 | 0 | 0.004127015 | 1.33E-04 | 0 | 0.004259641 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2019 | AllSpeeds | 587.68834 | 48645.78148 | 0 | 0.004159848 | 1.36E-04 | 0 | 0.00429583 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2020 | AllSpeeds | 613.2796281 | 51735.06637 | 0 | 0.0041787 | 1.42E-04 | 0 | 0.004320603 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2021 | AllSpeeds | 657.6827118 | 55253.2554 | 0 | 0.004195947 | 1.52E-04 | 0 | 0.004348124 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2022 | AllSpeeds | 579.8285227 | 48722.38258 | 0 | 0.003465633 | 1.34E-04 | 0 | 0.003599796 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2023 | AllSpeeds | 144.4812375 | 5067.498005 | 0 | 3.36E-04 | 3.34E-05 | 0 | 3.70E-04 |
| Los Angele | 2022 | Annual | LDA/LDT1 | GAS&DSI | >2007 | AllSpeeds | 3425461.267 | 119198539.7 | 21909734.8 | 1.288137638 | 0 | 1.100628289 | 2.388765927 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | >2007 | AllSpeeds | 11316.1726 | 638440.7338 | 0 | 0.07175839 | 0.002618385 | 0 | 0.074376774 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | LDA | GAS | 2007 | AllSpeeds | 96555.84 | 2355159.255 | 583138.9 | 0.033885696 | 0 | 0.039051395 | 0.072937091 |
| Los Angele | 2023 | Annual | LDA | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | LDA | GAS | 2008 | AllSpeeds | 110302.4 | 2755636.051 | 670571.5 | 0.036920013 | 0 | 0.04021043 | 0.077130443 |
| Los Angele | 2023 | Annual | LDA | DSL | 2008 | AllSpeeds | 17.50154 | 437.2384688 | 106.3988 | 4.27E-06 | 0 | 0 | 4.27E-06 |
| Los Angele | 2023 | Annual | LDA | GAS | 2009 | AllSpeeds | 104808.4 | 2684864.475 | 642411.4 | 0.036647576 | 0 | 0.03911946 | 0.075767036 |
| Los Angele | 2023 | Annual | LDA | DSL | 2009 | AllSpeeds | 596.0089 | 15267.9078 | 3653.169 | 1.46E-04 | 0 | 0 | 1.46E-04 |
| Los Angele | 2023 | Annual | LDA | GAS | 2010 | AllSpeeds | 145232.2 | 3818344.014 | 895992.9 | 0.052252855 | 0 | 0.054234453 | 0.106487308 |
| Los Angele | 2023 | Annual | LDA | DSL | 2010 | AllSpeeds | 1104.149 | 29029.56308 | 6811.916 | 2.71E-04 | 0 | 0 | 2.71E-04 |
| Los Angele | 2023 | Annual | LDA | GAS | 2011 | AllSpeeds | 156032.8 | 4215188.056 | 970426.8 | 0.056849025 | 0 | 0.057973105 | 0.11482213 |
| Los Angele | 2023 | Annual | LDA | DSL | 2011 | AllSpeeds | 1032.875 | 27902.90755 | 6423.838 | 2.54E-04 | 0 | 0 | 2.54E-04 |
| Los Angele | 2023 | Annual | LDA | GAS | 2012 | AllSpeeds | 173881 | 4833661.313 | 1088386 | 0.064158549 | 0 | 0.064076774 | 0.128235323 |
| Los Angele | 2023 | Annual | LDA | DSL | 2012 | AllSpeeds | 982.3762 | 27308.80466 | 6149.061 | 2.42E-04 | 0 | 0 | 2.42E-04 |
| Los Angele | 2023 | Annual | LDA | GAS | 2013 | AllSpeeds | 182084.1 | 5216517.259 | 1148836 | 0.068056429 | 0 | 0.066541851 | 0.13459828 |
| Los Angele | 2023 | Annual | LDA | DSL | 2013 | AllSpeeds | 929.8704 | 26639.85503 | 5866.895 | 2.28E-04 | 0 | 0 | 2.28E-04 |
| Los Angele | 2023 | Annual | LDA | GAS | 2014 | AllSpeeds | 194460.5 | 5752675.088 | 1234701 | 0.073501748 | 0 | 0.070113637 | 0.143615385 |
| Los Angele | 2023 | Annual | LDA | DSL | 2014 | AllSpeeds | 836.147 | 24735.57505 | 5309.003 | 2.05E-04 | 0 | 0 | 2.05E-04 |
| Los Angele | 2023 | Annual | LDA | GAS | 2015 | AllSpeeds | 207041.7 | 6338488.892 | 1322864 | 0.079145451 | 0 | 0.073466159 | 0.15261161 |
| Los Angele | 2023 | Annual | LDA | DSL | 2015 | AllSpeeds | 807.0232 | 24706.71706 | 5156.362 | 1.97E-04 | 0 | 0 | 1.97E-04 |
| Los Angele | 2023 | Annual | LDA | GAS | 2016 | AllSpeeds | 215977.9 | 6861690.078 | 1386440 | 0.083371873 | 0 | 0.074963942 | 0.158335815 |
| Los Angele | 2023 | Annual | LDA | DSL | 2016 | AllSpeeds | 758.2899 | 24091.18785 | 4867.733 | 1.84E-04 | 0 | 0 | 1.84E-04 |
| Los Angele | 2023 | Annual | LDA | GAS | 2017 | AllSpeeds | 224910.1 | 7438464.078 | 1448276 | 0.087673068 | 0 | 0.07599362 | 0.163666688 |
| Los Angele | 2023 | Annual | LDA | DSL | 2017 | AllSpeeds | 739.0627 | 24443.13405 | 4759.088 | 1.78E-04 | 0 | 0 | 1.78E-04 |
| Los Angele | 2023 | Annual | LDA | GAS | 2018 | AllSpeeds | 233072.2 | 8060406.989 | 1507826 | 0.090076472 | 0 | 0.075576022 | 0.165652494 |
| Los Angele | 2023 | Annual | LDA | DSL | 2018 | AllSpeeds | 684.072 | 23657.54533 | 4425.503 | 1.63E-04 | 0 | 0 | 1.63E-04 |
| Los Angele | 2023 | Annual | LDA | GAS | 2019 | AllSpeeds | 238009.5 | 8655782.744 | 1544527 | 0.086881602 | 0 | 0.071352042 | 0.158233644 |
| Los Angele | 2023 | Annual | LDA | DSL | 2019 | AllSpeeds | 653.5639 | 23768.49018 | 4241.205 | 1.55E-04 | 0 | 0 | 1.55E-04 |
| Los Angele | 2023 | Annual | LDA | GAS | 2020 | AllSpeeds | 239997.4 | 9251698.656 | 1559827 | 0.086590839 | 0 | 0.067601085 | 0.154191924 |
| Los Angele | 2023 | Annual | LDA | DSL | 2020 | AllSpeeds | 590.3914 | 22759.17896 | 3837.16 | 1.38E-04 | 0 | 0 | 1.38E-04 |
| Los Angele | 2023 | Annual | LDA | GAS | 2021 | AllSpeeds | 229388 | 9488652.793 | 1495460 | 0.084117401 | 0 | 0.061052516 | 0.145169917 |
| Los Angele | 2023 | Annual | LDA | DSL | 2021 | AllSpeeds | 527.5645 | 21822.82222 | 3439.376 | 1.23E-04 | 0 | 0 | 1.23E-04 |
| Los Angele | 2023 | Annual | LDA | GAS | 2022 | AllSpeeds | 236051.5 | 1.07E+07 | 1543622 | 0.088997426 | 0 | 0.05855599 | 0.147553416 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002797656 | 0.003064399 | 1.21E-04 | 0 | 0.003184918 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002859729 | 0.003153419 | 1.02E-04 | 0 | 0.003255583 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003061003 | 0.003384261 | 1.00E-04 | 0 | 0.003484718 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003807743 | 0.004158488 | 1.76E-04 | 0 | 0.004334826 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005296279 | 0.005743184 | 2.86E-04 | 0 | 0.006029411 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.006675065 | 0.007234297 | 3.65E-04 | 0 | 0.007599053 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005600864 | 0.006100657 | 2.75E-04 | 0 | 0.006376157 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.006243232 | 0.006806359 | 3.01E-04 | 0 | 0.007107445 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004259641 | 0.004698292 | 1.51E-04 | 0 | 0.004849277 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00429583 | 0.00473567 | 1.55E-04 | 0 | 0.004890475 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004320603 | 0.004757132 | 1.62E-04 | 0 | 0.004918678 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004348124 | 0.004776766 | 1.73E-04 | 0 | 0.004950008 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003599796 | 0.00394536 | 1.53E-04 | 0 | 0.004098094 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.70E-04 | 3.83E-04 | 3.81E-05 | 0 | 4.21E-04 |
| Los Angele | 2022 | Annual | LDA/LDT1 | 0.277803077 | 0.87375181 | 3.498447956 | 0.302887768 | 7.341656537 | 2.395371261 | 0 | 1.175131566 | 3.570502827 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.074376774 | 0.081691464 | 0.002980832 | 0 | 0.084672296 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | LDA | 0.022153959 | 0.085327536 | 0.1805754 | 0.027711162 | 0.388705148 | 0.063065571 | 0 | 0.04169485 | 0.104760421 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | LDA | 0.022712462 | 0.087016746 | 0.1940871 | 0.028176486 | 0.409123237 | 0.068712823 | 0 | 0.042932335 | 0.111645158 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 4.27E-06 | 4.86E-06 | 0 | 0 | 4.86E-06 |
| Los Angele | 2023 | Annual | LDA | 0.019127687 | 0.072797477 | 0.1731799 | 0.023487093 | 0.364359193 | 0.06820578 | 0 | 0.041767519 | 0.109973299 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 1.46E-04 | 1.66E-04 | 0 | 0 | 1.66E-04 |
| Los Angele | 2023 | Annual | LDA | 0.023435472 | 0.088242263 | 0.2248816 | 0.028437918 | 0.471484561 | 0.097249179 | 0 | 0.05790567 | 0.155154849 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 2.71E-04 | 3.09E-04 | 0 | 0 | 3.09E-04 |
| Los Angele | 2023 | Annual | LDA | 0.022089554 | 0.082104675 | 0.2264515 | 0.026422041 | 0.4718899 | 0.105803237 | 0 | 0.061897397 | 0.167700634 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 2.54E-04 | 2.89E-04 | 0 | 0 | 2.89E-04 |
| Los Angele | 2023 | Annual | LDA | 0.02117967 | 0.077079281 | 0.2348068 | 0.024864066 | 0.48616514 | 0.119407184 | 0 | 0.068414234 | 0.187821418 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 2.42E-04 | 2.75E-04 | 0 | 0 | 2.75E-04 |
| Los Angele | 2023 | Annual | LDA | 0.019873476 | 0.070953116 | 0.2333311 | 0.02291167 | 0.481667642 | 0.126661626 | 0 | 0.071046181 | 0.197707807 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 2.28E-04 | 2.60E-04 | 0 | 0 | 2.60E-04 |
| Los Angele | 2023 | Annual | LDA | 0.018759957 | 0.065064579 | 0.2351183 | 0.021131555 | 0.483689776 | 0.136796062 | 0 | 0.074859738 | 0.2116558 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 2.05E-04 | 2.33E-04 | 0 | 0 | 2.33E-04 |
| Los Angele | 2023 | Annual | LDA | 0.01690227 | 0.055932503 | 0.2326442 | 0.018396879 | 0.476487462 | 0.147299696 | 0 | 0.078439198 | 0.225738894 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 1.97E-04 | 2.24E-04 | 0 | 0 | 2.24E-04 |
| Los Angele | 2023 | Annual | LDA | 0.0149149 | 0.046251796 | 0.2202312 | 0.01561067 | 0.455344381 | 0.1551656 | 0 | 0.080038376 | 0.235203976 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 1.84E-04 | 2.09E-04 | 0 | 0 | 2.09E-04 |
| Los Angele | 2023 | Annual | LDA | 0.012556567 | 0.034947071 | 0.19146 | 0.012542227 | 0.415172553 | 0.163170682 | 0 | 0.081137754 | 0.244308436 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 1.78E-04 | 2.03E-04 | 0 | 0 | 2.03E-04 |
| Los Angele | 2023 | Annual | LDA | 0.010567234 | 0.025568567 | 0.1817256 | 0.009734528 | 0.393248423 | 0.167643727 | 0 | 0.080691881 | 0.248335608 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 1.63E-04 | 1.86E-04 | 0 | 0 | 1.86E-04 |
| Los Angele | 2023 | Annual | LDA | 0.00926024 | 0.019199686 | 0.1728799 | 0.007865207 | 0.367438677 | 0.161697662 | 0 | 0.076181978 | 0.23787964 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 1.55E-04 | 1.76E-04 | 0 | 0 | 1.76E-04 |
| Los Angele | 2023 | Annual | LDA | 0.008277793 | 0.014515118 | 0.1638239 | 0.006493942 | 0.347302677 | 0.161156509 | 0 | 0.072177097 | 0.233333606 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 1.38E-04 | 1.57E-04 | 0 | 0 | 1.57E-04 |
| Los Angele | 2023 | Annual | LDA | 0.007226244 | 0.010735719 | 0.1484865 | 0.005277159 | 0.316895539 | 0.156553136 | 0 | 0.065185249 | 0.221738385 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 1.23E-04 | 1.40E-04 | 0 | 0 | 1.40E-04 |
| Los Angele | 2023 | Annual | LDA | 0.006963084 | 0.008869399 | 0.1460062 | 0.004788989 | 0.314181088 | 0.165635485 | 0 | 0.062519751 | 0.228155236 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003184918 | 0.011326866 | 0.001251864 | 0 | 0.012578729 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003255583 | 0.011655911 | 0.001061201 | 0 | 0.012717111 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003484718 | 0.012509166 | 0.001043472 | 0 | 0.013552638 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004334826 | 0.015370923 | 0.00183166 | 0 | 0.017202583 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.006029411 | 0.0212284 | 0.002973098 | 0 | 0.024201497 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.007599053 | 0.026739964 | 0.003788806 | 0 | 0.030528771 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.006376157 | 0.022549718 | 0.002861676 | 0 | 0.025411394 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.007107445 | 0.025158187 | 0.003127448 | 0 | 0.028285635 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004849277 | 0.017366188 | 0.001568315 | 0 | 0.018934503 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004890475 | 0.017504348 | 0.001607994 | 0 | 0.019112343 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004918678 | 0.017583676 | 0.001678016 | 0 | 0.019261692 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004950008 | 0.01765625 | 0.001799508 | 0 | 0.019455758 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004098094 | 0.014583141 | 0.001586489 | 0 | 0.01616963 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.21E-04 | 0.001414189 | 3.95E-04 | 0 | 0.00180951 |
| Los Angele | 2022 | Annual | LDA/LDT1 | 0.277803077 | 0.87375181 | 3.498447956 | 0.302887768 | 8.523393437 | 73.94894164 | 0 | 18.69213545 | 92.64107709 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.084672296 | 0.301954267 | 0.030962571 | 0 | 0.332916838 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | LDA | 0.022153959 | 0.085327536 | 0.1805754 | 0.027711162 | 0.420528478 | 2.094671002 | 0 | 0.743372 | 2.838043002 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | LDA | 0.022712462 | 0.087016746 | 0.1940871 | 0.028176486 | 0.443637952 | 2.249719392 | 0 | 0.7636748 | 3.013394192 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 4.86E-06 | 4.01E-05 | 0 | 0 | 4.01E-05 |
| Los Angele | 2023 | Annual | LDA | 0.019127687 | 0.072797477 | 0.1731799 | 0.023487093 | 0.398565456 | 2.171302311 | 0 | 0.7181493 | 2.889451611 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 1.66E-04 | 0.001371124 | 0 | 0 | 0.001371124 |
| Los Angele | 2023 | Annual | LDA | 0.023435472 | 0.088242263 | 0.2248816 | 0.028437918 | 0.520152102 | 3.013454455 | 0 | 0.9646758 | 3.978130255 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 3.09E-04 | 0.002546385 | 0 | 0 | 0.002546385 |
| Los Angele | 2023 | Annual | LDA | 0.022089554 | 0.082104675 | 0.2264515 | 0.026422041 | 0.524768404 | 3.297923641 | 0 | 1.034749 | 4.332672641 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 2.89E-04 | 0.002384297 | 0 | 0 | 0.002384297 |
| Los Angele | 2023 | Annual | LDA | 0.02117967 | 0.077079281 | 0.2348068 | 0.024864066 | 0.545751235 | 3.731647644 | 0 | 1.142941 | 4.874588644 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 2.75E-04 | 0.002266529 | 0 | 0 | 0.002266529 |
| Los Angele | 2023 | Annual | LDA | 0.019873476 | 0.070953116 | 0.2333311 | 0.02291167 | 0.544777169 | 3.961263122 | 0 | 1.183635 | 5.144898122 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 2.60E-04 | 0.002141182 | 0 | 0 | 0.002141182 |
| Los Angele | 2023 | Annual | LDA | 0.018759957 | 0.065064579 | 0.2351183 | 0.021131555 | 0.551730191 | 4.287302139 | 0 | 1.244677 | 5.531979139 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 2.33E-04 | 0.001918835 | 0 | 0 | 0.001918835 |
| Los Angele | 2023 | Annual | LDA | 0.01690227 | 0.055932503 | 0.2326442 | 0.018396879 | 0.549614746 | 4.61319965 | 0 | 1.296821 | 5.91002065 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 2.24E-04 | 0.001843735 | 0 | 0 | 0.001843735 |
| Los Angele | 2023 | Annual | LDA | 0.0149149 | 0.046251796 | 0.2202312 | 0.01561067 | 0.532212542 | 4.857314476 | 0 | 1.313955 | 6.171269476 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 2.09E-04 | 0.001722382 | 0 | 0 | 0.001722382 |
| Los Angele | 2023 | Annual | LDA | 0.012556567 | 0.034947071 | 0.19146 | 0.012542227 | 0.495814301 | 5.067091485 | 0 | 1.310656 | 6.377747485 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 2.03E-04 | 0.001666324 | 0 | 0 | 0.001666324 |
| Los Angele | 2023 | Annual | LDA | 0.010567234 | 0.025568567 | 0.1817256 | 0.009734528 | 0.475931537 | 5.142275129 | 0 | 1.261848 | 6.404123129 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 1.86E-04 | 0.001525773 | 0 | 0 | 0.001525773 |
| Los Angele | 2023 | Annual | LDA | 0.00926024 | 0.019199686 | 0.1728799 | 0.007865207 | 0.447084673 | 4.920855723 | 0 | 1.121246 | 6.042101723 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 1.76E-04 | 0.001441532 | 0 | 0 | 0.001441532 |
| Los Angele | 2023 | Annual | LDA | 0.008277793 | 0.014515118 | 0.1638239 | 0.006493942 | 0.426444359 | 4.824706683 | 0 | 1.017218 | 5.841924683 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 1.57E-04 | 0.00128829 | 0 | 0 | 0.00128829 |
| Los Angele | 2023 | Annual | LDA | 0.007226244 | 0.010735719 | 0.1484865 | 0.005277159 | 0.393464007 | 4.623252638 | 0 | 0.8986476 | 5.521900238 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 1.40E-04 | 0.001141751 | 0 | 0 | 0.001141751 |
| Los Angele | 2023 | Annual | LDA | 0.006963084 | 0.008869399 | 0.1460062 | 0.004788989 | 0.394782908 | 4.891375372 | 0 | 0.8622732 | 5.753648572 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | 0.037998394 | 0.001891309 | 0 | 0.039889703 | 22.64882689 | 0.376131105 | 0 | 23.024958 | 20.3839442 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.036599831 | 0.001603257 | 0 | 0.038203088 | 24.02383171 | 0.31884514 | 0 | 24.34267685 | 21.62144854 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.035299616 | 0.001576472 | 0 | 0.036876088 | 26.65883151 | 0.313518412 | 0 | 26.97234992 | 23.99294836 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.044275771 | 0.002767263 | 0 | 0.047043034 | 41.08557519 | 0.550334989 | 0 | 41.63591017 | 36.97701767 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.060164997 | 0.004491741 | 0 | 0.064656737 | 58.5848571 | 0.89328783 | 0 | 59.47814493 | 52.72637139 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.074377559 | 0.005724109 | 0 | 0.080101668 | 76.43444705 | 1.138373111 | 0 | 77.57282016 | 68.79100234 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.061363093 | 0.004323405 | 0 | 0.065686499 | 67.0042932 | 0.859810416 | 0 | 67.86410361 | 60.30386388 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.066715359 | 0.004724932 | 0 | 0.071440291 | 78.0273223 | 0.939663459 | 0 | 78.96698576 | 70.22459007 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.044658956 | 0.002369403 | 0 | 0.047028359 | 56.47192533 | 0.471211224 | 0 | 56.94313655 | 50.82473279 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.043388283 | 0.002429349 | 0 | 0.045817633 | 59.96847068 | 0.483133043 | 0 | 60.45160372 | 53.97162361 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.04169787 | 0.002535137 | 0 | 0.044233007 | 63.77681099 | 0.504171399 | 0 | 64.28098238 | 57.39912989 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.039696242 | 0.002718688 | 0 | 0.04241493 | 68.11388625 | 0.540674756 | 0 | 68.654561 | 61.30249762 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.030757078 | 0.002396859 | 0 | 0.033153937 | 60.06290129 | 0.476671561 | 0 | 60.53957285 | 54.05661116 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.002757238 | 5.97E-04 | 0 | 0.003354486 | 6.246998121 | 0.118776663 | 0 | 6.365774784 | 5.622298309 |
| Los Angele | 2022 | Annual | LDA/LDT1 | 6.784120038 | 0 | 1.125501169 | 7.909621207 | 49421.44289 | 0 | 1811.010878 | 51232.45377 | 32120.38137 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.954218568 | 0.04677809 | 0 | 1.000996658 | 790.0978178 | 9.302918792 | 0 | 799.4007366 | 711.0880361 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | LDA | 0.151119267 | 0 | 0.035111353 | 0.18623062 | 960.8605427 | 0 | 47.64507 | 1008.505613 | 864.7744884 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | LDA | 0.17215983 | 0 | 0.038857862 | 0.211017692 | 1124.547668 | 0 | 54.80339 | 1179.351058 | 1012.092901 |
| Los Angele | 2023 | Annual | LDA | 1.29E-04 | 0 | 0 | 1.29E-04 | 0.153076155 | 0 | 0 | 0.153076155 | 0.137768539 |
| Los Angele | 2023 | Annual | LDA | 0.175541437 | 0 | 0.03970382 | 0.215245257 | 1098.140871 | 0 | 52.62107 | 1150.761941 | 988.3267841 |
| Los Angele | 2023 | Annual | LDA | 0.004424115 | 0 | 0 | 0.004424115 | 5.345258147 | 0 | 0 | 5.345258147 | 4.810732332 |
| Los Angele | 2023 | Annual | LDA | 0.25781689 | 0 | 0.057947986 | 0.315764876 | 1561.652405 | 0 | 73.38792 | 1635.040325 | 1356.295114 |
| Los Angele | 2023 | Annual | LDA | 0.008232236 | 0 | 0 | 0.008232236 | 10.16318074 | 0 | 0 | 10.16318074 | 8.826722469 |
| Los Angele | 2023 | Annual | LDA | 0.28343609 | 0 | 0.062368758 | 0.345804848 | 1723.988497 | 0 | 79.48606 | 1803.474557 | 1328.160738 |
| Los Angele | 2023 | Annual | LDA | 0.007725305 | 0 | 0 | 0.007725305 | 9.768740733 | 0 | 0 | 9.768740733 | 7.525837861 |
| Los Angele | 2023 | Annual | LDA | 0.323270783 | 0 | 0.069378853 | 0.392649636 | 1976.859243 | 0 | 89.14422 | 2066.003463 | 1329.042469 |
| Los Angele | 2023 | Annual | LDA | 0.007362301 | 0 | 0 | 0.007362301 | 9.560748106 | 0 | 0 | 9.560748106 | 6.427690952 |
| Los Angele | 2023 | Annual | LDA | 0.346451843 | 0 | 0.072459608 | 0.418911451 | 2133.36553 | 0 | 94.09209 | 2227.45762 | 1397.781095 |
| Los Angele | 2023 | Annual | LDA | 0.006975068 | 0 | 0 | 0.006975068 | 9.32655038 | 0 | 0 | 9.32655038 | 6.110755809 |
| Los Angele | 2023 | Annual | LDA | 0.378612586 | 0 | 0.076804213 | 0.455416799 | 2352.548786 | 0 | 101.1209 | 2453.669686 | 1507.513262 |
| Los Angele | 2023 | Annual | LDA | 0.006271177 | 0 | 0 | 0.006271177 | 8.659865828 | 0 | 0 | 8.659865828 | 5.549242023 |
| Los Angele | 2023 | Annual | LDA | 0.412281233 | 0 | 0.080818988 | 0.493100221 | 2591.945651 | 0 | 108.3342 | 2700.279851 | 1593.268992 |
| Los Angele | 2023 | Annual | LDA | 0.006047982 | 0 | 0 | 0.006047982 | 8.649763214 | 0 | 0 | 8.649763214 | 5.317009448 |
| Los Angele | 2023 | Annual | LDA | 0.439279406 | 0 | 0.082652554 | 0.52193196 | 2806.594581 | 0 | 113.5335 | 2920.128081 | 1659.539376 |
| Los Angele | 2023 | Annual | LDA | 0.005673847 | 0 | 0 | 0.005673847 | 8.43426735 | 0 | 0 | 8.43426735 | 4.987182284 |
| Los Angele | 2023 | Annual | LDA | 0.461474555 | 0 | 0.08249823 | 0.543972785 | 3043.350531 | 0 | 118.5929 | 3161.943431 | 1799.533169 |
| Los Angele | 2023 | Annual | LDA | 0.005516092 | 0 | 0 | 0.005516092 | 8.557482325 | 0 | 0 | 8.557482325 | 5.060039299 |
| Los Angele | 2023 | Annual | LDA | 0.468863207 | 0 | 0.078565694 | 0.547428901 | 3298.670117 | 0 | 123.4629 | 3422.133017 | 1950.50364 |
| Los Angele | 2023 | Annual | LDA | 0.005081049 | 0 | 0 | 0.005081049 | 8.282449343 | 0 | 0 | 8.282449343 | 4.897412296 |
| Los Angele | 2023 | Annual | LDA | 0.477924264 | 0 | 0.074194774 | 0.552119038 | 3543.255654 | 0 | 126.4617 | 3669.717354 | 2095.127068 |
| Los Angele | 2023 | Annual | LDA | 0.004834086 | 0 | 0 | 0.004834086 | 8.321291479 | 0 | 0 | 8.321291479 | 4.920379652 |
| Los Angele | 2023 | Annual | LDA | 0.474567736 | 0 | 0.066515736 | 0.541083472 | 3788.319466 | 0 | 127.7125 | 3916.031966 | 2240.0333 |
| Los Angele | 2023 | Annual | LDA | 0.004356141 | 0 | 0 | 0.004356141 | 7.967933392 | 0 | 0 | 7.967933392 | 4.711439015 |
| Los Angele | 2023 | Annual | LDA | 0.455501942 | 0 | 0.056697447 | 0.512199389 | 3886.591467 | 0 | 122.4434 | 4009.034867 | 2298.141534 |
| Los Angele | 2023 | Annual | LDA | 0.003899784 | 0 | 0 | 0.003899784 | 7.640117156 | 0 | 0 | 7.640117156 | 4.517601274 |
| Los Angele | 2023 | Annual | LDA | 0.478182511 | 0 | 0.051097374 | 0.529279885 | 4384.584588 | 0 | 126.3866 | 4510.971188 | 2592.604867 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | 0.338517994 | 0 | 20.7224622 | 0.00131356 | 4.45E-06 | 0 | 0.001318005 | 2.42E-04 | 0.002633596 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.286960626 | 0 | 21.90840917 | 0.001344315 | 3.77E-06 | 0 | 0.001348084 | 2.57E-04 | 0.002793481 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.28216657 | 0 | 24.27511493 | 0.001433676 | 3.71E-06 | 0 | 0.001437381 | 2.85E-04 | 0.003099878 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.49530149 | 0 | 37.47231916 | 0.001701781 | 6.50E-06 | 0 | 0.001708285 | 4.41E-04 | 0.004788435 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.803959047 | 0 | 53.53033044 | 0.002329357 | 1.06E-05 | 0 | 0.002339914 | 6.29E-04 | 0.006827938 |
| Los Angele | 2022 | Annual | T6 instate heavy | 1.0245358 | 0 | 69.81553814 | 0.002904155 | 1.35E-05 | 0 | 0.002917608 | 8.20E-04 | 0.008908269 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.773829375 | 0 | 61.07769325 | 0.002420128 | 1.02E-05 | 0 | 0.002430289 | 7.19E-04 | 0.007809205 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.845697113 | 0 | 71.07028718 | 0.00266291 | 1.11E-05 | 0 | 0.002674016 | 8.37E-04 | 0.009093915 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.424090102 | 0 | 51.2488229 | 0.001808492 | 5.57E-06 | 0 | 0.001814061 | 6.06E-04 | 0.00658168 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.434819738 | 0 | 54.40644335 | 0.001788267 | 5.71E-06 | 0 | 0.001793976 | 6.43E-04 | 0.006989195 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.453754259 | 0 | 57.85288415 | 0.001756199 | 5.96E-06 | 0 | 0.001762158 | 6.84E-04 | 0.007433049 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.48660728 | 0 | 61.7891049 | 0.001717173 | 6.39E-06 | 0 | 0.001723563 | 7.31E-04 | 0.007938526 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.429004405 | 0 | 54.48561556 | 0.001375082 | 5.63E-06 | 0 | 0.001380715 | 6.44E-04 | 0.007000201 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.106898997 | 0 | 5.729197306 | 1.29E-04 | 1.40E-06 | 0 | 1.30E-04 | 6.70E-05 | 7.28E-04 |
| Los Angele | 2022 | Annual | LDA/LDT1 | 0 | 1201.818462 | 33322.19983 | 0.24380459 | 0 | 0.08633837 | 0.33014296 | 1.05115122 | 4.828726836 |
| Los Angele | 2022 | Annual | T6 instate heavy | 8.372626913 | 0 | 719.460663 | 0.029534046 | 0.000109944 | 0 | 0.02964399 | 0.008445125 | 0.091728136 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | LDA | 0 | 42.880563 | 907.6550514 | 7.43E-04 | 0 | 1.15E-04 | 8.58E-04 | 0.02076895 | 0.095407374 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | LDA | 0 | 49.323051 | 1061.415952 | 8.70E-04 | 0 | 1.72E-04 | 0.001041713 | 0.024300553 | 0.1116307 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0.137768539 | 2.56E-06 | 0 | 0 | 2.56E-06 | 3.86E-06 | 1.77E-05 |
| Los Angele | 2023 | Annual | LDA | 0 | 47.358963 | 1035.685747 | 0.001132454 | 0 | 2.61E-04 | 0.001393229 | 0.023676455 | 0.1087637 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 4.810732332 | 8.76E-05 | 0 | 0 | 8.76E-05 | 1.35E-04 | 6.19E-04 |
| Los Angele | 2023 | Annual | LDA | 0 | 63.73740852 | 1420.032522 | 0.001610449 | 0 | 4.49E-04 | 0.002059156 | 0.033672031 | 0.1546809 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 8.826722469 | 1.63E-04 | 0 | 0 | 1.63E-04 | 2.56E-04 | 0.001175986 |
| Los Angele | 2023 | Annual | LDA | 0 | 61.23606062 | 1389.396798 | 0.002666786 | 0 | 9.05E-04 | 0.003572267 | 0.037171599 | 0.1707571 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 7.525837861 | 1.53E-04 | 0 | 0 | 1.53E-04 | 2.46E-04 | 0.001130345 |
| Los Angele | 2023 | Annual | LDA | 0 | 59.93165911 | 1388.974128 | 0.00407726 | 0 | 0.001428589 | 0.005505849 | 0.042625599 | 0.1958114 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 6.427690952 | 1.46E-04 | 0 | 0 | 1.46E-04 | 2.41E-04 | 0.001106278 |
| Los Angele | 2023 | Annual | LDA | 0 | 61.64913737 | 1459.430232 | 0.00660008 | 0 | 0.002825007 | 0.009425087 | 0.046001803 | 0.2113208 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 6.110755809 | 1.38E-04 | 0 | 0 | 1.38E-04 | 2.35E-04 | 0.001079179 |
| Los Angele | 2023 | Annual | LDA | 0 | 64.79827272 | 1572.311535 | 0.009704234 | 0 | 0.004295361 | 0.013999595 | 0.050729915 | 0.2330406 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 5.549242023 | 1.24E-04 | 0 | 0 | 1.24E-04 | 2.18E-04 | 0.001002037 |
| Los Angele | 2023 | Annual | LDA | 0 | 66.59303274 | 1659.862024 | 0.01336468 | 0 | 0.005926515 | 0.019291195 | 0.055895906 | 0.2567718 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 5.317009448 | 1.20E-04 | 0 | 0 | 1.20E-04 | 2.18E-04 | 0.001000868 |
| Los Angele | 2023 | Annual | LDA | 0 | 67.13235855 | 1726.671734 | 0.01663698 | 0 | 0.007247627 | 0.023884606 | 0.060509745 | 0.2779667 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 4.987182284 | 1.12E-04 | 0 | 0 | 1.12E-04 | 2.12E-04 | 9.76E-04 |
| Los Angele | 2023 | Annual | LDA | 0 | 70.12398177 | 1869.657151 | 0.019603032 | 0 | 0.008276624 | 0.027879656 | 0.065596029 | 0.3013318 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 5.060039299 | 1.09E-04 | 0 | 0 | 1.09E-04 | 2.16E-04 | 9.90E-04 |
| Los Angele | 2023 | Annual | LDA | 0 | 73.00361277 | 2023.507253 | 0.022090618 | 0 | 0.00898698 | 0.031077598 | 0.071080618 | 0.3265266 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 4.897412296 | 1.01E-04 | 0 | 0 | 1.01E-04 | 2.09E-04 | 9.58E-04 |
| Los Angele | 2023 | Annual | LDA | 0 | 74.77680321 | 2169.903872 | 0.023721157 | 0 | 0.009231721 | 0.032952878 | 0.076330937 | 0.3506453 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 4.920379652 | 9.59E-05 | 0 | 0 | 9.59E-05 | 2.10E-04 | 9.63E-04 |
| Los Angele | 2023 | Annual | LDA | 0 | 75.51640125 | 2315.549702 | 0.025353882 | 0 | 0.009323025 | 0.034676907 | 0.081586033 | 0.3747859 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 4.711439015 | 8.64E-05 | 0 | 0 | 8.64E-05 | 2.01E-04 | 9.22E-04 |
| Los Angele | 2023 | Annual | LDA | 0 | 72.40078242 | 2370.542317 | 0.026003469 | 0 | 0.008938385 | 0.034941854 | 0.083675615 | 0.3843849 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 4.517601274 | 7.74E-05 | 0 | 0 | 7.74E-05 | 1.92E-04 | 8.84E-04 |
| Los Angele | 2023 | Annual | LDA | 0 | 74.73239658 | 2667.337263 | 0.029326172 | 0 | 0.009226239 | 0.038552411 | 0.094367735 | 0.4335019 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | 0.004194069 | 0.001208475 | 4.09E-06 | 0 | 0.001212565 | 6.06E-05 | 0.001128684 | 0.002401866 | 2.16E-04 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.004398752 | 0.00123677 | 3.47E-06 | 0 | 0.001240237 | 6.43E-05 | 0.001197206 | 0.00250174 | 2.29E-04 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.004822655 | 0.001318982 | 3.41E-06 | 0 | 0.001322391 | 7.13E-05 | 0.001328519 | 0.002722259 | 2.54E-04 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.006937576 | 0.001565638 | 5.98E-06 | 0 | 0.001571622 | 1.10E-04 | 0.002052186 | 0.003734022 | 3.92E-04 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.009796479 | 0.002143008 | 9.71E-06 | 0 | 0.002152721 | 1.57E-04 | 0.002926259 | 0.005236137 | 5.59E-04 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.012646034 | 0.002671822 | 1.24E-05 | 0 | 0.002684199 | 2.05E-04 | 0.00381783 | 0.006707068 | 7.29E-04 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.010958463 | 0.002226517 | 9.35E-06 | 0 | 0.002235866 | 1.80E-04 | 0.003346802 | 0.00576241 | 6.39E-04 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.012605179 | 0.002449878 | 1.02E-05 | 0 | 0.002460094 | 2.09E-04 | 0.003897392 | 0.006566799 | 7.44E-04 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.009001697 | 0.001663813 | 5.12E-06 | 0 | 0.001668936 | 1.51E-04 | 0.00282072 | 0.004641145 | 5.39E-04 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.009426645 | 0.001645205 | 5.25E-06 | 0 | 0.001650458 | 1.61E-04 | 0.002995369 | 0.004806696 | 5.72E-04 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.009879544 | 0.001615703 | 5.48E-06 | 0 | 0.001621185 | 1.71E-04 | 0.003185592 | 0.004977862 | 6.08E-04 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.010392964 | 0.001579799 | 5.88E-06 | 0 | 0.001585678 | 1.83E-04 | 0.003402225 | 0.005170622 | 6.50E-04 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.009025403 | 0.001265075 | 5.18E-06 | 0 | 0.001270258 | 1.61E-04 | 0.003000086 | 0.004431466 | 5.73E-04 |
| Los Angele | 2022 | Annual | T6 instate heavy | 9.25E-04 | 1.18E-04 | 1.29E-06 | 0 | 1.20E-04 | 1.68E-05 | 3.12E-04 | 4.48E-04 | 5.96E-05 |
| Los Angele | 2022 | Annual | LDA/LDT1 | 6.210021015 | 0.226197125 | 0 | 0.080107761 | 0.306304886 | 0.262787802 | 2.069454132 | 2.63854682 | 0.494483596 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.129817251 | 0.027171322 | 0.000101148 | 0 | 0.02727247 | 0.002111281 | 0.039312058 | 0.06869581 | 0.007537903 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | LDA | 0.117034478 | 6.90E-04 | 0 | 1.07E-04 | 7.96E-04 | 0.005192237 | 0.040888872 | 0.046877335 | 0.00962575 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | LDA | 0.136972966 | 8.07E-04 | 0 | 1.60E-04 | 9.67E-04 | 0.006075138 | 0.047841713 | 0.054883389 | 0.01126223 |
| Los Angele | 2023 | Annual | LDA | 2.41E-05 | 2.35E-06 | 0 | 0 | 2.35E-06 | 9.64E-07 | 7.59E-06 | 1.09E-05 | 1.46E-06 |
| Los Angele | 2023 | Annual | LDA | 0.133833384 | 0.001050731 | 0 | 2.42E-04 | 0.001292686 | 0.005919114 | 0.046613015 | 0.053824815 | 0.010997401 |
| Los Angele | 2023 | Annual | LDA | 8.41E-04 | 8.06E-05 | 0 | 0 | 8.06E-05 | 3.37E-05 | 2.65E-04 | 3.79E-04 | 5.10E-05 |
| Los Angele | 2023 | Annual | LDA | 0.190412087 | 0.001494231 | 0 | 4.16E-04 | 0.001910557 | 0.008418008 | 0.066291824 | 0.076620389 | 0.015638106 |
| Los Angele | 2023 | Annual | LDA | 0.001595027 | 1.50E-04 | 0 | 0 | 1.50E-04 | 6.40E-05 | 5.04E-04 | 7.18E-04 | 9.70E-05 |
| Los Angele | 2023 | Annual | LDA | 0.211500966 | 0.002474338 | 0 | 8.40E-04 | 0.003314474 | 0.0092929 | 0.073181577 | 0.085788951 | 0.017263215 |
| Los Angele | 2023 | Annual | LDA | 0.001529424 | 1.41E-04 | 0 | 0 | 1.41E-04 | 6.15E-05 | 4.84E-04 | 6.87E-04 | 9.33E-05 |
| Los Angele | 2023 | Annual | LDA | 0.243942848 | 0.003783024 | 0 | 0.001325495 | 0.005108519 | 0.0106564 | 0.08391916 | 0.099684079 | 0.019794505 |
| Los Angele | 2023 | Annual | LDA | 0.001492944 | 1.34E-04 | 0 | 0 | 1.34E-04 | 6.02E-05 | 4.74E-04 | 6.69E-04 | 9.13E-05 |
| Los Angele | 2023 | Annual | LDA | 0.26674769 | 0.006123785 | 0 | 0.00262114 | 0.008744926 | 0.011500451 | 0.090566054 | 0.110811431 | 0.021360524 |
| Los Angele | 2023 | Annual | LDA | 0.001452291 | 1.27E-04 | 0 | 0 | 1.27E-04 | 5.87E-05 | 4.63E-04 | 6.48E-04 | 8.90E-05 |
| Los Angele | 2023 | Annual | LDA | 0.29777011 | 0.009003927 | 0 | 0.003985386 | 0.012989313 | 0.012682479 | 0.099874541 | 0.125546333 | 0.023553766 |
| Los Angele | 2023 | Annual | LDA | 0.001344427 | 1.14E-04 | 0 | 0 | 1.14E-04 | 5.45E-05 | 4.29E-04 | 5.98E-04 | 8.27E-05 |
| Los Angele | 2023 | Annual | LDA | 0.331958901 | 0.012400219 | 0 | 0.005498829 | 0.017899047 | 0.013973976 | 0.1100451 | 0.141918123 | 0.025948782 |
| Los Angele | 2023 | Annual | LDA | 0.001338599 | 1.10E-04 | 0 | 0 | 1.10E-04 | 5.45E-05 | 4.29E-04 | 5.94E-04 | 8.26E-05 |
| Los Angele | 2023 | Annual | LDA | 0.362361051 | 0.015436373 | 0 | 0.006724602 | 0.022160975 | 0.015127436 | 0.1191286 | 0.156417011 | 0.028095409 |
| Los Angele | 2023 | Annual | LDA | 0.001300841 | 1.03E-04 | 0 | 0 | 1.03E-04 | 5.31E-05 | 4.18E-04 | 5.75E-04 | 8.05E-05 |
| Los Angele | 2023 | Annual | LDA | 0.394807485 | 0.018188381 | 0 | 0.007679341 | 0.025867722 | 0.016399007 | 0.1291422 | 0.171408929 | 0.03046217 |
| Los Angele | 2023 | Annual | LDA | 0.001315097 | 1.01E-04 | 0 | 0 | 1.01E-04 | 5.39E-05 | 4.24E-04 | 5.79E-04 | 8.17E-05 |
| Los Angele | 2023 | Annual | LDA | 0.428684816 | 0.020496451 | 0 | 0.008338434 | 0.028834884 | 0.017770154 | 0.13994 | 0.186545038 | 0.033012018 |
| Los Angele | 2023 | Annual | LDA | 0.001267744 | 9.27E-05 | 0 | 0 | 9.27E-05 | 5.22E-05 | 4.11E-04 | 5.56E-04 | 7.91E-05 |
| Los Angele | 2023 | Annual | LDA | 0.459929115 | 0.022009321 | 0 | 0.008565514 | 0.030574836 | 0.019082734 | 0.1502766 | 0.19993417 | 0.035449769 |
| Los Angele | 2023 | Annual | LDA | 0.001268347 | 8.82E-05 | 0 | 0 | 8.82E-05 | 5.24E-05 | 4.13E-04 | 5.53E-04 | 7.94E-05 |
| Los Angele | 2023 | Annual | LDA | 0.49104884 | 0.023524221 | 0 | 0.008650231 | 0.032174453 | 0.020396508 | 0.1606225 | 0.213193461 | 0.037894417 |
| Los Angele | 2023 | Annual | LDA | 0.001209107 | 7.95E-05 | 0 | 0 | 7.95E-05 | 5.02E-05 | 3.95E-04 | 5.25E-04 | 7.61E-05 |
| Los Angele | 2023 | Annual | LDA | 0.503002369 | 0.024126928 | 0 | 0.008293347 | 0.032420276 | 0.020918904 | 0.1647364 | 0.21807558 | 0.038872048 |
| Los Angele | 2023 | Annual | LDA | 0.001153894 | 7.12E-05 | 0 | 0 | 7.12E-05 | 4.81E-05 | 3.79E-04 | 4.98E-04 | 7.29E-05 |
| Los Angele | 2023 | Annual | LDA | 0.566422046 | 0.027209851 | 0 | 0.008560428 | 0.035770278 | 0.023591934 | 0.1857865 | 0.245148712 | 0.043847371 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | 3.59E-06 | 0 | 2.20E-04 | 0 | 2.07224622 | 3.05E-04 | 1.37E-03 | 4.35E-03 | 1.44E-04 | 3.14E-04 | 1.32E-04 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2022 | Annual | T6 instate heavy | 3.04E-06 | 0 | 2.32E-04 | 0 | 2.190840917 | 2.94E-04 | 1.31E-03 | 3.93E-03 | 1.39E-04 | 3.14E-04 | 1.28E-04 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.99E-06 | 0 | 2.57E-04 | 0 | 2.427511493 | 2.84E-04 | 1.26E-03 | 3.42E-03 | 1.33E-04 | 3.14E-04 | 1.23E-04 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2022 | Annual | T6 instate heavy | 5.25E-06 | 0 | 3.97E-04 | 0 | 3.747231916 | 2.28E-04 | 1.03E-03 | 2.82E-03 | 1.03E-04 | 3.14E-04 | 9.43E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2022 | Annual | T6 instate heavy | 8.52E-06 | 0 | 5.67E-04 | 0 | 5.353033044 | 2.23E-04 | 1.02E-03 | 2.72E-03 | 9.85E-05 | 3.14E-04 | 9.06E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2022 | Annual | T6 instate heavy | 1.09E-05 | 0 | 7.40E-04 | 0 | 6.981553814 | 2.15E-04 | 9.85E-04 | 2.58E-03 | 9.41E-05 | 3.14E-04 | 8.66E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2022 | Annual | T6 instate heavy | 8.20E-06 | 0 | 6.47E-04 | 0 | 6.107769325 | 2.06E-04 | 9.35E-04 | 2.42E-03 | 8.94E-05 | 3.14E-04 | 8.23E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2022 | Annual | T6 instate heavy | 8.96E-06 | 0 | 7.53E-04 | 0 | 7.107028718 | 1.97E-04 | 8.94E-04 | 2.26E-03 | 8.45E-05 | 3.14E-04 | 7.77E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2022 | Annual | T6 instate heavy | 4.50E-06 | 0 | 5.43E-04 | 0 | 5.12488229 | 1.86E-04 | 8.27E-04 | 2.05E-03 | 7.92E-05 | 3.14E-04 | 7.29E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2022 | Annual | T6 instate heavy | 4.61E-06 | 0 | 5.77E-04 | 0 | 5.440644335 | 1.77E-04 | 7.86E-04 | 1.88E-03 | 7.38E-05 | 3.14E-04 | 6.79E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2022 | Annual | T6 instate heavy | 4.81E-06 | 0 | 6.13E-04 | 0 | 5.785288415 | 1.67E-04 | 7.45E-04 | 1.71E-03 | 6.81E-05 | 3.14E-04 | 6.27E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2022 | Annual | T6 instate heavy | 5.16E-06 | 0 | 6.55E-04 | 0 | 6.17891049 | 1.57E-04 | 7.04E-04 | 1.54E-03 | 6.24E-05 | 3.14E-04 | 5.74E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2022 | Annual | T6 instate heavy | 4.55E-06 | 0 | 5.78E-04 | 0 | 5.448561556 | 1.48E-04 | 6.64E-04 | 1.36E-03 | 5.67E-05 | 3.14E-04 | 5.21E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2022 | Annual | T6 instate heavy | 1.13E-06 | 0 | 6.07E-05 | 0 | 0.572919731 | 1.46E-04 | 7.14E-04 | 1.32E-03 | 5.13E-05 | 3.14E-04 | 4.72E-05 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2022 | Annual | LDA/LDT1 | 0 | 0.018405246 | 0.512888843 | 5457.1823 | 11.95151827 | 1.23E-04 | 1.55E-03 | 1.33E-04 | 5.54E-06 | 9.87E-05 | 5.14E-06 | 3.91E-05 | 8.61E-06 |
| Los Angele | 2022 | Annual | T6 instate heavy | 8.87542E-05 | 0 | 0.007626657 | 0 | 71.9460663 | 2.33E-04 | 1.04E-03 | 3.14E-03 | 9.29E-05 | 3.14E-04 | 8.54E-05 | 1.30E-04 | 2.39E-05 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | LDA | 0 | 4.88E-04 | 0.010114232 | 107.883 | 0 | 3.30E-04 | 2.41E-03 | 1.58E-04 | 7.29E-07 | 9.87E-05 | 6.76E-07 | 3.91E-05 | 8.59E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2023 | Annual | LDA | 0 | 5.60E-04 | 0.011822521 | 126.1044 | 0 | 2.97E-04 | 2.19E-03 | 1.53E-04 | 7.56E-07 | 9.87E-05 | 7.01E-07 | 3.91E-05 | 8.58E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 1.46E-06 | 0 | 0.013776854 | 1.95E-05 | 1.83E-04 | 5.91E-04 | 1.17E-05 | 9.87E-05 | 1.08E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 5.38E-04 | 0.01153516 | 123.0392 | 0 | 2.71E-04 | 2.15E-03 | 1.60E-04 | 1.04E-06 | 9.87E-05 | 9.63E-07 | 3.91E-05 | 8.59E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 5.10E-05 | 0 | 0.4810732 | 1.91E-05 | 1.80E-04 | 5.80E-04 | 1.15E-05 | 9.87E-05 | 1.06E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 7.49E-04 | 0.016387501 | 174.7965 | 0 | 2.47E-04 | 2.08E-03 | 1.65E-04 | 1.08E-06 | 9.87E-05 | 1.00E-06 | 3.91E-05 | 8.58E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 9.70E-05 | 0 | 0.9146863 | 1.87E-05 | 1.75E-04 | 5.67E-04 | 1.12E-05 | 9.87E-05 | 1.03E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 8.11E-04 | 0.018074698 | 192.7929 | 0 | 2.24E-04 | 2.06E-03 | 1.64E-04 | 1.69E-06 | 9.87E-05 | 1.57E-06 | 3.91E-05 | 8.58E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 9.33E-05 | 0 | 0.8791867 | 1.82E-05 | 1.71E-04 | 5.54E-04 | 1.10E-05 | 9.87E-05 | 1.01E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 9.10E-04 | 0.020704285 | 220.8413 | 0 | 2.01E-04 | 2.02E-03 | 1.62E-04 | 2.28E-06 | 9.87E-05 | 2.11E-06 | 3.91E-05 | 8.57E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 9.13E-05 | 0 | 0.8604674 | 1.77E-05 | 1.66E-04 | 5.39E-04 | 1.07E-05 | 9.87E-05 | 9.83E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 9.60E-04 | 0.022320409 | 238.0796 | 0 | 1.85E-04 | 1.97E-03 | 1.61E-04 | 3.61E-06 | 9.87E-05 | 3.35E-06 | 3.91E-05 | 8.56E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 8.90E-05 | 0 | 0.8393895 | 1.71E-05 | 1.61E-04 | 5.24E-04 | 1.04E-05 | 9.87E-05 | 9.54E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0.001031116 | 0.024584882 | 262.2335 | 0 | 1.68E-04 | 1.92E-03 | 1.58E-04 | 4.87E-06 | 9.87E-05 | 4.52E-06 | 3.91E-05 | 8.55E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 8.27E-05 | 0 | 0.7793879 | 1.66E-05 | 1.55E-04 | 5.07E-04 | 1.00E-05 | 9.87E-05 | 9.24E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0.001104042 | 0.027052824 | 288.5577 | 0 | 1.50E-04 | 1.86E-03 | 1.56E-04 | 6.09E-06 | 9.87E-05 | 5.65E-06 | 3.91E-05 | 8.54E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 8.26E-05 | 0 | 0.7784787 | 1.59E-05 | 1.49E-04 | 4.90E-04 | 9.70E-06 | 9.87E-05 | 8.93E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0.001156256 | 0.029251665 | 312.0115 | 0 | 1.33E-04 | 1.80E-03 | 1.52E-04 | 6.96E-06 | 9.87E-05 | 6.46E-06 | 3.91E-05 | 8.53E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 8.05E-05 | 0 | 0.759084 | 1.53E-05 | 1.43E-04 | 4.71E-04 | 9.34E-06 | 9.87E-05 | 8.59E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0.001206739 | 0.031668909 | 337.7949 | 0 | 1.12E-04 | 1.71E-03 | 1.46E-04 | 7.50E-06 | 9.87E-05 | 6.96E-06 | 3.91E-05 | 8.51E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 8.17E-05 | 0 | 0.7701734 | 1.46E-05 | 1.36E-04 | 4.51E-04 | 8.95E-06 | 9.87E-05 | 8.23E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0.001254571 | 0.034266589 | 365.503 | 0 | 9.76E-05 | 1.59E-03 | 1.36E-04 | 7.71E-06 | 9.87E-05 | 7.15E-06 | 3.91E-05 | 8.50E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 7.91E-05 | 0 | 0.7454205 | 1.38E-05 | 1.29E-04 | 4.30E-04 | 8.52E-06 | 9.87E-05 | 7.84E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0.001282165 | 0.036731934 | 391.7995 | 0 | 8.49E-05 | 1.40E-03 | 1.28E-04 | 7.61E-06 | 9.87E-05 | 7.06E-06 | 3.91E-05 | 8.49E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 7.94E-05 | 0 | 0.7489162 | 1.30E-05 | 1.21E-04 | 4.07E-04 | 8.07E-06 | 9.87E-05 | 7.42E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0.001292899 | 0.039187316 | 417.9897 | 0 | 7.51E-05 | 1.26E-03 | 1.17E-04 | 7.50E-06 | 9.87E-05 | 6.96E-06 | 3.91E-05 | 8.47E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 7.61E-05 | 0 | 0.717114 | 1.22E-05 | 1.13E-04 | 3.83E-04 | 7.60E-06 | 9.87E-05 | 6.99E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0.001238237 | 0.040110285 | 427.8345 | 0 | 6.68E-05 | 1.16E-03 | 1.08E-04 | 7.36E-06 | 9.87E-05 | 6.83E-06 | 3.91E-05 | 8.45E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 7.29E-05 | 0 | 0.6876106 | 1.13E-05 | 1.05E-04 | 3.57E-04 | 7.09E-06 | 9.87E-05 | 6.53E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0.001276947 | 0.045124318 | 481.3163 | 0 | 5.87E-05 | 1.08E-03 | 9.89E-05 | 7.21E-06 | 9.87E-05 | 6.69E-06 | 3.91E-05 | 8.43E-06 |

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|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2022 | Annual | LDA/LDT1 | 2.80E-04 |
| Los Angele | 2022 | Annual | T6 instate heavy | 1.13E-03 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2023 | Annual | LDA | 3.85E-04 |
| Los Angele | 2023 | Annual | LDA | |
| Los Angele | 2023 | Annual | LDA | 3.85E-04 |
| Los Angele | 2023 | Annual | LDA | 3.15E-04 |
| Los Angele | 2023 | Annual | LDA | 3.86E-04 |
| Los Angele | 2023 | Annual | LDA | 3.15E-04 |
| Los Angele | 2023 | Annual | LDA | 3.72E-04 |
| Los Angele | 2023 | Annual | LDA | 3.04E-04 |
| Los Angele | 2023 | Annual | LDA | 3.30E-04 |
| Los Angele | 2023 | Annual | LDA | 2.70E-04 |
| Los Angele | 2023 | Annual | LDA | 2.87E-04 |
| Los Angele | 2023 | Annual | LDA | 2.35E-04 |
| Los Angele | 2023 | Annual | LDA | 2.80E-04 |
| Los Angele | 2023 | Annual | LDA | 2.29E-04 |
| Los Angele | 2023 | Annual | LDA | 2.73E-04 |
| Los Angele | 2023 | Annual | LDA | 2.24E-04 |
| Los Angele | 2023 | Annual | LDA | 2.62E-04 |
| Los Angele | 2023 | Annual | LDA | 2.15E-04 |
| Los Angele | 2023 | Annual | LDA | 2.52E-04 |
| Los Angele | 2023 | Annual | LDA | 2.07E-04 |
| Los Angele | 2023 | Annual | LDA | 2.51E-04 |
| Los Angele | 2023 | Annual | LDA | 2.07E-04 |
| Los Angele | 2023 | Annual | LDA | 2.51E-04 |
| Los Angele | 2023 | Annual | LDA | 2.07E-04 |
| Los Angele | 2023 | Annual | LDA | 2.51E-04 |
| Los Angele | 2023 | Annual | LDA | 2.07E-04 |
| Los Angele | 2023 | Annual | LDA | 2.50E-04 |
| Los Angele | 2023 | Annual | LDA | 2.07E-04 |
| Los Angele | 2023 | Annual | LDA | 2.50E-04 |
| Los Angele | 2023 | Annual | LDA | 2.07E-04 |
| Los Angele | 2023 | Annual | LDA | 2.49E-04 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | LDA | DSL | 2022 | AllSpeeds | 506.1973 | 22947.9434 | 3310.2 | 1.18E-04 | 0 | 0 | 1.18E-04 |
| Los Angele | 2023 | Annual | LDA | GAS | 2023 | AllSpeeds | 238254.5 | 1.24E+07 | 1562793 | 0.094289878 | 0 | 0.053311024 | 0.147600902 |
| Los Angele | 2023 | Annual | LDA | DSL | 2023 | AllSpeeds | 508.9287 | 26526.15906 | 3338.238 | 1.22E-04 | 0 | 0 | 1.22E-04 |
| Los Angele | 2023 | Annual | LDT1 | GAS | 2007 | AllSpeeds | 7222.417 | 211827.049 | 43619.04 | 0.00315384 | 0 | 0.003011324 | 0.006165164 |
| Los Angele | 2023 | Annual | LDT1 | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | LDT1 | GAS | 2008 | AllSpeeds | 15409.16 | 458862.3884 | 93678.29 | 0.006331914 | 0 | 0.005764497 | 0.012096412 |
| Los Angele | 2023 | Annual | LDT1 | DSL | 2008 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | LDT1 | GAS | 2009 | AllSpeeds | 14064.76 | 425480.2306 | 86208.38 | 0.005928883 | 0 | 0.005330175 | 0.011259057 |
| Los Angele | 2023 | Annual | LDT1 | DSL | 2009 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | LDT1 | GAS | 2010 | AllSpeeds | 15824.58 | 486789.0514 | 97627.91 | 0.00683883 | 0 | 0.006049322 | 0.012888152 |
| Los Angele | 2023 | Annual | LDT1 | DSL | 2010 | AllSpeeds | 24.6803 | 759.2070235 | 152.2622 | 8.52E-06 | 0 | 0 | 8.52E-06 |
| Los Angele | 2023 | Annual | LDT1 | GAS | 2011 | AllSpeeds | 15450.71 | 483792.6766 | 96093.8 | 0.006686438 | 0 | 0.0058667 | 0.012553138 |
| Los Angele | 2023 | Annual | LDT1 | DSL | 2011 | AllSpeeds | 35.90012 | 1124.10829 | 223.2764 | 1.23E-05 | 0 | 0 | 1.23E-05 |
| Los Angele | 2023 | Annual | LDT1 | GAS | 2012 | AllSpeeds | 15198.8 | 484929.128 | 95134.93 | 0.006583402 | 0 | 0.005713694 | 0.012297096 |
| Los Angele | 2023 | Annual | LDT1 | DSL | 2012 | AllSpeeds | 26.51246 | 845.9032204 | 165.9514 | 8.99E-06 | 0 | 0 | 8.99E-06 |
| Los Angele | 2023 | Annual | LDT1 | GAS | 2013 | AllSpeeds | 15766.94 | 513144.1236 | 99479.44 | 0.006827407 | 0 | 0.005863176 | 0.012690584 |
| Los Angele | 2023 | Annual | LDT1 | DSL | 2013 | AllSpeeds | 35.3662 | 1151.018285 | 223.1384 | 1.18E-05 | 0 | 0 | 1.18E-05 |
| Los Angele | 2023 | Annual | LDT1 | GAS | 2014 | AllSpeeds | 16124.9 | 536180.433 | 102382.9 | 0.006970369 | 0 | 0.005903609 | 0.012873978 |
| Los Angele | 2023 | Annual | LDT1 | DSL | 2014 | AllSpeeds | 34.26592 | 1139.405009 | 217.5668 | 1.13E-05 | 0 | 0 | 1.13E-05 |
| Los Angele | 2023 | Annual | LDT1 | GAS | 2015 | AllSpeeds | 17109.18 | 582272.1441 | 109316.7 | 0.007372893 | 0 | 0.00614678 | 0.013519672 |
| Los Angele | 2023 | Annual | LDT1 | DSL | 2015 | AllSpeeds | 35.30796 | 1201.632471 | 225.5952 | 1.15E-05 | 0 | 0 | 1.15E-05 |
| Los Angele | 2023 | Annual | LDT1 | GAS | 2016 | AllSpeeds | 17321.35 | 604620.0838 | 111192 | 0.007435772 | 0 | 0.006075664 | 0.013511436 |
| Los Angele | 2023 | Annual | LDT1 | DSL | 2016 | AllSpeeds | 45.18617 | 1577.279609 | 290.0662 | 1.44E-05 | 0 | 0 | 1.44E-05 |
| Los Angele | 2023 | Annual | LDT1 | GAS | 2017 | AllSpeeds | 17717.34 | 635906.1042 | 114088.3 | 0.007565106 | 0 | 0.006033967 | 0.013599073 |
| Los Angele | 2023 | Annual | LDT1 | DSL | 2017 | AllSpeeds | 30.80781 | 1105.75143 | 198.3824 | 9.63E-06 | 0 | 0 | 9.63E-06 |
| Los Angele | 2023 | Annual | LDT1 | GAS | 2018 | AllSpeeds | 17856.98 | 661298.9153 | 115523.1 | 0.007435986 | 0 | 0.005819612 | 0.013255599 |
| Los Angele | 2023 | Annual | LDT1 | DSL | 2018 | AllSpeeds | 32.27806 | 1195.362664 | 208.8181 | 9.85E-06 | 0 | 0 | 9.85E-06 |
| Los Angele | 2023 | Annual | LDT1 | GAS | 2019 | AllSpeeds | 17952.74 | 689009.2476 | 116501.6 | 0.006913327 | 0 | 0.005382034 | 0.012295361 |
| Los Angele | 2023 | Annual | LDT1 | DSL | 2019 | AllSpeeds | 37.61664 | 1443.699182 | 244.1076 | 1.12E-05 | 0 | 0 | 1.12E-05 |
| Los Angele | 2023 | Annual | LDT1 | GAS | 2020 | AllSpeeds | 18347.96 | 734425.5021 | 119249.8 | 0.006856922 | 0 | 0.005157596 | 0.012014518 |
| Los Angele | 2023 | Annual | LDT1 | DSL | 2020 | AllSpeeds | 31.59509 | 1264.6847 | 205.3475 | 9.14E-06 | 0 | 0 | 9.14E-06 |
| Los Angele | 2023 | Annual | LDT1 | GAS | 2021 | AllSpeeds | 19364.46 | 816414.1186 | 126243.6 | 0.007211557 | 0 | 0.005136563 | 0.012348121 |
| Los Angele | 2023 | Annual | LDT1 | DSL | 2021 | AllSpeeds | 23.60095 | 995.0326303 | 153.8628 | 6.64E-06 | 0 | 0 | 6.64E-06 |
| Los Angele | 2023 | Annual | LDT1 | GAS | 2022 | AllSpeeds | 19993.03 | 902959.2176 | 130741.4 | 0.007474206 | 0 | 0.004936105 | 0.012410312 |
| Los Angele | 2023 | Annual | LDT1 | DSL | 2022 | AllSpeeds | 19.83228 | 895.7040031 | 129.6901 | 5.46E-06 | 0 | 0 | 5.46E-06 |
| Los Angele | 2023 | Annual | LDT1 | GAS | 2023 | AllSpeeds | 20065.72 | 1009011.212 | 131618 | 0.007617582 | 0 | 0.004463345 | 0.012080927 |
| Los Angele | 2023 | Annual | LDT1 | DSL | 2023 | AllSpeeds | 26.52448 | 1333.799211 | 173.9832 | 7.30E-06 | 0 | 0 | 7.30E-06 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2010 | AllSpeeds | 406.4229971 | 15725.57731 | 0 | 0.002373103 | 9.40E-05 | 0 | 0.002467143 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2011 | AllSpeeds | 343.2419198 | 16327.62016 | 0 | 0.002397711 | 7.94E-05 | 0 | 0.002477132 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2012 | AllSpeeds | 361.1779898 | 19240.68679 | 0 | 0.002741161 | 8.36E-05 | 0 | 0.002824732 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2013 | AllSpeeds | 617.4060467 | 29840.01878 | 0 | 0.00336732 | 1.43E-04 | 0 | 0.003510178 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2014 | AllSpeeds | 1066.402736 | 48647.72279 | 0 | 0.005331905 | 2.47E-04 | 0 | 0.005578654 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2015 | AllSpeeds | 2049.380175 | 83931.08231 | 0 | 0.008909719 | 4.74E-04 | 0 | 0.009383913 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2016 | AllSpeeds | 868.9939817 | 43616.16492 | 0 | 0.004470216 | 2.01E-04 | 0 | 0.004671287 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2017 | AllSpeeds | 1682.434217 | 77846.75075 | 0 | 0.007675175 | 3.89E-04 | 0 | 0.008064464 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2018 | AllSpeeds | 580.1650797 | 44372.45537 | 0 | 0.004191364 | 1.34E-04 | 0 | 0.004325605 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2019 | AllSpeeds | 580.0903928 | 46508.86414 | 0 | 0.004190028 | 1.34E-04 | 0 | 0.004324252 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2020 | AllSpeeds | 591.3788493 | 49102.55255 | 0 | 0.004198908 | 1.37E-04 | 0 | 0.004335744 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2021 | AllSpeeds | 611.0999818 | 51728.75109 | 0 | 0.00417819 | 1.41E-04 | 0 | 0.004319589 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2022 | AllSpeeds | 655.4903802 | 55269.05333 | 0 | 0.004197147 | 1.52E-04 | 0 | 0.004348817 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2023 | AllSpeeds | 583.67781 | 49233.13915 | 0 | 0.003501963 | 1.35E-04 | 0 | 0.003637017 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2024 | AllSpeeds | 146.8828824 | 5179.839544 | 0 | 3.44E-04 | 3.40E-05 | 0 | 3.78E-04 |
| Los Angele | 2023 | Annual | LDA/LDT1 | GAS&DSI | >2007 | AllSpeeds | 3518564.563 | 121465503.9 | 22469305.88 | 1.321486686 | 0 | 1.13584767 | 2.457334356 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | >2007 | AllSpeeds | 11144.24544 | 636570.279 | 0 | 0.062067437 | 0.002578603 | 0 | 0.06464604 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 1.18E-04 | 1.34E-04 | 0 | 0 | 1.34E-04 |
| Los Angele | 2023 | Annual | LDA | 0.006710097 | 0.007480855 | 0.141471 | 0.004402493 | 0.307665347 | 0.17548541 | 0 | 0.056919727 | 0.232405137 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 1.22E-04 | 1.39E-04 | 0 | 0 | 1.39E-04 |
| Los Angele | 2023 | Annual | LDT1 | 0.002158674 | 0.00644696 | 0.021730384 | 0.002700173 | 0.039201355 | 0.005869695 | 0 | 0.003215166 | 0.009084861 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | LDT1 | 0.004128446 | 0.012275534 | 0.041916806 | 0.005121641 | 0.075538838 | 0.011784494 | 0 | 0.006154704 | 0.017939198 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | LDT1 | 0.003338022 | 0.009870634 | 0.034291927 | 0.004098784 | 0.062858424 | 0.011034401 | 0 | 0.005690983 | 0.016725383 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | LDT1 | 0.003318878 | 0.009722313 | 0.034578498 | 0.004027301 | 0.064535141 | 0.012727927 | 0 | 0.00645881 | 0.019186737 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.52E-06 | 9.70E-06 | 0 | 0 | 9.70E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0.002842584 | 0.008233462 | 0.03021759 | 0.003400101 | 0.057246876 | 0.012444308 | 0 | 0.006263827 | 0.018708134 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.23E-05 | 1.40E-05 | 0 | 0 | 1.40E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0.002405777 | 0.006837807 | 0.026215119 | 0.002824282 | 0.050580081 | 0.012252545 | 0 | 0.006100462 | 0.018353006 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.99E-06 | 1.02E-05 | 0 | 0 | 1.02E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0.002236087 | 0.006248684 | 0.025142748 | 0.002577934 | 0.048896036 | 0.012706669 | 0 | 0.006260064 | 0.018966733 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.18E-05 | 1.35E-05 | 0 | 0 | 1.35E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0.002021314 | 0.005503271 | 0.02351045 | 0.002276847 | 0.04618586 | 0.01297274 | 0 | 0.006303234 | 0.019275973 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.13E-05 | 1.29E-05 | 0 | 0 | 1.29E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0.001814753 | 0.004735672 | 0.022070222 | 0.001975227 | 0.044115547 | 0.013721887 | 0 | 0.006562864 | 0.020284751 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.15E-05 | 1.31E-05 | 0 | 0 | 1.31E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0.001554166 | 0.003820315 | 0.019120736 | 0.001626667 | 0.03963332 | 0.013838912 | 0 | 0.006486936 | 0.020325848 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.44E-05 | 1.64E-05 | 0 | 0 | 1.64E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0.001285227 | 0.0028515 | 0.014723567 | 0.001283759 | 0.033743126 | 0.014079619 | 0 | 0.006442417 | 0.020522036 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.63E-06 | 1.10E-05 | 0 | 0 | 1.10E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0.001051865 | 0.002057867 | 0.013162519 | 9.69E-04 | 0.030496827 | 0.013839312 | 0 | 0.006213551 | 0.020052863 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.85E-06 | 1.12E-05 | 0 | 0 | 1.12E-05 |
| Los Angele | 2023 | Annual | LDT1 | 9.08E-04 | 0.00154842 | 0.011868968 | 7.71E-04 | 0.027391139 | 0.012866578 | 0 | 0.005746352 | 0.01861293 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.12E-05 | 1.27E-05 | 0 | 0 | 1.27E-05 |
| Los Angele | 2023 | Annual | LDT1 | 8.22E-04 | 0.001212428 | 0.0109203 | 6.45E-04 | 0.025614507 | 0.012761599 | 0 | 0.005506722 | 0.018268322 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.14E-06 | 1.04E-05 | 0 | 0 | 1.04E-05 |
| Los Angele | 2023 | Annual | LDT1 | 7.93E-04 | 0.00101526 | 0.010582574 | 5.79E-04 | 0.025317387 | 0.013421621 | 0 | 0.005484265 | 0.018905885 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 6.64E-06 | 7.56E-06 | 0 | 0 | 7.56E-06 |
| Los Angele | 2023 | Annual | LDT1 | 7.66E-04 | 8.64E-04 | 0.010074296 | 5.27E-04 | 0.024642212 | 0.013910445 | 0 | 0.005270238 | 0.019180683 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 5.46E-06 | 6.22E-06 | 0 | 0 | 6.22E-06 |
| Los Angele | 2023 | Annual | LDT1 | 7.34E-04 | 7.44E-04 | 0.009432762 | 4.82E-04 | 0.023473636 | 0.014177284 | 0 | 0.004765476 | 0.01894276 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 7.30E-06 | 8.31E-06 | 0 | 0 | 8.31E-06 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002467143 | 0.002701597 | 1.07E-04 | 0 | 0.002808654 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002477132 | 0.002729612 | 9.04E-05 | 0 | 0.002820026 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002824732 | 0.003120603 | 9.51E-05 | 0 | 0.003215742 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003510178 | 0.003833438 | 1.63E-04 | 0 | 0.003996071 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005578654 | 0.006069968 | 2.81E-04 | 0 | 0.006350873 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.009383913 | 0.010143037 | 5.40E-04 | 0 | 0.010682871 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004671287 | 0.005089 | 2.29E-04 | 0 | 0.005317905 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.008064464 | 0.008737602 | 4.43E-04 | 0 | 0.009180778 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004325605 | 0.004771549 | 1.53E-04 | 0 | 0.004924372 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004324252 | 0.004770028 | 1.53E-04 | 0 | 0.004922832 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004335744 | 0.004780137 | 1.56E-04 | 0 | 0.004935914 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004319589 | 0.004756551 | 1.61E-04 | 0 | 0.004917523 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004348817 | 0.004778132 | 1.73E-04 | 0 | 0.004950797 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003637017 | 0.003986719 | 1.54E-04 | 0 | 0.004140467 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.78E-04 | 3.91E-04 | 3.87E-05 | 0 | 4.30E-04 |
| Los Angele | 2023 | Annual | LDA/LDT1 | 0.294889469 | 0.936074617 | 3.660719666 | 0.324139298 | 7.673157406 | 2.457382552 | 0 | 1.212735004 | 3.670117555 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.06464604 | 0.070659052 | 0.002935544 | 0 | 0.073594596 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 1.34E-04 | 0.001095072 | 0 | 0 | 0.001095072 |
| Los Angele | 2023 | Annual | LDA | 0.006710097 | 0.007480855 | 0.141471 | 0.004402493 | 0.392469582 | 5.336262008 | 0 | 0.8187956 | 6.155057608 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 0 | 0 | 1.39E-04 | 0.001131211 | 0 | 0 | 0.001131211 |
| Los Angele | 2023 | Annual | LDT1 | 0.002158674 | 0.00644696 | 0.021730384 | 0.002700173 | 0.042121052 | 0.197422305 | 0 | 0.058470327 | 0.255892632 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | LDT1 | 0.004128446 | 0.012275534 | 0.041916806 | 0.005121641 | 0.081381625 | 0.389939805 | 0 | 0.1114492 | 0.501389005 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | LDT1 | 0.003338022 | 0.009870634 | 0.034291927 | 0.004098784 | 0.06832475 | 0.355352604 | 0 | 0.099860258 | 0.455212862 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | LDT1 | 0.003318878 | 0.009722313 | 0.034578498 | 0.004027301 | 0.070833726 | 0.396891558 | 0 | 0.1091089 | 0.506000458 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.70E-06 | 7.97E-05 | 0 | 0 | 7.97E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0.002842584 | 0.008233462 | 0.03021759 | 0.003400101 | 0.063401871 | 0.389301556 | 0 | 0.1058647 | 0.495166256 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.40E-05 | 1.15E-04 | 0 | 0 | 1.15E-04 |
| Los Angele | 2023 | Annual | LDT1 | 0.002405777 | 0.006837807 | 0.026215119 | 0.002824282 | 0.056635991 | 0.384495689 | 0 | 0.1031191 | 0.487614789 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.02E-05 | 8.40E-05 | 0 | 0 | 8.40E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0.002236087 | 0.006248684 | 0.025142748 | 0.002577934 | 0.055172185 | 0.398916778 | 0 | 0.105451 | 0.504367778 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.35E-05 | 1.11E-04 | 0 | 0 | 1.11E-04 |
| Los Angele | 2023 | Annual | LDT1 | 0.002021314 | 0.005503271 | 0.02351045 | 0.002276847 | 0.052587854 | 0.407276193 | 0 | 0.1056725 | 0.512948693 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.29E-05 | 1.06E-04 | 0 | 0 | 1.06E-04 |
| Los Angele | 2023 | Annual | LDT1 | 0.001814753 | 0.004735672 | 0.022070222 | 0.001975227 | 0.050880625 | 0.430882099 | 0 | 0.1094468 | 0.540328899 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.31E-05 | 1.07E-04 | 0 | 0 | 1.07E-04 |
| Los Angele | 2023 | Annual | LDT1 | 0.001554166 | 0.003820315 | 0.019120736 | 0.001626667 | 0.046447732 | 0.433534364 | 0 | 0.1071621 | 0.540696464 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.64E-05 | 1.34E-04 | 0 | 0 | 1.34E-04 |
| Los Angele | 2023 | Annual | LDT1 | 0.001285227 | 0.0028515 | 0.014723567 | 0.001283759 | 0.040666089 | 0.437304443 | 0 | 0.1045944 | 0.541898843 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.10E-05 | 8.95E-05 | 0 | 0 | 8.95E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0.001051865 | 0.002057867 | 0.013162519 | 9.69E-04 | 0.037294091 | 0.424333919 | 0 | 0.097523585 | 0.521857504 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.12E-05 | 9.14E-05 | 0 | 0 | 9.14E-05 |
| Los Angele | 2023 | Annual | LDT1 | 9.08E-04 | 0.00154842 | 0.011868968 | 7.71E-04 | 0.033708708 | 0.391385873 | 0 | 0.084619261 | 0.476005134 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.27E-05 | 1.04E-04 | 0 | 0 | 1.04E-04 |
| Los Angele | 2023 | Annual | LDT1 | 8.22E-04 | 0.001212428 | 0.0109203 | 6.45E-04 | 0.03186831 | 0.381717829 | 0 | 0.077567704 | 0.459285533 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.04E-05 | 8.45E-05 | 0 | 0 | 8.45E-05 |
| Los Angele | 2023 | Annual | LDT1 | 7.93E-04 | 0.00101526 | 0.010582574 | 5.79E-04 | 0.031875152 | 0.396028849 | 0 | 0.075578764 | 0.471607613 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 7.56E-06 | 6.12E-05 | 0 | 0 | 6.12E-05 |
| Los Angele | 2023 | Annual | LDT1 | 7.66E-04 | 8.64E-04 | 0.010074296 | 5.27E-04 | 0.031412584 | 0.410782453 | 0 | 0.07275448 | 0.483536933 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 6.22E-06 | 5.01E-05 | 0 | 0 | 5.01E-05 |
| Los Angele | 2023 | Annual | LDT1 | 7.34E-04 | 7.44E-04 | 0.009432762 | 4.82E-04 | 0.030335468 | 0.431889928 | 0 | 0.06878031 | 0.500670238 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.31E-06 | 6.66E-05 | 0 | 0 | 6.66E-05 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002808654 | 0.009985849 | 0.001112028 | 0 | 0.011097877 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002820026 | 0.010089401 | 9.39E-04 | 0 | 0.011028557 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003215742 | 0.011534611 | 9.88E-04 | 0 | 0.012522843 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003996071 | 0.014169446 | 0.001689306 | 0 | 0.015858752 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.006350873 | 0.022436281 | 0.002917821 | 0 | 0.025354103 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.010682871 | 0.037491472 | 0.00560738 | 0 | 0.043098852 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005317905 | 0.018810354 | 0.002377684 | 0 | 0.021188038 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.009180778 | 0.032296597 | 0.004603366 | 0 | 0.036899963 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004924372 | 0.017636966 | 0.00158741 | 0 | 0.019224376 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004922832 | 0.017631344 | 0.001587205 | 0 | 0.01921855 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004935914 | 0.017668709 | 0.001618092 | 0 | 0.019286802 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004917523 | 0.01758153 | 0.001672052 | 0 | 0.019253582 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004950797 | 0.017661298 | 0.00179351 | 0 | 0.019454808 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004140467 | 0.014736016 | 0.001597021 | 0 | 0.016333037 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.30E-04 | 0.001445541 | 4.02E-04 | 0 | 0.001847432 |
| Los Angele | 2023 | Annual | LDA/LDT1 | 0.294889469 | 0.936074617 | 3.660719666 | 0.324139298 | 8.885940605 | 75.7678806 | 0 | 19.29435769 | 95.06223829 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.073594596 | 0.261175417 | 0.030492155 | 0 | 0.291667572 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 Annual | LDA | 0.003788133 | 0 | 0 | 0.003788133 | 8.034021247 | 0 | 0 | 8.034021247 | 4.750516764 |
| Los Angele | 2023 Annual | LDA | 0.511719892 | 0 | 0.043858852 | 0.555578744 | 5089.734383 | 0 | 127.9573 | 5217.691683 | 3009.559941 |
| Los Angele | 2023 Annual | LDA | 0.003979969 | 0 | 0 | 0.003979969 | 9.286744291 | 0 | 0 | 9.286744291 | 5.491251899 |
| Los Angele | 2023 Annual | LDT1 | 0.01385857 | 0 | 0.002698062 | 0.016556632 | 100.7700494 | 0 | 4.157941 | 104.9279904 | 90.69304446 |
| Los Angele | 2023 Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 Annual | LDT1 | 0.029189622 | 0 | 0.005570969 | 0.03476059 | 218.0954179 | 0 | 8.921821 | 227.0172389 | 196.2858761 |
| Los Angele | 2023 Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 Annual | LDT1 | 0.028110224 | 0 | 0.005410093 | 0.033520317 | 202.5747838 | 0 | 8.224497 | 210.7992808 | 182.3173054 |
| Los Angele | 2023 Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 Annual | LDT1 | 0.033412477 | 0 | 0.006467999 | 0.039880477 | 231.6215126 | 0 | 9.308178 | 240.9296906 | 201.1632837 |
| Los Angele | 2023 Annual | LDT1 | 2.62E-04 | 0 | 0 | 2.62E-04 | 0.265796558 | 0 | 0 | 0.265796558 | 0.230844311 |
| Los Angele | 2023 Annual | LDT1 | 0.033048497 | 0 | 0.006321094 | 0.03936959 | 230.1715961 | 0 | 9.160943 | 239.3325391 | 177.3241976 |
| Los Angele | 2023 Annual | LDT1 | 3.78E-04 | 0 | 0 | 3.78E-04 | 0.393547664 | 0 | 0 | 0.393547664 | 0.30318912 |
| Los Angele | 2023 Annual | LDT1 | 0.032921989 | 0 | 0.006200192 | 0.039122181 | 230.6952807 | 0 | 9.068864 | 239.7641447 | 155.0964372 |
| Los Angele | 2023 Annual | LDT1 | 2.77E-04 | 0 | 0 | 2.77E-04 | 0.296148729 | 0 | 0 | 0.296148729 | 0.19910079 |
| Los Angele | 2023 Annual | LDT1 | 0.034563439 | 0 | 0.006406686 | 0.040970125 | 244.0877577 | 0 | 9.481826 | 253.5695837 | 159.9262988 |
| Los Angele | 2023 Annual | LDT1 | 3.66E-04 | 0 | 0 | 3.66E-04 | 0.402968763 | 0 | 0 | 0.402968763 | 0.264025133 |
| Los Angele | 2023 Annual | LDT1 | 0.035749 | 0 | 0.006492492 | 0.042241492 | 255.0343124 | 0 | 9.758141 | 264.7924534 | 163.4259874 |
| Los Angele | 2023 Annual | LDT1 | 3.51E-04 | 0 | 0 | 3.51E-04 | 0.398902959 | 0 | 0 | 0.398902959 | 0.255617016 |
| Los Angele | 2023 Annual | LDT1 | 0.038306763 | 0 | 0.006793033 | 0.045099796 | 276.9172998 | 0 | 10.41747 | 287.3347698 | 170.2210642 |
| Los Angele | 2023 Annual | LDT1 | 3.57E-04 | 0 | 0 | 3.57E-04 | 0.42068866 | 0 | 0 | 0.42068866 | 0.258597319 |
| Los Angele | 2023 Annual | LDT1 | 0.039057924 | 0 | 0.006719792 | 0.045777715 | 287.6168745 | 0 | 10.59559 | 298.2124645 | 170.0678579 |
| Los Angele | 2023 Annual | LDT1 | 4.49E-04 | 0 | 0 | 4.49E-04 | 0.552201793 | 0 | 0 | 0.552201793 | 0.32651692 |
| Los Angele | 2023 Annual | LDT1 | 0.039706167 | 0 | 0.006564264 | 0.046270431 | 302.5903236 | 0 | 10.87155 | 313.4618736 | 178.9216584 |
| Los Angele | 2023 Annual | LDT1 | 3.01E-04 | 0 | 0 | 3.01E-04 | 0.387120881 | 0 | 0 | 0.387120881 | 0.228904577 |
| Los Angele | 2023 Annual | LDT1 | 0.038515182 | 0 | 0.006036633 | 0.044551814 | 314.7250095 | 0 | 11.00674 | 325.7317495 | 186.0968981 |
| Los Angele | 2023 Annual | LDT1 | 3.09E-04 | 0 | 0 | 3.09E-04 | 0.418493663 | 0 | 0 | 0.418493663 | 0.247455303 |
| Los Angele | 2023 Annual | LDT1 | 0.038031022 | 0 | 0.005598355 | 0.043629377 | 328.0209691 | 0 | 11.10027 | 339.1212391 | 193.958799 |
| Los Angele | 2023 Annual | LDT1 | 3.53E-04 | 0 | 0 | 3.53E-04 | 0.505435666 | 0 | 0 | 0.505435666 | 0.298864109 |
| Los Angele | 2023 Annual | LDT1 | 0.03757048 | 0 | 0.005066829 | 0.042637309 | 349.7271899 | 0 | 11.36142 | 361.0886099 | 206.7936874 |
| Los Angele | 2023 Annual | LDT1 | 2.90E-04 | 0 | 0 | 2.90E-04 | 0.442763118 | 0 | 0 | 0.442763118 | 0.261805832 |
| Los Angele | 2023 Annual | LDT1 | 0.03903482 | 0 | 0.0047568 | 0.043791621 | 388.9057762 | 0 | 12.02833 | 400.9341062 | 229.9599855 |
| Los Angele | 2023 Annual | LDT1 | 2.13E-04 | 0 | 0 | 2.13E-04 | 0.348358531 | 0 | 0 | 0.348358531 | 0.2059844 |
| Los Angele | 2023 Annual | LDT1 | 0.040156807 | 0 | 0.004293048 | 0.044449856 | 430.2866193 | 0 | 12.45758 | 442.7441993 | 254.428478 |
| Los Angele | 2023 Annual | LDT1 | 1.76E-04 | 0 | 0 | 1.76E-04 | 0.313583806 | 0 | 0 | 0.313583806 | 0.185422104 |
| Los Angele | 2023 Annual | LDT1 | 0.041397317 | 0 | 0.00366491 | 0.045062227 | 480.9679928 | 0 | 12.54108 | 493.5090728 | 284.3963741 |
| Los Angele | 2023 Annual | LDT1 | 2.39E-04 | 0 | 0 | 2.39E-04 | 0.466959919 | 0 | 0 | 0.466959919 | 0.2761134 |
| Los Angele | 2023 Annual | T6 instate heavy | 0.033590456 | 0.001680046 | 0 | 0.035270502 | 19.43054874 | 0.334116514 | 0 | 19.76466526 | 17.48749387 |
| Los Angele | 2023 Annual | T6 instate heavy | 0.031847446 | 0.001418872 | 0 | 0.033266318 | 20.17443387 | 0.282175946 | 0 | 20.45660981 | 18.15699048 |
| Los Angele | 2023 Annual | T6 instate heavy | 0.032856441 | 0.001493015 | 0 | 0.034349456 | 23.77382371 | 0.29692102 | 0 | 24.07074473 | 21.39644134 |
| Los Angele | 2023 Annual | T6 instate heavy | 0.041395778 | 0.002552195 | 0 | 0.043947973 | 36.78551843 | 0.507563689 | 0 | 37.29308212 | 33.10696659 |
| Los Angele | 2023 Annual | T6 instate heavy | 0.064627457 | 0.004408229 | 0 | 0.069035687 | 59.97086385 | 0.876679634 | 0 | 60.84754348 | 53.97377746 |
| Los Angele | 2023 Annual | T6 instate heavy | 0.106257388 | 0.0084716 | 0 | 0.114728988 | 103.4667035 | 1.684776118 | 0 | 105.1514796 | 93.12003314 |
| Los Angele | 2023 Annual | T6 instate heavy | 0.052321244 | 0.003592193 | 0 | 0.055913437 | 53.7681712 | 0.714391758 | 0 | 54.48256296 | 48.39135408 |
| Los Angele | 2023 Annual | T6 instate heavy | 0.087886647 | 0.006954742 | 0 | 0.094841389 | 95.96619579 | 1.383113306 | 0 | 97.34930909 | 86.36957621 |
| Los Angele | 2023 Annual | T6 instate heavy | 0.046770323 | 0.00239825 | 0 | 0.049168574 | 54.70049421 | 0.476948241 | 0 | 55.17744246 | 49.23044479 |
| Los Angele | 2023 Annual | T6 instate heavy | 0.045340833 | 0.002397942 | 0 | 0.047738775 | 57.33416898 | 0.476886842 | 0 | 57.81105582 | 51.60075208 |
| Los Angele | 2023 Annual | T6 instate heavy | 0.043795688 | 0.002444605 | 0 | 0.046240293 | 60.53155882 | 0.486166976 | 0 | 61.0177258 | 54.47840294 |
| Los Angele | 2023 Annual | T6 instate heavy | 0.04169278 | 0.002526127 | 0 | 0.044218907 | 63.76902577 | 0.502379533 | 0 | 64.2714053 | 57.39212319 |
| Los Angele | 2023 Annual | T6 instate heavy | 0.039707592 | 0.002709625 | 0 | 0.042417217 | 68.13336127 | 0.538872461 | 0 | 68.67223373 | 61.32002514 |
| Los Angele | 2023 Annual | T6 instate heavy | 0.031079504 | 0.002412771 | 0 | 0.033492275 | 60.69254048 | 0.479836024 | 0 | 61.1723765 | 54.62328643 |
| Los Angele | 2023 Annual | T6 instate heavy | 0.002818363 | 6.07E-04 | 0 | 0.003425539 | 6.385488039 | 0.120751033 | 0 | 6.506239071 | 5.746939235 |
| Los Angele | 2023 Annual | LDA/LDT1 | 6.949451092 | 0 | 1.164593352 | 8.114044445 | 50371.58321 | 0 | 1857.647961 | 52229.23117 | 32310.95999 |
| Los Angele | 2023 Annual | T6 instate heavy | 0.70198794 | 0.046067388 | 0 | 0.748055329 | 784.8828966 | 9.161579092 | 0 | 794.0444757 | 706.394607 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 4.750516764 | 7.52E-05 | 0 | 0 | 7.52E-05 | 2.02E-04 | 9.30E-04 |
| Los Angele | 2023 | Annual | LDA | 0 | 75.66115149 | 3085.221092 | 0.034031936 | 0 | 0.0093409 | 0.043372836 | 0.1095094 | 0.5030587 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 5.491251899 | 7.91E-05 | 0 | 0 | 7.91E-05 | 2.34E-04 | 0.001074573 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 3.7421469 | 94.43519136 | 6.70E-05 | 0 | 8.62E-06 | 7.56E-05 | 0.001867995 | 0.008581102 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 8.0296389 | 204.315515 | 1.45E-04 | 0 | 2.40E-05 | 1.69E-04 | 0.004046474 | 0.018588491 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 7.4020473 | 189.7193527 | 1.80E-04 | 0 | 3.50E-05 | 2.15E-04 | 0.003752094 | 0.017236181 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 8.084152593 | 209.2474363 | 2.05E-04 | 0 | 4.89E-05 | 2.54E-04 | 0.004292745 | 0.0197198 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0.230844311 | 4.32E-06 | 0 | 0 | 4.32E-06 | 6.70E-06 | 3.08E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 7.057590487 | 184.3817881 | 3.06E-04 | 0 | 8.96E-05 | 3.96E-04 | 0.004266321 | 0.019598417 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0.30318912 | 6.25E-06 | 0 | 0 | 6.25E-06 | 9.91E-06 | 4.55E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 6.096997267 | 161.1934345 | 4.09E-04 | 0 | 1.25E-04 | 5.34E-04 | 0.004276344 | 0.019644452 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0.19910079 | 4.58E-06 | 0 | 0 | 4.58E-06 | 7.46E-06 | 3.43E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 6.212492395 | 166.1387912 | 6.49E-04 | 0 | 2.45E-04 | 8.93E-04 | 0.004525157 | 0.020787442 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0.264025133 | 6.05E-06 | 0 | 0 | 6.05E-06 | 1.02E-05 | 4.66E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 6.253016753 | 169.6790042 | 9.04E-04 | 0 | 3.56E-04 | 0.001260066 | 0.004728301 | 0.02172064 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0.255617016 | 5.79E-06 | 0 | 0 | 5.79E-06 | 1.00E-05 | 4.62E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 6.403618809 | 176.624683 | 0.001227038 | 0 | 4.89E-04 | 0.001716511 | 0.005134762 | 0.023587814 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0.258597319 | 5.89E-06 | 0 | 0 | 5.89E-06 | 1.06E-05 | 4.87E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 6.265172367 | 176.3330302 | 0.001465172 | 0 | 5.81E-04 | 0.00204611 | 0.005331837 | 0.024493126 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0.32651692 | 7.43E-06 | 0 | 0 | 7.43E-06 | 1.39E-05 | 6.39E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 6.428347515 | 185.3500059 | 0.001674981 | 0 | 6.52E-04 | 0.002326637 | 0.005607732 | 0.02576052 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0.228904577 | 4.98E-06 | 0 | 0 | 4.98E-06 | 9.75E-06 | 4.48E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 6.508285362 | 192.6051835 | 0.001811289 | 0 | 6.88E-04 | 0.002499417 | 0.005831658 | 0.026789188 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0.247455303 | 5.12E-06 | 0 | 0 | 5.12E-06 | 1.05E-05 | 4.84E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 6.563589651 | 200.5223887 | 0.001887238 | 0 | 6.96E-04 | 0.002583207 | 0.006076022 | 0.027911728 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0.298864109 | 5.84E-06 | 0 | 0 | 5.84E-06 | 1.27E-05 | 5.85E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 6.718007646 | 213.511695 | 0.002011514 | 0 | 7.12E-04 | 0.002723857 | 0.006476525 | 0.029751543 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0.261805832 | 4.81E-06 | 0 | 0 | 4.81E-06 | 1.12E-05 | 5.12E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 7.112351529 | 237.072337 | 0.002236179 | 0 | 7.54E-04 | 0.002990336 | 0.00719954 | 0.0330729 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0.2059844 | 3.52E-06 | 0 | 0 | 3.52E-06 | 8.77E-06 | 4.03E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 7.366167054 | 261.7946451 | 0.002473367 | 0 | 7.81E-04 | 0.003254437 | 0.007962737 | 0.036578834 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0.185422104 | 2.92E-06 | 0 | 0 | 2.92E-06 | 7.90E-06 | 3.63E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 7.415540604 | 291.8119147 | 0.002763857 | 0 | 7.86E-04 | 0.003550163 | 0.008897955 | 0.040874992 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0.2761134 | 3.96E-06 | 0 | 0 | 3.96E-06 | 1.18E-05 | 5.40E-05 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.300704862 | 0 | 17.78819873 | 0.001163587 | 3.95E-06 | 0 | 0.001167536 | 2.08E-04 | 0.002259376 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.253958351 | 0 | 18.41094883 | 0.001170053 | 3.33E-06 | 0 | 0.001173388 | 2.16E-04 | 0.002345875 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.267228918 | 0 | 21.66367026 | 0.001330326 | 3.51E-06 | 0 | 0.001333835 | 2.55E-04 | 0.002764411 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.45680732 | 0 | 33.56377391 | 0.001581125 | 6.00E-06 | 0 | 0.001587124 | 3.95E-04 | 0.004287272 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.78901167 | 0 | 54.76278913 | 0.002484017 | 1.04E-05 | 0 | 0.002494377 | 6.43E-04 | 0.006989474 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.516298506 | 0 | 94.63633165 | 0.004113877 | 1.99E-05 | 0 | 0.004133788 | 0.001110218 | 0.01205882 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.642952582 | 0 | 49.03430667 | 0.002042941 | 8.44E-06 | 0 | 0.002051384 | 5.77E-04 | 0.006266564 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.244801975 | 0 | 87.61437818 | 0.003466202 | 1.63E-05 | 0 | 0.003482548 | 0.001029736 | 0.011184652 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.429253417 | 0 | 49.65969821 | 0.001866814 | 5.64E-06 | 0 | 0.001872451 | 5.87E-04 | 0.006375224 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.429198158 | 0 | 52.02995024 | 0.001836105 | 5.64E-06 | 0 | 0.001841741 | 6.15E-04 | 0.006682173 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.437550278 | 0 | 54.91595322 | 0.001805058 | 5.75E-06 | 0 | 0.001810804 | 6.50E-04 | 0.007054822 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.452141579 | 0 | 57.84426477 | 0.001755985 | 5.94E-06 | 0 | 0.001761922 | 6.84E-04 | 0.007432142 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.484985215 | 0 | 61.80501036 | 0.001717664 | 6.37E-06 | 0 | 0.001724033 | 7.31E-04 | 0.007940795 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.431852421 | 0 | 55.05513885 | 0.001389497 | 5.67E-06 | 0 | 0.001395168 | 6.51E-04 | 0.007073584 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.108675929 | 0 | 5.855615164 | 1.31E-04 | 1.43E-06 | 0 | 1.33E-04 | 6.85E-05 | 7.44E-04 |
| Los Angele | 2023 | Annual | LDA/LDT1 | 0 | 1214.514799 | 33525.47479 | 0.2596938 | 0 | 0.094020434 | 0.353714235 | 1.071142469 | 4.920561288 |
| Los Angele | 2023 | Annual | T6 instate heavy | 8.245421182 | 0 | 714.6400282 | 0.02785465 | 0.000108274 | 0 | 0.027962924 | 0.008420383 | 0.091459398 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | LDA | 0.001207216 | 6.92E-05 | 0 | 0 | 6.92E-05 | 5.06E-05 | 3.98E-04 | 5.18E-04 | 7.67E-05 |
| Los Angele | 2023 | Annual | LDA | 0.655940936 | 0.031576023 | 0 | 0.008666814 | 0.040242837 | 0.027377343 | 0.2155966 | 0.28321678 | 0.050893262 |
| Los Angele | 2023 | Annual | LDA | 0.001387585 | 7.28E-05 | 0 | 0 | 7.28E-05 | 5.85E-05 | 4.61E-04 | 5.92E-04 | 8.87E-05 |
| Los Angele | 2023 | Annual | LDT1 | 0.010524693 | 6.21E-05 | 0 | 8.00E-06 | 7.01E-05 | 4.67E-04 | 0.003677615 | 0.004214755 | 0.001009128 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | LDT1 | 0.022803967 | 1.34E-04 | 0 | 2.23E-05 | 1.57E-04 | 0.001011619 | 0.007966496 | 0.00913492 | 0.002183432 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | LDT1 | 0.021202806 | 1.67E-04 | 0 | 3.25E-05 | 1.99E-04 | 9.38E-04 | 0.007386935 | 0.008524007 | 0.002027944 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | LDT1 | 0.024266692 | 1.90E-04 | 0 | 4.54E-05 | 2.36E-04 | 0.001073186 | 0.008451343 | 0.009760335 | 0.002318583 |
| Los Angele | 2023 | Annual | LDT1 | 4.18E-05 | 3.98E-06 | 0 | 0 | 3.98E-06 | 1.67E-06 | 1.32E-05 | 1.88E-05 | 2.54E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0.024260341 | 2.84E-04 | 0 | 8.32E-05 | 3.67E-04 | 0.00106658 | 0.008399321 | 0.009832956 | 0.002303982 |
| Los Angele | 2023 | Annual | LDT1 | 6.17E-05 | 5.75E-06 | 0 | 0 | 5.75E-06 | 2.48E-06 | 1.95E-05 | 2.77E-05 | 3.76E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0.02445451 | 3.79E-04 | 0 | 1.16E-04 | 4.95E-04 | 0.001069086 | 0.008419051 | 0.009983336 | 0.002309129 |
| Los Angele | 2023 | Annual | LDT1 | 4.63E-05 | 4.21E-06 | 0 | 0 | 4.21E-06 | 1.86E-06 | 1.47E-05 | 2.08E-05 | 2.83E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0.026206047 | 6.02E-04 | 0 | 2.27E-04 | 8.29E-04 | 0.001131289 | 0.008908903 | 0.010869165 | 0.002443049 |
| Los Angele | 2023 | Annual | LDT1 | 6.28E-05 | 5.56E-06 | 0 | 0 | 5.56E-06 | 2.54E-06 | 2.00E-05 | 2.81E-05 | 3.85E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0.027709007 | 8.39E-04 | 0 | 3.30E-04 | 0.001169133 | 0.001182075 | 0.009308845 | 0.011660053 | 0.002552453 |
| Los Angele | 2023 | Annual | LDT1 | 6.20E-05 | 5.33E-06 | 0 | 0 | 5.33E-06 | 2.51E-06 | 1.98E-05 | 2.76E-05 | 3.81E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0.030439087 | 0.001138489 | 0 | 4.54E-04 | 0.001592639 | 0.00128369 | 0.010109062 | 0.012985392 | 0.002771276 |
| Los Angele | 2023 | Annual | LDT1 | 6.52E-05 | 5.42E-06 | 0 | 0 | 5.42E-06 | 2.65E-06 | 2.09E-05 | 2.89E-05 | 4.02E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0.031871073 | 0.001359438 | 0 | 5.39E-04 | 0.001898452 | 0.001332959 | 0.010497054 | 0.013728466 | 0.002878121 |
| Los Angele | 2023 | Annual | LDT1 | 8.52E-05 | 6.83E-06 | 0 | 0 | 6.83E-06 | 3.48E-06 | 2.74E-05 | 3.77E-05 | 5.27E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0.033694889 | 0.001554106 | 0 | 6.05E-04 | 0.002158736 | 0.001401933 | 0.011040223 | 0.014600891 | 0.003027649 |
| Los Angele | 2023 | Annual | LDT1 | 5.95E-05 | 4.58E-06 | 0 | 0 | 4.58E-06 | 2.44E-06 | 1.92E-05 | 2.62E-05 | 3.70E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0.035120263 | 0.001680578 | 0 | 6.38E-04 | 0.002319047 | 0.001457915 | 0.011481077 | 0.015258038 | 0.003148564 |
| Los Angele | 2023 | Annual | LDT1 | 6.41E-05 | 4.71E-06 | 0 | 0 | 4.71E-06 | 2.64E-06 | 2.08E-05 | 2.81E-05 | 4.00E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0.036570957 | 0.001751045 | 0 | 6.46E-04 | 0.00239679 | 0.001519005 | 0.01196217 | 0.015877966 | 0.003280737 |
| Los Angele | 2023 | Annual | LDT1 | 7.71E-05 | 5.38E-06 | 0 | 0 | 5.38E-06 | 3.18E-06 | 2.51E-05 | 3.36E-05 | 4.83E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0.038951925 | 0.001866353 | 0 | 6.61E-04 | 0.00252729 | 0.001619131 | 0.012750661 | 0.016897082 | 0.003497248 |
| Los Angele | 2023 | Annual | LDT1 | 6.72E-05 | 4.42E-06 | 0 | 0 | 4.42E-06 | 2.79E-06 | 2.20E-05 | 2.92E-05 | 4.23E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0.043262777 | 0.002074805 | 0 | 7.00E-04 | 0.002774539 | 0.001799885 | 0.014174098 | 0.018748522 | 0.003888564 |
| Los Angele | 2023 | Annual | LDT1 | 5.26E-05 | 3.24E-06 | 0 | 0 | 3.24E-06 | 2.19E-06 | 1.73E-05 | 2.27E-05 | 3.33E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0.047796008 | 0.002294877 | 0 | 7.25E-04 | 0.003019581 | 0.001990684 | 0.01567664 | 0.020686905 | 0.004301862 |
| Los Angele | 2023 | Annual | LDT1 | 4.71E-05 | 2.69E-06 | 0 | 0 | 2.69E-06 | 1.97E-06 | 1.56E-05 | 2.02E-05 | 2.99E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0.053323109 | 0.002564404 | 0 | 7.30E-04 | 0.003293965 | 0.002224489 | 0.017517854 | 0.023036308 | 0.00480809 |
| Los Angele | 2023 | Annual | LDT1 | 6.98E-05 | 3.64E-06 | 0 | 0 | 3.64E-06 | 2.94E-06 | 2.32E-05 | 2.97E-05 | 4.46E-06 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.003634926 | 0.0010705 | 3.63E-06 | 0 | 0.001074133 | 5.20E-05 | 9.68E-04 | 0.002094441 | 1.85E-04 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.003735241 | 0.001076449 | 3.07E-06 | 0 | 0.001079517 | 5.40E-05 | 0.001005375 | 0.002138886 | 1.92E-04 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.004352756 | 0.0012239 | 3.23E-06 | 0 | 0.001227128 | 6.36E-05 | 0.001184747 | 0.002475503 | 2.27E-04 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.006269112 | 0.001454635 | 5.52E-06 | 0 | 0.001460154 | 9.87E-05 | 0.001837402 | 0.003396235 | 3.51E-04 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.010127351 | 0.002285295 | 9.53E-06 | 0 | 0.002294827 | 1.61E-04 | 0.002995489 | 0.005451191 | 5.72E-04 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.017302826 | 0.003784767 | 1.83E-05 | 0 | 0.003803085 | 2.78E-04 | 0.005168066 | 0.009248705 | 9.87E-04 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.008894891 | 0.001879506 | 7.77E-06 | 0 | 0.001887273 | 1.44E-04 | 0.00268567 | 0.004717179 | 5.13E-04 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.015696937 | 0.003188906 | 1.50E-05 | 0 | 0.003203945 | 2.57E-04 | 0.004793422 | 0.008254801 | 9.16E-04 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.008834622 | 0.001717469 | 5.19E-06 | 0 | 0.001722655 | 1.47E-04 | 0.002732239 | 0.00460163 | 5.22E-04 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.009139121 | 0.001689217 | 5.19E-06 | 0 | 0.001694402 | 1.54E-04 | 0.002863788 | 0.004711992 | 5.47E-04 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.009515141 | 0.001660653 | 5.29E-06 | 0 | 0.001665939 | 1.62E-04 | 0.003023495 | 0.004851813 | 5.77E-04 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.009878318 | 0.001615506 | 5.46E-06 | 0 | 0.001620968 | 1.71E-04 | 0.003185204 | 0.004977235 | 6.08E-04 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.010395912 | 0.001580251 | 5.86E-06 | 0 | 0.00158611 | 1.83E-04 | 0.003403198 | 0.005172079 | 6.50E-04 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.009119994 | 0.001278337 | 5.22E-06 | 0 | 0.001283554 | 1.63E-04 | 0.003031536 | 0.004477901 | 5.79E-04 |
| Los Angele | 2023 | Annual | T6 instate heavy | 9.46E-04 | 1.21E-04 | 1.31E-06 | 0 | 1.22E-04 | 1.71E-05 | 3.19E-04 | 4.58E-04 | 6.09E-05 |
| Los Angele | 2023 | Annual | LDA/LDT1 | 6.345417992 | 0.240939358 | 0 | 0.087235452 | 0.32817481 | 0.267785609 | 2.108812007 | 2.704772427 | 0.503997551 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.127842705 | 0.025626278 | 9.96117E-05 | 0 | 0.02572589 | 0.002105096 | 0.039196885 | 0.067027871 | 0.00748815 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 7.67E-05 | 0 | 0.7230618 | 1.03E-05 | 9.54E-05 | 3.30E-04 | 6.56E-06 | 9.87E-05 | 6.03E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0.001291776 | 0.052185038 | 556.6294 | 0 | 4.96E-05 | 9.91E-04 | 8.95E-05 | 6.99E-06 | 9.87E-05 | 6.48E-06 | 3.91E-05 | 8.40E-06 |
| Los Angele | 2023 | Annual | LDA | 0 | 0 | 8.87E-05 | 0 | 0.8358071 | 9.23E-06 | 8.53E-05 | 3.00E-04 | 5.96E-06 | 9.87E-05 | 5.49E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 4.25E-05 | 0.001051645 | 11.21732 | 0 | 3.70E-04 | 2.42E-03 | 1.56E-04 | 7.14E-07 | 9.87E-05 | 6.62E-07 | 3.91E-05 | 9.93E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2023 | Annual | LDT1 | 0 | 9.10E-05 | 0.002274419 | 24.25998 | 0 | 3.29E-04 | 2.19E-03 | 1.52E-04 | 7.37E-07 | 9.87E-05 | 6.83E-07 | 3.91E-05 | 9.91E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2023 | Annual | LDT1 | 0 | 8.38E-05 | 0.002111775 | 22.52515 | 0 | 2.95E-04 | 2.14E-03 | 1.58E-04 | 1.01E-06 | 9.87E-05 | 9.36E-07 | 3.91E-05 | 9.93E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2023 | Annual | LDT1 | 0 | 9.48E-05 | 0.002413398 | 25.74239 | 0 | 2.65E-04 | 2.08E-03 | 1.64E-04 | 1.04E-06 | 9.87E-05 | 9.69E-07 | 3.91E-05 | 9.92E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 2.54E-06 | 0 | 0.023921695 | 2.24E-05 | 2.10E-04 | 6.89E-04 | 1.14E-05 | 9.87E-05 | 1.05E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 9.33E-05 | 0.002397272 | 25.57039 | 0 | 2.37E-04 | 2.05E-03 | 1.63E-04 | 1.64E-06 | 9.87E-05 | 1.52E-06 | 3.91E-05 | 9.91E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 3.76E-06 | 0 | 0.035419296 | 2.19E-05 | 2.05E-04 | 6.73E-04 | 1.11E-05 | 9.87E-05 | 1.02E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 9.23E-05 | 0.002401451 | 25.61496 | 0 | 2.09E-04 | 2.01E-03 | 1.61E-04 | 2.20E-06 | 9.87E-05 | 2.04E-06 | 3.91E-05 | 9.90E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 2.83E-06 | 0 | 0.026653385 | 2.13E-05 | 1.99E-04 | 6.55E-04 | 1.08E-05 | 9.87E-05 | 9.96E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 9.65E-05 | 0.002539534 | 27.08782 | 0 | 1.91E-04 | 1.97E-03 | 1.60E-04 | 3.48E-06 | 9.87E-05 | 3.23E-06 | 3.91E-05 | 9.90E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 3.85E-06 | 0 | 0.036267191 | 2.06E-05 | 1.92E-04 | 6.36E-04 | 1.05E-05 | 9.87E-05 | 9.67E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 9.92E-05 | 0.002651702 | 28.28425 | 0 | 1.72E-04 | 1.91E-03 | 1.58E-04 | 4.70E-06 | 9.87E-05 | 4.36E-06 | 3.91E-05 | 9.89E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 3.81E-06 | 0 | 0.035901267 | 1.99E-05 | 1.85E-04 | 6.15E-04 | 1.02E-05 | 9.87E-05 | 9.36E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 1.06E-04 | 0.002877173 | 30.68923 | 0 | 1.52E-04 | 1.86E-03 | 1.55E-04 | 5.90E-06 | 9.87E-05 | 5.47E-06 | 3.91E-05 | 9.88E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 4.02E-06 | 0 | 0.037861977 | 1.91E-05 | 1.78E-04 | 5.93E-04 | 9.81E-06 | 9.87E-05 | 9.02E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 1.08E-04 | 0.002985758 | 31.84744 | 0 | 1.31E-04 | 1.79E-03 | 1.51E-04 | 6.77E-06 | 9.87E-05 | 6.28E-06 | 3.91E-05 | 9.88E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 5.27E-06 | 0 | 0.049698167 | 1.83E-05 | 1.70E-04 | 5.70E-04 | 9.42E-06 | 9.87E-05 | 8.67E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 1.10E-04 | 0.003137999 | 33.47131 | 0 | 1.06E-04 | 1.70E-03 | 1.46E-04 | 7.32E-06 | 9.87E-05 | 6.79E-06 | 3.91E-05 | 9.87E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 3.70E-06 | 0 | 0.034840878 | 1.74E-05 | 1.62E-04 | 5.45E-04 | 9.01E-06 | 9.87E-05 | 8.29E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 1.12E-04 | 0.003260145 | 34.77419 | 0 | 9.22E-05 | 1.58E-03 | 1.35E-04 | 7.56E-06 | 9.87E-05 | 7.01E-06 | 3.91E-05 | 9.86E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 4.00E-06 | 0 | 0.037664432 | 1.65E-05 | 1.53E-04 | 5.17E-04 | 8.56E-06 | 9.87E-05 | 7.88E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 1.12E-04 | 0.003393035 | 36.19165 | 0 | 7.95E-05 | 1.38E-03 | 1.27E-04 | 7.50E-06 | 9.87E-05 | 6.96E-06 | 3.91E-05 | 9.85E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 4.83E-06 | 0 | 0.045489218 | 1.55E-05 | 1.43E-04 | 4.89E-04 | 8.09E-06 | 9.87E-05 | 7.45E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 1.15E-04 | 0.003612035 | 38.52761 | 0 | 6.98E-05 | 1.25E-03 | 1.16E-04 | 7.42E-06 | 9.87E-05 | 6.88E-06 | 3.91E-05 | 9.84E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 4.23E-06 | 0 | 0.039848685 | 1.45E-05 | 1.34E-04 | 4.59E-04 | 7.61E-06 | 9.87E-05 | 7.00E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 1.21E-04 | 0.004009976 | 42.77222 | 0 | 6.20E-05 | 1.16E-03 | 1.07E-04 | 7.33E-06 | 9.87E-05 | 6.80E-06 | 3.91E-05 | 9.82E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 3.33E-06 | 0 | 0.031352267 | 1.34E-05 | 1.23E-04 | 4.27E-04 | 7.08E-06 | 9.87E-05 | 6.52E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 1.26E-04 | 0.004427508 | 47.2258 | 0 | 5.46E-05 | 1.07E-03 | 9.85E-05 | 7.21E-06 | 9.87E-05 | 6.69E-06 | 3.91E-05 | 9.81E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 2.99E-06 | 0 | 0.028222542 | 1.22E-05 | 1.12E-04 | 3.94E-04 | 6.53E-06 | 9.87E-05 | 6.01E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 1.26E-04 | 0.004934493 | 52.63354 | 0 | 4.65E-05 | 9.92E-04 | 8.93E-05 | 7.04E-06 | 9.87E-05 | 6.53E-06 | 3.91E-05 | 9.78E-06 |
| Los Angele | 2023 | Annual | LDT1 | 0 | 0 | 4.46E-06 | 0 | 0.042026393 | 1.09E-05 | 9.99E-05 | 3.58E-04 | 5.94E-06 | 9.87E-05 | 5.46E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2023 | Annual | T6 instate heavy | 3.19E-06 | 0 | 1.89E-04 | 0 | 1.778819873 | 3.14E-04 | 1.41E-03 | 4.49E-03 | 1.48E-04 | 3.14E-04 | 1.37E-04 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2023 | Annual | T6 instate heavy | 2.69E-06 | 0 | 1.95E-04 | 0 | 1.841094883 | 3.03E-04 | 1.35E-03 | 4.07E-03 | 1.44E-04 | 3.14E-04 | 1.32E-04 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2023 | Annual | T6 instate heavy | 2.83E-06 | 0 | 2.30E-04 | 0 | 2.166367026 | 2.94E-04 | 1.30E-03 | 3.57E-03 | 1.39E-04 | 3.14E-04 | 1.28E-04 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2023 | Annual | T6 instate heavy | 4.84E-06 | 0 | 3.56E-04 | 0 | 3.356377391 | 2.35E-04 | 1.06E-03 | 2.95E-03 | 1.06E-04 | 3.14E-04 | 9.79E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2023 | Annual | T6 instate heavy | 8.36E-06 | 0 | 5.81E-04 | 0 | 5.476278913 | 2.29E-04 | 1.04E-03 | 2.84E-03 | 1.03E-04 | 3.14E-04 | 9.43E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.61E-05 | 0 | 0.001003194 | 0 | 9.463633165 | 2.24E-04 | 1.03E-03 | 2.73E-03 | 9.85E-05 | 3.14E-04 | 9.06E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2023 | Annual | T6 instate heavy | 6.82E-06 | 0 | 5.20E-04 | 0 | 4.903430667 | 2.14E-04 | 9.72E-04 | 2.56E-03 | 9.41E-05 | 3.14E-04 | 8.65E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.32E-05 | 0 | 9.29E-04 | 0 | 8.761437818 | 2.07E-04 | 9.48E-04 | 2.44E-03 | 8.95E-05 | 3.14E-04 | 8.23E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2023 | Annual | T6 instate heavy | 4.55E-06 | 0 | 5.26E-04 | 0 | 4.965969821 | 1.95E-04 | 8.67E-04 | 2.22E-03 | 8.44E-05 | 3.14E-04 | 7.76E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2023 | Annual | T6 instate heavy | 4.55E-06 | 0 | 5.52E-04 | 0 | 5.202995024 | 1.86E-04 | 8.26E-04 | 2.05E-03 | 7.92E-05 | 3.14E-04 | 7.29E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2023 | Annual | T6 instate heavy | 4.64E-06 | 0 | 5.82E-04 | 0 | 5.491595322 | 1.77E-04 | 7.86E-04 | 1.88E-03 | 7.38E-05 | 3.14E-04 | 6.79E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2023 | Annual | T6 instate heavy | 4.79E-06 | 0 | 6.13E-04 | 0 | 5.784426477 | 1.67E-04 | 7.44E-04 | 1.71E-03 | 6.81E-05 | 3.14E-04 | 6.27E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2023 | Annual | T6 instate heavy | 5.14E-06 | 0 | 6.55E-04 | 0 | 6.180501036 | 1.57E-04 | 7.04E-04 | 1.53E-03 | 6.24E-05 | 3.14E-04 | 5.74E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2023 | Annual | T6 instate heavy | 4.58E-06 | 0 | 5.84E-04 | 0 | 5.505513885 | 1.48E-04 | 6.63E-04 | 1.36E-03 | 5.67E-05 | 3.14E-04 | 5.21E-05 | 1.30E-04 | 2.37E-05 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.15E-06 | 0 | 6.21E-05 | 0 | 0.585561516 | 1.46E-04 | 7.13E-04 | 1.32E-03 | 5.13E-05 | 3.14E-04 | 4.72E-05 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2023 | Annual | LDA/LDT1 | 0 | 0.018881332 | 0.522878882 | 5563.64215 | 12.03880155 | 1.26E-04 | 1.57E-03 | 1.34E-04 | 5.82E-06 | 9.87E-05 | 5.40E-06 | 3.91E-05 | 8.61E-06 |
| Los Angele | 2023 | Annual | T6 instate heavy | 8.74057E-05 | 0 | 0.007575556 | 0 | 71.46400282 | 2.03E-04 | 9.16E-04 | 2.35E-03 | 8.79E-05 | 3.14E-04 | 8.08E-05 | 1.30E-04 | 2.38E-05 |

| | | | | |
|---|---|---|---|---|
| Los Angele | 2023 | Annual | LDA | 2.07E-04 |
| Los Angele | 2023 | Annual | LDA | 2.48E-04 |
| Los Angele | 2023 | Annual | LDA | 2.07E-04 |
| Los Angele | 2023 | Annual | LDT1 | 4.46E-04 |
| Los Angele | 2023 | Annual | LDT1 | |
| Los Angele | 2023 | Annual | LDT1 | 4.45E-04 |
| Los Angele | 2023 | Annual | LDT1 | |
| Los Angele | 2023 | Annual | LDT1 | 4.46E-04 |
| Los Angele | 2023 | Annual | LDT1 | |
| Los Angele | 2023 | Annual | LDT1 | 4.30E-04 |
| Los Angele | 2023 | Annual | LDT1 | 3.04E-04 |
| Los Angele | 2023 | Annual | LDT1 | 3.81E-04 |
| Los Angele | 2023 | Annual | LDT1 | 2.70E-04 |
| Los Angele | 2023 | Annual | LDT1 | 3.32E-04 |
| Los Angele | 2023 | Annual | LDT1 | 2.35E-04 |
| Los Angele | 2023 | Annual | LDT1 | 3.24E-04 |
| Los Angele | 2023 | Annual | LDT1 | 2.29E-04 |
| Los Angele | 2023 | Annual | LDT1 | 3.16E-04 |
| Los Angele | 2023 | Annual | LDT1 | 2.24E-04 |
| Los Angele | 2023 | Annual | LDT1 | 3.03E-04 |
| Los Angele | 2023 | Annual | LDT1 | 2.15E-04 |
| Los Angele | 2023 | Annual | LDT1 | 2.92E-04 |
| Los Angele | 2023 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2023 | Annual | LDT1 | 2.91E-04 |
| Los Angele | 2023 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2023 | Annual | LDT1 | 2.91E-04 |
| Los Angele | 2023 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2023 | Annual | LDT1 | 2.91E-04 |
| Los Angele | 2023 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2023 | Annual | LDT1 | 2.91E-04 |
| Los Angele | 2023 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2023 | Annual | LDT1 | 2.90E-04 |
| Los Angele | 2023 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2023 | Annual | LDT1 | 2.90E-04 |
| Los Angele | 2023 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2023 | Annual | LDT1 | 2.89E-04 |
| Los Angele | 2023 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2023 | Annual | LDA/LDT1 | 2.76E-04 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.12E-03 |

2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDA | GAS | 2007 | AllSpeeds | 79189.6 | 1886831.757 | 475090.1 | 0.027774145 | 0 | 0.03205213 | 0.059826275 |
| Los Angele | 2024 | Annual | LDA | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDA | GAS | 2008 | AllSpeeds | 92699.94 | 2261108.17 | 559851.6 | 0.031009574 | 0 | 0.03384386 | 0.064853434 |
| Los Angele | 2024 | Annual | LDA | DSL | 2008 | AllSpeeds | 16.17772 | 394.6068636 | 97.70365 | 3.93E-06 | 0 | 0 | 3.93E-06 |
| Los Angele | 2024 | Annual | LDA | GAS | 2009 | AllSpeeds | 89877.29 | 2245387.284 | 546399.2 | 0.031470047 | 0 | 0.03362897 | 0.065099017 |
| Los Angele | 2024 | Annual | LDA | DSL | 2009 | AllSpeeds | 563.1857 | 14069.9835 | 3423.827 | 1.38E-04 | 0 | 0 | 1.38E-04 |
| Los Angele | 2024 | Annual | LDA | GAS | 2010 | AllSpeeds | 127018.9 | 3253826.464 | 778548.2 | 0.045773294 | 0 | 0.04768613 | 0.093459424 |
| Los Angele | 2024 | Annual | LDA | DSL | 2010 | AllSpeeds | 1048.361 | 26855.77348 | 6425.811 | 2.57E-04 | 0 | 0 | 2.57E-04 |
| Los Angele | 2024 | Annual | LDA | GAS | 2011 | AllSpeeds | 138987 | 3654150.488 | 857464.2 | 0.050724131 | 0 | 0.051902268 | 0.102626399 |
| Los Angele | 2024 | Annual | LDA | DSL | 2011 | AllSpeeds | 994.8777 | 26156.68065 | 6137.781 | 2.45E-04 | 0 | 0 | 2.45E-04 |
| Los Angele | 2024 | Annual | LDA | GAS | 2012 | AllSpeeds | 158176.6 | 4273102.452 | 983760.2 | 0.058457896 | 0 | 0.05877167 | 0.117229566 |
| Los Angele | 2024 | Annual | LDA | DSL | 2012 | AllSpeeds | 947.338 | 25592.14959 | 5891.853 | 2.34E-04 | 0 | 0 | 2.34E-04 |
| Los Angele | 2024 | Annual | LDA | GAS | 2013 | AllSpeeds | 168574.6 | 4686150.47 | 1055172 | 0.063089297 | 0 | 0.062116224 | 0.125205521 |
| Los Angele | 2024 | Annual | LDA | DSL | 2013 | AllSpeeds | 912.0435 | 25353.64772 | 5708.821 | 2.25E-04 | 0 | 0 | 2.25E-04 |
| Los Angele | 2024 | Annual | LDA | GAS | 2014 | AllSpeeds | 182094.9 | 5216823.377 | 1148904 | 0.069033696 | 0 | 0.066541374 | 0.13557507 |
| Los Angele | 2024 | Annual | LDA | DSL | 2014 | AllSpeeds | 815.1358 | 23352.82677 | 5142.993 | 2.01E-04 | 0 | 0 | 2.01E-04 |
| Los Angele | 2024 | Annual | LDA | GAS | 2015 | AllSpeeds | 196669.7 | 5818027.824 | 1248728 | 0.075402504 | 0 | 0.070909649 | 0.146312153 |
| Los Angele | 2024 | Annual | LDA | DSL | 2015 | AllSpeeds | 789.0382 | 23341.9633 | 5009.892 | 1.94E-04 | 0 | 0 | 1.94E-04 |
| Los Angele | 2024 | Annual | LDA | GAS | 2016 | AllSpeeds | 206202.1 | 6312783.973 | 1317500 | 0.079951514 | 0 | 0.073164552 | 0.153116066 |
| Los Angele | 2024 | Annual | LDA | DSL | 2016 | AllSpeeds | 713.2896 | 21837.09946 | 4557.464 | 1.74E-04 | 0 | 0 | 1.74E-04 |
| Los Angele | 2024 | Annual | LDA | GAS | 2017 | AllSpeeds | 217886 | 6922310.58 | 1398689 | 0.08531177 | 0 | 0.075621732 | 0.160933502 |
| Los Angele | 2024 | Annual | LDA | DSL | 2017 | AllSpeeds | 739.0627 | 23480.3307 | 4744.308 | 1.80E-04 | 0 | 0 | 1.80E-04 |
| Los Angele | 2024 | Annual | LDA | GAS | 2018 | AllSpeeds | 225284.2 | 7450833.566 | 1450685 | 0.089074678 | 0 | 0.076115213 | 0.165189891 |
| Los Angele | 2024 | Annual | LDA | DSL | 2018 | AllSpeeds | 684.072 | 22624.41759 | 4404.983 | 1.65E-04 | 0 | 0 | 1.65E-04 |
| Los Angele | 2024 | Annual | LDA | GAS | 2019 | AllSpeeds | 234555.3 | 8111696.055 | 1517421 | 0.091947341 | 0 | 0.076053269 | 0.16800061 |
| Los Angele | 2024 | Annual | LDA | DSL | 2019 | AllSpeeds | 653.5639 | 22602.47079 | 4228.136 | 1.56E-04 | 0 | 0 | 1.56E-04 |
| Los Angele | 2024 | Annual | LDA | GAS | 2020 | AllSpeeds | 238517.5 | 8674257.533 | 1547824 | 0.08831673 | 0 | 0.071503542 | 0.159820272 |
| Los Angele | 2024 | Annual | LDA | DSL | 2020 | AllSpeeds | 590.3914 | 21471.06108 | 3831.257 | 1.40E-04 | 0 | 0 | 1.40E-04 |
| Los Angele | 2024 | Annual | LDA | GAS | 2021 | AllSpeeds | 227458.2 | 8768328.043 | 1478331 | 0.083246753 | 0 | 0.064070016 | 0.147316769 |
| Los Angele | 2024 | Annual | LDA | DSL | 2021 | AllSpeeds | 524.0139 | 20200.37241 | 3405.75 | 1.23E-04 | 0 | 0 | 1.23E-04 |
| Los Angele | 2024 | Annual | LDA | GAS | 2022 | AllSpeeds | 231711.9 | 9584781.229 | 1510610 | 0.086190687 | 0 | 0.061671402 | 0.147862089 |
| Los Angele | 2024 | Annual | LDA | DSL | 2022 | AllSpeeds | 506.1973 | 20938.96298 | 3300.076 | 1.18E-04 | 0 | 0 | 1.18E-04 |
| Los Angele | 2024 | Annual | LDA | GAS | 2023 | AllSpeeds | 238254.5 | 1.08E+07 | 1558029 | 0.091119154 | 0 | 0.059102956 | 0.15022211 |
| Los Angele | 2024 | Annual | LDA | DSL | 2023 | AllSpeeds | 508.9287 | 23071.77136 | 3328.061 | 1.19E-04 | 0 | 0 | 1.19E-04 |
| Los Angele | 2024 | Annual | LDA | GAS | 2024 | AllSpeeds | 240396.2 | 1.25E+07 | 1576842 | 0.096503624 | 0 | 0.053789943 | 0.150293567 |
| Los Angele | 2024 | Annual | LDA | DSL | 2024 | AllSpeeds | 537.333 | 28006.63369 | 3524.552 | 1.30E-04 | 0 | 0 | 1.30E-04 |
| Los Angele | 2024 | Annual | LDT1 | GAS | 2007 | AllSpeeds | 6708.052 | 193898.742 | 40244.29 | 0.002960208 | 0 | 0.002804089 | 0.005764297 |
| Los Angele | 2024 | Annual | LDT1 | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDT1 | GAS | 2008 | AllSpeeds | 14254.21 | 418061.6635 | 86086.84 | 0.005923408 | 0 | 0.005353313 | 0.01127672 |
| Los Angele | 2024 | Annual | LDT1 | DSL | 2008 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDT1 | GAS | 2009 | AllSpeeds | 13262.04 | 394927.4953 | 80625.14 | 0.00565818 | 0 | 0.005044449 | 0.010702629 |
| Los Angele | 2024 | Annual | LDT1 | DSL | 2009 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDT1 | GAS | 2010 | AllSpeeds | 14913.77 | 451162.6078 | 91412.25 | 0.006525415 | 0 | 0.005739536 | 0.012264951 |
| Los Angele | 2024 | Annual | LDT1 | DSL | 2010 | AllSpeeds | 23.33039 | 705.7792387 | 143.001 | 8.13E-06 | 0 | 0 | 8.13E-06 |
| Los Angele | 2024 | Annual | LDT1 | GAS | 2011 | AllSpeeds | 14561.05 | 447920.611 | 89832.7 | 0.006382486 | 0 | 0.005565721 | 0.011948207 |
| Los Angele | 2024 | Annual | LDT1 | DSL | 2011 | AllSpeeds | 33.64875 | 1035.091252 | 207.592 | 1.16E-05 | 0 | 0 | 1.16E-05 |
| Los Angele | 2024 | Annual | LDT1 | GAS | 2012 | AllSpeeds | 14553.39 | 455695.5053 | 90513.01 | 0.006388273 | 0 | 0.005526052 | 0.011914325 |
| Los Angele | 2024 | Annual | LDT1 | DSL | 2012 | AllSpeeds | 25.38923 | 794.9903347 | 157.9052 | 8.72E-06 | 0 | 0 | 8.72E-06 |
| Los Angele | 2024 | Annual | LDT1 | GAS | 2013 | AllSpeeds | 15114.29 | 482232.5887 | 94606 | 0.00663991 | 0 | 0.005681119 | 0.012321029 |

2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDA | 0.01943404 | 0.074948594 | 0.1541973 | 0.024442334 | 0.332848543 | 0.051691201 | 0 | 0.034221794 | 0.085912995 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDA | 0.020512141 | 0.078806356 | 0.17015 | 0.02561162 | 0.359933551 | 0.057712741 | 0 | 0.036134806 | 0.093847547 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 3.93E-06 | 4.47E-06 | 0 | 0 | 4.47E-06 |
| Los Angele | 2024 | Annual | LDA | 0.017721996 | 0.067657195 | 0.1549658 | 0.021930071 | 0.327374079 | 0.05856974 | 0 | 0.035905365 | 0.094475105 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 1.38E-04 | 1.57E-04 | 0 | 0 | 1.57E-04 |
| Los Angele | 2024 | Annual | LDA | 0.022280781 | 0.084502302 | 0.2059899 | 0.027291123 | 0.43352353 | 0.085189893 | 0 | 0.05091409 | 0.136103983 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 2.57E-04 | 2.93E-04 | 0 | 0 | 2.93E-04 |
| Los Angele | 2024 | Annual | LDA | 0.021542195 | 0.080784634 | 0.211376 | 0.026065605 | 0.442394833 | 0.094404025 | 0 | 0.055415612 | 0.149819637 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 2.45E-04 | 2.79E-04 | 0 | 0 | 2.79E-04 |
| Los Angele | 2024 | Annual | LDA | 0.021268355 | 0.078577586 | 0.2246546 | 0.025332386 | 0.467062493 | 0.10879753 | 0 | 0.062750019 | 0.171547549 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 2.34E-04 | 2.66E-04 | 0 | 0 | 2.66E-04 |
| Los Angele | 2024 | Annual | LDA | 0.020532375 | 0.074723586 | 0.2276307 | 0.024104163 | 0.472196345 | 0.11741717 | 0 | 0.066320971 | 0.183738141 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 2.25E-04 | 2.56E-04 | 0 | 0 | 2.56E-04 |
| Los Angele | 2024 | Annual | LDA | 0.019873684 | 0.070953891 | 0.2333336 | 0.022911908 | 0.482648153 | 0.128480443 | 0 | 0.071045667 | 0.19952611 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 2.01E-04 | 2.28E-04 | 0 | 0 | 2.28E-04 |
| Los Angele | 2024 | Annual | LDA | 0.018471582 | 0.063762702 | 0.2355718 | 0.020739608 | 0.484857845 | 0.140333606 | 0 | 0.075709634 | 0.21604324 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 1.94E-04 | 2.21E-04 | 0 | 0 | 2.21E-04 |
| Los Angele | 2024 | Annual | LDA | 0.016832484 | 0.055701565 | 0.2316837 | 0.018320922 | 0.475654737 | 0.14879988 | 0 | 0.078117177 | 0.226917057 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 1.74E-04 | 1.99E-04 | 0 | 0 | 1.99E-04 |
| Los Angele | 2024 | Annual | LDA | 0.015046041 | 0.046658471 | 0.2221676 | 0.015747929 | 0.460553543 | 0.15877601 | 0 | 0.080740683 | 0.239516693 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 1.80E-04 | 2.05E-04 | 0 | 0 | 2.05E-04 |
| Los Angele | 2024 | Annual | LDA | 0.012281018 | 0.033912893 | 0.1904742 | 0.012211913 | 0.414069915 | 0.165779246 | 0 | 0.081267565 | 0.247046811 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 1.65E-04 | 1.88E-04 | 0 | 0 | 1.88E-04 |
| Los Angele | 2024 | Annual | LDA | 0.010633965 | 0.025730025 | 0.1828731 | 0.009796001 | 0.397033701 | 0.171125649 | 0 | 0.081201434 | 0.252327083 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 1.56E-04 | 1.78E-04 | 0 | 0 | 1.78E-04 |
| Los Angele | 2024 | Annual | LDA | 0.009279901 | 0.019240446 | 0.1732469 | 0.007881907 | 0.369469426 | 0.164368615 | 0 | 0.07634373 | 0.240712345 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 1.40E-04 | 1.59E-04 | 0 | 0 | 1.59E-04 |
| Los Angele | 2024 | Annual | LDA | 0.007845414 | 0.013756939 | 0.1552667 | 0.006154739 | 0.330340561 | 0.15493275 | 0 | 0.068407021 | 0.223339771 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 1.23E-04 | 1.40E-04 | 0 | 0 | 1.40E-04 |
| Los Angele | 2024 | Annual | LDA | 0.007299496 | 0.010844543 | 0.1499917 | 0.005330653 | 0.321328481 | 0.160411771 | 0 | 0.065846033 | 0.226257804 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 1.18E-04 | 1.35E-04 | 0 | 0 | 1.35E-04 |
| Los Angele | 2024 | Annual | LDA | 0.007028126 | 0.00895225 | 0.1473701 | 0.004833723 | 0.318406308 | 0.169584282 | 0 | 0.063103735 | 0.232688017 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 1.19E-04 | 1.36E-04 | 0 | 0 | 1.36E-04 |
| Los Angele | 2024 | Annual | LDA | 0.006770379 | 0.007548061 | 0.1427419 | 0.004442043 | 0.311795951 | 0.179605467 | 0 | 0.057431065 | 0.237036532 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 1.30E-04 | 1.47E-04 | 0 | 0 | 1.47E-04 |
| Los Angele | 2024 | Annual | LDT1 | 0.002144894 | 0.006410371 | 0.021338185 | 0.00269766 | 0.038355407 | 0.005509322 | 0 | 0.002993902 | 0.008503224 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDT1 | 0.00410464 | 0.012230314 | 0.041128408 | 0.005125097 | 0.073865178 | 0.011024211 | 0 | 0.005715686 | 0.016739897 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDT1 | 0.003400731 | 0.010078746 | 0.034352709 | 0.00420823 | 0.062743045 | 0.010530589 | 0 | 0.005385916 | 0.015916505 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDT1 | 0.003400211 | 0.010022216 | 0.034806006 | 0.004164817 | 0.064658201 | 0.012144624 | 0 | 0.006128055 | 0.018272679 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.13E-06 | 9.25E-06 | 0 | 0 | 9.25E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0.002932994 | 0.008559819 | 0.030482084 | 0.00354885 | 0.057471954 | 0.011878614 | 0 | 0.005942474 | 0.017821087 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.16E-05 | 1.33E-05 | 0 | 0 | 1.33E-05 |
| Los Angele | 2024 | Annual | LDT1 | 0.002542977 | 0.007324977 | 0.026999073 | 0.003028891 | 0.051810242 | 0.011889384 | 0 | 0.005900119 | 0.017789503 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.72E-06 | 9.92E-06 | 0 | 0 | 9.92E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0.002392103 | 0.006798942 | 0.026066113 | 0.002808229 | 0.050386415 | 0.012357714 | 0 | 0.006065682 | 0.018423396 |

2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDA | 0.01943404 | 0.074948594 | 0.1541973 | 0.024442334 | 0.358935263 | 1.694361341 | 0 | 0.6083623 | 2.302723641 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDA | 0.020512141 | 0.078806356 | 0.17015 | 0.02561162 | 0.388927664 | 1.864530734 | 0 | 0.6406579 | 2.505188634 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 4.47E-06 | 3.70E-05 | 0 | 0 | 3.70E-05 |
| Los Angele | 2024 | Annual | LDA | 0.017721996 | 0.067657195 | 0.1549658 | 0.021930071 | 0.356750167 | 1.838041979 | 0 | 0.6152974 | 2.453339379 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 1.57E-04 | 0.001296658 | 0 | 0 | 0.001296658 |
| Los Angele | 2024 | Annual | LDA | 0.022280781 | 0.084502302 | 0.2059899 | 0.027291123 | 0.476168089 | 2.601774508 | 0 | 0.8454072 | 3.447181708 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 2.93E-04 | 0.002424173 | 0 | 0 | 0.002424173 |
| Los Angele | 2024 | Annual | LDA | 0.021542195 | 0.080784634 | 0.211376 | 0.026065605 | 0.489588071 | 2.900041595 | 0 | 0.9231927 | 3.823234295 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 2.79E-04 | 0.00230619 | 0 | 0 | 0.00230619 |
| Los Angele | 2024 | Annual | LDA | 0.021268355 | 0.078577586 | 0.2246546 | 0.025332386 | 0.521380476 | 3.362017711 | 0 | 1.049002 | 4.411019711 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 2.66E-04 | 0.002198096 | 0 | 0 | 0.002198096 |
| Los Angele | 2024 | Annual | LDA | 0.020532375 | 0.074723586 | 0.2276307 | 0.024104163 | 0.530728965 | 3.637828327 | 0 | 1.10799 | 4.745818327 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 2.56E-04 | 0.002115085 | 0 | 0 | 0.002115085 |
| Los Angele | 2024 | Annual | LDA | 0.019873684 | 0.070953891 | 0.2333336 | 0.022911908 | 0.546599193 | 3.983486471 | 0 | 1.183637 | 5.167123471 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 2.28E-04 | 0.001886644 | 0 | 0 | 0.001886644 |
| Los Angele | 2024 | Annual | LDA | 0.018471582 | 0.063762702 | 0.2355718 | 0.020739608 | 0.554588932 | 4.360170049 | 0 | 1.258787 | 5.618957049 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 2.21E-04 | 0.001820044 | 0 | 0 | 0.001820044 |
| Los Angele | 2024 | Annual | LDA | 0.016832484 | 0.055701565 | 0.2316837 | 0.018320922 | 0.549455728 | 4.620036981 | 0 | 1.291517 | 5.911553981 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 1.99E-04 | 0.001637975 | 0 | 0 | 0.001637975 |
| Los Angele | 2024 | Annual | LDA | 0.015046041 | 0.046658471 | 0.2221676 | 0.015747929 | 0.539136734 | 4.927462028 | 0 | 1.325495 | 6.252957028 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 2.05E-04 | 0.001687346 | 0 | 0 | 0.001687346 |
| Los Angele | 2024 | Annual | LDA | 0.012281018 | 0.033912893 | 0.1904742 | 0.012211913 | 0.495926835 | 5.10366073 | 0 | 1.312753 | 6.41641373 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 1.88E-04 | 0.001550275 | 0 | 0 | 0.001550275 |
| Los Angele | 2024 | Annual | LDA | 0.010633965 | 0.025730025 | 0.1828731 | 0.009796001 | 0.481360174 | 5.203770403 | 0 | 1.269816 | 6.473586403 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 1.78E-04 | 0.001465227 | 0 | 0 | 0.001465227 |
| Los Angele | 2024 | Annual | LDA | 0.009279901 | 0.019240446 | 0.1732469 | 0.007881907 | 0.450361499 | 4.958962656 | 0 | 1.123626 | 6.082588656 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 1.59E-04 | 0.001308896 | 0 | 0 | 0.001308896 |
| Los Angele | 2024 | Annual | LDA | 0.007845414 | 0.013756939 | 0.1552667 | 0.006154739 | 0.406363563 | 4.598342802 | 0 | 0.9640848 | 5.562427602 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 1.40E-04 | 0.001149331 | 0 | 0 | 0.001149331 |
| Los Angele | 2024 | Annual | LDA | 0.007299496 | 0.010844543 | 0.1499917 | 0.005330653 | 0.399724196 | 4.696315088 | 0 | 0.907757 | 5.604072088 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 1.35E-04 | 0.001101144 | 0 | 0 | 0.001101144 |
| Los Angele | 2024 | Annual | LDA | 0.007028126 | 0.00895225 | 0.1473701 | 0.004833723 | 0.400872215 | 4.964761048 | 0 | 0.8703275 | 5.835088548 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 1.36E-04 | 0.001106646 | 0 | 0 | 0.001106646 |
| Los Angele | 2024 | Annual | LDA | 0.006770379 | 0.007548061 | 0.1427419 | 0.004442043 | 0.398538915 | 5.414406685 | 0 | 0.8261512 | 6.240557885 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 1.47E-04 | 0.001200491 | 0 | 0 | 0.001200491 |
| Los Angele | 2024 | Annual | LDT1 | 0.002144894 | 0.006410371 | 0.021338185 | 0.00269766 | 0.041094334 | 0.183099903 | 0 | 0.054351918 | 0.237451821 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDT1 | 0.00410464 | 0.012230314 | 0.041128408 | 0.005125097 | 0.079328356 | 0.360275331 | 0 | 0.1033013 | 0.463576631 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDT1 | 0.003400731 | 0.010078746 | 0.034352709 | 0.00420823 | 0.06795692 | 0.334784551 | 0 | 0.094292693 | 0.429077244 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDT1 | 0.003400211 | 0.010022216 | 0.034806006 | 0.004164817 | 0.070665929 | 0.374292127 | 0 | 0.1034626 | 0.477754727 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.25E-06 | 7.63E-05 | 0 | 0 | 7.63E-05 |
| Los Angele | 2024 | Annual | LDT1 | 0.002932994 | 0.008559819 | 0.030482084 | 0.00354885 | 0.063344834 | 0.367210257 | 0 | 0.1003864 | 0.467596657 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.33E-05 | 1.09E-04 | 0 | 0 | 1.09E-04 |
| Los Angele | 2024 | Annual | LDT1 | 0.002542977 | 0.007324977 | 0.026999073 | 0.003028891 | 0.057685421 | 0.368761993 | 0 | 0.099725492 | 0.468487485 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.92E-06 | 8.17E-05 | 0 | 0 | 8.17E-05 |
| Los Angele | 2024 | Annual | LDT1 | 0.002392103 | 0.006798942 | 0.026066113 | 0.002808229 | 0.056488782 | 0.384450932 | 0 | 0.1025321 | 0.486983032 |

2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDA | 0.12168173 | 0 | 0.028666705 | 0.150348435 | 775.2084664 | 0 | 38.80952 | 814.0179864 | 697.6876198 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDA | 0.142043871 | 0 | 0.032533392 | 0.174577263 | 929.2521012 | 0 | 45.74701 | 974.9991112 | 836.3268911 |
| Los Angele | 2024 | Annual | LDA | 1.19E-04 | 0 | 0 | 1.19E-04 | 0.138117982 | 0 | 0 | 0.138117982 | 0.124306183 |
| Los Angele | 2024 | Annual | LDA | 0.147718713 | 0 | 0.033897575 | 0.181616288 | 925.0090336 | 0 | 44.75557 | 969.7646036 | 832.5081302 |
| Los Angele | 2024 | Annual | LDA | 0.004159178 | 0 | 0 | 0.004159178 | 4.924692852 | 0 | 0 | 4.924692852 | 4.432223566 |
| Los Angele | 2024 | Annual | LDA | 0.2212301 | 0 | 0.05060041 | 0.27183051 | 1340.366454 | 0 | 63.76711 | 1404.133564 | 1164.108265 |
| Los Angele | 2024 | Annual | LDA | 0.007788878 | 0 | 0 | 0.007788878 | 9.399901212 | 0 | 0 | 9.399901212 | 8.163814202 |
| Los Angele | 2024 | Annual | LDA | 0.247643716 | 0 | 0.055456109 | 0.303099825 | 1505.303088 | 0 | 70.23212 | 1575.535208 | 1159.685499 |
| Los Angele | 2024 | Annual | LDA | 0.007424211 | 0 | 0 | 0.007424211 | 9.155208084 | 0 | 0 | 9.155208084 | 7.053172308 |
| Los Angele | 2024 | Annual | LDA | 0.288386419 | 0 | 0.063224778 | 0.351611197 | 1760.209668 | 0 | 80.57353 | 1840.783198 | 1183.38896 |
| Los Angele | 2024 | Annual | LDA | 0.007091912 | 0 | 0 | 0.007091912 | 8.957614587 | 0 | 0 | 8.957614587 | 6.022204287 |
| Los Angele | 2024 | Annual | LDA | 0.314542181 | 0 | 0.067255788 | 0.381797969 | 1930.297216 | 0 | 86.41978 | 2016.716996 | 1264.730736 |
| Los Angele | 2024 | Annual | LDA | 0.006841347 | 0 | 0 | 0.006841347 | 8.874135171 | 0 | 0 | 8.874135171 | 5.814333364 |
| Los Angele | 2024 | Annual | LDA | 0.347733176 | 0 | 0.072458923 | 0.420192099 | 2148.811728 | 0 | 94.09309 | 2242.904818 | 1376.958555 |
| Los Angele | 2024 | Annual | LDA | 0.006119929 | 0 | 0 | 0.006119929 | 8.173818746 | 0 | 0 | 8.173818746 | 5.237783053 |
| Los Angele | 2024 | Annual | LDA | 0.384317681 | 0 | 0.077675149 | 0.46199283 | 2396.29853 | 0 | 102.2621 | 2498.56063 | 1473.004706 |
| Los Angele | 2024 | Annual | LDA | 0.005923179 | 0 | 0 | 0.005923179 | 8.170016942 | 0 | 0 | 8.170016942 | 5.022109414 |
| Los Angele | 2024 | Annual | LDA | 0.412096183 | 0 | 0.080484524 | 0.492580707 | 2599.905495 | 0 | 107.8869 | 2707.792395 | 1537.324119 |
| Los Angele | 2024 | Annual | LDA | 0.005350332 | 0 | 0 | 0.005350332 | 7.64329166 | 0 | 0 | 7.64329166 | 4.519478358 |
| Los Angele | 2024 | Annual | LDA | 0.444776159 | 0 | 0.083377622 | 0.528153781 | 2851.74237 | 0 | 114.5318 | 2966.27417 | 1686.235263 |
| Los Angele | 2024 | Annual | LDA | 0.005534954 | 0 | 0 | 0.005534954 | 8.218447554 | 0 | 0 | 8.218447554 | 4.859568039 |
| Los Angele | 2024 | Annual | LDA | 0.463924163 | 0 | 0.082630232 | 0.546554395 | 3070.258799 | 0 | 118.7827 | 3189.041499 | 1815.444028 |
| Los Angele | 2024 | Annual | LDA | 0.005110253 | 0 | 0 | 0.005110253 | 7.918865518 | 0 | 0 | 7.918865518 | 4.682425181 |
| Los Angele | 2024 | Annual | LDA | 0.473570912 | 0 | 0.079061829 | 0.552632741 | 3343.502111 | 0 | 124.2425 | 3467.744611 | 1977.012798 |
| Los Angele | 2024 | Annual | LDA | 0.004858811 | 0 | 0 | 0.004858811 | 7.911183896 | 0 | 0 | 7.911183896 | 4.677883038 |
| Los Angele | 2024 | Annual | LDA | 0.480712281 | 0 | 0.074352302 | 0.555064583 | 3576.453057 | 0 | 126.7302 | 3703.183257 | 2114.756692 |
| Los Angele | 2024 | Annual | LDA | 0.004370757 | 0 | 0 | 0.004370757 | 7.515174083 | 0 | 0 | 7.515174083 | 4.443722435 |
| Los Angele | 2024 | Annual | LDA | 0.451444657 | 0 | 0.063041359 | 0.514486016 | 3616.403633 | 0 | 121.0416 | 3737.445233 | 2138.379468 |
| Los Angele | 2024 | Annual | LDA | 0.003869858 | 0 | 0 | 0.003869858 | 7.070416513 | 0 | 0 | 7.070416513 | 4.180737284 |
| Los Angele | 2024 | Annual | LDA | 0.461823039 | 0 | 0.057272181 | 0.51909522 | 3954.379097 | 0 | 123.6846 | 4078.063697 | 2338.22436 |
| Los Angele | 2024 | Annual | LDA | 0.003745202 | 0 | 0 | 0.003745202 | 7.328933122 | 0 | 0 | 7.328933122 | 4.333598155 |
| Los Angele | 2024 | Annual | LDA | 0.48443638 | 0 | 0.051574677 | 0.536011057 | 4457.543233 | 0 | 127.5672 | 4585.110433 | 2635.745314 |
| Los Angele | 2024 | Annual | LDA | 0.003811999 | 0 | 0 | 0.003811999 | 8.075445834 | 0 | 0 | 8.075445834 | 4.775011122 |
| Los Angele | 2024 | Annual | LDA | 0.51822887 | 0 | 0.044252861 | 0.562481731 | 5172.596624 | 0 | 129.1068 | 5301.703424 | 3058.556384 |
| Los Angele | 2024 | Annual | LDA | 0.004205877 | 0 | 0 | 0.004205877 | 9.802717435 | 0 | 0 | 9.802717435 | 5.79634682 |
| Los Angele | 2024 | Annual | LDT1 | 0.012748653 | 0 | 0.002493481 | 0.015242133 | 92.90805418 | 0 | 3.836247 | 96.74430118 | 83.61724876 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDT1 | 0.026749797 | 0 | 0.005133564 | 0.031883361 | 200.1394671 | 0 | 8.198819 | 208.3382861 | 180.1255204 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDT1 | 0.026261619 | 0 | 0.005080988 | 0.031342607 | 189.387658 | 0 | 7.691842 | 197.0795 | 170.4488922 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDT1 | 0.031195462 | 0 | 0.006089496 | 0.037284958 | 216.2218227 | 0 | 8.715558 | 224.9373807 | 187.788653 |
| Los Angele | 2024 | Annual | LDT1 | 2.49E-04 | 0 | 0 | 2.49E-04 | 0.247032709 | 0 | 0 | 0.247032709 | 0.214547908 |
| Los Angele | 2024 | Annual | LDT1 | 0.030855181 | 0 | 0.005950927 | 0.036806108 | 214.6455138 | 0 | 8.564054 | 223.2095678 | 165.3629038 |
| Los Angele | 2024 | Annual | LDT1 | 3.57E-04 | 0 | 0 | 3.57E-04 | 0.362296552 | 0 | 0 | 0.362296552 | 0.279113263 |
| Los Angele | 2024 | Annual | LDT1 | 0.031240696 | 0 | 0.005953174 | 0.037193869 | 218.3551956 | 0 | 8.628269 | 226.9834646 | 146.800198 |
| Los Angele | 2024 | Annual | LDT1 | 2.68E-04 | 0 | 0 | 2.68E-04 | 0.278257844 | 0 | 0 | 0.278257844 | 0.187072748 |
| Los Angele | 2024 | Annual | LDT1 | 0.032855591 | 0 | 0.006164829 | 0.03902042 | 231.0423059 | 0 | 9.017316 | 240.0596219 | 151.3789188 |

2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDA | 0 | 34.928568 | 732.6161878 | 6.04E-04 | 0 | 9.37E-05 | 6.97E-04 | 0.016639005 | 0.076435469 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDA | 0 | 41.172309 | 877.4992001 | 7.24E-04 | 0 | 1.44E-04 | 8.67E-04 | 0.019939562 | 0.091597363 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0.124306183 | 2.35E-06 | 0 | 0 | 2.35E-06 | 3.48E-06 | 1.60E-05 |
| Los Angele | 2024 | Annual | LDA | 0 | 40.280013 | 872.7881432 | 9.61E-04 | 0 | 2.22E-04 | 0.00118243 | 0.019800926 | 0.090960518 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 4.432223566 | 8.25E-05 | 0 | 0 | 8.25E-05 | 1.24E-04 | 5.70E-04 |
| Los Angele | 2024 | Annual | LDA | 0 | 55.38173504 | 1219.49 | 0.00139199 | 0 | 3.90E-04 | 0.001781873 | 0.028693838 | 0.1318123 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 8.163814202 | 1.55E-04 | 0 | 0 | 1.55E-04 | 2.37E-04 | 0.001087926 |
| Los Angele | 2024 | Annual | LDA | 0 | 54.10682525 | 1213.792324 | 0.002344918 | 0 | 8.00E-04 | 0.00314498 | 0.032224093 | 0.1480294 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 7.053172308 | 1.47E-04 | 0 | 0 | 1.47E-04 | 2.31E-04 | 0.001059606 |
| Los Angele | 2024 | Annual | LDA | 0 | 54.16958422 | 1237.558544 | 0.003656005 | 0 | 0.001291239 | 0.004947244 | 0.037682313 | 0.1731032 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 6.022204287 | 1.41E-04 | 0 | 0 | 1.41E-04 | 2.26E-04 | 0.001036737 |
| Los Angele | 2024 | Annual | LDA | 0 | 56.62223986 | 1321.352976 | 0.006013923 | 0 | 0.002594655 | 0.008608578 | 0.041324772 | 0.1898357 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 5.814333364 | 1.36E-04 | 0 | 0 | 1.36E-04 | 2.24E-04 | 0.001027075 |
| Los Angele | 2024 | Annual | LDA | 0 | 60.29485207 | 1437.253407 | 0.008926285 | 0 | 0.003996838 | 0.012923123 | 0.046004511 | 0.2113332 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 5.237783053 | 1.21E-04 | 0 | 0 | 1.21E-04 | 2.06E-04 | 9.46E-04 |
| Los Angele | 2024 | Annual | LDA | 0 | 62.86051287 | 1535.865219 | 0.01244295 | 0 | 0.005594335 | 0.018037285 | 0.051306229 | 0.235688 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 5.022109414 | 1.18E-04 | 0 | 0 | 1.18E-04 | 2.06E-04 | 9.46E-04 |
| Los Angele | 2024 | Annual | LDA | 0 | 63.79352397 | 1601.117643 | 0.015525222 | 0 | 0.006887165 | 0.022412388 | 0.055669233 | 0.2557306 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 4.519478358 | 1.06E-04 | 0 | 0 | 1.06E-04 | 1.93E-04 | 8.85E-04 |
| Los Angele | 2024 | Annual | LDA | 0 | 67.72265334 | 1753.957917 | 0.018504052 | 0 | 0.007993193 | 0.026497246 | 0.061044332 | 0.2804224 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 4.859568039 | 1.10E-04 | 0 | 0 | 1.10E-04 | 2.07E-04 | 9.51E-04 |
| Los Angele | 2024 | Annual | LDA | 0 | 70.23621051 | 1885.680239 | 0.020712337 | 0 | 0.008646305 | 0.029358642 | 0.065705098 | 0.3018329 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 4.682425181 | 1.01E-04 | 0 | 0 | 1.01E-04 | 2.00E-04 | 9.17E-04 |
| Los Angele | 2024 | Annual | LDA | 0 | 73.46459025 | 2050.477389 | 0.022548622 | 0 | 0.009069718 | 0.031618339 | 0.07153292 | 0.3286044 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 4.677883038 | 9.65E-05 | 0 | 0 | 9.65E-05 | 1.99E-04 | 9.16E-04 |
| Los Angele | 2024 | Annual | LDA | 0 | 74.93556726 | 2189.69226 | 0.024112114 | 0 | 0.009251321 | 0.033363435 | 0.076493859 | 0.3513938 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 4.443722435 | 8.69E-05 | 0 | 0 | 8.69E-05 | 1.89E-04 | 8.70E-04 |
| Los Angele | 2024 | Annual | LDA | 0 | 71.57189808 | 2209.951366 | 0.024373841 | 0 | 0.008836048 | 0.033209889 | 0.077323422 | 0.3552045 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 4.180737284 | 7.69E-05 | 0 | 0 | 7.69E-05 | 1.78E-04 | 8.18E-04 |
| Los Angele | 2024 | Annual | LDA | 0 | 73.13470398 | 2411.359064 | 0.026643409 | 0 | 0.009028994 | 0.035672402 | 0.084523298 | 0.388279 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 4.333598155 | 7.45E-05 | 0 | 0 | 7.45E-05 | 1.85E-04 | 8.48E-04 |
| Los Angele | 2024 | Annual | LDA | 0 | 75.43048536 | 2711.175799 | 0.030024208 | 0 | 0.009312422 | 0.03933663 | 0.095248453 | 0.4375476 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 4.775011122 | 7.58E-05 | 0 | 0 | 7.58E-05 | 2.03E-04 | 9.35E-04 |
| Los Angele | 2024 | Annual | LDA | 0 | 76.34085084 | 3134.897235 | 0.034829643 | 0 | 0.009424815 | 0.044254458 | 0.1104938 | 0.5075809 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 5.79634682 | 8.37E-05 | 0 | 0 | 8.37E-05 | 2.47E-04 | 0.001134547 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 3.4526223 | 87.06987106 | 6.22E-05 | 0 | 7.95E-06 | 7.01E-05 | 0.001709894 | 0.007854829 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 7.3789371 | 187.5044575 | 1.34E-04 | 0 | 2.21E-05 | 1.56E-04 | 0.003686673 | 0.016935658 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 6.9226578 | 177.37155 | 1.69E-04 | 0 | 3.27E-05 | 2.02E-04 | 0.003482664 | 0.015998492 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 7.569462123 | 195.3581151 | 1.93E-04 | 0 | 4.58E-05 | 2.39E-04 | 0.003978574 | 0.018276576 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0.214547908 | 4.12E-06 | 0 | 0 | 4.12E-06 | 6.22E-06 | 2.86E-05 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 6.597747202 | 171.960651 | 2.87E-04 | 0 | 8.38E-05 | 3.71E-04 | 0.003949984 | 0.018145241 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0.279113263 | 5.91E-06 | 0 | 0 | 5.91E-06 | 9.13E-06 | 4.19E-05 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 5.800785249 | 152.6009833 | 3.90E-04 | 0 | 1.19E-04 | 5.09E-04 | 0.004018546 | 0.018460199 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0.187072748 | 4.43E-06 | 0 | 0 | 4.43E-06 | 7.01E-06 | 3.22E-05 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 5.908145443 | 157.2870642 | 6.19E-04 | 0 | 2.33E-04 | 8.51E-04 | 0.004252563 | 0.019535219 |

2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDA | 0.093771939 | 5.60E-04 | 0 | 8.69E-05 | 6.47E-04 | 0.004159751 | 0.032758046 | 0.03756493 | 0.00776601 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDA | 0.112404239 | 6.72E-04 | 0 | 1.33E-04 | 8.05E-04 | 0.004984891 | 0.039256014 | 0.045045629 | 0.009306478 |
| Los Angele | 2024 | Annual | LDA | 2.18E-05 | 2.16E-06 | 0 | 0 | 2.16E-06 | 8.70E-07 | 6.85E-06 | 9.89E-06 | 1.32E-06 |
| Los Angele | 2024 | Annual | LDA | 0.111943874 | 8.91E-04 | 0 | 2.06E-04 | 0.0010971 | 0.004950231 | 0.038983077 | 0.045030409 | 0.009263734 |
| Los Angele | 2024 | Annual | LDA | 7.77E-04 | 7.59E-05 | 0 | 0 | 7.59E-05 | 3.10E-05 | 2.44E-04 | 3.51E-04 | 4.70E-05 |
| Los Angele | 2024 | Annual | LDA | 0.162288011 | 0.001291537 | 0 | 3.62E-04 | 0.001653284 | 0.00717346 | 0.056491002 | 0.065317746 | 0.01342248 |
| Los Angele | 2024 | Annual | LDA | 0.001479283 | 1.42E-04 | 0 | 0 | 1.42E-04 | 5.92E-05 | 4.66E-04 | 6.68E-04 | 8.97E-05 |
| Los Angele | 2024 | Annual | LDA | 0.183398473 | 0.002175697 | 0 | 7.42E-04 | 0.002918023 | 0.008056023 | 0.063441187 | 0.074415233 | 0.015073781 |
| Los Angele | 2024 | Annual | LDA | 0.001437575 | 1.36E-04 | 0 | 0 | 1.36E-04 | 5.77E-05 | 4.54E-04 | 6.47E-04 | 8.74E-05 |
| Los Angele | 2024 | Annual | LDA | 0.215732757 | 0.003392169 | 0 | 0.001198057 | 0.004590226 | 0.009420578 | 0.074187055 | 0.088197859 | 0.017625859 |
| Los Angele | 2024 | Annual | LDA | 0.001403147 | 1.29E-04 | 0 | 0 | 1.29E-04 | 5.64E-05 | 4.44E-04 | 6.30E-04 | 8.55E-05 |
| Los Angele | 2024 | Annual | LDA | 0.23976905 | 0.005579929 | 0 | 0.002407412 | 0.00798734 | 0.010331193 | 0.08135815 | 0.099676683 | 0.019328205 |
| Los Angele | 2024 | Annual | LDA | 0.001386424 | 1.25E-04 | 0 | 0 | 1.25E-04 | 5.59E-05 | 4.40E-04 | 6.21E-04 | 8.47E-05 |
| Los Angele | 2024 | Annual | LDA | 0.270260834 | 0.00828212 | 0 | 0.003708405 | 0.011990525 | 0.011501128 | 0.090571381 | 0.114063034 | 0.021515107 |
| Los Angele | 2024 | Annual | LDA | 0.001273424 | 1.12E-04 | 0 | 0 | 1.12E-04 | 5.15E-05 | 4.05E-04 | 5.69E-04 | 7.80E-05 |
| Los Angele | 2024 | Annual | LDA | 0.305031514 | 0.011545005 | 0 | 0.00519062 | 0.016735625 | 0.012826557 | 0.1010091 | 0.130571282 | 0.023991706 |
| Los Angele | 2024 | Annual | LDA | 0.001268999 | 1.08E-04 | 0 | 0 | 1.08E-04 | 5.15E-05 | 4.05E-04 | 5.65E-04 | 7.80E-05 |
| Los Angele | 2024 | Annual | LDA | 0.333812221 | 0.014404844 | 0 | 0.006390153 | 0.020794998 | 0.013917308 | 0.1095988 | 0.144311106 | 0.02602838 |
| Los Angele | 2024 | Annual | LDA | 0.001183412 | 9.77E-05 | 0 | 0 | 9.77E-05 | 4.81E-05 | 3.79E-04 | 5.25E-04 | 7.30E-05 |
| Los Angele | 2024 | Annual | LDA | 0.367963978 | 0.017168708 | 0 | 0.007416364 | 0.024585072 | 0.015261083 | 0.120181 | 0.160027155 | 0.028547268 |
| Los Angele | 2024 | Annual | LDA | 0.001268154 | 1.01E-04 | 0 | 0 | 1.01E-04 | 5.18E-05 | 4.08E-04 | 5.61E-04 | 7.85E-05 |
| Los Angele | 2024 | Annual | LDA | 0.39689664 | 0.019217634 | 0 | 0.008022344 | 0.027239977 | 0.016426275 | 0.129357 | 0.173023252 | 0.03073141 |
| Los Angele | 2024 | Annual | LDA | 0.00121752 | 9.34E-05 | 0 | 0 | 9.34E-05 | 4.99E-05 | 3.93E-04 | 5.36E-04 | 7.56E-05 |
| Los Angele | 2024 | Annual | LDA | 0.431755659 | 0.020921402 | 0 | 0.008415202 | 0.029336604 | 0.01788323 | 0.1408304 | 0.188050234 | 0.033460587 |
| Los Angele | 2024 | Annual | LDA | 0.001211467 | 8.88E-05 | 0 | 0 | 8.88E-05 | 4.98E-05 | 3.92E-04 | 5.31E-04 | 7.55E-05 |
| Los Angele | 2024 | Annual | LDA | 0.461251094 | 0.022372064 | 0 | 0.008583699 | 0.030955763 | 0.019123465 | 0.1505973 | 0.200676528 | 0.035781819 |
| Los Angele | 2024 | Annual | LDA | 0.001145985 | 7.99E-05 | 0 | 0 | 7.99E-05 | 4.73E-05 | 3.73E-04 | 5.00E-04 | 7.17E-05 |
| Los Angele | 2024 | Annual | LDA | 0.465737811 | 0.022614904 | 0 | 0.008198395 | 0.0308133 | 0.019330855 | 0.1522305 | 0.202374655 | 0.036174662 |
| Los Angele | 2024 | Annual | LDA | 0.001073376 | 7.08E-05 | 0 | 0 | 7.08E-05 | 4.45E-05 | 3.51E-04 | 4.66E-04 | 6.75E-05 |
| Los Angele | 2024 | Annual | LDA | 0.5084747 | 0.02472069 | 0 | 0.008377415 | 0.033098105 | 0.021130824 | 0.1664053 | 0.220634229 | 0.039549947 |
| Los Angele | 2024 | Annual | LDA | 0.001107361 | 6.85E-05 | 0 | 0 | 6.85E-05 | 4.62E-05 | 3.64E-04 | 4.78E-04 | 7.00E-05 |
| Los Angele | 2024 | Annual | LDA | 0.572132683 | 0.027857512 | 0 | 0.008640391 | 0.036497903 | 0.023812113 | 0.1875204 | 0.247830416 | 0.044576894 |
| Los Angele | 2024 | Annual | LDA | 0.001213935 | 6.98E-05 | 0 | 0 | 6.98E-05 | 5.09E-05 | 4.01E-04 | 5.21E-04 | 7.71E-05 |
| Los Angele | 2024 | Annual | LDA | 0.662329158 | 0.032316165 | 0 | 0.008744673 | 0.041060838 | 0.027623447 | 0.2175346 | 0.286218885 | 0.051721718 |
| Los Angele | 2024 | Annual | LDA | 0.001465255 | 7.70E-05 | 0 | 0 | 7.70E-05 | 6.17E-05 | 4.86E-04 | 6.25E-04 | 9.36E-05 |
| Los Angele | 2024 | Annual | LDT1 | 0.009634862 | 5.77E-05 | 0 | 7.38E-06 | 6.51E-05 | 4.27E-04 | 0.003366355 | 0.003858906 | 9.30E-04 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDT1 | 0.020778387 | 1.24E-04 | 0 | 2.05E-05 | 1.45E-04 | 9.22E-04 | 0.007258139 | 0.008324601 | 0.002003712 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDT1 | 0.019682916 | 1.57E-04 | 0 | 3.04E-05 | 1.87E-04 | 8.71E-04 | 0.006856496 | 0.007914361 | 0.001895977 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | LDT1 | 0.022493887 | 1.79E-04 | 0 | 4.25E-05 | 2.22E-04 | 9.95E-04 | 0.007832818 | 0.00904897 | 0.002164495 |
| Los Angele | 2024 | Annual | LDT1 | 3.89E-05 | 3.79E-06 | 0 | 0 | 3.79E-06 | 1.56E-06 | 1.23E-05 | 1.76E-05 | 2.36E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0.022466359 | 2.67E-04 | 0 | 7.77E-05 | 3.44E-04 | 9.87E-04 | 0.007776531 | 0.009108379 | 0.002148642 |
| Los Angele | 2024 | Annual | LDT1 | 5.70E-05 | 5.44E-06 | 0 | 0 | 5.44E-06 | 2.28E-06 | 1.80E-05 | 2.57E-05 | 3.46E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0.022987251 | 3.62E-04 | 0 | 1.10E-04 | 4.72E-04 | 0.001004637 | 0.007911515 | 0.009387961 | 0.002185695 |
| Los Angele | 2024 | Annual | LDT1 | 4.36E-05 | 4.08E-06 | 0 | 0 | 4.08E-06 | 1.75E-06 | 1.38E-05 | 1.96E-05 | 2.66E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0.024638898 | 5.74E-04 | 0 | 2.16E-04 | 7.90E-04 | 0.001063141 | 0.008372237 | 0.010225073 | 0.002312595 |

2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDA | 0 | 3.98E-04 | 0.008163959 | 87.08048 | 0 | 3.53E-04 | 2.44E-03 | 1.59E-04 | 7.39E-07 | 9.87E-05 | 6.86E-07 | 3.91E-05 | 8.65E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2024 | Annual | LDA | 0 | 4.68E-04 | 0.009774238 | 104.2564 | 0 | 3.18E-04 | 2.22E-03 | 1.54E-04 | 7.67E-07 | 9.87E-05 | 7.12E-07 | 3.91E-05 | 8.65E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 1.32E-06 | 0 | 0.012430619 | 1.99E-05 | 1.88E-04 | 6.01E-04 | 1.19E-05 | 9.87E-05 | 1.10E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 4.57E-04 | 0.009721193 | 103.6907 | 0 | 2.92E-04 | 2.19E-03 | 1.62E-04 | 1.05E-06 | 9.87E-05 | 9.77E-07 | 3.91E-05 | 8.66E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 4.70E-05 | 0 | 0.4432224 | 1.96E-05 | 1.84E-04 | 5.91E-04 | 1.17E-05 | 9.87E-05 | 1.08E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 6.51E-04 | 0.014073764 | 150.1171 | 0 | 2.66E-04 | 2.12E-03 | 1.67E-04 | 1.10E-06 | 9.87E-05 | 1.02E-06 | 3.91E-05 | 8.65E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 8.97E-05 | 0 | 0.8459912 | 1.92E-05 | 1.81E-04 | 5.80E-04 | 1.15E-05 | 9.87E-05 | 1.06E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 7.17E-04 | 0.015790951 | 168.4334 | 0 | 2.42E-04 | 2.09E-03 | 1.66E-04 | 1.72E-06 | 9.87E-05 | 1.60E-06 | 3.91E-05 | 8.64E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 8.74E-05 | 0 | 0.8239688 | 1.87E-05 | 1.76E-04 | 5.68E-04 | 1.13E-05 | 9.87E-05 | 1.04E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 8.23E-04 | 0.018448446 | 196.7794 | 0 | 2.19E-04 | 2.06E-03 | 1.65E-04 | 2.32E-06 | 9.87E-05 | 2.15E-06 | 3.91E-05 | 8.63E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 8.55E-05 | 0 | 0.8061852 | 1.83E-05 | 1.72E-04 | 5.54E-04 | 1.10E-05 | 9.87E-05 | 1.01E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 8.82E-04 | 0.02021018 | 215.5709 | 0 | 2.02E-04 | 2.03E-03 | 1.63E-04 | 3.67E-06 | 9.87E-05 | 3.41E-06 | 3.91E-05 | 8.63E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 8.47E-05 | 0 | 0.7986722 | 1.77E-05 | 1.67E-04 | 5.40E-04 | 1.07E-05 | 9.87E-05 | 9.85E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 9.60E-04 | 0.022475002 | 239.7285 | 0 | 1.85E-04 | 1.98E-03 | 1.61E-04 | 4.95E-06 | 9.87E-05 | 4.60E-06 | 3.91E-05 | 8.62E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 7.80E-05 | 0 | 0.7356437 | 1.72E-05 | 1.62E-04 | 5.24E-04 | 1.04E-05 | 9.87E-05 | 9.57E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0.001042754 | 0.02503446 | 267.0289 | 0 | 1.67E-04 | 1.93E-03 | 1.59E-04 | 6.20E-06 | 9.87E-05 | 5.75E-06 | 3.91E-05 | 8.61E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 7.80E-05 | 0 | 0.7353016 | 1.66E-05 | 1.56E-04 | 5.08E-04 | 1.01E-05 | 9.87E-05 | 9.27E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0.001099484 | 0.027127864 | 289.3581 | 0 | 1.51E-04 | 1.87E-03 | 1.56E-04 | 7.10E-06 | 9.87E-05 | 6.59E-06 | 3.91E-05 | 8.59E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 7.30E-05 | 0 | 0.6878964 | 1.60E-05 | 1.50E-04 | 4.90E-04 | 9.73E-06 | 9.87E-05 | 8.95E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0.001166423 | 0.029713691 | 316.9396 | 0 | 1.33E-04 | 1.81E-03 | 1.53E-04 | 7.66E-06 | 9.87E-05 | 7.10E-06 | 3.91E-05 | 8.58E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 7.85E-05 | 0 | 0.7396604 | 1.53E-05 | 1.44E-04 | 4.71E-04 | 9.36E-06 | 9.87E-05 | 8.61E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0.00120867 | 0.03194008 | 340.6873 | 0 | 1.11E-04 | 1.72E-03 | 1.47E-04 | 7.88E-06 | 9.87E-05 | 7.31E-06 | 3.91E-05 | 8.57E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 7.56E-05 | 0 | 0.712698 | 1.46E-05 | 1.37E-04 | 4.52E-04 | 8.97E-06 | 9.87E-05 | 8.25E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0.001262493 | 0.03472308 | 370.3721 | 0 | 9.79E-05 | 1.60E-03 | 1.36E-04 | 7.80E-06 | 9.87E-05 | 7.23E-06 | 3.91E-05 | 8.56E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 7.55E-05 | 0 | 0.7120064 | 1.38E-05 | 1.30E-04 | 4.30E-04 | 8.54E-06 | 9.87E-05 | 7.86E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0.001284887 | 0.037066706 | 395.3702 | 0 | 8.52E-05 | 1.40E-03 | 1.28E-04 | 7.69E-06 | 9.87E-05 | 7.14E-06 | 3.91E-05 | 8.55E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 7.17E-05 | 0 | 0.6763657 | 1.30E-05 | 1.22E-04 | 4.07E-04 | 8.09E-06 | 9.87E-05 | 7.44E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0.001225366 | 0.037400028 | 398.9256 | 0 | 7.53E-05 | 1.27E-03 | 1.17E-04 | 7.57E-06 | 9.87E-05 | 7.03E-06 | 3.91E-05 | 8.53E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 6.75E-05 | 0 | 0.6363375 | 1.22E-05 | 1.14E-04 | 3.83E-04 | 7.62E-06 | 9.87E-05 | 7.01E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0.001250789 | 0.040800736 | 435.1991 | 0 | 6.70E-05 | 1.17E-03 | 1.08E-04 | 7.44E-06 | 9.87E-05 | 6.91E-06 | 3.91E-05 | 8.51E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 7.00E-05 | 0 | 0.659604 | 1.13E-05 | 1.05E-04 | 3.58E-04 | 7.11E-06 | 9.87E-05 | 6.54E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0.001288875 | 0.045865769 | 489.225 | 0 | 5.90E-05 | 1.08E-03 | 9.93E-05 | 7.28E-06 | 9.87E-05 | 6.76E-06 | 3.91E-05 | 8.49E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 7.71E-05 | 0 | 0.7267902 | 1.03E-05 | 9.59E-05 | 3.30E-04 | 6.57E-06 | 9.87E-05 | 6.05E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0.001303381 | 0.053025099 | 565.5897 | 0 | 4.98E-05 | 9.96E-04 | 8.98E-05 | 7.06E-06 | 9.87E-05 | 6.55E-06 | 3.91E-05 | 8.46E-06 |
| Los Angele | 2024 | Annual | LDA | 0 | 0 | 9.36E-05 | 0 | 0.8822446 | 9.25E-06 | 8.57E-05 | 3.00E-04 | 5.98E-06 | 9.87E-05 | 5.50E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 3.92E-05 | 9.70E-04 | 10.34273 | 0 | 3.96E-04 | 2.45E-03 | 1.57E-04 | 7.23E-07 | 9.87E-05 | 6.71E-07 | 3.91E-05 | 1.00E-05 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 8.36E-05 | 0.002087341 | 22.26453 | 0 | 3.53E-04 | 2.22E-03 | 1.53E-04 | 7.47E-07 | 9.87E-05 | 6.93E-07 | 3.91E-05 | 9.99E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 7.84E-05 | 0.001974394 | 21.05978 | 0 | 3.18E-04 | 2.17E-03 | 1.59E-04 | 1.02E-06 | 9.87E-05 | 9.48E-07 | 3.91E-05 | 1.00E-05 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 8.88E-05 | 0.002253297 | 24.03468 | 0 | 2.87E-04 | 2.12E-03 | 1.65E-04 | 1.06E-06 | 9.87E-05 | 9.82E-07 | 3.91E-05 | 9.99E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 2.36E-06 | 0 | 0.022232944 | 2.30E-05 | 2.16E-04 | 7.05E-04 | 1.17E-05 | 9.87E-05 | 1.07E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 8.72E-05 | 0.002235878 | 23.84888 | 0 | 2.57E-04 | 2.09E-03 | 1.64E-04 | 1.66E-06 | 9.87E-05 | 1.54E-06 | 3.91E-05 | 9.98E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 3.46E-06 | 0 | 0.032606691 | 2.25E-05 | 2.11E-04 | 6.90E-04 | 1.14E-05 | 9.87E-05 | 1.05E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 8.79E-05 | 0.00227356 | 24.25083 | 0 | 2.27E-04 | 2.06E-03 | 1.63E-04 | 2.23E-06 | 9.87E-05 | 2.07E-06 | 3.91E-05 | 9.98E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 2.66E-06 | 0 | 0.025043204 | 2.19E-05 | 2.06E-04 | 6.74E-04 | 1.11E-05 | 9.87E-05 | 1.03E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 9.18E-05 | 0.002404392 | 25.64634 | 0 | 2.09E-04 | 2.02E-03 | 1.62E-04 | 3.53E-06 | 9.87E-05 | 3.28E-06 | 3.91E-05 | 9.97E-06 |

2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDA | 3.88E-04 |
| Los Angele | 2024 | Annual | LDA | |
| Los Angele | 2024 | Annual | LDA | 3.88E-04 |
| Los Angele | 2024 | Annual | LDA | 3.15E-04 |
| Los Angele | 2024 | Annual | LDA | 3.89E-04 |
| Los Angele | 2024 | Annual | LDA | 3.15E-04 |
| Los Angele | 2024 | Annual | LDA | 3.75E-04 |
| Los Angele | 2024 | Annual | LDA | 3.04E-04 |
| Los Angele | 2024 | Annual | LDA | 3.32E-04 |
| Los Angele | 2024 | Annual | LDA | 2.70E-04 |
| Los Angele | 2024 | Annual | LDA | 2.90E-04 |
| Los Angele | 2024 | Annual | LDA | 2.35E-04 |
| Los Angele | 2024 | Annual | LDA | 2.82E-04 |
| Los Angele | 2024 | Annual | LDA | 2.29E-04 |
| Los Angele | 2024 | Annual | LDA | 2.76E-04 |
| Los Angele | 2024 | Annual | LDA | 2.24E-04 |
| Los Angele | 2024 | Annual | LDA | 2.64E-04 |
| Los Angele | 2024 | Annual | LDA | 2.15E-04 |
| Los Angele | 2024 | Annual | LDA | 2.54E-04 |
| Los Angele | 2024 | Annual | LDA | 2.07E-04 |
| Los Angele | 2024 | Annual | LDA | 2.53E-04 |
| Los Angele | 2024 | Annual | LDA | 2.07E-04 |
| Los Angele | 2024 | Annual | LDA | 2.53E-04 |
| Los Angele | 2024 | Annual | LDA | 2.07E-04 |
| Los Angele | 2024 | Annual | LDA | 2.53E-04 |
| Los Angele | 2024 | Annual | LDA | 2.07E-04 |
| Los Angele | 2024 | Annual | LDA | 2.52E-04 |
| Los Angele | 2024 | Annual | LDA | 2.07E-04 |
| Los Angele | 2024 | Annual | LDA | 2.52E-04 |
| Los Angele | 2024 | Annual | LDA | 2.07E-04 |
| Los Angele | 2024 | Annual | LDA | 2.52E-04 |
| Los Angele | 2024 | Annual | LDA | 2.07E-04 |
| Los Angele | 2024 | Annual | LDA | 2.51E-04 |
| Los Angele | 2024 | Annual | LDA | 2.07E-04 |
| Los Angele | 2024 | Annual | LDA | 2.50E-04 |
| Los Angele | 2024 | Annual | LDA | 2.07E-04 |
| Los Angele | 2024 | Annual | LDT1 | 4.49E-04 |
| Los Angele | 2024 | Annual | LDT1 | |
| Los Angele | 2024 | Annual | LDT1 | 4.49E-04 |
| Los Angele | 2024 | Annual | LDT1 | |
| Los Angele | 2024 | Annual | LDT1 | 4.49E-04 |
| Los Angele | 2024 | Annual | LDT1 | |
| Los Angele | 2024 | Annual | LDT1 | 4.33E-04 |
| Los Angele | 2024 | Annual | LDT1 | 3.04E-04 |
| Los Angele | 2024 | Annual | LDT1 | 3.84E-04 |
| Los Angele | 2024 | Annual | LDT1 | 2.70E-04 |
| Los Angele | 2024 | Annual | LDT1 | 3.35E-04 |
| Los Angele | 2024 | Annual | LDT1 | 2.35E-04 |
| Los Angele | 2024 | Annual | LDT1 | 3.26E-04 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDT1 | DSL | 2013 | AllSpeeds | 33.79113 | 1078.135533 | 211.5113 | 1.15E-05 | 0 | 0 | 1.15E-05 |
| Los Angele | 2024 | Annual | LDT1 | GAS | 2014 | AllSpeeds | 15561.66 | 506463.1578 | 98184.27 | 0.006834908 | 0 | 0.005786486 | 0.012621393 |
| Los Angele | 2024 | Annual | LDT1 | DSL | 2014 | AllSpeeds | 32.48572 | 1057.270817 | 204.9644 | 1.09E-05 | 0 | 0 | 1.09E-05 |
| Los Angele | 2024 | Annual | LDT1 | GAS | 2015 | AllSpeeds | 16589.63 | 551632.9155 | 105333.6 | 0.007273164 | 0 | 0.006072816 | 0.013345981 |
| Los Angele | 2024 | Annual | LDT1 | DSL | 2015 | AllSpeeds | 34.17893 | 1136.51243 | 217.0145 | 1.13E-05 | 0 | 0 | 1.13E-05 |
| Los Angele | 2024 | Annual | LDT1 | GAS | 2016 | AllSpeeds | 16883.11 | 574578.142 | 107872.3 | 0.00737994 | 0 | 0.006065685 | 0.013445625 |
| Los Angele | 2024 | Annual | LDT1 | DSL | 2016 | AllSpeeds | 43.18027 | 1469.55008 | 275.8943 | 1.41E-05 | 0 | 0 | 1.41E-05 |
| Los Angele | 2024 | Annual | LDT1 | GAS | 2017 | AllSpeeds | 17363.4 | 606087.7483 | 111461.9 | 0.007560754 | 0 | 0.006090287 | 0.01365104 |
| Los Angele | 2024 | Annual | LDT1 | DSL | 2017 | AllSpeeds | 30.16643 | 1052.996693 | 193.6491 | 9.65E-06 | 0 | 0 | 9.65E-06 |
| Los Angele | 2024 | Annual | LDT1 | GAS | 2018 | AllSpeeds | 17516.5 | 628697.029 | 112795 | 0.00758572 | 0 | 0.005964734 | 0.013550454 |
| Los Angele | 2024 | Annual | LDT1 | DSL | 2018 | AllSpeeds | 32.1123 | 1152.57194 | 206.7825 | 1.01E-05 | 0 | 0 | 1.01E-05 |
| Los Angele | 2024 | Annual | LDT1 | GAS | 2019 | AllSpeeds | 17649.38 | 653611.038 | 114180.1 | 0.007455306 | 0 | 0.005752109 | 0.013207415 |
| Los Angele | 2024 | Annual | LDT1 | DSL | 2019 | AllSpeeds | 36.52188 | 1352.525428 | 236.2729 | 1.12E-05 | 0 | 0 | 1.12E-05 |
| Los Angele | 2024 | Annual | LDT1 | GAS | 2020 | AllSpeeds | 18053.51 | 692876.4683 | 117155.6 | 0.00705156 | 0 | 0.005411912 | 0.012463471 |
| Los Angele | 2024 | Annual | LDT1 | DSL | 2020 | AllSpeeds | 31.59509 | 1212.596676 | 205.0316 | 9.42E-06 | 0 | 0 | 9.42E-06 |
| Los Angele | 2024 | Annual | LDT1 | GAS | 2021 | AllSpeeds | 19081.65 | 763793.52 | 124018.3 | 0.007233895 | 0 | 0.005364095 | 0.01259799 |
| Los Angele | 2024 | Annual | LDT1 | DSL | 2021 | AllSpeeds | 23.60095 | 944.6962308 | 153.3909 | 6.85E-06 | 0 | 0 | 6.85E-06 |
| Los Angele | 2024 | Annual | LDT1 | GAS | 2022 | AllSpeeds | 19576.26 | 825343.9603 | 127624.4 | 0.007395575 | 0 | 0.005193038 | 0.012588613 |
| Los Angele | 2024 | Annual | LDT1 | DSL | 2022 | AllSpeeds | 19.83228 | 836.1425093 | 129.2935 | 5.60E-06 | 0 | 0 | 5.60E-06 |
| Los Angele | 2024 | Annual | LDT1 | GAS | 2023 | AllSpeeds | 20065.72 | 906242.2092 | 131216.7 | 0.007609122 | 0 | 0.004954042 | 0.012563164 |
| Los Angele | 2024 | Annual | LDT1 | DSL | 2023 | AllSpeeds | 26.52448 | 1197.950151 | 173.4527 | 7.32E-06 | 0 | 0 | 7.32E-06 |
| Los Angele | 2024 | Annual | LDT1 | GAS | 2024 | AllSpeeds | 20415.7 | 1026610.17 | 133913.6 | 0.007862076 | 0 | 0.004541364 | 0.01240344 |
| Los Angele | 2024 | Annual | LDT1 | DSL | 2024 | AllSpeeds | 31.56067 | 1587.047141 | 207.0173 | 8.71E-06 | 0 | 0 | 8.71E-06 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2010 | AllSpeeds | 588.4690822 | 22517.85229 | 0 | 0.003524305 | 1.36E-04 | 0 | 0.003660468 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2011 | AllSpeeds | 328.3288378 | 14633.01802 | 0 | 0.002235836 | 7.60E-05 | 0 | 0.002311807 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2012 | AllSpeeds | 327.5869705 | 16305.3241 | 0 | 0.002424374 | 7.58E-05 | 0 | 0.002500173 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2013 | AllSpeeds | 550.8845303 | 25681.58796 | 0 | 0.003013576 | 1.27E-04 | 0 | 0.003141042 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2014 | AllSpeeds | 960.8180338 | 42941.70989 | 0 | 0.004906376 | 2.22E-04 | 0 | 0.005128694 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2015 | AllSpeeds | 1900.790265 | 79234.88716 | 0 | 0.008792907 | 4.40E-04 | 0 | 0.009232721 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2016 | AllSpeeds | 714.9402858 | 34774.03667 | 0 | 0.003737597 | 1.65E-04 | 0 | 0.003903023 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2017 | AllSpeeds | 1398.817062 | 62457.32404 | 0 | 0.006481277 | 3.24E-04 | 0 | 0.006804941 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2018 | AllSpeeds | 528.7738007 | 38196.50191 | 0 | 0.003813007 | 1.22E-04 | 0 | 0.003935357 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2019 | AllSpeeds | 587.836552 | 44875.00684 | 0 | 0.004291831 | 1.36E-04 | 0 | 0.004427848 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2020 | AllSpeeds | 584.4127411 | 46765.51969 | 0 | 0.004265826 | 1.35E-04 | 0 | 0.00440105 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2021 | AllSpeeds | 589.9630459 | 48893.81063 | 0 | 0.004233332 | 1.37E-04 | 0 | 0.00436984 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2022 | AllSpeeds | 609.7719693 | 51509.29514 | 0 | 0.004212481 | 1.41E-04 | 0 | 0.004353573 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2023 | AllSpeeds | 660.610115 | 55578.96769 | 0 | 0.004273451 | 1.53E-04 | 0 | 0.004426306 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2024 | AllSpeeds | 594.0707986 | 49994.60606 | 0 | 0.003600588 | 1.37E-04 | 0 | 0.003738047 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2025 | AllSpeeds | 150.3700076 | 5285.428721 | 0 | 3.55E-04 | 3.48E-05 | 0 | 3.90E-04 |
| Los Angele | 2024 | Annual | LDA/LDT1 | GAS&DSI | >2007 | AllSpeeds | 3597678.681 | 123416974.2 | 22943010.54 | 1.369064427 | 0 | 1.165455746 | 2.534520173 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | >2007 | AllSpeeds | 11076.4441 | 639644.8768 | 0 | 0.064161679 | 0.002562915 | 0 | 0.066724594 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDA | GAS | 2007 | AllSpeeds | 63532.25 | 1480439.634 | 377979.1 | 0.021968225 | 0 | 0.02567436 | 0.047642585 |
| Los Angele | 2025 | Annual | LDA | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDA | GAS | 2008 | AllSpeeds | 76026.69 | 1811470.774 | 456114.5 | 0.025056828 | 0 | 0.027778342 | 0.05283517 |
| Los Angele | 2025 | Annual | LDA | DSL | 2008 | AllSpeeds | 14.74702 | 351.37861 | 88.4733 | 3.56E-06 | 0 | 0 | 3.56E-06 |
| Los Angele | 2025 | Annual | LDA | GAS | 2009 | AllSpeeds | 75523.45 | 1842164.238 | 456116 | 0.026057797 | 0 | 0.028304609 | 0.054362406 |
| Los Angele | 2025 | Annual | LDA | DSL | 2009 | AllSpeeds | 520.5861 | 12698.13183 | 3144.026 | 1.26E-04 | 0 | 0 | 1.26E-04 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.15E-05 | 1.31E-05 | 0 | 0 | 1.31E-05 |
| Los Angele | 2024 | Annual | LDT1 | 0.002206878 | 0.006167059 | 0.024814323 | 0.002544259 | 0.048353912 | 0.012720629 | 0 | 0.006178182 | 0.018898811 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.09E-05 | 1.24E-05 | 0 | 0 | 1.24E-05 |
| Los Angele | 2024 | Annual | LDT1 | 0.002024454 | 0.005488128 | 0.023651483 | 0.002273028 | 0.046783072 | 0.01353628 | 0 | 0.006483894 | 0.020020174 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.13E-05 | 1.29E-05 | 0 | 0 | 1.29E-05 |
| Los Angele | 2024 | Annual | LDT1 | 0.001790675 | 0.004672839 | 0.021777388 | 0.001949019 | 0.043635547 | 0.013735002 | 0 | 0.006476281 | 0.020211283 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.41E-05 | 1.60E-05 | 0 | 0 | 1.60E-05 |
| Los Angele | 2024 | Annual | LDT1 | 0.001557935 | 0.003829577 | 0.019167097 | 0.001630611 | 0.03983626 | 0.014071519 | 0 | 0.006502548 | 0.020574067 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.65E-06 | 1.10E-05 | 0 | 0 | 1.10E-05 |
| Los Angele | 2024 | Annual | LDT1 | 0.001240615 | 0.002732957 | 0.014496687 | 0.001233634 | 0.033254347 | 0.014117985 | 0 | 0.006368498 | 0.020486483 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.01E-05 | 1.15E-05 | 0 | 0 | 1.15E-05 |
| Los Angele | 2024 | Annual | LDT1 | 0.001039665 | 0.002033998 | 0.013009845 | 9.58E-04 | 0.030248662 | 0.013875268 | 0 | 0.00614148 | 0.020016748 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.12E-05 | 1.27E-05 | 0 | 0 | 1.27E-05 |
| Los Angele | 2024 | Annual | LDT1 | 9.13E-04 | 0.001557016 | 0.011934858 | 7.75E-04 | 0.027643053 | 0.013123845 | 0 | 0.005778252 | 0.018902097 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.42E-06 | 1.07E-05 | 0 | 0 | 1.07E-05 |
| Los Angele | 2024 | Annual | LDT1 | 8.55E-04 | 0.001260971 | 0.011357525 | 6.71E-04 | 0.026742493 | 0.013463195 | 0 | 0.005727198 | 0.019190393 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 6.85E-06 | 7.80E-06 | 0 | 0 | 7.80E-06 |
| Los Angele | 2024 | Annual | LDT1 | 8.01E-04 | 0.001026422 | 0.010698926 | 5.85E-04 | 0.025700472 | 0.013764102 | 0 | 0.005544562 | 0.019308664 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 5.60E-06 | 6.37E-06 | 0 | 0 | 6.37E-06 |
| Los Angele | 2024 | Annual | LDT1 | 7.69E-04 | 8.67E-04 | 0.010110908 | 5.29E-04 | 0.024839518 | 0.01416154 | 0 | 0.00528939 | 0.01945093 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 7.32E-06 | 8.34E-06 | 0 | 0 | 8.34E-06 |
| Los Angele | 2024 | Annual | LDT1 | 7.47E-04 | 7.57E-04 | 0.009597646 | 4.90E-04 | 0.023995293 | 0.01463232 | 0 | 0.004848776 | 0.019481096 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.71E-06 | 9.91E-06 | 0 | 0 | 9.91E-06 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003660468 | 0.004012153 | 1.55E-04 | 0 | 0.004167164 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002311807 | 0.00254533 | 8.65E-05 | 0 | 0.002631816 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002500173 | 0.002759965 | 8.63E-05 | 0 | 0.002846256 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003141042 | 0.003430727 | 1.45E-04 | 0 | 0.003575837 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005128694 | 0.005585536 | 2.53E-04 | 0 | 0.005838628 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.009232721 | 0.010010056 | 5.01E-04 | 0 | 0.010510749 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003903023 | 0.00425497 | 1.88E-04 | 0 | 0.004443295 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.006804941 | 0.00737844 | 3.68E-04 | 0 | 0.007746907 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003935357 | 0.004340818 | 1.39E-04 | 0 | 0.004480104 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004427848 | 0.004885923 | 1.55E-04 | 0 | 0.005040767 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00440105 | 0.004856318 | 1.54E-04 | 0 | 0.005010261 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00436984 | 0.004819326 | 1.55E-04 | 0 | 0.004974731 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004353573 | 0.004795589 | 1.61E-04 | 0 | 0.004956211 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004426306 | 0.004864999 | 1.74E-04 | 0 | 0.005039013 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003738047 | 0.004098995 | 1.56E-04 | 0 | 0.004255481 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.90E-04 | 4.04E-04 | 3.96E-05 | 0 | 4.44E-04 |
| Los Angele | 2024 | Annual | LDA/LDT1 | 0.309518048 | 0.988880637 | 3.799474864 | 0.342369037 | 7.974762759 | 2.545871911 | 0 | 1.244347297 | 3.790219208 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.066724594 | 0.073043188 | 0.002917684 | 0 | 0.075960872 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDA | 0.016605049 | 0.063945435 | 0.1283003 | 0.02098427 | 0.277477639 | 0.040885649 | 0 | 0.027412295 | 0.068297944 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDA | 0.017990129 | 0.069217421 | 0.1452205 | 0.022588318 | 0.307851538 | 0.046633926 | 0 | 0.029658703 | 0.076292629 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 3.56E-06 | 4.05E-06 | 0 | 0 | 4.05E-06 |
| Los Angele | 2025 | Annual | LDA | 0.016000206 | 0.061269045 | 0.1357569 | 0.01993091 | 0.287319467 | 0.04849686 | 0 | 0.030220594 | 0.078717454 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.26E-04 | 1.44E-04 | 0 | 0 | 1.44E-04 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.31E-05 | 1.08E-04 | 0 | 0 | 1.08E-04 |
| Los Angele | 2024 | Annual | LDT1 | 0.002206878 | 0.006167059 | 0.024814323 | 0.002544259 | 0.05463133 | 0.395910292 | 0 | 0.1040726 | 0.499982892 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.24E-05 | 1.02E-04 | 0 | 0 | 1.02E-04 |
| Los Angele | 2024 | Annual | LDT1 | 0.002024454 | 0.005488128 | 0.023651483 | 0.002273028 | 0.053457266 | 0.421298312 | 0 | 0.1087008 | 0.529999112 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.29E-05 | 1.06E-04 | 0 | 0 | 1.06E-04 |
| Los Angele | 2024 | Annual | LDT1 | 0.001790675 | 0.004672839 | 0.021777388 | 0.001949019 | 0.050401205 | 0.427570306 | 0 | 0.1080018 | 0.535572106 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.60E-05 | 1.32E-04 | 0 | 0 | 1.32E-04 |
| Los Angele | 2024 | Annual | LDT1 | 0.001557935 | 0.003829577 | 0.019167097 | 0.001630611 | 0.046759287 | 0.437018889 | 0 | 0.1074209 | 0.544439789 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.10E-05 | 9.01E-05 | 0 | 0 | 9.01E-05 |
| Los Angele | 2024 | Annual | LDT1 | 0.001240615 | 0.002732957 | 0.014496687 | 0.001233634 | 0.040190376 | 0.434711013 | 0 | 0.1033943 | 0.538105313 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.15E-05 | 9.38E-05 | 0 | 0 | 9.38E-05 |
| Los Angele | 2024 | Annual | LDT1 | 0.001039665 | 0.002033998 | 0.013009845 | 9.58E-04 | 0.037057994 | 0.421764124 | 0 | 0.096392401 | 0.518156525 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.27E-05 | 1.04E-04 | 0 | 0 | 1.04E-04 |
| Los Angele | 2024 | Annual | LDT1 | 9.13E-04 | 0.001557016 | 0.011934858 | 7.75E-04 | 0.034081678 | 0.395765806 | 0 | 0.085089028 | 0.480854834 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.07E-05 | 8.74E-05 | 0 | 0 | 8.74E-05 |
| Los Angele | 2024 | Annual | LDT1 | 8.55E-04 | 0.001260971 | 0.011357525 | 6.71E-04 | 0.033334895 | 0.399227515 | 0 | 0.080673337 | 0.479900852 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 7.80E-06 | 6.34E-05 | 0 | 0 | 6.34E-05 |
| Los Angele | 2024 | Annual | LDT1 | 8.01E-04 | 0.001026422 | 0.010698926 | 5.85E-04 | 0.032420523 | 0.402628711 | 0 | 0.07640972 | 0.479038431 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 6.37E-06 | 5.17E-05 | 0 | 0 | 5.17E-05 |
| Los Angele | 2024 | Annual | LDT1 | 7.69E-04 | 8.67E-04 | 0.010110908 | 5.29E-04 | 0.031727283 | 0.414587704 | 0 | 0.073018864 | 0.487606568 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.34E-06 | 6.73E-05 | 0 | 0 | 6.73E-05 |
| Los Angele | 2024 | Annual | LDT1 | 7.47E-04 | 7.57E-04 | 0.009597646 | 4.90E-04 | 0.031072949 | 0.441904421 | 0 | 0.069982596 | 0.511887017 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.91E-06 | 7.97E-05 | 0 | 0 | 7.97E-05 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004167164 | 0.014671736 | 0.001610131 | 0 | 0.016281867 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002631816 | 0.009307821 | 8.98E-04 | 0 | 0.010206173 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002846256 | 0.010092706 | 8.96E-04 | 0 | 0.010989028 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003575837 | 0.012545563 | 0.001507294 | 0 | 0.014052857 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005838628 | 0.020425317 | 0.002628927 | 0 | 0.023054245 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.010510749 | 0.036605007 | 0.005200818 | 0 | 0.041805825 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004443295 | 0.015559673 | 0.001956173 | 0 | 0.017515846 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.007746907 | 0.026981653 | 0.003827352 | 0 | 0.030809004 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004480104 | 0.015873604 | 0.001446796 | 0 | 0.017320401 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005040767 | 0.017866959 | 0.0016084 | 0 | 0.019475359 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005010261 | 0.017758699 | 0.001599032 | 0 | 0.019357731 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004974731 | 0.017623426 | 0.001614218 | 0 | 0.019237644 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004956211 | 0.017536623 | 0.001668418 | 0 | 0.019205041 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005039013 | 0.017790443 | 0.001807518 | 0 | 0.019597961 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004255481 | 0.014989302 | 0.001625458 | 0 | 0.016614759 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.44E-04 | 0.001477508 | 4.11E-04 | 0 | 0.001888941 |
| Los Angele | 2024 | Annual | LDA/LDT1 | 0.309518048 | 0.988880637 | 3.799474864 | 0.342369037 | 9.230461794 | 77.7228763 | 0 | 19.79506985 | 97.51794615 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.075960872 | 0.267106039 | 0.030306641 | 0 | 0.29741268 |

EMFAC 2011
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EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDA | 0.016605049 | 0.063945435 | 0.1283003 | 0.02098427 | 0.298132998 | 1.333275925 | 0 | 0.4856412 | 1.818917125 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDA | 0.017990129 | 0.069217421 | 0.1452205 | 0.022588318 | 0.331308997 | 1.49975653 | 0 | 0.5242975 | 2.02405403 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 4.05E-06 | 3.35E-05 | 0 | 0 | 3.35E-05 |
| Los Angele | 2025 | Annual | LDA | 0.016000206 | 0.061269045 | 0.1357569 | 0.01993091 | 0.311674515 | 1.514488612 | 0 | 0.5160389 | 2.030527512 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.44E-04 | 0.001191607 | 0 | 0 | 0.001191607 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDT1 | 3.54E-04 | 0 | 0 | 3.54E-04 | 0.377362688 | 0 | 0 | 0.377362688 | 0.247248033 |
| Los Angele | 2024 | Annual | LDT1 | 0.034237752 | 0 | 0.006322873 | 0.040560625 | 242.6408103 | 0 | 9.357966 | 251.9987763 | 155.4842312 |
| Los Angele | 2024 | Annual | LDT1 | 3.36E-04 | 0 | 0 | 3.36E-04 | 0.370059723 | 0 | 0 | 0.370059723 | 0.237134271 |
| Los Angele | 2024 | Annual | LDT1 | 0.036910071 | 0 | 0.006678636 | 0.043588707 | 264.2424759 | 0 | 10.0379 | 274.2803759 | 162.42985 |
| Los Angele | 2024 | Annual | LDT1 | 3.50E-04 | 0 | 0 | 3.50E-04 | 0.397795386 | 0 | 0 | 0.397795386 | 0.244524824 |
| Los Angele | 2024 | Annual | LDT1 | 0.037939783 | 0 | 0.006703237 | 0.04464302 | 275.2184683 | 0 | 10.27925 | 285.4977183 | 162.7366803 |
| Los Angele | 2024 | Annual | LDT1 | 4.36E-04 | 0 | 0 | 4.36E-04 | 0.514363312 | 0 | 0 | 0.514363312 | 0.304143026 |
| Los Angele | 2024 | Annual | LDT1 | 0.039297012 | 0 | 0.006735949 | 0.046032961 | 290.3985557 | 0 | 10.62128 | 301.0198357 | 171.712666 |
| Los Angele | 2024 | Annual | LDT1 | 3.00E-04 | 0 | 0 | 3.00E-04 | 0.368563725 | 0 | 0 | 0.368563725 | 0.217931731 |
| Los Angele | 2024 | Annual | LDT1 | 0.039395903 | 0 | 0.006488948 | 0.045884851 | 301.2810466 | 0 | 10.74681 | 312.0278566 | 178.1474829 |
| Los Angele | 2024 | Annual | LDT1 | 3.14E-04 | 0 | 0 | 3.14E-04 | 0.403416446 | 0 | 0 | 0.403416446 | 0.238540145 |
| Los Angele | 2024 | Annual | LDT1 | 0.038209385 | 0 | 0.005966613 | 0.044175998 | 313.3235693 | 0 | 10.87908 | 324.2026493 | 185.2682265 |
| Los Angele | 2024 | Annual | LDT1 | 3.50E-04 | 0 | 0 | 3.50E-04 | 0.473402984 | 0 | 0 | 0.473402984 | 0.279923185 |
| Los Angele | 2024 | Annual | LDT1 | 0.038383734 | 0 | 0.005629432 | 0.044013165 | 332.2267854 | 0 | 11.1619 | 343.3886854 | 196.4456982 |
| Los Angele | 2024 | Annual | LDT1 | 2.97E-04 | 0 | 0 | 2.97E-04 | 0.424426014 | 0 | 0 | 0.424426014 | 0.250963102 |
| Los Angele | 2024 | Annual | LDT1 | 0.039219385 | 0 | 0.005269694 | 0.044489079 | 366.3593453 | 0 | 11.81631 | 378.1756553 | 216.6282808 |
| Los Angele | 2024 | Annual | LDT1 | 2.17E-04 | 0 | 0 | 2.17E-04 | 0.330657022 | 0 | 0 | 0.330657022 | 0.195517497 |
| Los Angele | 2024 | Annual | LDT1 | 0.03961011 | 0 | 0.0048091 | 0.04441921 | 396.0246081 | 0 | 12.16058 | 408.1851881 | 234.1693508 |
| Los Angele | 2024 | Annual | LDT1 | 1.79E-04 | 0 | 0 | 1.79E-04 | 0.292661727 | 0 | 0 | 0.292661727 | 0.173050879 |
| Los Angele | 2024 | Annual | LDT1 | 0.040451964 | 0 | 0.004308649 | 0.044760613 | 434.9728583 | 0 | 12.50284 | 447.4756983 | 257.1994511 |
| Los Angele | 2024 | Annual | LDT1 | 2.36E-04 | 0 | 0 | 2.36E-04 | 0.419299459 | 0 | 0 | 0.419299459 | 0.24793177 |
| Los Angele | 2024 | Annual | LDT1 | 0.042276907 | 0 | 0.003728973 | 0.046005879 | 492.9140614 | 0 | 12.7603 | 505.6743614 | 291.4600845 |
| Los Angele | 2024 | Annual | LDT1 | 2.84E-04 | 0 | 0 | 2.84E-04 | 0.55548894 | 0 | 0 | 0.55548894 | 0.32846061 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.049579089 | 0.002432577 | 0 | 0.052011666 | 27.89214122 | 0.483774884 | 0 | 28.37591611 | 25.1029271 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.029581135 | 0.001357225 | 0 | 0.030938361 | 18.12544997 | 0.269916042 | 0 | 18.39536601 | 16.31290497 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.029050337 | 0.001354159 | 0 | 0.030404496 | 20.19688186 | 0.269306159 | 0 | 20.46618802 | 18.17719367 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.037192517 | 0.002277212 | 0 | 0.039469729 | 31.7377463 | 0.452876978 | 0 | 32.19062328 | 28.56397167 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.059806737 | 0.00397177 | 0 | 0.063778507 | 53.06810062 | 0.789879446 | 0 | 53.85798007 | 47.76129056 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.105678056 | 0.007857369 | 0 | 0.113535424 | 97.91983077 | 1.562621753 | 0 | 99.48245252 | 88.12784769 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.044198266 | 0.002955376 | 0 | 0.047153642 | 42.97435016 | 0.587745667 | 0 | 43.56209583 | 38.67691515 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.075219038 | 0.005782343 | 0 | 0.081001381 | 77.18583088 | 1.149954317 | 0 | 78.33578519 | 69.46724779 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.043293212 | 0.002185812 | 0 | 0.045479025 | 47.20389133 | 0.434699956 | 0 | 47.63859128 | 42.4835022 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.047487057 | 0.002429962 | 0 | 0.049917019 | 55.45730212 | 0.483254886 | 0 | 55.94055701 | 49.91157191 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.04577131 | 0.002415809 | 0 | 0.048187119 | 57.79363028 | 0.480440204 | 0 | 58.27407049 | 52.01426725 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.043781939 | 0.002438753 | 0 | 0.046220691 | 60.42380867 | 0.485003057 | 0 | 60.90881173 | 54.3814278 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.041680055 | 0.002520637 | 0 | 0.044200692 | 63.65606923 | 0.501287786 | 0 | 64.15735702 | 57.29046231 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.040088132 | 0.002730789 | 0 | 0.042818921 | 68.68544028 | 0.543081346 | 0 | 69.22852162 | 61.81689625 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.031684986 | 0.002455733 | 0 | 0.034140719 | 61.78419052 | 0.488380002 | 0 | 62.27257052 | 55.60577147 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.002887186 | 6.22E-04 | 0 | 0.003508776 | 6.531823348 | 0.123617765 | 0 | 6.655441113 | 5.878641013 |
| Los Angele | 2024 | Annual | LDA/LDT1 | 7.1150023 | 0 | 1.197324977 | 8.312327277 | 51560.93637 | 0 | 1897.210451 | 53458.14682 | 32675.06695 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.726979052 | 0.045787116 | 0 | 0.772766167 | 790.6364876 | 9.105840247 | 0 | 799.7423278 | 711.5728388 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDA | 0.095568596 | 0 | 0.022843828 | 0.118412424 | 608.09989 | 0 | 30.86941 | 638.9693 | 547.289901 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDA | 0.11395238 | 0 | 0.026561936 | 0.140514316 | 744.3260272 | 0 | 37.26344 | 781.5894672 | 669.8934244 |
| Los Angele | 2025 | Annual | LDA | 1.07E-04 | 0 | 0 | 1.07E-04 | 0.122987477 | 0 | 0 | 0.122987477 | 0.110688729 |
| Los Angele | 2025 | Annual | LDA | 0.121428751 | 0 | 0.028380444 | 0.149809195 | 758.8800794 | 0 | 37.3596 | 796.2396794 | 682.9920715 |
| Los Angele | 2025 | Annual | LDA | 0.003816714 | 0 | 0 | 0.003816714 | 4.444525434 | 0 | 0 | 4.444525434 | 4.00007289 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0.247248033 | 5.85E-06 | 0 | 0 | 5.85E-06 | 9.51E-06 | 4.37E-05 | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 5.996584613 | 161.4808158 | 8.66E-04 | 0 | 3.41E-04 | 0.001207595 | 0.00446624 | 0.020516796 | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0.237134271 | 5.57E-06 | 0 | 0 | 5.57E-06 | 9.32E-06 | 4.28E-05 | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 6.17029713 | 168.6001471 | 0.001179127 | 0 | 4.72E-04 | 0.001650766 | 0.00486457 | 0.022346623 | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0.244524824 | 5.79E-06 | 0 | 0 | 5.79E-06 | 1.00E-05 | 4.60E-05 | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 6.078120525 | 168.8148008 | 0.001412321 | 0 | 5.64E-04 | 0.001975915 | 0.005066913 | 0.023276132 | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0.304143026 | 7.23E-06 | 0 | 0 | 7.23E-06 | 1.30E-05 | 5.95E-05 | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 6.280362864 | 177.9930289 | 0.001619312 | 0 | 6.37E-04 | 0.002255967 | 0.005344779 | 0.024552586 | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0.217931731 | 4.97E-06 | 0 | 0 | 4.97E-06 | 9.29E-06 | 4.27E-05 | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 6.354588753 | 184.5020716 | 0.001746665 | 0 | 6.72E-04 | 0.002418542 | 0.005544159 | 0.025468487 | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0.238540145 | 5.20E-06 | 0 | 0 | 5.20E-06 | 1.02E-05 | 4.67E-05 | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 6.432800004 | 191.7010265 | 0.001815931 | 0 | 6.82E-04 | 0.002498031 | 0.005763862 | 0.026477747 | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0.279923185 | 5.81E-06 | 0 | 0 | 5.81E-06 | 1.19E-05 | 5.48E-05 | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 6.60003147 | 203.0457297 | 0.001924905 | 0 | 7.00E-04 | 0.002624738 | 0.006110124 | 0.02806839 | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0.250963102 | 4.92E-06 | 0 | 0 | 4.92E-06 | 1.07E-05 | 4.91E-05 | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 6.986984103 | 223.615265 | 0.002122024 | 0 | 7.41E-04 | 0.002862888 | 0.006735507 | 0.030941237 | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0.195517497 | 3.60E-06 | 0 | 0 | 3.60E-06 | 8.33E-06 | 3.83E-05 | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 7.190550954 | 241.3599017 | 0.002293157 | 0 | 7.62E-04 | 0.003055606 | 0.007278288 | 0.033434637 | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0.173050879 | 2.97E-06 | 0 | 0 | 2.97E-06 | 7.37E-06 | 3.39E-05 | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 7.392929292 | 264.5923804 | 0.002517921 | 0 | 7.84E-04 | 0.00330183 | 0.007991688 | 0.036711819 | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0.24793177 | 3.92E-06 | 0 | 0 | 3.92E-06 | 1.06E-05 | 4.85E-05 | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 7.54516539 | 299.0052499 | 0.002852461 | 0 | 8.00E-04 | 0.003652511 | 0.009053155 | 0.041587926 | |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 0.32846061 | 4.73E-06 | 0 | 0 | 4.73E-06 | 1.40E-05 | 6.43E-05 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.435397395 | 0 | 25.5383245 | 0.001703963 | 5.72E-06 | 0 | 0.001709681 | 2.98E-04 | 0.003235258 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.242924437 | 0 | 16.55582941 | 0.001076593 | 3.19E-06 | 0 | 0.001079783 | 1.94E-04 | 0.002102403 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.242375544 | 0 | 18.41956921 | 0.001161817 | 3.18E-06 | 0 | 0.001164999 | 2.16E-04 | 0.002342672 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.40758928 | 0 | 28.97156095 | 0.001399273 | 5.35E-06 | 0 | 0.001404625 | 3.40E-04 | 0.003689809 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.710891501 | 0 | 48.47218206 | 0.002262413 | 9.33E-06 | 0 | 0.002271748 | 5.68E-04 | 0.006169661 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.406359578 | 0 | 89.53420727 | 0.00402285 | 1.85E-05 | 0 | 0.004041318 | 0.001048098 | 0.011384093 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.528971101 | 0 | 39.20588625 | 0.001694763 | 6.95E-06 | 0 | 0.001701709 | 4.60E-04 | 0.004996169 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.034958885 | 0 | 70.50220667 | 0.002908822 | 1.36E-05 | 0 | 0.002922413 | 8.26E-04 | 0.008973572 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.39122996 | 0 | 42.87473216 | 0.001691073 | 5.14E-06 | 0 | 0.001696211 | 5.05E-04 | 0.005487892 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.434929398 | 0 | 50.34650131 | 0.001877231 | 5.71E-06 | 0 | 0.001882942 | 5.94E-04 | 0.006447428 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.432396183 | 0 | 52.44666344 | 0.001835748 | 5.68E-06 | 0 | 0.001841426 | 6.19E-04 | 0.006719048 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.436502751 | 0 | 54.81793056 | 0.001787172 | 5.73E-06 | 0 | 0.001792904 | 6.47E-04 | 0.007024831 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.451159008 | 0 | 57.74162132 | 0.001738601 | 5.92E-06 | 0 | 0.001744525 | 6.81E-04 | 0.007400611 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.488773212 | 0 | 62.30566946 | 0.001717482 | 6.42E-06 | 0 | 0.0017239 | 7.35E-04 | 0.007985322 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.439542002 | 0 | 56.04531347 | 0.001402971 | 5.77E-06 | 0 | 0.001408742 | 6.61E-04 | 0.007182988 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.111255989 | 0 | 5.989897002 | 1.33E-04 | 1.46E-06 | 0 | 1.35E-04 | 6.99E-05 | 7.59E-04 | |
| Los Angele | 2024 | Annual | LDA/LDT1 | 0 | 1223.105895 | 33898.17284 | 0.278330782 | 0 | 0.101273999 | 0.379604781 | 1.088351471 | 4.99961525 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 8.195256223 | 0 | 719.768095 | 0.028414088 | 0.000107615 | 0 | 0.028521703 | 0.008461053 | 0.091901142 | |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDA | 0 | 27.782469 | 575.07237 | 4.74E-04 | 0 | 7.45E-05 | 5.48E-04 | 0.013055244 | 0.059972536 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDA | 0 | 33.537096 | 703.4305204 | 5.80E-04 | 0 | 1.17E-04 | 6.97E-04 | 0.015974438 | 0.073382594 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0.110688729 | 2.13E-06 | 0 | 0 | 2.13E-06 | 3.10E-06 | 1.42E-05 |
| Los Angele | 2025 | Annual | LDA | 0 | 33.62364 | 716.6157115 | 7.88E-04 | 0 | 1.85E-04 | 9.73E-04 | 0.01624511 | 0.074625984 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 4.00007289 | 7.57E-05 | 0 | 0 | 7.57E-05 | 1.12E-04 | 5.14E-04 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDT1 | 5.90E-05 | 5.38E-06 | 0 | 0 | 5.38E-06 | 2.38E-06 | 1.87E-05 | 2.65E-05 | 3.60E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0.02619063 | 8.04E-04 | 0 | 3.17E-04 | 0.001120449 | 0.00111656 | 0.008792912 | 0.01102992 | 0.002428559 |
| Los Angele | 2024 | Annual | LDT1 | 5.77E-05 | 5.12E-06 | 0 | 0 | 5.12E-06 | 2.33E-06 | 1.84E-05 | 2.58E-05 | 3.53E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0.028861958 | 0.001094035 | 0 | 4.38E-04 | 0.001531638 | 0.001216142 | 0.009577123 | 0.012324903 | 0.002644603 |
| Los Angele | 2024 | Annual | LDT1 | 6.19E-05 | 5.33E-06 | 0 | 0 | 5.33E-06 | 2.51E-06 | 1.97E-05 | 2.76E-05 | 3.80E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0.030318959 | 0.001310401 | 0 | 5.23E-04 | 0.001833323 | 0.001266728 | 0.009975484 | 0.013075534 | 0.002754266 |
| Los Angele | 2024 | Annual | LDT1 | 7.97E-05 | 6.65E-06 | 0 | 0 | 6.65E-06 | 3.24E-06 | 2.55E-05 | 3.54E-05 | 4.91E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0.032153332 | 0.001502455 | 0 | 5.91E-04 | 0.002093165 | 0.001336195 | 0.010522534 | 0.013951894 | 0.002905949 |
| Los Angele | 2024 | Annual | LDT1 | 5.69E-05 | 4.57E-06 | 0 | 0 | 4.57E-06 | 2.32E-06 | 1.83E-05 | 2.52E-05 | 3.52E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0.033431189 | 0.001620617 | 0 | 6.23E-04 | 0.002244009 | 0.00138604 | 0.010915064 | 0.014545113 | 0.00301454 |
| Los Angele | 2024 | Annual | LDT1 | 6.21E-05 | 4.79E-06 | 0 | 0 | 4.79E-06 | 2.54E-06 | 2.00E-05 | 2.73E-05 | 3.85E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0.03473964 | 0.001684884 | 0 | 6.33E-04 | 0.002317761 | 0.001440966 | 0.011347605 | 0.015106332 | 0.003134536 |
| Los Angele | 2024 | Annual | LDT1 | 7.25E-05 | 5.34E-06 | 0 | 0 | 5.34E-06 | 2.98E-06 | 2.35E-05 | 3.18E-05 | 4.52E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0.036803252 | 0.001785994 | 0 | 6.49E-04 | 0.002435324 | 0.001527531 | 0.012029309 | 0.015992164 | 0.003322794 |
| Los Angele | 2024 | Annual | LDT1 | 6.47E-05 | 4.53E-06 | 0 | 0 | 4.53E-06 | 2.67E-06 | 2.11E-05 | 2.83E-05 | 4.05E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0.040539632 | 0.001968888 | 0 | 6.87E-04 | 0.002656288 | 0.001683877 | 0.013260529 | 0.017600693 | 0.003663561 |
| Los Angele | 2024 | Annual | LDT1 | 5.02E-05 | 3.31E-06 | 0 | 0 | 3.31E-06 | 2.08E-06 | 1.64E-05 | 2.18E-05 | 3.16E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0.04376853 | 0.002127671 | 0 | 7.07E-04 | 0.002835098 | 0.001819572 | 0.014329133 | 0.018983803 | 0.003959735 |
| Los Angele | 2024 | Annual | LDT1 | 4.42E-05 | 2.73E-06 | 0 | 0 | 2.73E-06 | 1.84E-06 | 1.45E-05 | 1.91E-05 | 2.79E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0.048005337 | 0.002336216 | 0 | 7.27E-04 | 0.003063553 | 0.001997922 | 0.015733637 | 0.020795112 | 0.004348706 |
| Los Angele | 2024 | Annual | LDT1 | 6.30E-05 | 3.61E-06 | 0 | 0 | 3.61E-06 | 2.64E-06 | 2.08E-05 | 2.70E-05 | 4.00E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0.054293592 | 0.002646614 | 0 | 7.42E-04 | 0.003388928 | 0.002263289 | 0.017823394 | 0.023475611 | 0.004927503 |
| Los Angele | 2024 | Annual | LDT1 | 8.30E-05 | 4.35E-06 | 0 | 0 | 4.35E-06 | 3.50E-06 | 2.76E-05 | 3.54E-05 | 5.30E-06 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.005242799 | 0.001567646 | 5.26E-06 | 0 | 0.001572906 | 7.45E-05 | 0.001386539 | 0.00303391 | 2.66E-04 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.003375748 | 9.90E-04 | 2.93E-06 | 0 | 9.93E-04 | 4.84E-05 | 9.01E-04 | 0.001942821 | 1.73E-04 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.003723354 | 0.001068871 | 2.93E-06 | 0 | 0.001071799 | 5.39E-05 | 0.001004002 | 0.002129722 | 1.93E-04 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.005434143 | 0.001287331 | 4.92E-06 | 0 | 0.001292255 | 8.49E-05 | 0.001581347 | 0.002958529 | 3.03E-04 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.009009431 | 0.00208142 | 8.59E-06 | 0 | 0.002090008 | 1.42E-04 | 0.002644141 | 0.004876154 | 5.06E-04 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.016473509 | 0.003701022 | 1.70E-05 | 0 | 0.003718012 | 2.62E-04 | 0.004878897 | 0.008858934 | 9.34E-04 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.00715786 | 0.001559182 | 6.39E-06 | 0 | 0.001565573 | 1.15E-04 | 0.002141215 | 0.003821783 | 4.10E-04 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.012722154 | 0.002676117 | 1.25E-05 | 0 | 0.00268862 | 2.07E-04 | 0.003845817 | 0.006740979 | 7.36E-04 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.007689356 | 0.001555788 | 4.73E-06 | 0 | 0.001560514 | 1.26E-04 | 0.002351954 | 0.004038781 | 4.50E-04 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.008923965 | 0.001727052 | 5.25E-06 | 0 | 0.001732306 | 1.48E-04 | 0.002763183 | 0.004643889 | 5.29E-04 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.009179076 | 0.001688888 | 5.22E-06 | 0 | 0.001694112 | 1.55E-04 | 0.002879592 | 0.004728354 | 5.51E-04 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.009464489 | 0.001644198 | 5.27E-06 | 0 | 0.001649472 | 1.62E-04 | 0.003010642 | 0.004821802 | 5.76E-04 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.009826487 | 0.001599513 | 5.45E-06 | 0 | 0.001604963 | 1.70E-04 | 0.003171691 | 0.004946991 | 6.07E-04 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.010444406 | 0.001580083 | 5.90E-06 | 0 | 0.001585988 | 1.84E-04 | 0.003422281 | 0.005192065 | 6.55E-04 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.009253046 | 0.001290733 | 5.31E-06 | 0 | 0.001296043 | 1.65E-04 | 0.003078423 | 0.004539795 | 5.89E-04 |
| Los Angele | 2024 | Annual | T6 instate heavy | 9.64E-04 | 1.23E-04 | 1.34E-06 | 0 | 1.24E-04 | 1.75E-05 | 3.25E-04 | 4.67E-04 | 6.23E-05 |
| Los Angele | 2024 | Annual | LDA/LDT1 | 6.467571502 | 0.258231037 | 0 | 0.09396556 | 0.352196598 | 0.272087864 | 2.142692012 | 2.766976474 | 0.51590201 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.128883898 | 0.026140961 | 9.90056E-05 | 0 | 0.026239967 | 0.002115263 | 0.039386204 | 0.067741433 | 0.007543042 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDA | 0.073575923 | 4.39E-04 | 0 | 6.91E-05 | 5.09E-04 | 0.003263811 | 0.025702516 | 0.029474914 | 0.006091997 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDA | 0.090053692 | 5.38E-04 | 0 | 1.08E-04 | 6.46E-04 | 0.00399361 | 0.031449679 | 0.036089674 | 0.007454552 |
| Los Angele | 2025 | Annual | LDA | 1.95E-05 | 1.96E-06 | 0 | 0 | 1.96E-06 | 7.75E-07 | 6.10E-06 | 8.83E-06 | 1.17E-06 |
| Los Angele | 2025 | Annual | LDA | 0.091844345 | 7.31E-04 | 0 | 1.72E-04 | 9.03E-04 | 0.004061278 | 0.03198256 | 0.036946854 | 0.007600111 |
| Los Angele | 2025 | Annual | LDA | 7.02E-04 | 6.97E-05 | 0 | 0 | 6.97E-05 | 2.80E-05 | 2.20E-04 | 3.18E-04 | 4.24E-05 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 3.60E-06 | 0 | 0.033962645 | 2.13E-05 | 2.00E-04 | 6.56E-04 | 1.09E-05 | 9.87E-05 | 9.99E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 9.52E-05 | 0.002523784 | 26.91982 | 0 | 1.91E-04 | 1.97E-03 | 1.60E-04 | 4.77E-06 | 9.87E-05 | 4.42E-06 | 3.91E-05 | 9.97E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 3.53E-06 | 0 | 0.033305377 | 2.06E-05 | 1.93E-04 | 6.36E-04 | 1.05E-05 | 9.87E-05 | 9.69E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 1.02E-04 | 0.002746697 | 29.29751 | 0 | 1.70E-04 | 1.92E-03 | 1.58E-04 | 5.99E-06 | 9.87E-05 | 5.55E-06 | 3.91E-05 | 9.96E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 3.80E-06 | 0 | 0.035801586 | 1.99E-05 | 1.86E-04 | 6.16E-04 | 1.02E-05 | 9.87E-05 | 9.38E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 1.04E-04 | 0.002858758 | 30.49282 | 0 | 1.52E-04 | 1.86E-03 | 1.55E-04 | 6.88E-06 | 9.87E-05 | 6.38E-06 | 3.91E-05 | 9.95E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 4.91E-06 | 0 | 0.046292704 | 1.92E-05 | 1.79E-04 | 5.94E-04 | 9.84E-06 | 9.87E-05 | 9.05E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 1.08E-04 | 0.003013846 | 32.14705 | 0 | 1.31E-04 | 1.80E-03 | 1.52E-04 | 7.44E-06 | 9.87E-05 | 6.91E-06 | 3.91E-05 | 9.95E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 3.52E-06 | 0 | 0.033170741 | 1.83E-05 | 1.71E-04 | 5.70E-04 | 9.44E-06 | 9.87E-05 | 8.69E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 1.09E-04 | 0.003123624 | 33.31799 | 0 | 1.06E-04 | 1.71E-03 | 1.46E-04 | 7.69E-06 | 9.87E-05 | 7.14E-06 | 3.91E-05 | 9.94E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 3.85E-06 | 0 | 0.03630748 | 1.75E-05 | 1.63E-04 | 5.45E-04 | 9.03E-06 | 9.87E-05 | 8.31E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 1.10E-04 | 0.003244823 | 34.61076 | 0 | 9.26E-05 | 1.59E-03 | 1.35E-04 | 7.64E-06 | 9.87E-05 | 7.09E-06 | 3.91E-05 | 9.93E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 4.52E-06 | 0 | 0.042606272 | 1.65E-05 | 1.54E-04 | 5.18E-04 | 8.59E-06 | 9.87E-05 | 7.90E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 1.13E-04 | 0.003435716 | 36.6469 | 0 | 7.98E-05 | 1.39E-03 | 1.27E-04 | 7.58E-06 | 9.87E-05 | 7.03E-06 | 3.91E-05 | 9.92E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 4.05E-06 | 0 | 0.038198341 | 1.55E-05 | 1.44E-04 | 4.89E-04 | 8.12E-06 | 9.87E-05 | 7.47E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 1.19E-04 | 0.003782944 | 40.3506 | 0 | 7.00E-05 | 1.26E-03 | 1.16E-04 | 7.50E-06 | 9.87E-05 | 6.96E-06 | 3.91E-05 | 9.91E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 3.16E-06 | 0 | 0.029759131 | 1.45E-05 | 1.34E-04 | 4.60E-04 | 7.63E-06 | 9.87E-05 | 7.02E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 1.23E-04 | 0.004082482 | 43.5456 | 0 | 6.23E-05 | 1.16E-03 | 1.08E-04 | 7.40E-06 | 9.87E-05 | 6.87E-06 | 3.91E-05 | 9.89E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 2.79E-06 | 0 | 0.026339557 | 1.34E-05 | 1.24E-04 | 4.28E-04 | 7.10E-06 | 9.87E-05 | 6.53E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 1.26E-04 | 0.004474809 | 47.73034 | 0 | 5.48E-05 | 1.08E-03 | 9.88E-05 | 7.29E-06 | 9.87E-05 | 6.76E-06 | 3.91E-05 | 9.88E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 4.00E-06 | 0 | 0.03773696 | 1.22E-05 | 1.12E-04 | 3.94E-04 | 6.55E-06 | 9.87E-05 | 6.02E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 1.29E-04 | 0.005056115 | 53.93082 | 0 | 4.67E-05 | 9.97E-04 | 8.96E-05 | 7.12E-06 | 9.87E-05 | 6.60E-06 | 3.91E-05 | 9.85E-06 |
| Los Angele | 2024 | Annual | LDT1 | 0 | 0 | 5.30E-06 | 0 | 0.049994007 | 1.10E-05 | 1.00E-04 | 3.58E-04 | 5.96E-06 | 9.87E-05 | 5.48E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2024 | Annual | T6 instate heavy | 4.62E-06 | 0 | 2.71E-04 | 0 | 2.55383245 | 3.25E-04 | 1.45E-03 | 4.62E-03 | 1.52E-04 | 3.14E-04 | 1.40E-04 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.58E-06 | 0 | 1.76E-04 | 0 | 1.655582941 | 3.16E-04 | 1.39E-03 | 4.23E-03 | 1.48E-04 | 3.14E-04 | 1.36E-04 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.57E-06 | 0 | 1.95E-04 | 0 | 1.841956921 | 3.07E-04 | 1.35E-03 | 3.73E-03 | 1.43E-04 | 3.14E-04 | 1.31E-04 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2024 | Annual | T6 instate heavy | 4.32E-06 | 0 | 3.07E-04 | 0 | 2.897156095 | 2.45E-04 | 1.09E-03 | 3.07E-03 | 1.09E-04 | 3.14E-04 | 1.01E-04 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2024 | Annual | T6 instate heavy | 7.54E-06 | 0 | 5.14E-04 | 0 | 4.847218206 | 2.39E-04 | 1.07E-03 | 2.97E-03 | 1.06E-04 | 3.14E-04 | 9.73E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.49E-05 | 0 | 9.49E-04 | 0 | 8.953420727 | 2.33E-04 | 1.06E-03 | 2.87E-03 | 1.02E-04 | 3.14E-04 | 9.38E-05 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2024 | Annual | T6 instate heavy | 5.61E-06 | 0 | 4.16E-04 | 0 | 3.920588625 | 2.24E-04 | 1.01E-03 | 2.71E-03 | 9.79E-05 | 3.14E-04 | 9.00E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.10E-05 | 0 | 7.47E-04 | 0 | 7.050220667 | 2.18E-04 | 9.87E-04 | 2.59E-03 | 9.36E-05 | 3.14E-04 | 8.61E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2024 | Annual | T6 instate heavy | 4.15E-06 | 0 | 4.54E-04 | 0 | 4.287473216 | 2.06E-04 | 9.07E-04 | 2.38E-03 | 8.88E-05 | 3.14E-04 | 8.17E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2024 | Annual | T6 instate heavy | 4.61E-06 | 0 | 5.34E-04 | 0 | 5.034650131 | 1.97E-04 | 8.68E-04 | 2.22E-03 | 8.39E-05 | 3.14E-04 | 7.72E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2024 | Annual | T6 instate heavy | 4.58E-06 | 0 | 5.56E-04 | 0 | 5.244666344 | 1.88E-04 | 8.28E-04 | 2.06E-03 | 7.88E-05 | 3.14E-04 | 7.25E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2024 | Annual | T6 instate heavy | 4.63E-06 | 0 | 5.81E-04 | 0 | 5.481793056 | 1.79E-04 | 7.87E-04 | 1.89E-03 | 7.33E-05 | 3.14E-04 | 6.75E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2024 | Annual | T6 instate heavy | 4.78E-06 | 0 | 6.12E-04 | 0 | 5.774162132 | 1.69E-04 | 7.46E-04 | 1.72E-03 | 6.77E-05 | 3.14E-04 | 6.23E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2024 | Annual | T6 instate heavy | 5.18E-06 | 0 | 6.60E-04 | 0 | 6.230566946 | 1.59E-04 | 7.05E-04 | 1.54E-03 | 6.20E-05 | 3.14E-04 | 5.71E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2024 | Annual | T6 instate heavy | 4.66E-06 | 0 | 5.94E-04 | 0 | 5.604531347 | 1.50E-04 | 6.65E-04 | 1.37E-03 | 5.64E-05 | 3.14E-04 | 5.18E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.18E-06 | 0 | 6.35E-05 | 0 | 0.5989897 | 1.47E-04 | 7.15E-04 | 1.33E-03 | 5.10E-05 | 3.14E-04 | 4.69E-05 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2024 | Annual | LDA/LDT1 | 0 | 0.019285029 | 0.53518704 | 5694.79046 | 12.15837656 | 1.29E-04 | 1.58E-03 | 1.35E-04 | 6.15E-06 | 9.87E-05 | 5.71E-06 | 3.91E-05 | 8.67E-06 |
| Los Angele | 2024 | Annual | T6 instate heavy | 8.6874E-05 | 0 | 0.007629916 | 0 | 71.9768095 | 2.09E-04 | 9.30E-04 | 2.42E-03 | 8.92E-05 | 3.14E-04 | 8.20E-05 | 1.30E-04 | 2.39E-05 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDA | 0 | 3.17E-04 | 0.006408561 | 68.35662 | 0 | 3.75E-04 | 2.46E-03 | 1.60E-04 | 7.41E-07 | 9.87E-05 | 6.87E-07 | 3.91E-05 | 8.66E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2025 | Annual | LDA | 0 | 3.81E-04 | 0.007835613 | 83.57818 | 0 | 3.40E-04 | 2.23E-03 | 1.55E-04 | 7.69E-07 | 9.87E-05 | 7.14E-07 | 3.91E-05 | 8.65E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 1.17E-06 | 0 | 0.011068872 | 2.02E-05 | 1.91E-04 | 6.10E-04 | 1.21E-05 | 9.87E-05 | 1.11E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 3.82E-04 | 0.007982019 | 85.13982 | 0 | 3.12E-04 | 2.20E-03 | 1.63E-04 | 1.06E-06 | 9.87E-05 | 9.80E-07 | 3.91E-05 | 8.67E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 4.24E-05 | 0 | 0.4000073 | 1.99E-05 | 1.88E-04 | 6.01E-04 | 1.19E-05 | 9.87E-05 | 1.10E-05 | 3.91E-05 | 6.68E-06 |

| | | | | |
|---|---|---|---|---|
| Los Angele | 2024 | Annual | LDT1 | 2.29E-04 |
| Los Angele | 2024 | Annual | LDT1 | 3.19E-04 |
| Los Angele | 2024 | Annual | LDT1 | 2.24E-04 |
| Los Angele | 2024 | Annual | LDT1 | 3.06E-04 |
| Los Angele | 2024 | Annual | LDT1 | 2.15E-04 |
| Los Angele | 2024 | Annual | LDT1 | 2.94E-04 |
| Los Angele | 2024 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2024 | Annual | LDT1 | 2.94E-04 |
| Los Angele | 2024 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2024 | Annual | LDT1 | 2.93E-04 |
| Los Angele | 2024 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2024 | Annual | LDT1 | 2.93E-04 |
| Los Angele | 2024 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2024 | Annual | LDT1 | 2.93E-04 |
| Los Angele | 2024 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2024 | Annual | LDT1 | 2.93E-04 |
| Los Angele | 2024 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2024 | Annual | LDT1 | 2.92E-04 |
| Los Angele | 2024 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2024 | Annual | LDT1 | 2.92E-04 |
| Los Angele | 2024 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2024 | Annual | LDT1 | 2.91E-04 |
| Los Angele | 2024 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2024 | Annual | LDA/LDT1 | 2.75E-04 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.13E-03 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDA | 3.88E-04 |
| Los Angele | 2025 | Annual | LDA | |
| Los Angele | 2025 | Annual | LDA | 3.88E-04 |
| Los Angele | 2025 | Annual | LDA | 3.15E-04 |
| Los Angele | 2025 | Annual | LDA | 3.89E-04 |
| Los Angele | 2025 | Annual | LDA | 3.15E-04 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDA | GAS | 2010 | AllSpeeds | 108924.2 | 2721231.812 | 662192.9 | 0.038749898 | 0 | 0.040993631 | 0.079743529 |
| Los Angele | 2025 | Annual | LDA | DSL | 2010 | AllSpeeds | 990.6261 | 24748.66003 | 6022.404 | 2.42E-04 | 0 | 0 | 2.42E-04 |
| Los Angele | 2025 | Annual | LDA | GAS | 2011 | AllSpeeds | 121557 | 3113907.993 | 745069.8 | 0.043804968 | 0 | 0.045635551 | 0.089440519 |
| Los Angele | 2025 | Annual | LDA | DSL | 2011 | AllSpeeds | 944.611 | 24198.01986 | 5789.886 | 2.32E-04 | 0 | 0 | 2.32E-04 |
| Los Angele | 2025 | Annual | LDA | GAS | 2012 | AllSpeeds | 140897.1 | 3704367.434 | 869248 | 0.05142109 | 0 | 0.052617211 | 0.104038301 |
| Los Angele | 2025 | Annual | LDA | DSL | 2012 | AllSpeeds | 912.4877 | 23990.53627 | 5629.486 | 2.25E-04 | 0 | 0 | 2.25E-04 |
| Los Angele | 2025 | Annual | LDA | GAS | 2013 | AllSpeeds | 153349.8 | 4142705.817 | 953740.4 | 0.056669688 | 0 | 0.056973457 | 0.113643145 |
| Los Angele | 2025 | Annual | LDA | DSL | 2013 | AllSpeeds | 879.5139 | 23759.89547 | 5470.029 | 2.17E-04 | 0 | 0 | 2.17E-04 |
| Los Angele | 2025 | Annual | LDA | GAS | 2014 | AllSpeeds | 168584.8 | 4686431.704 | 1055235 | 0.063089075 | 0 | 0.062115781 | 0.125204856 |
| Los Angele | 2025 | Annual | LDA | DSL | 2014 | AllSpeeds | 799.5086 | 22225.3199 | 5004.424 | 1.97E-04 | 0 | 0 | 1.97E-04 |
| Los Angele | 2025 | Annual | LDA | GAS | 2015 | AllSpeeds | 184163.9 | 5276096.864 | 1161958 | 0.069816123 | 0 | 0.06729684 | 0.137112963 |
| Los Angele | 2025 | Annual | LDA | DSL | 2015 | AllSpeeds | 769.2108 | 22037.1211 | 4853.234 | 1.89E-04 | 0 | 0 | 1.89E-04 |
| Los Angele | 2025 | Annual | LDA | GAS | 2016 | AllSpeeds | 195872.5 | 5794440.363 | 1243666 | 0.075091888 | 0 | 0.070618547 | 0.145710435 |
| Los Angele | 2025 | Annual | LDA | DSL | 2016 | AllSpeeds | 697.3936 | 20630.85747 | 4428.006 | 1.71E-04 | 0 | 0 | 1.71E-04 |
| Los Angele | 2025 | Annual | LDA | GAS | 2017 | AllSpeeds | 208024.1 | 6368560.759 | 1329141 | 0.080653348 | 0 | 0.073806554 | 0.154459902 |
| Los Angele | 2025 | Annual | LDA | DSL | 2017 | AllSpeeds | 695.2034 | 21283.39449 | 4441.906 | 1.70E-04 | 0 | 0 | 1.70E-04 |
| Los Angele | 2025 | Annual | LDA | GAS | 2018 | AllSpeeds | 218248.5 | 6933824.546 | 1401016 | 0.085448257 | 0 | 0.075742714 | 0.161190971 |
| Los Angele | 2025 | Annual | LDA | DSL | 2018 | AllSpeeds | 684.072 | 21733.25459 | 4391.303 | 1.66E-04 | 0 | 0 | 1.66E-04 |
| Los Angele | 2025 | Annual | LDA | GAS | 2019 | AllSpeeds | 226717.9 | 7498250.071 | 1459917 | 0.08963717 | 0 | 0.076595858 | 0.166233028 |
| Los Angele | 2025 | Annual | LDA | DSL | 2019 | AllSpeeds | 653.5639 | 21615.41859 | 4208.531 | 1.58E-04 | 0 | 0 | 1.58E-04 |
| Los Angele | 2025 | Annual | LDA | GAS | 2020 | AllSpeeds | 235056 | 8129009.535 | 1520660 | 0.092142568 | 0 | 0.076214738 | 0.168357306 |
| Los Angele | 2025 | Annual | LDA | DSL | 2020 | AllSpeeds | 590.3914 | 20417.74784 | 3819.45 | 1.41E-04 | 0 | 0 | 1.41E-04 |
| Los Angele | 2025 | Annual | LDA | GAS | 2021 | AllSpeeds | 226055.8 | 8221055.795 | 1466955 | 0.083703611 | 0 | 0.067768641 | 0.151472252 |
| Los Angele | 2025 | Annual | LDA | DSL | 2021 | AllSpeeds | 524.0139 | 19057.08071 | 3400.51 | 1.24E-04 | 0 | 0 | 1.24E-04 |
| Los Angele | 2025 | Annual | LDA | GAS | 2022 | AllSpeeds | 229762.5 | 8857156.686 | 1493307 | 0.084090615 | 0 | 0.064719491 | 0.148810106 |
| Los Angele | 2025 | Annual | LDA | DSL | 2022 | AllSpeeds | 502.7906 | 19382.22624 | 3267.812 | 1.18E-04 | 0 | 0 | 1.18E-04 |
| Los Angele | 2025 | Annual | LDA | GAS | 2023 | AllSpeeds | 233874.4 | 9674232.792 | 1524708 | 0.086995779 | 0 | 0.062247463 | 0.149243242 |
| Los Angele | 2025 | Annual | LDA | DSL | 2023 | AllSpeeds | 508.9287 | 21051.95058 | 3317.883 | 1.19E-04 | 0 | 0 | 1.19E-04 |
| Los Angele | 2025 | Annual | LDA | GAS | 2024 | AllSpeeds | 240396.2 | 1.09E+07 | 1572034 | 0.091937738 | 0 | 0.059633922 | 0.15157166 |
| Los Angele | 2025 | Annual | LDA | DSL | 2024 | AllSpeeds | 537.333 | 24359.45098 | 3513.806 | 1.26E-04 | 0 | 0 | 1.26E-04 |
| Los Angele | 2025 | Annual | LDA | GAS | 2025 | AllSpeeds | 240387.1 | 1.25E+07 | 1576782 | 0.096500619 | 0 | 0.053788263 | 0.150288882 |
| Los Angele | 2025 | Annual | LDA | DSL | 2025 | AllSpeeds | 550.0977 | 28671.94841 | 3608.28 | 1.33E-04 | 0 | 0 | 1.33E-04 |
| Los Angele | 2025 | Annual | LDT1 | GAS | 2007 | AllSpeeds | 6112.893 | 174246.6543 | 36368.07 | 0.002685911 | 0 | 0.002554703 | 0.005240614 |
| Los Angele | 2025 | Annual | LDT1 | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDT1 | GAS | 2008 | AllSpeeds | 13239.06 | 382678.4073 | 79426.41 | 0.005481002 | 0 | 0.004984986 | 0.010465988 |
| Los Angele | 2025 | Annual | LDT1 | DSL | 2008 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDT1 | GAS | 2009 | AllSpeeds | 12268.03 | 359811.6449 | 74091.48 | 0.005218185 | 0 | 0.004684655 | 0.00990284 |
| Los Angele | 2025 | Annual | LDT1 | DSL | 2009 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDT1 | GAS | 2010 | AllSpeeds | 14062.59 | 418765.6757 | 85491.99 | 0.00613929 | 0 | 0.005431909 | 0.011571199 |
| Los Angele | 2025 | Annual | LDT1 | DSL | 2010 | AllSpeeds | 21.70839 | 646.4495705 | 131.9738 | 7.59E-06 | 0 | 0 | 7.59E-06 |
| Los Angele | 2025 | Annual | LDT1 | GAS | 2011 | AllSpeeds | 13722.96 | 415138.8573 | 84113.32 | 0.006003751 | 0 | 0.005280699 | 0.01128445 |
| Los Angele | 2025 | Annual | LDT1 | DSL | 2011 | AllSpeeds | 31.80829 | 962.2486474 | 194.9654 | 1.11E-05 | 0 | 0 | 1.11E-05 |
| Los Angele | 2025 | Annual | LDT1 | GAS | 2012 | AllSpeeds | 13715.4 | 421906.7931 | 84615.54 | 0.006011529 | 0 | 0.005242546 | 0.011254075 |
| Los Angele | 2025 | Annual | LDT1 | DSL | 2012 | AllSpeeds | 23.79702 | 732.0357891 | 146.8129 | 8.24E-06 | 0 | 0 | 8.24E-06 |
| Los Angele | 2025 | Annual | LDT1 | GAS | 2013 | AllSpeeds | 14472.47 | 453161.5837 | 90009.73 | 0.006351873 | 0 | 0.005494545 | 0.011846418 |
| Los Angele | 2025 | Annual | LDT1 | DSL | 2013 | AllSpeeds | 32.35953 | 1013.245127 | 201.2562 | 1.11E-05 | 0 | 0 | 1.11E-05 |
| Los Angele | 2025 | Annual | LDT1 | GAS | 2014 | AllSpeeds | 14917.51 | 475954.057 | 93374.28 | 0.006553082 | 0 | 0.005606809 | 0.012159891 |
| Los Angele | 2025 | Annual | LDT1 | DSL | 2014 | AllSpeeds | 31.03893 | 990.3241001 | 194.2843 | 1.06E-05 | 0 | 0 | 1.06E-05 |
| Los Angele | 2025 | Annual | LDT1 | GAS | 2015 | AllSpeeds | 16010.15 | 521059.2687 | 101014 | 0.007030835 | 0 | 0.005952335 | 0.012983171 |
| Los Angele | 2025 | Annual | LDT1 | DSL | 2015 | AllSpeeds | 32.40325 | 1054.586783 | 204.444 | 1.09E-05 | 0 | 0 | 1.09E-05 |
| Los Angele | 2025 | Annual | LDT1 | GAS | 2016 | AllSpeeds | 16370.42 | 544343.8012 | 103941.8 | 0.007177033 | 0 | 0.005992698 | 0.01316973 |
| Los Angele | 2025 | Annual | LDT1 | DSL | 2016 | AllSpeeds | 41.79951 | 1389.91079 | 265.4003 | 1.38E-05 | 0 | 0 | 1.38E-05 |
| Los Angele | 2025 | Annual | LDT1 | GAS | 2017 | AllSpeeds | 16924.09 | 575972.8952 | 108134.1 | 0.007397728 | 0 | 0.006080283 | 0.013478011 |
| Los Angele | 2025 | Annual | LDT1 | DSL | 2017 | AllSpeeds | 28.82728 | 981.0761945 | 184.1879 | 9.40E-06 | 0 | 0 | 9.40E-06 |
| Los Angele | 2025 | Annual | LDT1 | GAS | 2018 | AllSpeeds | 17166.56 | 599216.728 | 110198.3 | 0.007474003 | 0 | 0.006020408 | 0.013494411 |
| Los Angele | 2025 | Annual | LDT1 | DSL | 2018 | AllSpeeds | 31.44376 | 1097.58364 | 201.8488 | 1.01E-05 | 0 | 0 | 1.01E-05 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDA | 0.020636627 | 0.078529365 | 0.1841982 | 0.025477914 | 0.388585635 | 0.072118468 | 0 | 0.043768559 | 0.115887027 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 2.42E-04 | 2.76E-04 | 0 | 0 | 2.76E-04 |
| Los Angele | 2025 | Annual | LDA | 0.020472374 | 0.077352874 | 0.1934671 | 0.025009418 | 0.405742285 | 0.081526585 | 0 | 0.048724696 | 0.130251281 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 2.32E-04 | 2.64E-04 | 0 | 0 | 2.64E-04 |
| Los Angele | 2025 | Annual | LDA | 0.020727612 | 0.077301025 | 0.2094633 | 0.024982277 | 0.436512515 | 0.095701162 | 0 | 0.056178968 | 0.15188013 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 2.25E-04 | 2.56E-04 | 0 | 0 | 2.56E-04 |
| Los Angele | 2025 | Annual | LDA | 0.020618347 | 0.076176077 | 0.2177887 | 0.024558172 | 0.452784441 | 0.10546946 | 0 | 0.06083009 | 0.16629955 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 2.17E-04 | 2.47E-04 | 0 | 0 | 2.47E-04 |
| Los Angele | 2025 | Annual | LDA | 0.020532591 | 0.074724361 | 0.2276331 | 0.02410442 | 0.472199328 | 0.11741675 | 0 | 0.066320501 | 0.183737251 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.97E-04 | 2.24E-04 | 0 | 0 | 2.24E-04 |
| Los Angele | 2025 | Annual | LDA | 0.01955425 | 0.069519252 | 0.2335785 | 0.02247788 | 0.482242845 | 0.129936649 | 0 | 0.071852274 | 0.201788923 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.89E-04 | 2.16E-04 | 0 | 0 | 2.16E-04 |
| Los Angele | 2025 | Annual | LDA | 0.018395314 | 0.063499428 | 0.2345992 | 0.020653971 | 0.482858348 | 0.139755509 | 0 | 0.07539884 | 0.215154349 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.71E-04 | 1.95E-04 | 0 | 0 | 1.95E-04 |
| Los Angele | 2025 | Annual | LDA | 0.016980486 | 0.056191325 | 0.2337208 | 0.018482011 | 0.479834524 | 0.150106089 | 0 | 0.078802638 | 0.228908727 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.70E-04 | 1.94E-04 | 0 | 0 | 1.94E-04 |
| Los Angele | 2025 | Annual | LDA | 0.014691005 | 0.045258094 | 0.2208614 | 0.015311301 | 0.457312771 | 0.159030033 | 0 | 0.080869853 | 0.239899886 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.66E-04 | 1.89E-04 | 0 | 0 | 1.89E-04 |
| Los Angele | 2025 | Annual | LDA | 0.012358571 | 0.034127049 | 0.191677 | 0.012289029 | 0.416684677 | 0.166826125 | 0 | 0.081780769 | 0.248606894 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.58E-04 | 1.80E-04 | 0 | 0 | 1.80E-04 |
| Los Angele | 2025 | Annual | LDA | 0.010656541 | 0.025784658 | 0.1832614 | 0.009816798 | 0.397876703 | 0.171488979 | 0 | 0.081373841 | 0.25286282 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.41E-04 | 1.61E-04 | 0 | 0 | 1.61E-04 |
| Los Angele | 2025 | Annual | LDA | 0.008795177 | 0.018235447 | 0.1641976 | 0.007470205 | 0.350170681 | 0.155783011 | 0 | 0.072356023 | 0.228139034 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.24E-04 | 1.41E-04 | 0 | 0 | 1.41E-04 |
| Los Angele | 2025 | Annual | LDA | 0.00792494 | 0.01389639 | 0.1568406 | 0.006217129 | 0.333689165 | 0.15650327 | 0 | 0.069100454 | 0.225603724 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.18E-04 | 1.34E-04 | 0 | 0 | 1.34E-04 |
| Los Angele | 2025 | Annual | LDA | 0.00736768 | 0.010945842 | 0.1513928 | 0.005380446 | 0.32433001 | 0.161910161 | 0 | 0.066461086 | 0.228371247 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.19E-04 | 1.35E-04 | 0 | 0 | 1.35E-04 |
| Los Angele | 2025 | Annual | LDA | 0.007091262 | 0.009032672 | 0.148694 | 0.004877147 | 0.321266742 | 0.171107761 | 0 | 0.063670635 | 0.234778396 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.26E-04 | 1.43E-04 | 0 | 0 | 1.43E-04 |
| Los Angele | 2025 | Annual | LDA | 0.006770167 | 0.007547824 | 0.1427374 | 0.004441903 | 0.311786176 | 0.17959987 | 0 | 0.057429269 | 0.237029139 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.33E-04 | 1.51E-04 | 0 | 0 | 1.51E-04 |
| Los Angele | 2025 | Annual | LDT1 | 0.002082133 | 0.006210632 | 0.020446189 | 0.002631265 | 0.036610833 | 0.00499882 | 0 | 0.002727635 | 0.007726456 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDT1 | 0.004077607 | 0.012160176 | 0.040350247 | 0.005119843 | 0.072173861 | 0.010200839 | 0 | 0.005322427 | 0.015523265 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDT1 | 0.003380078 | 0.010040688 | 0.033661313 | 0.004210457 | 0.061195376 | 0.009711703 | 0 | 0.005001766 | 0.014713469 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDT1 | 0.003462957 | 0.010232495 | 0.034818184 | 0.004275355 | 0.064360189 | 0.011425994 | 0 | 0.005799604 | 0.017225598 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 7.59E-06 | 8.65E-06 | 0 | 0 | 8.65E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0.003003636 | 0.008822715 | 0.030628351 | 0.003669287 | 0.057408438 | 0.011173741 | 0 | 0.005638157 | 0.016811898 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.11E-05 | 1.26E-05 | 0 | 0 | 1.26E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0.002622119 | 0.007613665 | 0.027159132 | 0.00316034 | 0.051809332 | 0.011188217 | 0 | 0.005597423 | 0.01678564 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.24E-06 | 9.38E-06 | 0 | 0 | 9.38E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0.002528522 | 0.007283341 | 0.026845613 | 0.003011675 | 0.051515569 | 0.01182164 | 0 | 0.00586648 | 0.01768812 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.11E-05 | 1.26E-05 | 0 | 0 | 1.26E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0.002360856 | 0.006710129 | 0.025725616 | 0.002771545 | 0.049728037 | 0.012196117 | 0 | 0.005986341 | 0.018182458 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.06E-05 | 1.20E-05 | 0 | 0 | 1.20E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0.002208732 | 0.006148433 | 0.024894517 | 0.002538968 | 0.04877382 | 0.013085274 | 0 | 0.006355258 | 0.019440533 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.09E-05 | 1.24E-05 | 0 | 0 | 1.24E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0.001997593 | 0.005415309 | 0.023337668 | 0.002242869 | 0.046163169 | 0.013357367 | 0 | 0.006398353 | 0.01975572 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.38E-05 | 1.58E-05 | 0 | 0 | 1.58E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0.001795017 | 0.004684168 | 0.021830188 | 0.001953745 | 0.043741129 | 0.013768109 | 0 | 0.006491868 | 0.020259977 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.40E-06 | 1.07E-05 | 0 | 0 | 1.07E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0.001501317 | 0.00366842 | 0.01868757 | 0.001564707 | 0.038916425 | 0.013910066 | 0 | 0.00642794 | 0.020338006 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.01E-05 | 1.15E-05 | 0 | 0 | 1.15E-05 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDA | 0.020636627 | 0.078529365 | 0.1841982 | 0.025477914 | 0.424729133 | 2.190623824 | 0 | 0.7245759 | 2.915199724 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 2.76E-04 | 0.002280781 | 0 | 0 | 0.002280781 |
| Los Angele | 2025 | Annual | LDA | 0.020472374 | 0.077352874 | 0.1934671 | 0.025009418 | 0.446553047 | 2.489894006 | 0 | 0.8090534 | 3.298947406 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 2.64E-04 | 0.002184267 | 0 | 0 | 0.002184267 |
| Los Angele | 2025 | Annual | LDA | 0.020727612 | 0.077301025 | 0.2094633 | 0.024982277 | 0.484354344 | 2.939918657 | 0 | 0.9359096 | 3.875828257 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 2.56E-04 | 0.002115204 | 0 | 0 | 0.002115204 |
| Los Angele | 2025 | Annual | LDA | 0.020618347 | 0.076176077 | 0.2177887 | 0.024558172 | 0.505440846 | 3.259216248 | 0 | 1.016924 | 4.276140248 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 2.47E-04 | 0.002040724 | 0 | 0 | 0.002040724 |
| Los Angele | 2025 | Annual | LDA | 0.020532591 | 0.074724361 | 0.2276331 | 0.02410442 | 0.530731723 | 3.637838166 | 0 | 1.107991 | 4.745829166 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 2.24E-04 | 0.00185411 | 0 | 0 | 0.00185411 |
| Los Angele | 2025 | Annual | LDA | 0.01955425 | 0.069519252 | 0.2335785 | 0.02247788 | 0.546918805 | 4.028601138 | 0 | 1.197055 | 5.225656138 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 2.16E-04 | 0.00178035 | 0 | 0 | 0.00178035 |
| Los Angele | 2025 | Annual | LDA | 0.018395314 | 0.063499428 | 0.2345992 | 0.020653971 | 0.552302262 | 4.34228311 | 0 | 1.253638 | 5.59592111 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.95E-04 | 0.001608651 | 0 | 0 | 0.001608651 |
| Los Angele | 2025 | Annual | LDA | 0.016980486 | 0.056191325 | 0.2337208 | 0.018482011 | 0.554283349 | 4.66062343 | 0 | 1.302862 | 5.96348543 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.94E-04 | 0.001596442 | 0 | 0 | 0.001596442 |
| Los Angele | 2025 | Annual | LDA | 0.014691005 | 0.045258094 | 0.2208614 | 0.015311301 | 0.536021686 | 4.93534499 | 0 | 1.327616 | 6.26296099 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.89E-04 | 0.001561798 | 0 | 0 | 0.001561798 |
| Los Angele | 2025 | Annual | LDA | 0.012358571 | 0.034127049 | 0.191677 | 0.012289029 | 0.499058543 | 5.135890098 | 0 | 1.321043 | 6.456933098 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.80E-04 | 0.001481136 | 0 | 0 | 0.001481136 |
| Los Angele | 2025 | Annual | LDA | 0.010656541 | 0.025784658 | 0.1832614 | 0.009816798 | 0.482382216 | 5.214818552 | 0 | 1.272512 | 6.487330552 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.61E-04 | 0.0013236 | 0 | 0 | 0.0013236 |
| Los Angele | 2025 | Annual | LDA | 0.008795177 | 0.018235447 | 0.1641976 | 0.007470205 | 0.426837462 | 4.699937636 | 0 | 1.064935 | 5.764872636 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.41E-04 | 0.001161737 | 0 | 0 | 0.001161737 |
| Los Angele | 2025 | Annual | LDA | 0.00792494 | 0.01389639 | 0.1568406 | 0.006217129 | 0.410482783 | 4.644955599 | 0 | 0.9738577 | 5.618813299 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.34E-04 | 0.001102782 | 0 | 0 | 0.001102782 |
| Los Angele | 2025 | Annual | LDA | 0.00736768 | 0.010945842 | 0.1513928 | 0.005380446 | 0.403458015 | 4.740181614 | 0 | 0.9162363 | 5.656417914 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.35E-04 | 0.001107086 | 0 | 0 | 0.001107086 |
| Los Angele | 2025 | Annual | LDA | 0.007091262 | 0.009032672 | 0.148694 | 0.004877147 | 0.404473478 | 5.009361538 | 0 | 0.8781464 | 5.887507938 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.43E-04 | 0.00116841 | 0 | 0 | 0.00116841 |
| Los Angele | 2025 | Annual | LDA | 0.006770167 | 0.007547824 | 0.1427374 | 0.004441903 | 0.398526433 | 5.414237189 | 0 | 0.8261254 | 6.240362589 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 0 | 0 | 1.51E-04 | 0.00122901 | 0 | 0 | 0.00122901 |
| Los Angele | 2025 | Annual | LDT1 | 0.002082133 | 0.006210632 | 0.020446189 | 0.002631265 | 0.039096674 | 0.16561703 | 0 | 0.049430907 | 0.215047937 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDT1 | 0.004077607 | 0.012160176 | 0.040350247 | 0.005119843 | 0.077231139 | 0.332232801 | 0 | 0.096020967 | 0.428253768 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDT1 | 0.003380078 | 0.010040688 | 0.033661313 | 0.004210457 | 0.066006005 | 0.307585416 | 0 | 0.08739955 | 0.394984966 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDT1 | 0.003462957 | 0.010232495 | 0.034818184 | 0.004275355 | 0.070014588 | 0.350577001 | 0 | 0.097670503 | 0.448247504 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.65E-06 | 7.13E-05 | 0 | 0 | 7.13E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0.003003636 | 0.008822715 | 0.030628351 | 0.003669287 | 0.062935886 | 0.344369995 | 0 | 0.095191427 | 0.439561422 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.26E-05 | 1.04E-04 | 0 | 0 | 1.04E-04 |
| Los Angele | 2025 | Annual | LDT1 | 0.002622119 | 0.007613665 | 0.027159132 | 0.00316034 | 0.057340896 | 0.345896854 | 0 | 0.09456484 | 0.440461694 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.38E-06 | 7.73E-05 | 0 | 0 | 7.73E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0.002528522 | 0.007283341 | 0.026845613 | 0.003011675 | 0.057357271 | 0.366663192 | 0 | 0.099157788 | 0.46582098 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.26E-05 | 1.04E-04 | 0 | 0 | 1.04E-04 |
| Los Angele | 2025 | Annual | LDT1 | 0.002360856 | 0.006710129 | 0.025725616 | 0.002771545 | 0.055750604 | 0.379426009 | 0 | 0.1011918 | 0.480617809 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.20E-05 | 9.89E-05 | 0 | 0 | 9.89E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0.002208732 | 0.006148433 | 0.024894517 | 0.002538968 | 0.055231182 | 0.407257554 | 0 | 0.1070551 | 0.514312654 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.24E-05 | 1.02E-04 | 0 | 0 | 1.02E-04 |
| Los Angele | 2025 | Annual | LDT1 | 0.001997593 | 0.005415309 | 0.023337668 | 0.002242869 | 0.052749159 | 0.415729197 | 0 | 0.1072656 | 0.522994797 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.58E-05 | 1.30E-04 | 0 | 0 | 1.30E-04 |
| Los Angele | 2025 | Annual | LDT1 | 0.001795017 | 0.004684168 | 0.021830188 | 0.001953745 | 0.050523095 | 0.428603597 | 0 | 0.1082626 | 0.536866197 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.07E-05 | 8.78E-05 | 0 | 0 | 8.78E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0.001501317 | 0.00366842 | 0.01868757 | 0.001564707 | 0.04576002 | 0.432004684 | 0 | 0.1061884 | 0.538193084 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.15E-05 | 9.39E-05 | 0 | 0 | 9.39E-05 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDA | 0.185479316 | 0 | 0.043200675 | 0.228679991 | 1120.941769 | 0 | 54.23555 | 1175.177319 | 973.5379267 |
| Los Angele | 2025 | Annual | LDA | 0.007315865 | 0 | 0 | 0.007315865 | 8.662382276 | 0 | 0 | 8.662382276 | 7.523279006 |
| Los Angele | 2025 | Annual | LDA | 0.211716844 | 0 | 0.048424505 | 0.260141349 | 1282.728338 | 0 | 61.02501 | 1343.753348 | 988.2139112 |
| Los Angele | 2025 | Annual | LDA | 0.007018059 | 0 | 0 | 0.007018059 | 8.469648341 | 0 | 0 | 8.469648341 | 6.525017082 |
| Los Angele | 2025 | Annual | LDA | 0.251039603 | 0 | 0.056217261 | 0.307256864 | 1525.897907 | 0 | 71.19299 | 1597.090897 | 1025.861163 |
| Los Angele | 2025 | Annual | LDA | 0.006809381 | 0 | 0 | 0.006809381 | 8.397026407 | 0 | 0 | 8.397026407 | 5.645320853 |
| Los Angele | 2025 | Annual | LDA | 0.279564817 | 0 | 0.06129007 | 0.340854887 | 1706.413677 | 0 | 78.11102 | 1784.524697 | 1118.042241 |
| Los Angele | 2025 | Annual | LDA | 0.00658417 | 0 | 0 | 0.00658417 | 8.316299269 | 0 | 0 | 8.316299269 | 5.448839281 |
| Los Angele | 2025 | Annual | LDA | 0.314541073 | 0 | 0.067255169 | 0.381796242 | 1930.317507 | 0 | 86.42068 | 2016.738187 | 1236.947458 |
| Los Angele | 2025 | Annual | LDA | 0.005997209 | 0 | 0 | 0.005997209 | 7.77917577 | 0 | 0 | 7.77917577 | 4.984895833 |
| Los Angele | 2025 | Annual | LDA | 0.351671029 | 0 | 0.073280603 | 0.424951632 | 2173.06211 | 0 | 95.15498 | 2268.21709 | 1335.781279 |
| Los Angele | 2025 | Annual | LDA | 0.00577513 | 0 | 0 | 0.00577513 | 7.713304638 | 0 | 0 | 7.713304638 | 4.741368361 |
| Los Angele | 2025 | Annual | LDA | 0.38272828 | 0 | 0.077353694 | 0.460081974 | 2386.404126 | 0 | 101.8399 | 2488.244026 | 1411.08076 |
| Los Angele | 2025 | Annual | LDA | 0.005235217 | 0 | 0 | 0.005235217 | 7.221091395 | 0 | 0 | 7.221091395 | 4.269831342 |
| Los Angele | 2025 | Annual | LDA | 0.415713718 | 0 | 0.081190571 | 0.496904289 | 2622.765707 | 0 | 108.8355 | 2731.601207 | 1550.841362 |
| Los Angele | 2025 | Annual | LDA | 0.005214669 | 0 | 0 | 0.005214669 | 7.449489514 | 0 | 0 | 7.449489514 | 4.40488315 |
| Los Angele | 2025 | Annual | LDA | 0.445487734 | 0 | 0.08351101 | 0.528998744 | 2856.304536 | 0 | 114.715 | 2971.019536 | 1688.932872 |
| Los Angele | 2025 | Annual | LDA | 0.00512312 | 0 | 0 | 0.00512312 | 7.606946957 | 0 | 0 | 7.606946957 | 4.497987736 |
| Los Angele | 2025 | Annual | LDA | 0.466853774 | 0 | 0.083152004 | 0.550005778 | 3089.646721 | 0 | 119.5328 | 3209.179521 | 1826.908106 |
| Los Angele | 2025 | Annual | LDA | 0.004882347 | 0 | 0 | 0.004882347 | 7.565701499 | 0 | 0 | 7.565701499 | 4.473599297 |
| Los Angele | 2025 | Annual | LDA | 0.474576346 | 0 | 0.079229675 | 0.553806021 | 3350.600904 | 0 | 124.5063 | 3475.107204 | 1981.210315 |
| Los Angele | 2025 | Annual | LDA | 0.004389165 | 0 | 0 | 0.004389165 | 7.146499803 | 0 | 0 | 7.146499803 | 4.225725334 |
| Los Angele | 2025 | Annual | LDA | 0.455602857 | 0 | 0.070468597 | 0.526071454 | 3389.641668 | 0 | 120.1106 | 3509.752268 | 2004.295118 |
| Los Angele | 2025 | Annual | LDA | 0.003879354 | 0 | 0 | 0.003879354 | 6.670247548 | 0 | 0 | 6.670247548 | 3.944117375 |
| Los Angele | 2025 | Annual | LDA | 0.456020876 | 0 | 0.063680388 | 0.519701264 | 3653.062324 | 0 | 122.2685 | 3775.330824 | 2160.055752 |
| Los Angele | 2025 | Annual | LDA | 0.003713123 | 0 | 0 | 0.003713123 | 6.784053426 | 0 | 0 | 6.784053426 | 4.011410791 |
| Los Angele | 2025 | Annual | LDA | 0.466136874 | 0 | 0.057807159 | 0.523944033 | 3991.316323 | 0 | 124.84 | 4116.156323 | 2360.065342 |
| Los Angele | 2025 | Annual | LDA | 0.003765411 | 0 | 0 | 0.003765411 | 7.36848052 | 0 | 0 | 7.36848052 | 4.356982531 |
| Los Angele | 2025 | Annual | LDA | 0.488788305 | 0 | 0.052038006 | 0.540826311 | 4497.588133 | 0 | 128.7132 | 4626.301333 | 2659.423863 |
| Los Angele | 2025 | Annual | LDA | 0.004024754 | 0 | 0 | 0.004024754 | 8.526151576 | 0 | 0 | 8.526151576 | 5.041513427 |
| Los Angele | 2025 | Annual | LDA | 0.518212664 | 0 | 0.044251468 | 0.562464132 | 5172.435092 | 0 | 129.1028 | 5301.537892 | 3058.46087 |
| Los Angele | 2025 | Annual | LDA | 0.00430579 | 0 | 0 | 0.00430579 | 10.03558671 | 0 | 0 | 10.03558671 | 5.93404242 |
| Los Angele | 2025 | Annual | LDT1 | 0.011463447 | 0 | 0.002255328 | 0.013718775 | 83.49162384 | 0 | 3.466751 | 86.95837484 | 75.14246146 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDT1 | 0.024516674 | 0 | 0.004744311 | 0.029260985 | 183.2003542 | 0 | 7.564487 | 190.7648412 | 164.8803188 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDT1 | 0.023977766 | 0 | 0.004682055 | 0.02865982 | 172.5478415 | 0 | 7.068514 | 179.6163555 | 155.2930573 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDT1 | 0.029036471 | 0 | 0.005719063 | 0.034755534 | 200.6954342 | 0 | 8.151097 | 208.8465312 | 174.3039846 |
| Los Angele | 2025 | Annual | LDT1 | 2.32E-04 | 0 | 0 | 2.32E-04 | 0.22626649 | 0 | 0 | 0.22626649 | 0.196512446 |
| Los Angele | 2025 | Annual | LDT1 | 0.0287016 | 0 | 0.005602682 | 0.034304282 | 198.9363587 | 0 | 8.018806 | 206.9551647 | 153.2605707 |
| Los Angele | 2025 | Annual | LDT1 | 3.39E-04 | 0 | 0 | 3.39E-04 | 0.336800625 | 0 | 0 | 0.336800625 | 0.259471201 |
| Los Angele | 2025 | Annual | LDT1 | 0.029059778 | 0 | 0.005604554 | 0.034664332 | 202.1646765 | 0 | 8.066085 | 210.2307615 | 135.915312 |
| Los Angele | 2025 | Annual | LDT1 | 2.53E-04 | 0 | 0 | 2.53E-04 | 0.25622284 | 0 | 0 | 0.25622284 | 0.172258615 |
| Los Angele | 2025 | Annual | LDT1 | 0.031062696 | 0 | 0.005919221 | 0.036981917 | 217.1140906 | 0 | 8.579228 | 225.6933186 | 142.2531522 |
| Los Angele | 2025 | Annual | LDT1 | 3.41E-04 | 0 | 0 | 3.41E-04 | 0.354650114 | 0 | 0 | 0.354650114 | 0.232366754 |
| Los Angele | 2025 | Annual | LDT1 | 0.032425953 | 0 | 0.00608418 | 0.038510133 | 228.024265 | 0 | 8.899525 | 236.92379 | 146.117949 |
| Los Angele | 2025 | Annual | LDT1 | 3.25E-04 | 0 | 0 | 3.25E-04 | 0.346627454 | 0 | 0 | 0.346627454 | 0.222118873 |
| Los Angele | 2025 | Annual | LDT1 | 0.035219359 | 0 | 0.006504154 | 0.041723513 | 249.5970783 | 0 | 9.62625 | 259.2233283 | 153.427324 |
| Los Angele | 2025 | Annual | LDT1 | 3.36E-04 | 0 | 0 | 3.36E-04 | 0.369120262 | 0 | 0 | 0.369120262 | 0.226898225 |
| Los Angele | 2025 | Annual | LDT1 | 0.036421639 | 0 | 0.006590352 | 0.043011992 | 260.736479 | 0 | 9.904712 | 270.641191 | 154.1734801 |
| Los Angele | 2025 | Annual | LDT1 | 4.28E-04 | 0 | 0 | 4.28E-04 | 0.486488419 | 0 | 0 | 0.486488419 | 0.287660602 |
| Los Angele | 2025 | Annual | LDT1 | 0.038031234 | 0 | 0.006719356 | 0.04475059 | 275.885725 | 0 | 10.30417 | 286.189895 | 163.1312292 |
| Los Angele | 2025 | Annual | LDT1 | 2.91E-04 | 0 | 0 | 2.91E-04 | 0.343390567 | 0 | 0 | 0.343390567 | 0.203046842 |
| Los Angele | 2025 | Annual | LDT1 | 0.038846133 | 0 | 0.006658663 | 0.045504796 | 287.0665803 | 0 | 10.49941 | 297.5659903 | 169.742469 |
| Los Angele | 2025 | Annual | LDT1 | 3.13E-04 | 0 | 0 | 3.13E-04 | 0.384169772 | 0 | 0 | 0.384169772 | 0.227159586 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDA | 0 | 47.10357518 | 1020.641502 | 0.001164114 | 0 | 3.32E-04 | 0.00149572 | 0.023997158 | 0.110237 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 7.523279006 | 1.45E-04 | 0 | 0 | 1.45E-04 | 2.18E-04 | 0.001002567 |
| Los Angele | 2025 | Annual | LDA | 0 | 47.0136677 | 1035.227579 | 0.001998197 | 0 | 6.95E-04 | 0.002693375 | 0.027459968 | 0.1261442 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 6.525017082 | 1.39E-04 | 0 | 0 | 1.39E-04 | 2.13E-04 | 9.80E-04 |
| Los Angele | 2025 | Annual | LDA | 0 | 47.86304718 | 1073.72421 | 0.003169333 | 0 | 0.00114091 | 0.004310243 | 0.032666929 | 0.1500637 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 5.645320853 | 1.35E-04 | 0 | 0 | 1.35E-04 | 2.12E-04 | 9.72E-04 |
| Los Angele | 2025 | Annual | LDA | 0 | 51.1783403 | 1169.220581 | 0.005316404 | 0 | 0.002345194 | 0.007661599 | 0.036532417 | 0.1678208 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 5.448839281 | 1.31E-04 | 0 | 0 | 1.31E-04 | 2.10E-04 | 9.63E-04 |
| Los Angele | 2025 | Annual | LDA | 0 | 55.37837174 | 1292.32583 | 0.008018648 | 0 | 0.003670933 | 0.011689581 | 0.041327253 | 0.1898471 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 4.984895833 | 1.19E-04 | 0 | 0 | 1.19E-04 | 1.96E-04 | 9.00E-04 |
| Los Angele | 2025 | Annual | LDA | 0 | 58.49176621 | 1394.273045 | 0.011283778 | 0 | 0.005205534 | 0.016489312 | 0.046527211 | 0.2137344 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 4.741368361 | 1.15E-04 | 0 | 0 | 1.15E-04 | 1.94E-04 | 8.93E-04 |
| Los Angele | 2025 | Annual | LDA | 0 | 60.21793287 | 1471.298693 | 0.014250309 | 0 | 0.006501141 | 0.02075145 | 0.051098224 | 0.2347325 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 4.269831342 | 1.04E-04 | 0 | 0 | 1.04E-04 | 1.82E-04 | 8.36E-04 |
| Los Angele | 2025 | Annual | LDA | 0 | 64.35443115 | 1615.195794 | 0.017023618 | 0 | 0.007595652 | 0.024619271 | 0.056161091 | 0.25799 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 4.40488315 | 1.04E-04 | 0 | 0 | 1.04E-04 | 1.88E-04 | 8.62E-04 |
| Los Angele | 2025 | Annual | LDA | 0 | 67.8309795 | 1756.763852 | 0.019275002 | 0 | 0.008350215 | 0.027625217 | 0.061145872 | 0.2808889 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 4.497987736 | 1.02E-04 | 0 | 0 | 1.02E-04 | 1.92E-04 | 8.80E-04 |
| Los Angele | 2025 | Annual | LDA | 0 | 70.67974464 | 1897.587851 | 0.020843133 | 0 | 0.008725907 | 0.029569039 | 0.06612324 | 0.3037537 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 4.473599297 | 9.70E-05 | 0 | 0 | 9.70E-05 | 1.91E-04 | 8.76E-04 |
| Los Angele | 2025 | Annual | LDA | 0 | 73.62057519 | 2054.83089 | 0.022596496 | 0 | 0.009088974 | 0.03168547 | 0.071685597 | 0.3293058 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 4.225725334 | 8.72E-05 | 0 | 0 | 8.72E-05 | 1.80E-04 | 8.27E-04 |
| Los Angele | 2025 | Annual | LDA | 0 | 71.02139778 | 2075.316516 | 0.022852646 | 0 | 0.008768089 | 0.031620735 | 0.072497301 | 0.3330345 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 3.944117375 | 7.71E-05 | 0 | 0 | 7.71E-05 | 1.68E-04 | 7.72E-04 |
| Los Angele | 2025 | Annual | LDA | 0 | 72.29736405 | 2232.353116 | 0.024620915 | 0 | 0.008925619 | 0.033546534 | 0.078106754 | 0.3588029 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 4.011410791 | 7.38E-05 | 0 | 0 | 7.38E-05 | 1.71E-04 | 7.85E-04 |
| Los Angele | 2025 | Annual | LDA | 0 | 73.817892 | 2433.883234 | 0.02689228 | 0 | 0.009113331 | 0.036005612 | 0.085312136 | 0.3919026 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 4.356982531 | 7.49E-05 | 0 | 0 | 7.49E-05 | 1.86E-04 | 8.53E-04 |
| Los Angele | 2025 | Annual | LDA | 0 | 76.10811516 | 2735.531978 | 0.03029393 | 0 | 0.00939608 | 0.03969001 | 0.096104659 | 0.4414809 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 5.041513427 | 8.01E-05 | 0 | 0 | 8.01E-05 | 2.15E-04 | 9.87E-04 |
| Los Angele | 2025 | Annual | LDA | 0 | 76.33848564 | 3134.799356 | 0.034828557 | 0 | 0.00942452 | 0.044253077 | 0.1104896 | 0.5075615 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 5.93404242 | 8.57E-05 | 0 | 0 | 8.57E-05 | 2.53E-04 | 0.001161499 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 3.1200759 | 78.26253736 | 5.59E-05 | 0 | 7.19E-06 | 6.31E-05 | 0.001536593 | 0.007058724 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 6.8080383 | 171.6883571 | 1.23E-04 | 0 | 2.04E-05 | 1.43E-04 | 0.003374646 | 0.015502281 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 6.3616626 | 161.6547199 | 1.54E-04 | 0 | 3.01E-05 | 1.84E-04 | 0.003172996 | 0.014575951 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 7.079227745 | 181.3832124 | 1.79E-04 | 0 | 4.28E-05 | 2.22E-04 | 0.003692881 | 0.016964179 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0.196512446 | 3.84E-06 | 0 | 0 | 3.84E-06 | 5.70E-06 | 2.62E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 6.177688142 | 159.4382589 | 2.66E-04 | 0 | 7.85E-05 | 3.45E-04 | 0.003660898 | 0.016817253 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0.259471201 | 5.61E-06 | 0 | 0 | 5.61E-06 | 8.49E-06 | 3.90E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 5.422828945 | 141.338141 | 3.61E-04 | 0 | 1.11E-04 | 4.72E-04 | 0.003720581 | 0.017091421 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0.172258615 | 4.18E-06 | 0 | 0 | 4.18E-06 | 6.46E-06 | 2.97E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 5.621110186 | 147.8742624 | 5.81E-04 | 0 | 2.21E-04 | 8.03E-04 | 0.003996201 | 0.018357554 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0.232366754 | 5.65E-06 | 0 | 0 | 5.65E-06 | 8.94E-06 | 4.10E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 5.70281562 | 151.8207647 | 8.14E-04 | 0 | 3.25E-04 | 0.001138691 | 0.004197197 | 0.019280873 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0.222118873 | 5.37E-06 | 0 | 0 | 5.37E-06 | 8.73E-06 | 4.01E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 5.917255875 | 159.3445799 | 0.001113775 | 0 | 4.52E-04 | 0.001566072 | 0.004594956 | 0.02110808 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0.226898225 | 5.56E-06 | 0 | 0 | 5.56E-06 | 9.30E-06 | 4.27E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 5.856656206 | 160.0301363 | 0.001338004 | 0 | 5.43E-04 | 0.001881063 | 0.004800291 | 0.02205134 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0.287660602 | 7.09E-06 | 0 | 0 | 7.09E-06 | 1.23E-05 | 5.63E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 6.092855721 | 169.2240849 | 0.001538853 | 0 | 6.18E-04 | 0.0021565 | 0.005079212 | 0.023332631 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0.203046842 | 4.82E-06 | 0 | 0 | 4.82E-06 | 8.65E-06 | 3.97E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 6.208301133 | 175.9507701 | 0.001664762 | 0 | 6.56E-04 | 0.002321172 | 0.005284187 | 0.024274239 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0.227159586 | 5.18E-06 | 0 | 0 | 5.18E-06 | 9.68E-06 | 4.45E-05 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDA | 0.135729878 | 0.001080106 | 0 | 3.08E-04 | 0.001387781 | 0.00599929 | 0.047244404 | 0.054631475 | 0.011225407 |
| Los Angele | 2025 | Annual | LDA | 0.001365948 | 1.34E-04 | 0 | 0 | 1.34E-04 | 5.46E-05 | 4.30E-04 | 6.18E-04 | 8.27E-05 |
| Los Angele | 2025 | Annual | LDA | 0.156297543 | 0.001853998 | 0 | 6.45E-04 | 0.002499008 | 0.006864992 | 0.054061811 | 0.063425811 | 0.012845287 |
| Los Angele | 2025 | Annual | LDA | 0.001332887 | 1.28E-04 | 0 | 0 | 1.28E-04 | 5.33E-05 | 4.20E-04 | 6.02E-04 | 8.09E-05 |
| Los Angele | 2025 | Annual | LDA | 0.187040872 | 0.002940618 | 0 | 0.001058576 | 0.003999194 | 0.008166732 | 0.064313024 | 0.076478951 | 0.015280015 |
| Los Angele | 2025 | Annual | LDA | 0.001318523 | 1.24E-04 | 0 | 0 | 1.24E-04 | 5.29E-05 | 4.17E-04 | 5.94E-04 | 8.02E-05 |
| Los Angele | 2025 | Annual | LDA | 0.212014816 | 0.004932746 | 0 | 0.002175953 | 0.007108699 | 0.009133104 | 0.071923189 | 0.088164992 | 0.017087171 |
| Los Angele | 2025 | Annual | LDA | 0.001302689 | 1.20E-04 | 0 | 0 | 1.20E-04 | 5.24E-05 | 4.13E-04 | 5.85E-04 | 7.94E-05 |
| Los Angele | 2025 | Annual | LDA | 0.242863934 | 0.007439982 | 0 | 0.00340602 | 0.010846002 | 0.010331813 | 0.081363037 | 0.102540852 | 0.01932841 |
| Los Angele | 2025 | Annual | LDA | 0.001215357 | 1.09E-04 | 0 | 0 | 1.09E-04 | 4.90E-05 | 3.86E-04 | 5.44E-04 | 7.43E-05 |
| Los Angele | 2025 | Annual | LDA | 0.276750923 | 0.010469485 | 0 | 0.004829875 | 0.01529936 | 0.011631803 | 0.091600455 | 0.118531618 | 0.021757916 |
| Los Angele | 2025 | Annual | LDA | 0.001201679 | 1.05E-04 | 0 | 0 | 1.05E-04 | 4.86E-05 | 3.83E-04 | 5.37E-04 | 7.36E-05 |
| Los Angele | 2025 | Annual | LDA | 0.306582174 | 0.013221936 | 0 | 0.006031986 | 0.019253922 | 0.012774556 | 0.1005996 | 0.132628078 | 0.023892649 |
| Los Angele | 2025 | Annual | LDA | 0.001121609 | 9.56E-05 | 0 | 0 | 9.56E-05 | 4.55E-05 | 3.58E-04 | 4.99E-04 | 6.89E-05 |
| Los Angele | 2025 | Annual | LDA | 0.338770362 | 0.01579511 | 0 | 0.007047514 | 0.022842624 | 0.014040273 | 0.1105671 | 0.147449997 | 0.026257243 |
| Los Angele | 2025 | Annual | LDA | 0.001153405 | 9.52E-05 | 0 | 0 | 9.52E-05 | 4.69E-05 | 3.70E-04 | 5.12E-04 | 7.11E-05 |
| Los Angele | 2025 | Annual | LDA | 0.369659989 | 0.017884022 | 0 | 0.007747621 | 0.025631643 | 0.015286468 | 0.1203809 | 0.161299011 | 0.02859294 |
| Los Angele | 2025 | Annual | LDA | 0.001173796 | 9.36E-05 | 0 | 0 | 9.36E-05 | 4.79E-05 | 3.77E-04 | 5.19E-04 | 7.26E-05 |
| Los Angele | 2025 | Annual | LDA | 0.399445979 | 0.019338989 | 0 | 0.008096202 | 0.027435191 | 0.01653081 | 0.1301801 | 0.174146101 | 0.030925479 |
| Los Angele | 2025 | Annual | LDA | 0.001163221 | 8.92E-05 | 0 | 0 | 8.92E-05 | 4.77E-05 | 3.75E-04 | 5.12E-04 | 7.22E-05 |
| Los Angele | 2025 | Annual | LDA | 0.432676867 | 0.020965822 | 0 | 0.008433068 | 0.02939889 | 0.017921399 | 0.141131 | 0.188451289 | 0.033531632 |
| Los Angele | 2025 | Annual | LDA | 0.001094368 | 8.02E-05 | 0 | 0 | 8.02E-05 | 4.50E-05 | 3.54E-04 | 4.80E-04 | 6.82E-05 |
| Los Angele | 2025 | Annual | LDA | 0.437152536 | 0.021203486 | 0 | 0.008135339 | 0.029338825 | 0.018124325 | 0.1427291 | 0.19019225 | 0.033912797 |
| Los Angele | 2025 | Annual | LDA | 0.001017143 | 7.09E-05 | 0 | 0 | 7.09E-05 | 4.20E-05 | 3.31E-04 | 4.44E-04 | 6.37E-05 |
| Los Angele | 2025 | Annual | LDA | 0.470456188 | 0.02284415 | 0 | 0.008281502 | 0.031125651 | 0.019526688 | 0.1537727 | 0.204425039 | 0.03654135 |
| Los Angele | 2025 | Annual | LDA | 0.001029903 | 6.79E-05 | 0 | 0 | 6.79E-05 | 4.27E-05 | 3.37E-04 | 4.47E-04 | 6.48E-05 |
| Los Angele | 2025 | Annual | LDA | 0.513220348 | 0.0249516 | 0 | 0.008455668 | 0.033407268 | 0.021328034 | 0.1679583 | 0.222693602 | 0.039919376 |
| Los Angele | 2025 | Annual | LDA | 0.001113337 | 6.89E-05 | 0 | 0 | 6.89E-05 | 4.64E-05 | 3.65E-04 | 4.81E-04 | 7.03E-05 |
| Los Angele | 2025 | Annual | LDA | 0.577275569 | 0.02810777 | 0 | 0.008718012 | 0.036825782 | 0.024026165 | 0.1892061 | 0.250058047 | 0.044977352 |
| Los Angele | 2025 | Annual | LDA | 0.001281687 | 7.37E-05 | 0 | 0 | 7.37E-05 | 5.37E-05 | 4.23E-04 | 5.50E-04 | 8.14E-05 |
| Los Angele | 2025 | Annual | LDA | 0.662304177 | 0.032315157 | 0 | 0.008744399 | 0.041059556 | 0.027622398 | 0.2175264 | 0.286208354 | 0.051720105 |
| Los Angele | 2025 | Annual | LDA | 0.001500063 | 7.89E-05 | 0 | 0 | 7.89E-05 | 6.32E-05 | 4.98E-04 | 6.40E-04 | 9.58E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0.008658387 | 5.19E-05 | 0 | 6.67E-06 | 5.85E-05 | 3.84E-04 | 0.003025167 | 0.003467834 | 8.36E-04 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDT1 | 0.019019936 | 1.14E-04 | 0 | 1.89E-05 | 1.33E-04 | 8.44E-04 | 0.006643835 | 0.007620184 | 0.001834167 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDT1 | 0.017933025 | 1.43E-04 | 0 | 2.79E-05 | 1.71E-04 | 7.93E-04 | 0.006246836 | 0.007210878 | 0.001727435 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | LDT1 | 0.020878977 | 1.66E-04 | 0 | 3.97E-05 | 2.06E-04 | 9.23E-04 | 0.00727036 | 0.008399482 | 0.002009122 |
| Los Angele | 2025 | Annual | LDT1 | 3.57E-05 | 3.54E-06 | 0 | 0 | 3.54E-06 | 1.43E-06 | 1.12E-05 | 1.62E-05 | 2.16E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0.020822921 | 2.47E-04 | 0 | 7.28E-05 | 3.20E-04 | 9.15E-04 | 0.007207393 | 0.008442508 | 0.001991458 |
| Los Angele | 2025 | Annual | LDT1 | 5.31E-05 | 5.16E-06 | 0 | 0 | 5.16E-06 | 2.12E-06 | 1.67E-05 | 2.40E-05 | 3.22E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0.021283871 | 3.35E-04 | 0 | 1.03E-04 | 4.38E-04 | 9.30E-04 | 0.007324895 | 0.008692857 | 0.002023707 |
| Los Angele | 2025 | Annual | LDT1 | 4.03E-05 | 3.84E-06 | 0 | 0 | 3.84E-06 | 1.61E-06 | 1.27E-05 | 1.82E-05 | 2.45E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0.023156283 | 5.39E-04 | 0 | 2.05E-04 | 7.45E-04 | 9.99E-04 | 0.007867522 | 0.009611185 | 0.002173272 |
| Los Angele | 2025 | Annual | LDT1 | 5.56E-05 | 5.20E-06 | 0 | 0 | 5.20E-06 | 2.23E-06 | 1.76E-05 | 2.50E-05 | 3.39E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0.02461676 | 7.55E-04 | 0 | 3.01E-04 | 0.001056517 | 0.001049299 | 0.008263231 | 0.010369048 | 0.002282386 |
| Los Angele | 2025 | Annual | LDT1 | 5.42E-05 | 4.94E-06 | 0 | 0 | 4.94E-06 | 2.18E-06 | 1.72E-05 | 2.43E-05 | 3.31E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0.027269108 | 0.0010334 | 0 | 4.20E-04 | 0.001453057 | 0.001148739 | 0.009046321 | 0.011648116 | 0.002498183 |
| Los Angele | 2025 | Annual | LDT1 | 5.76E-05 | 5.11E-06 | 0 | 0 | 5.11E-06 | 2.32E-06 | 1.83E-05 | 2.57E-05 | 3.52E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0.028732694 | 0.001241447 | 0 | 5.04E-04 | 0.001745316 | 0.001200073 | 0.009450574 | 0.012395962 | 0.002609515 |
| Los Angele | 2025 | Annual | LDT1 | 7.56E-05 | 6.52E-06 | 0 | 0 | 6.52E-06 | 3.06E-06 | 2.41E-05 | 3.37E-05 | 4.64E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0.030568343 | 0.001427802 | 0 | 5.73E-04 | 0.002000876 | 0.001269803 | 0.009999698 | 0.013270377 | 0.002760944 |
| Los Angele | 2025 | Annual | LDT1 | 5.32E-05 | 4.44E-06 | 0 | 0 | 4.44E-06 | 2.16E-06 | 1.70E-05 | 2.36E-05 | 3.28E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0.031879599 | 0.001544625 | 0 | 6.09E-04 | 0.002153665 | 0.001321047 | 0.010403245 | 0.013877957 | 0.002872607 |
| Los Angele | 2025 | Annual | LDT1 | 5.93E-05 | 4.77E-06 | 0 | 0 | 4.77E-06 | 2.42E-06 | 1.91E-05 | 2.62E-05 | 3.67E-06 |

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| Los Angele | 2025 | Annual | LDA | 0 | 5.54E-04 | 0.011779441 | 125.6449 | 0 | 2.86E-04 | 2.14E-03 | 1.68E-04 | 1.10E-06 | 9.87E-05 | 1.02E-06 | 3.91E-05 | 8.66E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 8.27E-05 | 0 | 0.7796144 | 1.96E-05 | 1.84E-04 | 5.91E-04 | 1.17E-05 | 9.87E-05 | 1.08E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 6.23E-04 | 0.013468565 | 143.6618 | 0 | 2.61E-04 | 2.12E-03 | 1.67E-04 | 1.73E-06 | 9.87E-05 | 1.61E-06 | 3.91E-05 | 8.65E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 8.09E-05 | 0 | 0.7622684 | 1.92E-05 | 1.81E-04 | 5.80E-04 | 1.15E-05 | 9.87E-05 | 1.06E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 7.27E-04 | 0.016006998 | 170.7379 | 0 | 2.36E-04 | 2.09E-03 | 1.66E-04 | 2.33E-06 | 9.87E-05 | 2.16E-06 | 3.91E-05 | 8.64E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 8.02E-05 | 0 | 0.7557324 | 1.87E-05 | 1.76E-04 | 5.68E-04 | 1.13E-05 | 9.87E-05 | 1.04E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 7.97E-04 | 0.017884618 | 190.7654 | 0 | 2.19E-04 | 2.06E-03 | 1.65E-04 | 3.70E-06 | 9.87E-05 | 3.43E-06 | 3.91E-05 | 8.63E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 7.94E-05 | 0 | 0.7484669 | 1.83E-05 | 1.72E-04 | 5.54E-04 | 1.10E-05 | 9.87E-05 | 1.01E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 8.82E-04 | 0.020210394 | 215.5732 | 0 | 2.02E-04 | 2.03E-03 | 1.63E-04 | 4.99E-06 | 9.87E-05 | 4.63E-06 | 3.91E-05 | 8.63E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 7.43E-05 | 0 | 0.7001259 | 1.77E-05 | 1.67E-04 | 5.40E-04 | 1.07E-05 | 9.87E-05 | 9.85E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 9.71E-04 | 0.022728645 | 242.434 | 0 | 1.83E-04 | 1.98E-03 | 1.61E-04 | 6.25E-06 | 9.87E-05 | 5.80E-06 | 3.91E-05 | 8.62E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 7.36E-05 | 0 | 0.6941974 | 1.72E-05 | 1.62E-04 | 5.24E-04 | 1.04E-05 | 9.87E-05 | 9.57E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0.001038449 | 0.024931098 | 265.9264 | 0 | 1.67E-04 | 1.93E-03 | 1.59E-04 | 7.16E-06 | 9.87E-05 | 6.65E-06 | 3.91E-05 | 8.61E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 6.89E-05 | 0 | 0.6498984 | 1.66E-05 | 1.56E-04 | 5.08E-04 | 1.01E-05 | 9.87E-05 | 9.27E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0.001109152 | 0.027366395 | 291.9023 | 0 | 1.51E-04 | 1.87E-03 | 1.56E-04 | 7.73E-06 | 9.87E-05 | 7.17E-06 | 3.91E-05 | 8.59E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 7.11E-05 | 0 | 0.6704541 | 1.60E-05 | 1.50E-04 | 4.90E-04 | 9.73E-06 | 9.87E-05 | 8.95E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0.001168289 | 0.029761229 | 317.4467 | 0 | 1.32E-04 | 1.81E-03 | 1.53E-04 | 7.97E-06 | 9.87E-05 | 7.39E-06 | 3.91E-05 | 8.58E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 7.26E-05 | 0 | 0.6846251 | 1.53E-05 | 1.44E-04 | 4.71E-04 | 9.36E-06 | 9.87E-05 | 8.61E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0.001216303 | 0.032141782 | 342.8387 | 0 | 1.11E-04 | 1.72E-03 | 1.47E-04 | 7.89E-06 | 9.87E-05 | 7.32E-06 | 3.91E-05 | 8.57E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 7.22E-05 | 0 | 0.6809132 | 1.46E-05 | 1.37E-04 | 4.52E-04 | 8.97E-06 | 9.87E-05 | 8.25E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0.001265174 | 0.034796806 | 371.1584 | 0 | 9.79E-05 | 1.60E-03 | 1.36E-04 | 7.80E-06 | 9.87E-05 | 7.23E-06 | 3.91E-05 | 8.56E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 6.82E-05 | 0 | 0.6431851 | 1.38E-05 | 1.30E-04 | 4.30E-04 | 8.54E-06 | 9.87E-05 | 7.86E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0.001217773 | 0.03513057 | 374.7185 | 0 | 8.52E-05 | 1.40E-03 | 1.28E-04 | 7.69E-06 | 9.87E-05 | 7.14E-06 | 3.91E-05 | 8.55E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 6.37E-05 | 0 | 0.6003224 | 1.30E-05 | 1.22E-04 | 4.07E-04 | 8.09E-06 | 9.87E-05 | 7.44E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0.001237787 | 0.037779137 | 402.9695 | 0 | 7.53E-05 | 1.27E-03 | 1.17E-04 | 7.58E-06 | 9.87E-05 | 7.03E-06 | 3.91E-05 | 8.53E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 6.48E-05 | 0 | 0.6105648 | 1.22E-05 | 1.14E-04 | 3.83E-04 | 7.62E-06 | 9.87E-05 | 7.01E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0.001262472 | 0.041181848 | 439.2642 | 0 | 6.71E-05 | 1.17E-03 | 1.08E-04 | 7.44E-06 | 9.87E-05 | 6.91E-06 | 3.91E-05 | 8.51E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 7.03E-05 | 0 | 0.6631633 | 1.13E-05 | 1.05E-04 | 3.58E-04 | 7.11E-06 | 9.87E-05 | 6.54E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0.001300454 | 0.046277806 | 493.6199 | 0 | 5.90E-05 | 1.08E-03 | 9.93E-05 | 7.28E-06 | 9.87E-05 | 6.76E-06 | 3.91E-05 | 8.49E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 8.14E-05 | 0 | 0.7673537 | 1.03E-05 | 9.59E-05 | 3.30E-04 | 6.57E-06 | 9.87E-05 | 6.05E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0.001303341 | 0.053023446 | 565.572 | 0 | 4.98E-05 | 9.96E-04 | 8.98E-05 | 7.06E-06 | 9.87E-05 | 6.55E-06 | 3.91E-05 | 8.46E-06 |
| Los Angele | 2025 | Annual | LDA | 0 | 0 | 9.58E-05 | 0 | 0.9032029 | 9.25E-06 | 8.57E-05 | 3.00E-04 | 5.98E-06 | 9.87E-05 | 5.50E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 3.55E-05 | 8.72E-04 | 9.296836 | 0 | 4.20E-04 | 2.47E-03 | 1.57E-04 | 7.24E-07 | 9.87E-05 | 6.72E-07 | 3.91E-05 | 1.00E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2025 | Annual | LDT1 | 0 | 7.72E-05 | 0.001911338 | 20.3872 | 0 | 3.77E-04 | 2.24E-03 | 1.53E-04 | 7.47E-07 | 9.87E-05 | 6.93E-07 | 3.91E-05 | 9.99E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2025 | Annual | LDT1 | 0 | 7.21E-05 | 0.001799511 | 19.1944 | 0 | 3.40E-04 | 2.20E-03 | 1.59E-04 | 1.02E-06 | 9.87E-05 | 9.49E-07 | 3.91E-05 | 1.00E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2025 | Annual | LDT1 | 0 | 8.31E-05 | 0.002092188 | 22.31623 | 0 | 3.07E-04 | 2.14E-03 | 1.66E-04 | 1.06E-06 | 9.87E-05 | 9.83E-07 | 3.91E-05 | 9.99E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 2.16E-06 | 0 | 0.020363985 | 2.35E-05 | 2.21E-04 | 7.19E-04 | 1.19E-05 | 9.87E-05 | 1.09E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 8.17E-05 | 0.002073161 | 22.11327 | 0 | 2.77E-04 | 2.12E-03 | 1.65E-04 | 1.66E-06 | 9.87E-05 | 1.54E-06 | 3.91E-05 | 9.99E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 3.22E-06 | 0 | 0.030312059 | 2.30E-05 | 2.16E-04 | 7.05E-04 | 1.17E-05 | 9.87E-05 | 1.07E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 8.22E-05 | 0.00210587 | 22.46217 | 0 | 2.46E-04 | 2.09E-03 | 1.64E-04 | 2.24E-06 | 9.87E-05 | 2.08E-06 | 3.91E-05 | 9.98E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 2.45E-06 | 0 | 0.023060057 | 2.25E-05 | 2.11E-04 | 6.90E-04 | 1.14E-05 | 9.87E-05 | 1.05E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 8.74E-05 | 0.002260638 | 24.11299 | 0 | 2.27E-04 | 2.06E-03 | 1.63E-04 | 3.54E-06 | 9.87E-05 | 3.29E-06 | 3.91E-05 | 9.98E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 3.39E-06 | 0 | 0.031918511 | 2.19E-05 | 2.06E-04 | 6.74E-04 | 1.11E-05 | 9.87E-05 | 1.03E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 9.06E-05 | 0.002372984 | 25.31133 | 0 | 2.09E-04 | 2.02E-03 | 1.62E-04 | 4.78E-06 | 9.87E-05 | 4.44E-06 | 3.91E-05 | 9.97E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 3.31E-06 | 0 | 0.031196468 | 2.13E-05 | 2.00E-04 | 6.56E-04 | 1.09E-05 | 9.87E-05 | 9.99E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 9.80E-05 | 0.002596138 | 27.69159 | 0 | 1.87E-04 | 1.97E-03 | 1.60E-04 | 6.01E-06 | 9.87E-05 | 5.58E-06 | 3.91E-05 | 9.96E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 3.52E-06 | 0 | 0.033220828 | 2.06E-05 | 1.93E-04 | 6.36E-04 | 1.05E-05 | 9.87E-05 | 9.69E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 1.01E-04 | 0.002710254 | 28.90879 | 0 | 1.70E-04 | 1.92E-03 | 1.58E-04 | 6.91E-06 | 9.87E-05 | 6.41E-06 | 3.91E-05 | 9.96E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 4.64E-06 | 0 | 0.043783963 | 1.99E-05 | 1.86E-04 | 6.16E-04 | 1.02E-05 | 9.87E-05 | 9.38E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 1.05E-04 | 0.00286569 | 30.56674 | 0 | 1.52E-04 | 1.86E-03 | 1.55E-04 | 7.49E-06 | 9.87E-05 | 6.95E-06 | 3.91E-05 | 9.95E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 3.28E-06 | 0 | 0.030905154 | 1.92E-05 | 1.79E-04 | 5.94E-04 | 9.84E-06 | 9.87E-05 | 9.05E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 1.07E-04 | 0.002979266 | 31.7782 | 0 | 1.30E-04 | 1.80E-03 | 1.52E-04 | 7.75E-06 | 9.87E-05 | 7.19E-06 | 3.91E-05 | 9.94E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 3.67E-06 | 0 | 0.034575284 | 1.83E-05 | 1.71E-04 | 5.70E-04 | 9.44E-06 | 9.87E-05 | 8.69E-06 | 3.91E-05 | 6.68E-06 |

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| Los Angele | 2025 | Annual | LDA | 3.75E-04 |
| Los Angele | 2025 | Annual | LDA | 3.04E-04 |
| Los Angele | 2025 | Annual | LDA | 3.32E-04 |
| Los Angele | 2025 | Annual | LDA | 2.70E-04 |
| Los Angele | 2025 | Annual | LDA | 2.90E-04 |
| Los Angele | 2025 | Annual | LDA | 2.35E-04 |
| Los Angele | 2025 | Annual | LDA | 2.82E-04 |
| Los Angele | 2025 | Annual | LDA | 2.29E-04 |
| Los Angele | 2025 | Annual | LDA | 2.76E-04 |
| Los Angele | 2025 | Annual | LDA | 2.24E-04 |
| Los Angele | 2025 | Annual | LDA | 2.64E-04 |
| Los Angele | 2025 | Annual | LDA | 2.15E-04 |
| Los Angele | 2025 | Annual | LDA | 2.54E-04 |
| Los Angele | 2025 | Annual | LDA | 2.07E-04 |
| Los Angele | 2025 | Annual | LDA | 2.54E-04 |
| Los Angele | 2025 | Annual | LDA | 2.07E-04 |
| Los Angele | 2025 | Annual | LDA | 2.53E-04 |
| Los Angele | 2025 | Annual | LDA | 2.07E-04 |
| Los Angele | 2025 | Annual | LDA | 2.53E-04 |
| Los Angele | 2025 | Annual | LDA | 2.07E-04 |
| Los Angele | 2025 | Annual | LDA | 2.53E-04 |
| Los Angele | 2025 | Annual | LDA | 2.07E-04 |
| Los Angele | 2025 | Annual | LDA | 2.52E-04 |
| Los Angele | 2025 | Annual | LDA | 2.07E-04 |
| Los Angele | 2025 | Annual | LDA | 2.52E-04 |
| Los Angele | 2025 | Annual | LDA | 2.07E-04 |
| Los Angele | 2025 | Annual | LDA | 2.52E-04 |
| Los Angele | 2025 | Annual | LDA | 2.07E-04 |
| Los Angele | 2025 | Annual | LDA | 2.51E-04 |
| Los Angele | 2025 | Annual | LDA | 2.07E-04 |
| Los Angele | 2025 | Annual | LDA | 2.50E-04 |
| Los Angele | 2025 | Annual | LDA | 2.07E-04 |
| Los Angele | 2025 | Annual | LDT1 | 4.49E-04 |
| Los Angele | 2025 | Annual | LDT1 | |
| Los Angele | 2025 | Annual | LDT1 | 4.49E-04 |
| Los Angele | 2025 | Annual | LDT1 | |
| Los Angele | 2025 | Annual | LDT1 | 4.49E-04 |
| Los Angele | 2025 | Annual | LDT1 | |
| Los Angele | 2025 | Annual | LDT1 | 4.33E-04 |
| Los Angele | 2025 | Annual | LDT1 | 3.04E-04 |
| Los Angele | 2025 | Annual | LDT1 | 3.84E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.70E-04 |
| Los Angele | 2025 | Annual | LDT1 | 3.35E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.35E-04 |
| Los Angele | 2025 | Annual | LDT1 | 3.26E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.29E-04 |
| Los Angele | 2025 | Annual | LDT1 | 3.19E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.24E-04 |
| Los Angele | 2025 | Annual | LDT1 | 3.06E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.15E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.94E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.94E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.94E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.07E-04 |

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| Los Angele | 2025 | Annual | LDT1 | GAS | 2019 | AllSpeeds | 17312.86 | 621388.1954 | 111483.7 | 0.007497735 | 0 | 0.005895551 | 0.013393287 |
| Los Angele | 2025 | Annual | LDT1 | DSL | 2019 | AllSpeeds | 36.33432 | 1304.108375 | 233.9697 | 1.14E-05 | 0 | 0 | 1.14E-05 |
| Los Angele | 2025 | Annual | LDT1 | GAS | 2020 | AllSpeeds | 17748.45 | 657279.481 | 114821 | 0.007496694 | 0 | 0.005784043 | 0.013280736 |
| Los Angele | 2025 | Annual | LDT1 | DSL | 2020 | AllSpeeds | 30.67558 | 1136.017717 | 198.4511 | 9.39E-06 | 0 | 0 | 9.39E-06 |
| Los Angele | 2025 | Annual | LDT1 | GAS | 2021 | AllSpeeds | 18775.43 | 720583.0046 | 121840.3 | 0.007333889 | 0 | 0.005628592 | 0.012962481 |
| Los Angele | 2025 | Annual | LDT1 | DSL | 2021 | AllSpeeds | 23.60095 | 905.7873856 | 153.1549 | 7.03E-06 | 0 | 0 | 7.03E-06 |
| Los Angele | 2025 | Annual | LDT1 | GAS | 2022 | AllSpeeds | 19290.36 | 772147.8247 | 125374.8 | 0.007313429 | 0 | 0.005423071 | 0.012736499 |
| Los Angele | 2025 | Annual | LDT1 | DSL | 2022 | AllSpeeds | 19.83228 | 793.8440182 | 128.8969 | 5.76E-06 | 0 | 0 | 5.76E-06 |
| Los Angele | 2025 | Annual | LDT1 | GAS | 2023 | AllSpeeds | 19647.43 | 828344.8197 | 128088.4 | 0.00742245 | 0 | 0.005211908 | 0.012634358 |
| Los Angele | 2025 | Annual | LDT1 | DSL | 2023 | AllSpeeds | 26.52448 | 1118.290314 | 172.9223 | 7.49E-06 | 0 | 0 | 7.49E-06 |
| Los Angele | 2025 | Annual | LDT1 | GAS | 2024 | AllSpeeds | 20415.7 | 922048.7796 | 133505.3 | 0.007742129 | 0 | 0.005040639 | 0.012782768 |
| Los Angele | 2025 | Annual | LDT1 | DSL | 2024 | AllSpeeds | 31.56067 | 1425.404502 | 206.3861 | 8.71E-06 | 0 | 0 | 8.71E-06 |
| Los Angele | 2025 | Annual | LDT1 | GAS | 2025 | AllSpeeds | 20454.34 | 1028553.353 | 134167.1 | 0.007877173 | 0 | 0.004550085 | 0.012427258 |
| Los Angele | 2025 | Annual | LDT1 | DSL | 2025 | AllSpeeds | 36.4809 | 1834.463814 | 239.2908 | 1.01E-05 | 0 | 0 | 1.01E-05 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2010 | AllSpeeds | 538.7373589 | 18242.31018 | 0 | 0.002913968 | 1.25E-04 | 0 | 0.003038623 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2011 | AllSpeeds | 559.6949275 | 23026.62829 | 0 | 0.003603935 | 1.30E-04 | 0 | 0.003733439 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2012 | AllSpeeds | 321.7142506 | 14809.57398 | 0 | 0.002262813 | 7.44E-05 | 0 | 0.002337253 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2013 | AllSpeeds | 477.1208333 | 21238.80249 | 0 | 0.002553608 | 1.10E-04 | 0 | 0.002664006 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2014 | AllSpeeds | 855.4523413 | 37140.35661 | 0 | 0.004358192 | 1.98E-04 | 0 | 0.00455613 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2015 | AllSpeeds | 1636.179308 | 67725.80318 | 0 | 0.007738124 | 3.79E-04 | 0 | 0.00811671 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2016 | AllSpeeds | 792.7983996 | 39693.35537 | 0 | 0.004404878 | 1.83E-04 | 0 | 0.004588319 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2017 | AllSpeeds | 1121.88742 | 49188.95195 | 0 | 0.005286947 | 2.60E-04 | 0 | 0.005546534 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2018 | AllSpeeds | 446.4531742 | 30352.6649 | 0 | 0.003149735 | 1.03E-04 | 0 | 0.003253037 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2019 | AllSpeeds | 535.0236519 | 38608.37689 | 0 | 0.003854123 | 1.24E-04 | 0 | 0.003977919 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2020 | AllSpeeds | 591.3963505 | 45095.84699 | 0 | 0.004312952 | 1.37E-04 | 0 | 0.004449792 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2021 | AllSpeeds | 582.2060942 | 46535.10765 | 0 | 0.004244809 | 1.35E-04 | 0 | 0.004379522 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2022 | AllSpeeds | 587.8655966 | 48665.36019 | 0 | 0.004213552 | 1.36E-04 | 0 | 0.004349575 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2023 | AllSpeeds | 613.6834386 | 51774.94806 | 0 | 0.004234207 | 1.42E-04 | 0 | 0.004376203 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2024 | AllSpeeds | 671.4416723 | 56415.85639 | 0 | 0.0043378 | 1.55E-04 | 0 | 0.004493161 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2025 | AllSpeeds | 607.3321767 | 51039.84403 | 0 | 0.003675865 | 1.41E-04 | 0 | 0.003816393 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2026 | AllSpeeds | 152.3545483 | 5344.595606 | 0 | 3.59E-04 | 3.53E-05 | 0 | 3.94E-04 |
| Los Angele | 2025 | Annual | LDA/LDT1 | GAS&DSI | >2007 | AllSpeeds | 3661836.168 | 124964937.8 | 23323357.01 | 1.392054064 | 0 | 1.189386438 | 2.581440501 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | >2007 | AllSpeeds | 11091.34154 | 644898.3828 | 0 | 0.065504392 | 0.002566362 | 0 | 0.068070755 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDA | GAS | 2007 | AllSpeeds | 50240.71 | 1145520.067 | 296892.9 | 0.017095765 | 0 | 0.020266017 | 0.037361782 |
| Los Angele | 2026 | Annual | LDA | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | LDA | GAS | 2008 | AllSpeeds | 60994.2 | 1421298.572 | 362879.2 | 0.019818902 | 0 | 0.022251258 | 0.04207016 |
| Los Angele | 2026 | Annual | LDA | DSL | 2008 | AllSpeeds | 13.73636 | 320.091972 | 81.72318 | 3.28E-06 | 0 | 0 | 3.28E-06 |
| Los Angele | 2026 | Annual | LDA | GAS | 2009 | AllSpeeds | 61929.7 | 1475601.523 | 371541 | 0.021055598 | 0 | 0.02323195 | 0.044287548 |
| Los Angele | 2026 | Annual | LDA | DSL | 2009 | AllSpeeds | 474.5474 | 11307.08058 | 2847 | 1.14E-04 | 0 | 0 | 1.14E-04 |
| Los Angele | 2026 | Annual | LDA | GAS | 2010 | AllSpeeds | 91528.99 | 2232569.927 | 552779.8 | 0.03208562 | 0 | 0.034503475 | 0.066589095 |
| Los Angele | 2026 | Annual | LDA | DSL | 2010 | AllSpeeds | 915.6946 | 22335.61759 | 5530.242 | 2.22E-04 | 0 | 0 | 2.22E-04 |
| Los Angele | 2026 | Annual | LDA | GAS | 2011 | AllSpeeds | 104240.3 | 2604215.667 | 633717.9 | 0.037083572 | 0 | 0.03923082 | 0.076314392 |
| Los Angele | 2026 | Annual | LDA | DSL | 2011 | AllSpeeds | 892.5897 | 22299.43327 | 5426.403 | 2.18E-04 | 0 | 0 | 2.18E-04 |
| Los Angele | 2026 | Annual | LDA | GAS | 2012 | AllSpeeds | 123227.9 | 3156710.131 | 755311.2 | 0.044406842 | 0 | 0.046264175 | 0.090671017 |
| Los Angele | 2026 | Annual | LDA | DSL | 2012 | AllSpeeds | 866.3838 | 22194.07821 | 5310.401 | 2.13E-04 | 0 | 0 | 2.13E-04 |
| Los Angele | 2026 | Annual | LDA | GAS | 2013 | AllSpeeds | 136597.9 | 3591335.011 | 842724.7 | 0.049848127 | 0 | 0.051007312 | 0.100855439 |
| Los Angele | 2026 | Annual | LDA | DSL | 2013 | AllSpeeds | 847.1586 | 22272.94818 | 5226.446 | 2.09E-04 | 0 | 0 | 2.09E-04 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDT1 | 0.001226226 | 0.002701258 | 0.014328541 | 0.001219326 | 0.032868637 | 0.013954234 | 0 | 0.006294631 | 0.020248865 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.14E-05 | 1.30E-05 | 0 | 0 | 1.30E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0.001045436 | 0.002045289 | 0.013082067 | 9.63E-04 | 0.030416584 | 0.013952295 | 0 | 0.006175573 | 0.020127868 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.39E-06 | 1.07E-05 | 0 | 0 | 1.07E-05 |
| Los Angele | 2025 | Annual | LDT1 | 9.49E-04 | 0.001619355 | 0.012412703 | 8.06E-04 | 0.028749818 | 0.013649294 | 0 | 0.006009601 | 0.019658895 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 7.03E-06 | 8.01E-06 | 0 | 0 | 8.01E-06 |
| Los Angele | 2025 | Annual | LDT1 | 8.65E-04 | 0.001274835 | 0.011482395 | 6.78E-04 | 0.027036513 | 0.013611216 | 0 | 0.005790168 | 0.019401384 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 5.76E-06 | 6.55E-06 | 0 | 0 | 6.55E-06 |
| Los Angele | 2025 | Annual | LDT1 | 8.04E-04 | 0.001030152 | 0.010737805 | 5.87E-04 | 0.025793865 | 0.013814119 | 0 | 0.005564711 | 0.01937883 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 7.49E-06 | 8.52E-06 | 0 | 0 | 8.52E-06 |
| Los Angele | 2025 | Annual | LDT1 | 7.83E-04 | 8.83E-04 | 0.010287644 | 5.38E-04 | 0.025273709 | 0.014409084 | 0 | 0.005381849 | 0.019790933 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.71E-06 | 9.92E-06 | 0 | 0 | 9.92E-06 |
| Los Angele | 2025 | Annual | LDT1 | 7.49E-04 | 7.58E-04 | 0.009616076 | 4.91E-04 | 0.024041371 | 0.014660417 | 0 | 0.004858087 | 0.019518504 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.01E-05 | 1.15E-05 | 0 | 0 | 1.15E-05 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003038623 | 0.003317331 | 1.42E-04 | 0 | 0.003459241 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003733439 | 0.004102805 | 1.47E-04 | 0 | 0.004250236 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002337253 | 0.00257604 | 8.47E-05 | 0 | 0.002660784 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002664006 | 0.002907088 | 1.26E-04 | 0 | 0.003032768 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00455613 | 0.00496147 | 2.25E-04 | 0 | 0.005186808 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00811671 | 0.008809265 | 4.31E-04 | 0 | 0.009240256 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004588319 | 0.005014618 | 2.09E-04 | 0 | 0.005223452 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005546534 | 0.006018786 | 2.96E-04 | 0 | 0.006314307 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003253037 | 0.003585734 | 1.18E-04 | 0 | 0.003703335 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003977919 | 0.004387625 | 1.41E-04 | 0 | 0.004528558 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004449792 | 0.004909968 | 1.56E-04 | 0 | 0.00506575 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004379522 | 0.004832392 | 1.53E-04 | 0 | 0.004985752 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004349575 | 0.004796809 | 1.55E-04 | 0 | 0.00495166 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004376203 | 0.004820322 | 1.62E-04 | 0 | 0.004981974 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004493161 | 0.004938255 | 1.77E-04 | 0 | 0.005115121 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003816393 | 0.004184693 | 1.60E-04 | 0 | 0.004344672 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.94E-04 | 4.09E-04 | 4.01E-05 | 0 | 4.49E-04 |
| Los Angele | 2025 | Annual | LDA/LDT1 | 0.321609592 | 1.031855507 | 3.913720619 | 0.357487003 | 8.206113222 | 2.588612749 | 0 | 1.26989796 | 3.858510709 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.068070755 | 0.074571764 | 0.002921608 | 0 | 0.077493372 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDA | 0.013930858 | 0.053611409 | 0.105177 | 0.017679011 | 0.22776006 | 0.031817383 | 0 | 0.021637855 | 0.053455238 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | LDA | 0.015368578 | 0.059053279 | 0.1207749 | 0.019390965 | 0.256657882 | 0.036885484 | 0 | 0.02375748 | 0.060642964 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 3.28E-06 | 3.74E-06 | 0 | 0 | 3.74E-06 |
| Los Angele | 2026 | Annual | LDA | 0.014029184 | 0.053810682 | 0.1157916 | 0.017575979 | 0.245494993 | 0.03918713 | 0 | 0.024804557 | 0.063991687 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.14E-04 | 1.30E-04 | 0 | 0 | 1.30E-04 |
| Los Angele | 2026 | Annual | LDA | 0.018626425 | 0.071109965 | 0.1612653 | 0.023152245 | 0.34074303 | 0.059715401 | 0 | 0.036839064 | 0.096554465 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 2.22E-04 | 2.53E-04 | 0 | 0 | 2.53E-04 |
| Los Angele | 2026 | Annual | LDA | 0.018955035 | 0.071879186 | 0.172878 | 0.023343856 | 0.363370469 | 0.069017228 | 0 | 0.041886427 | 0.110903655 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 2.18E-04 | 2.48E-04 | 0 | 0 | 2.48E-04 |
| Los Angele | 2026 | Annual | LDA | 0.019687276 | 0.0740069 | 0.191523 | 0.023963375 | 0.399851568 | 0.082646751 | 0 | 0.049395867 | 0.132042618 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 2.13E-04 | 2.42E-04 | 0 | 0 | 2.42E-04 |
| Los Angele | 2026 | Annual | LDA | 0.02009413 | 0.074938543 | 0.2030616 | 0.024218766 | 0.423168478 | 0.092773673 | 0 | 0.054460075 | 0.147233748 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 2.09E-04 | 2.37E-04 | 0 | 0 | 2.37E-04 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDT1 | 0.001226226 | 0.002701258 | 0.014328541 | 0.001219326 | 0.039724215 | 0.429668883 | 0 | 0.102195 | 0.531863883 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.30E-05 | 1.06E-04 | 0 | 0 | 1.06E-04 |
| Los Angele | 2025 | Annual | LDT1 | 0.001045436 | 0.002045289 | 0.013082067 | 9.63E-04 | 0.037263716 | 0.42410555 | 0 | 0.096927531 | 0.521033081 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.07E-05 | 8.73E-05 | 0 | 0 | 8.73E-05 |
| Los Angele | 2025 | Annual | LDT1 | 9.49E-04 | 0.001619355 | 0.012412703 | 8.06E-04 | 0.035446233 | 0.411611376 | 0 | 0.088495798 | 0.500107174 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.01E-06 | 6.53E-05 | 0 | 0 | 6.53E-05 |
| Los Angele | 2025 | Annual | LDT1 | 8.65E-04 | 0.001274835 | 0.011482395 | 6.78E-04 | 0.033701398 | 0.403616884 | 0 | 0.081560299 | 0.485177183 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 6.55E-06 | 5.33E-05 | 0 | 0 | 5.33E-05 |
| Los Angele | 2025 | Annual | LDT1 | 8.04E-04 | 0.001030152 | 0.010737805 | 5.87E-04 | 0.032538337 | 0.404091855 | 0 | 0.076687396 | 0.480779251 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.52E-06 | 6.91E-05 | 0 | 0 | 6.91E-05 |
| Los Angele | 2025 | Annual | LDT1 | 7.83E-04 | 8.83E-04 | 0.010287644 | 5.38E-04 | 0.032281874 | 0.421834694 | 0 | 0.07429523 | 0.496129924 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.92E-06 | 8.01E-05 | 0 | 0 | 8.01E-05 |
| Los Angele | 2025 | Annual | LDT1 | 7.49E-04 | 7.58E-04 | 0.009616076 | 4.91E-04 | 0.031132616 | 0.442752971 | 0 | 0.070116989 | 0.51286996 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.15E-05 | 9.21E-05 | 0 | 0 | 9.21E-05 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003459241 | 0.012130892 | 0.001474058 | 0 | 0.01360495 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004250236 | 0.015003234 | 0.001531401 | 0 | 0.016534635 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002660784 | 0.009420125 | 8.80E-04 | 0 | 0.010300379 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003032768 | 0.010630707 | 0.001305467 | 0 | 0.011936174 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005186808 | 0.01814322 | 0.002340633 | 0 | 0.020483852 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.009240256 | 0.032213925 | 0.004476807 | 0 | 0.036690732 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005223452 | 0.018337573 | 0.002169203 | 0 | 0.020506776 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.006314307 | 0.022009639 | 0.003069635 | 0 | 0.025079274 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003703335 | 0.013112394 | 0.001221556 | 0 | 0.01433395 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004528558 | 0.01604477 | 0.001463897 | 0 | 0.017508667 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00506575 | 0.017954886 | 0.00161814 | 0 | 0.019573026 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004985752 | 0.017671203 | 0.001592994 | 0 | 0.019264197 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00495166 | 0.017541082 | 0.001608479 | 0 | 0.019149562 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004981974 | 0.017627066 | 0.00167912 | 0 | 0.019306186 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005115121 | 0.018058325 | 0.001837155 | 0 | 0.01989548 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004344672 | 0.015302683 | 0.001661743 | 0 | 0.016964426 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.49E-04 | 0.001494048 | 4.17E-04 | 0 | 0.001910911 |
| Los Angele | 2025 | Annual | LDA/LDT1 | 0.321609592 | 1.031855507 | 3.913720619 | 0.357487003 | 9.483183429 | 78.93313558 | 0 | 20.19413603 | 99.12727161 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.077493372 | 0.272695774 | 0.030347403 | 0 | 0.303043177 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDA | 0.013930858 | 0.053611409 | 0.105177 | 0.017679011 | 0.243853516 | 1.0340435 | 0 | 0.3825061 | 1.4165496 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | LDA | 0.015368578 | 0.059053279 | 0.1207749 | 0.019390965 | 0.275230686 | 1.180015862 | 0 | 0.4184892 | 1.598505062 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 3.74E-06 | 3.10E-05 | 0 | 0 | 3.10E-05 |
| Los Angele | 2026 | Annual | LDA | 0.014029184 | 0.053810682 | 0.1157916 | 0.017575979 | 0.265199132 | 1.218131879 | 0 | 0.4222875 | 1.640419379 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.30E-04 | 0.001078388 | 0 | 0 | 0.001078388 |
| Los Angele | 2026 | Annual | LDA | 0.018626425 | 0.071109965 | 0.1612653 | 0.023152245 | 0.3707084 | 1.804559948 | 0 | 0.6075092 | 2.412069148 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 2.53E-04 | 0.002095999 | 0 | 0 | 0.002095999 |
| Los Angele | 2026 | Annual | LDA | 0.018955035 | 0.071879186 | 0.172878 | 0.023343856 | 0.397959732 | 2.096422383 | 0 | 0.6934177 | 2.789840083 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 2.48E-04 | 0.002055066 | 0 | 0 | 0.002055066 |
| Los Angele | 2026 | Annual | LDA | 0.019687276 | 0.0740069 | 0.191523 | 0.023963375 | 0.441223169 | 2.524130678 | 0 | 0.8201977 | 3.344328378 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 2.42E-04 | 0.002003379 | 0 | 0 | 0.002003379 |
| Los Angele | 2026 | Annual | LDA | 0.02009413 | 0.074938543 | 0.2030616 | 0.024218766 | 0.469546787 | 2.850022902 | 0 | 0.9072896 | 3.757312502 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 2.37E-04 | 0.001963767 | 0 | 0 | 0.001963767 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDT1 | 0.038938955 | 0 | 0.006413682 | 0.045352637 | 297.7865209 | 0 | 10.62216 | 308.4086809 | 176.0811698 |
| Los Angele | 2025 | Annual | LDT1 | 3.55E-04 | 0 | 0 | 3.55E-04 | 0.456456408 | 0 | 0 | 0.456456408 | 0.269902674 |
| Los Angele | 2025 | Annual | LDT1 | 0.0384215 | 0 | 0.005999736 | 0.044421236 | 315.0629535 | 0 | 10.93947 | 326.0024235 | 186.2967244 |
| Los Angele | 2025 | Annual | LDT1 | 2.94E-04 | 0 | 0 | 2.94E-04 | 0.397622233 | 0 | 0 | 0.397622233 | 0.235114026 |
| Los Angele | 2025 | Annual | LDT1 | 0.039920533 | 0 | 0.005854821 | 0.045775354 | 345.5283914 | 0 | 11.6088 | 357.1371914 | 204.3109378 |
| Los Angele | 2025 | Annual | LDT1 | 2.22E-04 | 0 | 0 | 2.22E-04 | 0.317038366 | 0 | 0 | 0.317038366 | 0.187464786 |
| Los Angele | 2025 | Annual | LDT1 | 0.039650587 | 0 | 0.005327631 | 0.044978219 | 370.3873677 | 0 | 11.94623 | 382.3335977 | 219.0100505 |
| Los Angele | 2025 | Annual | LDT1 | 1.82E-04 | 0 | 0 | 1.82E-04 | 0.277856638 | 0 | 0 | 0.277856638 | 0.16429663 |
| Los Angele | 2025 | Annual | LDT1 | 0.039754056 | 0 | 0.004826576 | 0.044580631 | 397.463764 | 0 | 12.20477 | 409.668534 | 235.0203236 |
| Los Angele | 2025 | Annual | LDT1 | 2.39E-04 | 0 | 0 | 2.39E-04 | 0.39141743 | 0 | 0 | 0.39141743 | 0.231445126 |
| Los Angele | 2025 | Annual | LDT1 | 0.041159065 | 0 | 0.004383964 | 0.045543029 | 442.5761655 | 0 | 12.72139 | 455.2975555 | 261.6952867 |
| Los Angele | 2025 | Annual | LDT1 | 2.81E-04 | 0 | 0 | 2.81E-04 | 0.498911741 | 0 | 0 | 0.498911741 | 0.295006513 |
| Los Angele | 2025 | Annual | LDT1 | 0.04235809 | 0 | 0.003736134 | 0.046094223 | 493.8606092 | 0 | 12.7848 | 506.6454092 | 292.0197782 |
| Los Angele | 2025 | Annual | LDT1 | 3.29E-04 | 0 | 0 | 3.29E-04 | 0.642088257 | 0 | 0 | 0.642088257 | 0.379666786 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.041071871 | 0.002226999 | 0 | 0.04329887 | 22.59616437 | 0.442890903 | 0 | 23.03905528 | 20.33654794 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.047868124 | 0.002313632 | 0 | 0.050181756 | 28.52234572 | 0.460119922 | 0 | 28.98246565 | 25.67011115 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.027307189 | 0.001329882 | 0 | 0.028637071 | 18.34414417 | 0.264478252 | 0 | 18.60862243 | 16.50972976 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.031861088 | 0.001972292 | 0 | 0.033833381 | 26.24727591 | 0.392236538 | 0 | 26.63951245 | 23.62254832 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.053787303 | 0.003536216 | 0 | 0.057323518 | 45.89868887 | 0.703259303 | 0 | 46.60194818 | 41.30881998 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.094324593 | 0.006763536 | 0 | 0.101088129 | 83.69670764 | 1.345087581 | 0 | 85.04179522 | 75.32703687 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.052940274 | 0.003277221 | 0 | 0.056217494 | 49.05372847 | 0.651752089 | 0 | 49.70548056 | 44.14835563 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.062519817 | 0.004637588 | 0 | 0.067157405 | 60.78854938 | 0.922293069 | 0 | 61.71084245 | 54.70969444 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.036554532 | 0.00184552 | 0 | 0.038400052 | 37.5103432 | 0.367024945 | 0 | 37.87736814 | 33.75930888 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.043760046 | 0.002211647 | 0 | 0.045971693 | 47.71289348 | 0.439837899 | 0 | 48.15273138 | 42.94160413 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.047720752 | 0.002444677 | 0 | 0.050165429 | 55.73022015 | 0.486181363 | 0 | 56.21640151 | 50.15719813 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.045545797 | 0.002406687 | 0 | 0.047952484 | 57.50888314 | 0.47862614 | 0 | 57.98750928 | 51.75799482 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.043577373 | 0.002430082 | 0 | 0.046007455 | 60.14148572 | 0.483278764 | 0 | 60.62476448 | 54.12733714 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.041895015 | 0.002536806 | 0 | 0.044431821 | 63.98436766 | 0.504503368 | 0 | 64.48887103 | 57.5859309 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.040691765 | 0.002775564 | 0 | 0.043467329 | 69.71968167 | 0.551985867 | 0 | 70.27166754 | 62.74771351 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.032347425 | 0.002510552 | 0 | 0.034857977 | 63.07591351 | 0.499282056 | 0 | 63.57519557 | 56.76832216 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.002919506 | 6.30E-04 | 0 | 0.0035493 | 6.604942797 | 0.125249238 | 0 | 6.730192035 | 5.944448518 |
| Los Angele | 2025 | Annual | LDA/LDT1 | 7.226766514 | 0 | 1.223763526 | 8.450530039 | 52218.92384 | 0 | 1929.073935 | 54147.99778 | 32729.83928 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.746692467 | 0.045848698 | 0 | 0.792541165 | 797.1363359 | 9.118087297 | 0 | 806.2544232 | 717.4227023 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDA | 0.073896462 | 0 | 0.017923817 | 0.091820279 | 470.374141 | 0 | 24.23909 | 494.613231 | 423.3367269 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | LDA | 0.089497955 | 0 | 0.021166587 | 0.110664542 | 583.8746644 | 0 | 29.63965 | 613.5143144 | 525.4871979 |
| Los Angele | 2026 | Annual | LDA | 9.89E-05 | 0 | 0 | 9.89E-05 | 0.112036718 | 0 | 0 | 0.112036718 | 0.100833047 |
| Los Angele | 2026 | Annual | LDA | 0.097414204 | 0 | 0.023171255 | 0.120585459 | 607.8589165 | 0 | 30.43145 | 638.2903665 | 547.0730248 |
| Los Angele | 2026 | Annual | LDA | 0.003449699 | 0 | 0 | 0.003449699 | 3.957638158 | 0 | 0 | 3.957638158 | 3.561874342 |
| Los Angele | 2026 | Annual | LDA | 0.152468946 | 0 | 0.036169384 | 0.18863833 | 919.6239044 | 0 | 45.273 | 964.8969044 | 798.693361 |
| Los Angele | 2026 | Annual | LDA | 0.006713482 | 0 | 0 | 0.006713482 | 7.81778272 | 0 | 0 | 7.81778272 | 6.789744292 |
| Los Angele | 2026 | Annual | LDA | 0.177503372 | 0 | 0.041342966 | 0.218846338 | 1072.73914 | 0 | 51.90333 | 1124.64247 | 826.4382333 |
| Los Angele | 2026 | Annual | LDA | 0.006591857 | 0 | 0 | 0.006591857 | 7.805117225 | 0 | 0 | 7.805117225 | 6.01306231 |
| Los Angele | 2026 | Annual | LDA | 0.21462005 | 0 | 0.049089145 | 0.263709195 | 1300.277932 | 0 | 61.85992 | 1362.137852 | 874.1768539 |
| Los Angele | 2026 | Annual | LDA | 0.006436864 | 0 | 0 | 0.006436864 | 7.768241291 | 0 | 0 | 7.768241291 | 5.22258862 |
| Los Angele | 2026 | Annual | LDA | 0.243360389 | 0 | 0.05449697 | 0.297857359 | 1479.26315 | 0 | 69.01717 | 1548.28032 | 969.2132159 |
| Los Angele | 2026 | Annual | LDA | 0.006321867 | 0 | 0 | 0.006321867 | 7.795846621 | 0 | 0 | 7.795846621 | 5.107838706 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDT1 | 0 | 6.280883208 | 182.362053 | 0.001726406 | 0 | 6.66E-04 | 0.002392398 | 0.005479706 | 0.025172399 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0.269902674 | 5.89E-06 | 0 | 0 | 5.89E-06 | 1.15E-05 | 5.28E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 6.468508611 | 192.765233 | 0.001826012 | 0 | 6.86E-04 | 0.002511899 | 0.005796213 | 0.02662636 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0.235114026 | 4.88E-06 | 0 | 0 | 4.88E-06 | 1.00E-05 | 4.60E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 6.86428344 | 211.1752213 | 0.002001974 | 0 | 7.28E-04 | 0.002729826 | 0.006354454 | 0.029190782 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0.187464786 | 3.68E-06 | 0 | 0 | 3.68E-06 | 7.99E-06 | 3.67E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 7.063805799 | 226.0738563 | 0.002145355 | 0 | 7.49E-04 | 0.002894364 | 0.006809179 | 0.031279672 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0.16429663 | 3.03E-06 | 0 | 0 | 3.03E-06 | 7.00E-06 | 3.22E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 7.216680501 | 242.2370041 | 0.00230149 | 0 | 7.65E-04 | 0.003066709 | 0.007304751 | 0.033556208 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0.231445126 | 3.97E-06 | 0 | 0 | 3.97E-06 | 9.86E-06 | 4.53E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 7.522157907 | 269.2174446 | 0.002561935 | 0 | 7.98E-04 | 0.003359546 | 0.008131078 | 0.037352152 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0.295006513 | 4.67E-06 | 0 | 0 | 4.67E-06 | 1.26E-05 | 5.77E-05 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 7.55965224 | 299.5794304 | 0.002857939 | 0 | 8.02E-04 | 0.003659525 | 0.009070288 | 0.041666646 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 0.379666786 | 5.46E-06 | 0 | 0 | 5.46E-06 | 1.62E-05 | 7.43E-05 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.398601812 | 0 | 20.73514975 | 0.00141364 | 5.23E-06 | 0 | 0.001418874 | 2.41E-04 | 0.002620969 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.41410793 | 0 | 26.08421908 | 0.001742463 | 5.44E-06 | 0 | 0.001747901 | 3.05E-04 | 0.003308357 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.238030427 | 0 | 16.74776018 | 0.001089583 | 3.13E-06 | 0 | 0.001092709 | 1.96E-04 | 0.002127769 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.353012884 | 0 | 23.97556121 | 0.00119298 | 4.64E-06 | 0 | 0.001197615 | 2.81E-04 | 0.00305149 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.632933373 | 0 | 41.94175336 | 0.002023609 | 8.31E-06 | 0 | 0.00203192 | 4.91E-04 | 0.00533615 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.210578823 | 0 | 76.5376157 | 0.00356818 | 1.59E-05 | 0 | 0.003584076 | 8.96E-04 | 0.009730522 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.58657688 | 0 | 44.73493251 | 0.002015279 | 7.70E-06 | 0 | 0.002022982 | 5.25E-04 | 0.005702953 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.830063762 | 0 | 55.5397582 | 0.002397295 | 1.09E-05 | 0 | 0.002408195 | 6.51E-04 | 0.007067235 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.33032245 | 0 | 34.08963133 | 0.001413613 | 4.34E-06 | 0 | 0.001417951 | 4.01E-04 | 0.004360927 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.395854109 | 0 | 43.33745824 | 0.001709308 | 5.20E-06 | 0 | 0.001714507 | 5.11E-04 | 0.005547068 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.437563227 | 0 | 50.59476136 | 0.001886469 | 5.75E-06 | 0 | 0.001892215 | 5.97E-04 | 0.006479157 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.430763526 | 0 | 52.18875835 | 0.001826703 | 5.66E-06 | 0 | 0.00183236 | 6.16E-04 | 0.006685944 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.434950887 | 0 | 54.56228803 | 0.001778822 | 5.71E-06 | 0 | 0.001784533 | 6.44E-04 | 0.006992008 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.454053031 | 0 | 58.03998393 | 0.001747567 | 5.96E-06 | 0 | 0.00175353 | 6.85E-04 | 0.007438779 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.496787281 | 0 | 63.24450079 | 0.001743343 | 6.52E-06 | 0 | 0.001749867 | 7.46E-04 | 0.008105563 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.44935385 | 0 | 57.21767601 | 0.001432303 | 5.90E-06 | 0 | 0.001438203 | 6.75E-04 | 0.007333163 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.112724314 | 0 | 6.057172831 | 1.35E-04 | 1.48E-06 | 0 | 1.36E-04 | 7.07E-05 | 7.68E-04 |
| Los Angele | 2025 | Annual | LDA/LDT1 | 0 | 1227.603379 | 33957.44266 | 0.291704817 | 0 | 0.107953869 | 0.399658687 | 1.102002175 | 5.062322944 |
| Los Angele | 2025 | Annual | T6 instate heavy | 8.206278567 | 0 | 725.6289808 | 0.029115966 | 0.00010776 | 0 | 0.029223725 | 0.008530545 | 0.09265594 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavl (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDA | 0 | 21.815181 | 445.1519079 | 3.66E-04 | 0 | 5.85E-05 | 4.25E-04 | 0.010101759 | 0.046404958 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | LDA | 0 | 26.675685 | 552.1628829 | 4.55E-04 | 0 | 9.30E-05 | 5.48E-04 | 0.012533709 | 0.057576742 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0.100833047 | 1.96E-06 | 0 | 0 | 1.96E-06 | 2.82E-06 | 1.30E-05 |
| Los Angele | 2026 | Annual | LDA | 0 | 27.388305 | 574.4613298 | 6.31E-04 | 0 | 1.51E-04 | 7.82E-04 | 0.013012578 | 0.059776541 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 3.561874342 | 6.84E-05 | 0 | 0 | 6.84E-05 | 9.97E-05 | 4.58E-04 |
| Los Angele | 2026 | Annual | LDA | 0 | 39.3196005 | 838.0129615 | 9.55E-04 | 0 | 2.77E-04 | 0.00123185 | 0.019687897 | 0.090441294 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 6.789744292 | 1.33E-04 | 0 | 0 | 1.33E-04 | 1.97E-04 | 9.05E-04 |
| Los Angele | 2026 | Annual | LDA | 0 | 39.98632543 | 866.4245587 | 0.001671082 | 0 | 5.91E-04 | 0.002262349 | 0.022965247 | 0.1054966 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 6.01306231 | 1.31E-04 | 0 | 0 | 1.31E-04 | 1.97E-04 | 9.03E-04 |
| Los Angele | 2026 | Annual | LDA | 0 | 41.58842422 | 915.7652781 | 0.002700714 | 0 | 9.91E-04 | 0.003692056 | 0.027837416 | 0.1278782 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 5.22258862 | 1.28E-04 | 0 | 0 | 1.28E-04 | 1.96E-04 | 8.99E-04 |
| Los Angele | 2026 | Annual | LDA | 0 | 45.22004978 | 1014.433266 | 0.004608707 | 0 | 0.002072162 | 0.006680869 | 0.031670153 | 0.1454848 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 5.107838706 | 1.25E-04 | 0 | 0 | 1.25E-04 | 1.96E-04 | 9.02E-04 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDT1 | 0.033044503 | 0.00160182 | 0 | 6.18E-04 | 0.002219751 | 0.001369927 | 0.010788172 | 0.01437785 | 0.002979574 |
| Los Angele | 2025 | Annual | LDT1 | 7.02E-05 | 5.42E-06 | 0 | 0 | 5.42E-06 | 2.88E-06 | 2.26E-05 | 3.09E-05 | 4.36E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0.034934472 | 0.001694238 | 0 | 6.36E-04 | 0.002330628 | 0.001449053 | 0.011411296 | 0.015190977 | 0.003151937 |
| Los Angele | 2025 | Annual | LDT1 | 6.09E-05 | 4.49E-06 | 0 | 0 | 4.49E-06 | 2.50E-06 | 1.97E-05 | 2.67E-05 | 3.80E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0.038275063 | 0.001857501 | 0 | 6.75E-04 | 0.002532829 | 0.001588614 | 0.012510335 | 0.016631777 | 0.003455831 |
| Los Angele | 2025 | Annual | LDT1 | 4.84E-05 | 3.38E-06 | 0 | 0 | 3.38E-06 | 2.00E-06 | 1.57E-05 | 2.11E-05 | 3.03E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0.040983215 | 0.001990536 | 0 | 6.95E-04 | 0.002685493 | 0.001702295 | 0.01340557 | 0.017793357 | 0.00370384 |
| Los Angele | 2025 | Annual | LDT1 | 4.22E-05 | 2.78E-06 | 0 | 0 | 2.78E-06 | 1.75E-06 | 1.38E-05 | 1.83E-05 | 2.65E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0.043927669 | 0.002135403 | 0 | 7.10E-04 | 0.002845401 | 0.001826188 | 0.01438123 | 0.019052818 | 0.003974124 |
| Los Angele | 2025 | Annual | LDT1 | 5.91E-05 | 3.65E-06 | 0 | 0 | 3.65E-06 | 2.47E-06 | 1.94E-05 | 2.55E-05 | 3.74E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0.048842776 | 0.002377053 | 0 | 7.40E-04 | 0.003117104 | 0.00203277 | 0.016008062 | 0.021157936 | 0.004424722 |
| Los Angele | 2025 | Annual | LDT1 | 7.50E-05 | 4.29E-06 | 0 | 0 | 4.29E-06 | 3.14E-06 | 2.47E-05 | 3.22E-05 | 4.76E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0.05439646 | 0.002651696 | 0 | 7.44E-04 | 0.003395436 | 0.002267572 | 0.017857132 | 0.02352014 | 0.004936965 |
| Los Angele | 2025 | Annual | LDT1 | 9.60E-05 | 5.03E-06 | 0 | 0 | 5.03E-06 | 4.04E-06 | 3.18E-05 | 4.09E-05 | 6.13E-06 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.004281147 | 0.001300549 | 4.82E-06 | 0 | 0.001305364 | 6.03E-05 | 0.001123272 | 0.002488963 | 2.16E-04 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.005360848 | 0.001603066 | 5.00E-06 | 0 | 0.001608069 | 7.61E-05 | 0.001417867 | 0.003102084 | 2.72E-04 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.003416375 | 0.001002416 | 2.88E-06 | 0 | 0.001005292 | 4.90E-05 | 9.12E-04 | 0.001966168 | 1.75E-04 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.004530047 | 0.001097541 | 4.26E-06 | 0 | 0.001101806 | 7.02E-05 | 0.001307782 | 0.002479823 | 2.50E-04 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.007859353 | 0.00186172 | 7.65E-06 | 0 | 0.001869366 | 1.23E-04 | 0.002286922 | 0.004279109 | 4.38E-04 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.014210458 | 0.003282726 | 1.46E-05 | 0 | 0.00329735 | 2.24E-04 | 0.004170224 | 0.007691539 | 7.99E-04 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.008250988 | 0.001854057 | 7.09E-06 | 0 | 0.001861143 | 1.31E-04 | 0.002444123 | 0.004436529 | 4.68E-04 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.010126089 | 0.002205511 | 1.00E-05 | 0 | 0.002215539 | 1.63E-04 | 0.003028815 | 0.005407019 | 5.80E-04 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.006180375 | 0.001300524 | 3.99E-06 | 0 | 0.001304515 | 1.00E-04 | 0.001868969 | 0.003273858 | 3.58E-04 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.007772276 | 0.001572564 | 4.78E-06 | 0 | 0.001577346 | 1.28E-04 | 0.002377315 | 0.004082336 | 4.55E-04 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.008967888 | 0.001735551 | 5.29E-06 | 0 | 0.001740837 | 1.49E-04 | 0.002776782 | 0.004666748 | 5.32E-04 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.009133858 | 0.001680567 | 5.20E-06 | 0 | 0.001685771 | 1.54E-04 | 0.002865404 | 0.004705064 | 5.49E-04 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.009420274 | 0.001636516 | 5.25E-06 | 0 | 0.001641771 | 1.61E-04 | 0.002996575 | 0.004799279 | 5.74E-04 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.009877174 | 0.001607762 | 5.49E-06 | 0 | 0.001613247 | 1.71E-04 | 0.003188048 | 0.004972512 | 6.10E-04 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.010601683 | 0.001603876 | 6.00E-06 | 0 | 0.001609877 | 1.87E-04 | 0.003473813 | 0.005270253 | 6.65E-04 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.009446508 | 0.001317718 | 5.43E-06 | 0 | 0.001323147 | 1.69E-04 | 0.003142784 | 0.004634716 | 6.02E-04 |
| Los Angele | 2025 | Annual | T6 instate heavy | 9.75E-04 | 1.24E-04 | 1.36E-06 | 0 | 1.25E-04 | 1.77E-05 | 3.29E-04 | 4.72E-04 | 6.30E-05 |
| Los Angele | 2025 | Annual | LDA/LDT1 | 6.563983806 | 0.270639653 | 0 | 0.100163379 | 0.370803032 | 0.275500541 | 2.169566812 | 2.815870385 | 0.522489534 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.130410211 | 0.026786689 | 9.91388E-05 | 0 | 0.026885827 | 0.002132636 | 0.039709689 | 0.068728153 | 0.007605053 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDA | 0.056931586 | 3.40E-04 | 0 | 5.43E-05 | 3.94E-04 | 0.00252544 | 0.019887839 | 0.022807487 | 0.004712296 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | LDA | 0.070658218 | 4.22E-04 | 0 | 8.63E-05 | 5.08E-04 | 0.003133427 | 0.024675744 | 0.028317409 | 0.005847668 |
| Los Angele | 2026 | Annual | LDA | 1.78E-05 | 1.81E-06 | 0 | 0 | 1.81E-06 | 7.06E-07 | 5.56E-06 | 8.07E-06 | 1.07E-06 |
| Los Angele | 2026 | Annual | LDA | 0.073571198 | 5.86E-04 | 0 | 1.40E-04 | 7.26E-04 | 0.003253144 | 0.025618516 | 0.029597301 | 0.006087737 |
| Los Angele | 2026 | Annual | LDA | 6.26E-04 | 6.30E-05 | 0 | 0 | 6.30E-05 | 2.49E-05 | 1.96E-04 | 2.84E-04 | 3.78E-05 |
| Los Angele | 2026 | Annual | LDA | 0.111361041 | 8.86E-04 | 0 | 2.57E-04 | 0.001142953 | 0.004921974 | 0.038760554 | 0.044825481 | 0.009209489 |
| Los Angele | 2026 | Annual | LDA | 0.001234958 | 1.23E-04 | 0 | 0 | 1.23E-04 | 4.92E-05 | 3.88E-04 | 5.60E-04 | 7.46E-05 |
| Los Angele | 2026 | Annual | LDA | 0.130724196 | 0.001550489 | 0 | 5.49E-04 | 0.002099086 | 0.005741312 | 0.045212846 | 0.053053244 | 0.010742695 |
| Los Angele | 2026 | Annual | LDA | 0.001230768 | 1.20E-04 | 0 | 0 | 1.20E-04 | 4.92E-05 | 3.87E-04 | 5.57E-04 | 7.45E-05 |
| Los Angele | 2026 | Annual | LDA | 0.159407672 | 0.002505817 | 0 | 9.20E-04 | 0.003425619 | 0.006959354 | 0.054804917 | 0.06518989 | 0.013021035 |
| Los Angele | 2026 | Annual | LDA | 0.001222505 | 1.17E-04 | 0 | 0 | 1.17E-04 | 4.89E-05 | 3.85E-04 | 5.52E-04 | 7.42E-05 |
| Los Angele | 2026 | Annual | LDA | 0.183835822 | 0.00427612 | 0 | 0.001922624 | 0.006198744 | 0.007917538 | 0.06235062 | 0.076466902 | 0.014813025 |
| Los Angele | 2026 | Annual | LDA | 0.001224124 | 1.15E-04 | 0 | 0 | 1.15E-04 | 4.91E-05 | 3.87E-04 | 5.51E-04 | 7.44E-05 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDT1 | 0 | 1.08E-04 | 0.003087393 | 32.93153 | 0 | 1.06E-04 | 1.71E-03 | 1.46E-04 | 7.70E-06 | 9.87E-05 | 7.14E-06 | 3.91E-05 | 9.94E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 4.36E-06 | 0 | 0.041081078 | 1.75E-05 | 1.63E-04 | 5.45E-04 | 9.03E-06 | 9.87E-05 | 8.31E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 1.11E-04 | 0.003262836 | 34.80289 | 0 | 9.26E-05 | 1.59E-03 | 1.35E-04 | 7.64E-06 | 9.87E-05 | 7.09E-06 | 3.91E-05 | 9.93E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 3.80E-06 | 0 | 0.035785999 | 1.65E-05 | 1.54E-04 | 5.18E-04 | 8.59E-06 | 9.87E-05 | 7.90E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 1.17E-04 | 0.003573274 | 38.11416 | 0 | 7.98E-05 | 1.39E-03 | 1.27E-04 | 7.58E-06 | 9.87E-05 | 7.03E-06 | 3.91E-05 | 9.92E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 3.03E-06 | 0 | 0.028533455 | 1.55E-05 | 1.44E-04 | 4.89E-04 | 8.12E-06 | 9.87E-05 | 7.47E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 1.21E-04 | 0.003824536 | 40.79424 | 0 | 7.00E-05 | 1.26E-03 | 1.17E-04 | 7.50E-06 | 9.87E-05 | 6.96E-06 | 3.91E-05 | 9.91E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 2.65E-06 | 0 | 0.025007099 | 1.45E-05 | 1.34E-04 | 4.60E-04 | 7.63E-06 | 9.87E-05 | 7.02E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 1.23E-04 | 0.004097318 | 43.70385 | 0 | 6.23E-05 | 1.16E-03 | 1.08E-04 | 7.40E-06 | 9.87E-05 | 6.87E-06 | 3.91E-05 | 9.89E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 3.74E-06 | 0 | 0.035227571 | 1.34E-05 | 1.24E-04 | 4.28E-04 | 7.10E-06 | 9.87E-05 | 6.53E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 1.28E-04 | 0.004553029 | 48.56466 | 0 | 5.48E-05 | 1.08E-03 | 9.88E-05 | 7.29E-06 | 9.87E-05 | 6.76E-06 | 3.91E-05 | 9.88E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 4.76E-06 | 0 | 0.044902056 | 1.22E-05 | 1.12E-04 | 3.94E-04 | 6.55E-06 | 9.87E-05 | 6.02E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 1.29E-04 | 0.005065824 | 54.03437 | 0 | 4.67E-05 | 9.97E-04 | 8.96E-05 | 7.12E-06 | 9.87E-05 | 6.60E-06 | 3.91E-05 | 9.85E-06 |
| Los Angele | 2025 | Annual | LDT1 | 0 | 0 | 6.13E-06 | 0 | 0.057787944 | 1.10E-05 | 1.00E-04 | 3.58E-04 | 5.96E-06 | 9.87E-05 | 5.48E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2025 | Annual | T6 instate heavy | 4.23E-06 | 0 | 2.20E-04 | 0 | 2.073514975 | 3.33E-04 | 1.49E-03 | 4.75E-03 | 1.56E-04 | 3.14E-04 | 1.43E-04 | 1.30E-04 | 2.41E-05 |
| Los Angele | 2025 | Annual | T6 instate heavy | 4.39E-06 | 0 | 2.77E-04 | 0 | 2.608421908 | 3.24E-04 | 1.44E-03 | 4.36E-03 | 1.52E-04 | 3.14E-04 | 1.40E-04 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.52E-06 | 0 | 1.78E-04 | 0 | 1.674776018 | 3.16E-04 | 1.39E-03 | 3.87E-03 | 1.48E-04 | 3.14E-04 | 1.36E-04 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2025 | Annual | T6 instate heavy | 3.74E-06 | 0 | 2.54E-04 | 0 | 2.397556121 | 2.51E-04 | 1.12E-03 | 3.19E-03 | 1.13E-04 | 3.14E-04 | 1.04E-04 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2025 | Annual | T6 instate heavy | 6.71E-06 | 0 | 4.45E-04 | 0 | 4.194175336 | 2.45E-04 | 1.10E-03 | 3.09E-03 | 1.09E-04 | 3.14E-04 | 1.01E-04 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.28E-05 | 0 | 8.11E-04 | 0 | 7.65376157 | 2.40E-04 | 1.08E-03 | 2.99E-03 | 1.06E-04 | 3.14E-04 | 9.74E-05 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2025 | Annual | T6 instate heavy | 6.22E-06 | 0 | 4.74E-04 | 0 | 4.473493251 | 2.31E-04 | 1.03E-03 | 2.83E-03 | 1.02E-04 | 3.14E-04 | 9.38E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2025 | Annual | T6 instate heavy | 8.80E-06 | 0 | 5.89E-04 | 0 | 5.55397582 | 2.26E-04 | 1.02E-03 | 2.73E-03 | 9.79E-05 | 3.14E-04 | 9.01E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2025 | Annual | T6 instate heavy | 3.50E-06 | 0 | 3.61E-04 | 0 | 3.408963133 | 2.14E-04 | 9.44E-04 | 2.53E-03 | 9.34E-05 | 3.14E-04 | 8.60E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2025 | Annual | T6 instate heavy | 4.20E-06 | 0 | 4.59E-04 | 0 | 4.333745824 | 2.06E-04 | 9.07E-04 | 2.38E-03 | 8.88E-05 | 3.14E-04 | 8.17E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2025 | Annual | T6 instate heavy | 4.64E-06 | 0 | 5.36E-04 | 0 | 5.059476136 | 1.97E-04 | 8.68E-04 | 2.22E-03 | 8.39E-05 | 3.14E-04 | 7.72E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2025 | Annual | T6 instate heavy | 4.57E-06 | 0 | 5.53E-04 | 0 | 5.218875835 | 1.88E-04 | 8.28E-04 | 2.06E-03 | 7.88E-05 | 3.14E-04 | 7.25E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2025 | Annual | T6 instate heavy | 4.61E-06 | 0 | 5.78E-04 | 0 | 5.456228803 | 1.79E-04 | 7.87E-04 | 1.89E-03 | 7.33E-05 | 3.14E-04 | 6.75E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2025 | Annual | T6 instate heavy | 4.81E-06 | 0 | 6.15E-04 | 0 | 5.803998393 | 1.69E-04 | 7.46E-04 | 1.72E-03 | 6.77E-05 | 3.14E-04 | 6.23E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2025 | Annual | T6 instate heavy | 5.27E-06 | 0 | 6.70E-04 | 0 | 6.324450079 | 1.59E-04 | 7.05E-04 | 1.54E-03 | 6.20E-05 | 3.14E-04 | 5.71E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2025 | Annual | T6 instate heavy | 4.76E-06 | 0 | 6.07E-04 | 0 | 5.721767601 | 1.50E-04 | 6.65E-04 | 1.37E-03 | 5.64E-05 | 3.14E-04 | 5.18E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.19E-06 | 0 | 6.42E-05 | 0 | 0.605717283 | 1.47E-04 | 7.15E-04 | 1.33E-03 | 5.10E-05 | 3.14E-04 | 4.69E-05 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2025 | Annual | LDA/LDT1 | 0 | 0.019610103 | 0.542099637 | 5768.393866 | 12.27282608 | 1.31E-04 | 1.59E-03 | 1.35E-04 | 6.40E-06 | 9.87E-05 | 5.93E-06 | 3.91E-05 | 8.68E-06 |
| Los Angele | 2025 | Annual | T6 instate heavy | 8.69908E-05 | 0 | 0.007692044 | 0 | 72.56289808 | 2.11E-04 | 9.40E-04 | 2.46E-03 | 9.06E-05 | 3.14E-04 | 8.34E-05 | 1.30E-04 | 2.39E-05 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDA | 0 | 2.49E-04 | 0.004960889 | 52.9151 | 0 | 3.98E-04 | 2.47E-03 | 1.60E-04 | 7.42E-07 | 9.87E-05 | 6.88E-07 | 3.91E-05 | 8.66E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2026 | Annual | LDA | 0 | 3.03E-04 | 0.006150795 | 65.60715 | 0 | 3.61E-04 | 2.25E-03 | 1.56E-04 | 7.71E-07 | 9.87E-05 | 7.15E-07 | 3.91E-05 | 8.66E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 1.07E-06 | 0 | 0.010083305 | 2.05E-05 | 1.93E-04 | 6.18E-04 | 1.23E-05 | 9.87E-05 | 1.13E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 3.11E-04 | 0.006398859 | 68.25312 | 0 | 3.33E-04 | 2.22E-03 | 1.63E-04 | 1.06E-06 | 9.87E-05 | 9.84E-07 | 3.91E-05 | 8.67E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 3.78E-05 | 0 | 0.3561874 | 2.02E-05 | 1.91E-04 | 6.10E-04 | 1.21E-05 | 9.87E-05 | 1.11E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 4.63E-04 | 0.009672019 | 103.1661 | 0 | 3.05E-04 | 2.16E-03 | 1.69E-04 | 1.10E-06 | 9.87E-05 | 1.02E-06 | 3.91E-05 | 8.66E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 7.46E-05 | 0 | 0.7036004 | 1.99E-05 | 1.88E-04 | 6.01E-04 | 1.19E-05 | 9.87E-05 | 1.10E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 5.30E-04 | 0.011272905 | 120.2419 | 0 | 2.79E-04 | 2.14E-03 | 1.68E-04 | 1.74E-06 | 9.87E-05 | 1.61E-06 | 3.91E-05 | 8.66E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 7.45E-05 | 0 | 0.7024605 | 1.96E-05 | 1.84E-04 | 5.91E-04 | 1.17E-05 | 9.87E-05 | 1.08E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 6.32E-04 | 0.013652841 | 145.6274 | 0 | 2.53E-04 | 2.12E-03 | 1.67E-04 | 2.34E-06 | 9.87E-05 | 2.17E-06 | 3.91E-05 | 8.65E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 7.42E-05 | 0 | 0.6991416 | 1.92E-05 | 1.81E-04 | 5.80E-04 | 1.15E-05 | 9.87E-05 | 1.06E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 7.05E-04 | 0.01551779 | 165.5198 | 0 | 2.36E-04 | 2.09E-03 | 1.66E-04 | 3.72E-06 | 9.87E-05 | 3.45E-06 | 3.91E-05 | 8.64E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 7.44E-05 | 0 | 0.7016263 | 1.87E-05 | 1.76E-04 | 5.68E-04 | 1.13E-05 | 9.87E-05 | 1.04E-05 | 3.91E-05 | 6.68E-06 |

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|---|---|---|---|---|
| Los Angele | 2025 | Annual | LDT1 | 2.93E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.93E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.93E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.93E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.92E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.92E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.91E-04 |
| Los Angele | 2025 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.14E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2025 | Annual | LDA/LDT1 | 2.72E-04 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.13E-03 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDA | 3.89E-04 |
| Los Angele | 2026 | Annual | LDA | |
| Los Angele | 2026 | Annual | LDA | 3.88E-04 |
| Los Angele | 2026 | Annual | LDA | 3.15E-04 |
| Los Angele | 2026 | Annual | LDA | 3.89E-04 |
| Los Angele | 2026 | Annual | LDA | 3.15E-04 |
| Los Angele | 2026 | Annual | LDA | 3.75E-04 |
| Los Angele | 2026 | Annual | LDA | 3.04E-04 |
| Los Angele | 2026 | Annual | LDA | 3.33E-04 |
| Los Angele | 2026 | Annual | LDA | 2.70E-04 |
| Los Angele | 2026 | Annual | LDA | 2.90E-04 |
| Los Angele | 2026 | Annual | LDA | 2.35E-04 |
| Los Angele | 2026 | Annual | LDA | 2.82E-04 |
| Los Angele | 2026 | Annual | LDA | 2.29E-04 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDA | GAS | 2014 | AllSpeeds | 153359.3 | 4142961.641 | 953799.4 | 0.056669474 | 0 | 0.056973055 | 0.113642529 |
| Los Angele | 2026 | Annual | LDA | DSL | 2014 | AllSpeeds | 770.9927 | 20828.21814 | 4795.095 | 1.90E-04 | 0 | 0 | 1.90E-04 |
| Los Angele | 2026 | Annual | LDA | GAS | 2015 | AllSpeeds | 170500.7 | 4739688.763 | 1067228 | 0.063804123 | 0 | 0.062821001 | 0.126625124 |
| Los Angele | 2026 | Annual | LDA | DSL | 2015 | AllSpeeds | 754.4641 | 20973.1393 | 4722.473 | 1.86E-04 | 0 | 0 | 1.86E-04 |
| Los Angele | 2026 | Annual | LDA | GAS | 2016 | AllSpeeds | 183417.6 | 5254715.815 | 1157250 | 0.06952851 | 0 | 0.06702055 | 0.13654906 |
| Los Angele | 2026 | Annual | LDA | DSL | 2016 | AllSpeeds | 679.8691 | 19477.56938 | 4289.545 | 1.67E-04 | 0 | 0 | 1.67E-04 |
| Los Angele | 2026 | Annual | LDA | GAS | 2017 | AllSpeeds | 197603.2 | 5845640.583 | 1254655 | 0.075751065 | 0 | 0.071238205 | 0.14698927 |
| Los Angele | 2026 | Annual | LDA | DSL | 2017 | AllSpeeds | 679.7104 | 20107.74086 | 4315.729 | 1.67E-04 | 0 | 0 | 1.67E-04 |
| Los Angele | 2026 | Annual | LDA | GAS | 2018 | AllSpeeds | 208370.4 | 6379160.672 | 1331354 | 0.08078239 | 0 | 0.073924638 | 0.154707028 |
| Los Angele | 2026 | Annual | LDA | DSL | 2018 | AllSpeeds | 643.4762 | 19699.78639 | 4111.402 | 1.57E-04 | 0 | 0 | 1.57E-04 |
| Los Angele | 2026 | Annual | LDA | GAS | 2019 | AllSpeeds | 219637.6 | 6977952.574 | 1409932 | 0.085987853 | 0 | 0.076221012 | 0.162208865 |
| Los Angele | 2026 | Annual | LDA | DSL | 2019 | AllSpeeds | 653.5639 | 20764.00114 | 4195.461 | 1.59E-04 | 0 | 0 | 1.59E-04 |
| Los Angele | 2026 | Annual | LDA | GAS | 2020 | AllSpeeds | 227201.8 | 7514255.073 | 1463034 | 0.089827484 | 0 | 0.076758489 | 0.166585973 |
| Los Angele | 2026 | Annual | LDA | DSL | 2020 | AllSpeeds | 590.3914 | 19526.1042 | 3801.74 | 1.43E-04 | 0 | 0 | 1.43E-04 |
| Los Angele | 2026 | Annual | LDA | GAS | 2021 | AllSpeeds | 222775 | 7704294.919 | 1441210 | 0.087329608 | 0 | 0.072233759 | 0.159563367 |
| Los Angele | 2026 | Annual | LDA | DSL | 2021 | AllSpeeds | 524.0139 | 18122.18948 | 3390.031 | 1.25E-04 | 0 | 0 | 1.25E-04 |
| Los Angele | 2026 | Annual | LDA | GAS | 2022 | AllSpeeds | 228345.9 | 8304341.579 | 1481816 | 0.0845521 | 0 | 0.068455607 | 0.153007707 |
| Los Angele | 2026 | Annual | LDA | DSL | 2022 | AllSpeeds | 502.7906 | 18285.24043 | 3262.784 | 1.19E-04 | 0 | 0 | 1.19E-04 |
| Los Angele | 2026 | Annual | LDA | GAS | 2023 | AllSpeeds | 231906.9 | 8939818.751 | 1507244 | 0.084876098 | 0 | 0.065324023 | 0.150200121 |
| Los Angele | 2026 | Annual | LDA | DSL | 2023 | AllSpeeds | 505.5036 | 19486.81202 | 3285.445 | 1.19E-04 | 0 | 0 | 1.19E-04 |
| Los Angele | 2026 | Annual | LDA | GAS | 2024 | AllSpeeds | 235976.7 | 9761197.489 | 1538414 | 0.087777316 | 0 | 0.062806673 | 0.150583989 |
| Los Angele | 2026 | Annual | LDA | DSL | 2024 | AllSpeeds | 537.333 | 22226.89933 | 3503.061 | 1.25E-04 | 0 | 0 | 1.25E-04 |
| Los Angele | 2026 | Annual | LDA | GAS | 2025 | AllSpeeds | 240387.1 | 1.09E+07 | 1571974 | 0.091934859 | 0 | 0.059632055 | 0.151566914 |
| Los Angele | 2026 | Annual | LDA | DSL | 2025 | AllSpeeds | 550.0977 | 24938.12475 | 3597.279 | 1.29E-04 | 0 | 0 | 1.29E-04 |
| Los Angele | 2026 | Annual | LDA | GAS | 2026 | AllSpeeds | 240933.4 | 1.26E+07 | 1580365 | 0.096723684 | 0 | 0.053912599 | 0.150636283 |
| Los Angele | 2026 | Annual | LDA | DSL | 2026 | AllSpeeds | 580.7744 | 30270.8675 | 3809.499 | 1.40E-04 | 0 | 0 | 1.40E-04 |
| Los Angele | 2026 | Annual | LDT1 | GAS | 2007 | AllSpeeds | 5585.583 | 157090.685 | 33007.5 | 0.00244166 | 0 | 0.002334874 | 0.004776535 |
| Los Angele | 2026 | Annual | LDT1 | DSL | 2007 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | LDT1 | GAS | 2008 | AllSpeeds | 12064.45 | 343893.0879 | 71776.3 | 0.004973118 | 0 | 0.004541713 | 0.009514831 |
| Los Angele | 2026 | Annual | LDT1 | DSL | 2008 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | LDT1 | GAS | 2009 | AllSpeeds | 11394.33 | 329358.4639 | 68359.12 | 0.00482845 | 0 | 0.004362364 | 0.009190814 |
| Los Angele | 2026 | Annual | LDT1 | DSL | 2009 | AllSpeeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | LDT1 | GAS | 2010 | AllSpeeds | 13008.58 | 381530.2507 | 78563.94 | 0.00566188 | 0 | 0.005044519 | 0.010706399 |
| Los Angele | 2026 | Annual | LDT1 | DSL | 2010 | AllSpeeds | 19.83517 | 581.7498706 | 119.7924 | 6.96E-06 | 0 | 0 | 6.96E-06 |
| Los Angele | 2026 | Annual | LDT1 | GAS | 2011 | AllSpeeds | 12939.75 | 385328.6376 | 78665.8 | 0.005648494 | 0 | 0.004997665 | 0.010646159 |
| Los Angele | 2026 | Annual | LDT1 | DSL | 2011 | AllSpeeds | 29.59689 | 881.3593877 | 179.9311 | 1.04E-05 | 0 | 0 | 1.04E-05 |
| Los Angele | 2026 | Annual | LDT1 | GAS | 2012 | AllSpeeds | 12925.98 | 391028.8539 | 79228.33 | 0.005654808 | 0 | 0.004974074 | 0.010628882 |
| Los Angele | 2026 | Annual | LDT1 | DSL | 2012 | AllSpeeds | 22.49541 | 680.5200418 | 137.8831 | 7.83E-06 | 0 | 0 | 7.83E-06 |
| Los Angele | 2026 | Annual | LDT1 | GAS | 2013 | AllSpeeds | 13639.14 | 419560.7392 | 84145.07 | 0.005977277 | 0 | 0.005212658 | 0.011189935 |
| Los Angele | 2026 | Annual | LDT1 | DSL | 2013 | AllSpeeds | 30.3302 | 933.0072569 | 187.1186 | 1.05E-05 | 0 | 0 | 1.05E-05 |
| Los Angele | 2026 | Annual | LDT1 | GAS | 2014 | AllSpeeds | 14284.04 | 447261.5554 | 88837.88 | 0.006268812 | 0 | 0.005422677 | 0.011691489 |
| Los Angele | 2026 | Annual | LDT1 | DSL | 2014 | AllSpeeds | 29.72393 | 930.7187649 | 184.8643 | 1.02E-05 | 0 | 0 | 1.02E-05 |
| Los Angele | 2026 | Annual | LDT1 | GAS | 2015 | AllSpeeds | 15347.44 | 489670.9112 | 96065.36 | 0.006740931 | 0 | 0.005767509 | 0.01250844 |
| Los Angele | 2026 | Annual | LDT1 | DSL | 2015 | AllSpeeds | 30.96013 | 987.8101068 | 193.791 | 1.05E-05 | 0 | 0 | 1.05E-05 |
| Los Angele | 2026 | Annual | LDT1 | GAS | 2016 | AllSpeeds | 15798.6 | 514174.0562 | 99679.22 | 0.006937906 | 0 | 0.005873807 | 0.012811713 |
| Los Angele | 2026 | Annual | LDT1 | DSL | 2016 | AllSpeeds | 39.62792 | 1289.718963 | 250.0272 | 1.33E-05 | 0 | 0 | 1.33E-05 |
| Los Angele | 2026 | Annual | LDT1 | GAS | 2017 | AllSpeeds | 16410.16 | 545665.1923 | 104194.1 | 0.007194333 | 0 | 0.006007121 | 0.013201454 |
| Los Angele | 2026 | Annual | LDT1 | DSL | 2017 | AllSpeeds | 27.90549 | 927.9088123 | 177.1821 | 9.24E-06 | 0 | 0 | 9.24E-06 |
| Los Angele | 2026 | Annual | LDT1 | GAS | 2018 | AllSpeeds | 16732.24 | 569443.2648 | 106908.3 | 0.007312849 | 0 | 0.006010521 | 0.01332337 |
| Los Angele | 2026 | Annual | LDT1 | DSL | 2018 | AllSpeeds | 30.04791 | 1022.617838 | 191.9869 | 9.80E-06 | 0 | 0 | 9.80E-06 |
| Los Angele | 2026 | Annual | LDT1 | GAS | 2019 | AllSpeeds | 16966.99 | 592250.5824 | 108917.2 | 0.007387313 | 0 | 0.005950578 | 0.013337891 |
| Los Angele | 2026 | Annual | LDT1 | DSL | 2019 | AllSpeeds | 35.57789 | 1241.890686 | 228.3873 | 1.14E-05 | 0 | 0 | 1.14E-05 |
| Los Angele | 2026 | Annual | LDT1 | GAS | 2020 | AllSpeeds | 17410.04 | 624875.7038 | 112109.4 | 0.007539357 | 0 | 0.005928279 | 0.013467636 |
| Los Angele | 2026 | Annual | LDT1 | DSL | 2020 | AllSpeeds | 30.51805 | 1095.351189 | 196.5166 | 9.56E-06 | 0 | 0 | 9.56E-06 |
| Los Angele | 2026 | Annual | LDT1 | GAS | 2021 | AllSpeeds | 18458.17 | 683562.6627 | 119412.4 | 0.007796845 | 0 | 0.006015623 | 0.013812468 |
| Los Angele | 2026 | Annual | LDT1 | DSL | 2021 | AllSpeeds | 22.91409 | 848.5843211 | 148.2394 | 7.01E-06 | 0 | 0 | 7.01E-06 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDA | 0.020618564 | 0.076176874 | 0.2177909 | 0.024558429 | 0.452787296 | 0.10546906 | 0 | 0.060829643 | 0.166298703 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.90E-04 | 2.16E-04 | 0 | 0 | 2.16E-04 |
| Los Angele | 2026 | Annual | LDA | 0.020191124 | 0.073201716 | 0.2276952 | 0.023640556 | 0.47135372 | 0.118747547 | 0 | 0.067073457 | 0.185821004 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.86E-04 | 2.12E-04 | 0 | 0 | 2.12E-04 |
| Los Angele | 2026 | Annual | LDA | 0.019473512 | 0.069232211 | 0.232614 | 0.022385068 | 0.480253851 | 0.129401362 | 0 | 0.071557283 | 0.200958645 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.67E-04 | 1.91E-04 | 0 | 0 | 1.91E-04 |
| Los Angele | 2026 | Annual | LDA | 0.018557053 | 0.064057745 | 0.2366619 | 0.020835577 | 0.487101545 | 0.140982316 | 0 | 0.076060429 | 0.217042745 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.67E-04 | 1.90E-04 | 0 | 0 | 1.90E-04 |
| Los Angele | 2026 | Annual | LDA | 0.016558746 | 0.054482982 | 0.2321209 | 0.017953796 | 0.475823452 | 0.150346256 | 0 | 0.078928716 | 0.229274972 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.57E-04 | 1.79E-04 | 0 | 0 | 1.79E-04 |
| Los Angele | 2026 | Annual | LDA | 0.014783776 | 0.045543894 | 0.2222561 | 0.015407991 | 0.460200626 | 0.160034267 | 0 | 0.081380524 | 0.241414791 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.59E-04 | 1.81E-04 | 0 | 0 | 1.81E-04 |
| Los Angele | 2026 | Annual | LDA | 0.01238481 | 0.03419951 | 0.192084 | 0.01231512 | 0.417569413 | 0.167180323 | 0 | 0.08195439 | 0.249134713 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.43E-04 | 1.62E-04 | 0 | 0 | 1.62E-04 |
| Los Angele | 2026 | Annual | LDA | 0.010099909 | 0.024437828 | 0.173689 | 0.00930403 | 0.377094134 | 0.162531452 | 0 | 0.077123374 | 0.239654826 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.25E-04 | 1.43E-04 | 0 | 0 | 1.43E-04 |
| Los Angele | 2026 | Annual | LDA | 0.008884331 | 0.018420296 | 0.1658621 | 0.007545929 | 0.353720364 | 0.157362168 | 0 | 0.073089473 | 0.230451641 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.19E-04 | 1.36E-04 | 0 | 0 | 1.36E-04 |
| Los Angele | 2026 | Annual | LDA | 0.007998967 | 0.014026196 | 0.1583056 | 0.006275202 | 0.336806085 | 0.157965157 | 0 | 0.069745913 | 0.22771107 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.19E-04 | 1.35E-04 | 0 | 0 | 1.35E-04 |
| Los Angele | 2026 | Annual | LDA | 0.007433868 | 0.011044175 | 0.1527528 | 0.005428782 | 0.327243613 | 0.163364689 | 0 | 0.067058153 | 0.230422842 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.25E-04 | 1.43E-04 | 0 | 0 | 1.43E-04 |
| Los Angele | 2026 | Annual | LDA | 0.007091041 | 0.009032389 | 0.1486893 | 0.004876994 | 0.321256638 | 0.171102412 | 0 | 0.063668646 | 0.234771058 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.29E-04 | 1.46E-04 | 0 | 0 | 1.46E-04 |
| Los Angele | 2026 | Annual | LDA | 0.006785817 | 0.007565271 | 0.1430674 | 0.00445217 | 0.312506941 | 0.180015018 | 0 | 0.05756202 | 0.237577038 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.40E-04 | 1.59E-04 | 0 | 0 | 1.59E-04 |
| Los Angele | 2026 | Annual | LDT1 | 0.002019062 | 0.006015832 | 0.019610677 | 0.002562318 | 0.034984423 | 0.004544239 | 0 | 0.002492926 | 0.007037165 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | LDT1 | 0.003957584 | 0.01178067 | 0.038633142 | 0.004993424 | 0.06887965 | 0.009255602 | 0 | 0.004849149 | 0.014104751 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | LDT1 | 0.003356917 | 0.00998232 | 0.032985412 | 0.004205616 | 0.059721078 | 0.008986356 | 0 | 0.004657659 | 0.013644015 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | LDT1 | 0.003440959 | 0.010192994 | 0.034075122 | 0.004277047 | 0.062692521 | 0.010537476 | 0 | 0.00538599 | 0.015923466 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 6.96E-06 | 7.92E-06 | 0 | 0 | 7.92E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0.003057993 | 0.009006851 | 0.030592052 | 0.003766035 | 0.057069091 | 0.010512563 | 0 | 0.005335965 | 0.015848529 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.04E-05 | 1.18E-05 | 0 | 0 | 1.18E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0.002683779 | 0.007846104 | 0.027223514 | 0.00326669 | 0.051648969 | 0.010524313 | 0 | 0.005310778 | 0.015835091 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 7.83E-06 | 8.92E-06 | 0 | 0 | 8.92E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0.002607216 | 0.007570391 | 0.02700476 | 0.003142377 | 0.051514678 | 0.011124469 | 0 | 0.005565511 | 0.01668998 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.05E-05 | 1.20E-05 | 0 | 0 | 1.20E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0.002495493 | 0.007188201 | 0.026494937 | 0.002972334 | 0.050842454 | 0.011667053 | 0 | 0.005789746 | 0.017456799 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.02E-05 | 1.16E-05 | 0 | 0 | 1.16E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0.0023615 | 0.006688501 | 0.02575103 | 0.002764935 | 0.050074406 | 0.012545726 | 0 | 0.00615792 | 0.018703647 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.05E-05 | 1.20E-05 | 0 | 0 | 1.20E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0.002179426 | 0.006066854 | 0.02456421 | 0.002505281 | 0.048127484 | 0.012912322 | 0 | 0.006271413 | 0.019183735 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.33E-05 | 1.52E-05 | 0 | 0 | 1.52E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0.002002436 | 0.005428439 | 0.023394253 | 0.002248307 | 0.046274888 | 0.013389563 | 0 | 0.006413753 | 0.019803315 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.24E-06 | 1.05E-05 | 0 | 0 | 1.05E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0.001727586 | 0.004484823 | 0.021165041 | 0.001873134 | 0.042573954 | 0.013610136 | 0 | 0.006417382 | 0.020027518 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.80E-06 | 1.12E-05 | 0 | 0 | 1.12E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0.001483903 | 0.003625871 | 0.018470813 | 0.001546558 | 0.038465036 | 0.013748724 | 0 | 0.006353382 | 0.020102106 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.14E-05 | 1.30E-05 | 0 | 0 | 1.30E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0.001233033 | 0.002716253 | 0.014408081 | 0.001226095 | 0.033051098 | 0.014031698 | 0 | 0.006329574 | 0.020361272 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.56E-06 | 1.09E-05 | 0 | 0 | 1.09E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0.001087293 | 0.002127178 | 0.013605845 | 0.001001614 | 0.031634398 | 0.014510915 | 0 | 0.00642283 | 0.020933745 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 7.01E-06 | 7.98E-06 | 0 | 0 | 7.98E-06 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDA | 0.020618564 | 0.076176874 | 0.2177909 | 0.024558429 | 0.50544347 | 3.259224395 | 0 | 1.016925 | 4.276149395 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 2.16E-04 | 0.001788924 | 0 | 0 | 0.001788924 |
| Los Angele | 2026 | Annual | LDA | 0.020191124 | 0.073201716 | 0.2276952 | 0.023640556 | 0.5305496 | 3.679037955 | 0 | 1.120552 | 4.799589955 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 2.12E-04 | 0.001749649 | 0 | 0 | 0.001749649 |
| Los Angele | 2026 | Annual | LDA | 0.019473512 | 0.069232211 | 0.232614 | 0.022385068 | 0.544663436 | 4.012074685 | 0 | 1.192159 | 5.204233685 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.91E-04 | 0.001573567 | 0 | 0 | 0.001573567 |
| Los Angele | 2026 | Annual | LDA | 0.018557053 | 0.064057745 | 0.2366619 | 0.020835577 | 0.55715502 | 4.380428805 | 0 | 1.26465 | 5.645078805 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.90E-04 | 0.001567862 | 0 | 0 | 0.001567862 |
| Los Angele | 2026 | Annual | LDA | 0.016558746 | 0.054482982 | 0.2321209 | 0.017953796 | 0.550391396 | 4.66807998 | 0 | 1.304946 | 5.97302598 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.79E-04 | 0.001477658 | 0 | 0 | 0.001477658 |
| Los Angele | 2026 | Annual | LDA | 0.014783776 | 0.045543894 | 0.2222561 | 0.015407991 | 0.539406552 | 4.966511654 | 0 | 1.336 | 6.302511654 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.81E-04 | 0.001492145 | 0 | 0 | 0.001492145 |
| Los Angele | 2026 | Annual | LDA | 0.01238481 | 0.03419951 | 0.192084 | 0.01231512 | 0.500118153 | 5.14679367 | 0 | 1.323848 | 6.47064167 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.62E-04 | 0.001337971 | 0 | 0 | 0.001337971 |
| Los Angele | 2026 | Annual | LDA | 0.010099909 | 0.024437828 | 0.173689 | 0.00930403 | 0.457185593 | 4.942429157 | 0 | 1.206044 | 6.148473157 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.43E-04 | 0.001174788 | 0 | 0 | 0.001174788 |
| Los Angele | 2026 | Annual | LDA | 0.008884331 | 0.018420296 | 0.1658621 | 0.007545929 | 0.431164298 | 4.747580499 | 0 | 1.07573 | 5.823310499 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.36E-04 | 0.001114685 | 0 | 0 | 0.001114685 |
| Los Angele | 2026 | Annual | LDA | 0.007998967 | 0.014026196 | 0.1583056 | 0.006275202 | 0.414317034 | 4.688343604 | 0 | 0.9829544 | 5.671298004 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.35E-04 | 0.001108732 | 0 | 0 | 0.001108732 |
| Los Angele | 2026 | Annual | LDA | 0.007433868 | 0.011044175 | 0.1527528 | 0.005428782 | 0.407082467 | 4.782766695 | 0 | 0.9244674 | 5.707234095 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.43E-04 | 0.001168875 | 0 | 0 | 0.001168875 |
| Los Angele | 2026 | Annual | LDA | 0.007091041 | 0.009032389 | 0.1486893 | 0.004876994 | 0.404460782 | 5.009205676 | 0 | 0.8781187 | 5.887324376 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.46E-04 | 0.001196166 | 0 | 0 | 0.001196166 |
| Los Angele | 2026 | Annual | LDA | 0.006785817 | 0.007565271 | 0.1430674 | 0.00445217 | 0.399447696 | 5.426753621 | 0 | 0.8280351 | 6.254788721 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 0 | 0 | 1.59E-04 | 0.001297546 | 0 | 0 | 0.001297546 |
| Los Angele | 2026 | Annual | LDT1 | 0.002019062 | 0.006015832 | 0.019610677 | 0.002562318 | 0.037245053 | 0.150013143 | 0 | 0.045045506 | 0.195058649 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | LDT1 | 0.003957584 | 0.01178067 | 0.038633142 | 0.004993424 | 0.07346957 | 0.300476636 | 0 | 0.087324381 | 0.387801017 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | LDT1 | 0.003356917 | 0.00998232 | 0.032985412 | 0.004205616 | 0.064174279 | 0.28363083 | 0 | 0.081238315 | 0.364869145 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | LDT1 | 0.003440959 | 0.010192994 | 0.034075122 | 0.004277047 | 0.067909588 | 0.322087213 | 0 | 0.090530999 | 0.412618212 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 7.92E-06 | 6.54E-05 | 0 | 0 | 6.54E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0.003057993 | 0.009006851 | 0.030592052 | 0.003766035 | 0.06227146 | 0.322550721 | 0 | 0.089862421 | 0.412413142 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.18E-05 | 9.72E-05 | 0 | 0 | 9.72E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0.002683779 | 0.007846104 | 0.027223514 | 0.00326669 | 0.056855178 | 0.324382169 | 0 | 0.08967109 | 0.414053259 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.92E-06 | 7.35E-05 | 0 | 0 | 7.35E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0.002607216 | 0.007570391 | 0.02700476 | 0.003142377 | 0.057014723 | 0.343928176 | 0 | 0.094026506 | 0.437954682 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.20E-05 | 9.85E-05 | 0 | 0 | 9.85E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0.002495493 | 0.007188201 | 0.026494937 | 0.002972334 | 0.056607764 | 0.361870734 | 0 | 0.097861655 | 0.459732389 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.16E-05 | 9.57E-05 | 0 | 0 | 9.57E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0.0023615 | 0.006688501 | 0.02575103 | 0.002764935 | 0.056269613 | 0.390300774 | 0 | 0.1040917 | 0.494392474 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.20E-05 | 9.86E-05 | 0 | 0 | 9.86E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0.002179426 | 0.006066854 | 0.02456421 | 0.002505281 | 0.054499506 | 0.401874059 | 0 | 0.1056416 | 0.507515659 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.52E-05 | 1.25E-04 | 0 | 0 | 1.25E-04 |
| Los Angele | 2026 | Annual | LDT1 | 0.002002436 | 0.005428439 | 0.023394253 | 0.002248307 | 0.05287675 | 0.41673382 | 0 | 0.1075247 | 0.52425852 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.05E-05 | 8.65E-05 | 0 | 0 | 8.65E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0.001727586 | 0.004484823 | 0.021165041 | 0.001873134 | 0.049278102 | 0.423685903 | 0 | 0.1070204 | 0.530706303 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.12E-05 | 9.15E-05 | 0 | 0 | 9.15E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0.001483903 | 0.003625871 | 0.018470813 | 0.001546558 | 0.045229252 | 0.426993839 | 0 | 0.1049567 | 0.531950539 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.30E-05 | 1.06E-04 | 0 | 0 | 1.06E-04 |
| Los Angele | 2026 | Annual | LDT1 | 0.001233033 | 0.002716253 | 0.014408081 | 0.001226095 | 0.039944733 | 0.432054135 | 0 | 0.1027624 | 0.534816535 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.09E-05 | 8.91E-05 | 0 | 0 | 8.91E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0.001087293 | 0.002127178 | 0.013605845 | 0.001001614 | 0.038755675 | 0.441085733 | 0 | 0.1008083 | 0.541894033 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 7.98E-06 | 6.52E-05 | 0 | 0 | 6.52E-05 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDA | 0.279563772 | 0 | 0.061289474 | 0.340853246 | 1706.431317 | 0 | 78.11183 | 1784.543147 | 1093.481188 |
| Los Angele | 2026 | Annual | LDA | 0.005771765 | 0 | 0 | 0.005771765 | 7.290169763 | 0 | 0 | 7.290169763 | 4.671540784 |
| Los Angele | 2026 | Annual | LDA | 0.318102994 | 0 | 0.06801784 | 0.386120834 | 1952.102093 | 0 | 87.39598 | 2039.498073 | 1199.957156 |
| Los Angele | 2026 | Annual | LDA | 0.005659325 | 0 | 0 | 0.005659325 | 7.340894295 | 0 | 0 | 7.340894295 | 4.512447723 |
| Los Angele | 2026 | Annual | LDA | 0.350216639 | 0 | 0.072977334 | 0.423193973 | 2164.08961 | 0 | 94.76208 | 2258.85169 | 1279.626186 |
| Los Angele | 2026 | Annual | LDA | 0.005104365 | 0 | 0 | 0.005104365 | 6.817424587 | 0 | 0 | 6.817424587 | 4.031143159 |
| Los Angele | 2026 | Annual | LDA | 0.386087958 | 0 | 0.078032292 | 0.46412025 | 2407.386981 | 0 | 102.7353 | 2510.122281 | 1423.487922 |
| Los Angele | 2026 | Annual | LDA | 0.005102473 | 0 | 0 | 0.005102473 | 7.037993633 | 0 | 0 | 7.037993633 | 4.161565635 |
| Los Angele | 2026 | Annual | LDA | 0.41637882 | 0 | 0.081320465 | 0.497699285 | 2626.961678 | 0 | 109.0097 | 2735.971378 | 1553.32244 |
| Los Angele | 2026 | Annual | LDA | 0.004826667 | 0 | 0 | 0.004826667 | 6.895203514 | 0 | 0 | 6.895203514 | 4.077133838 |
| Los Angele | 2026 | Annual | LDA | 0.448300947 | 0 | 0.084038354 | 0.532339301 | 2874.341668 | 0 | 115.4394 | 2989.781068 | 1699.598228 |
| Los Angele | 2026 | Annual | LDA | 0.004894641 | 0 | 0 | 0.004894641 | 7.267693069 | 0 | 0 | 7.267693069 | 4.297386912 |
| Los Angele | 2026 | Annual | LDA | 0.467845003 | 0 | 0.083328567 | 0.55117357 | 3096.206436 | 0 | 119.7866 | 3215.993036 | 1830.786865 |
| Los Angele | 2026 | Annual | LDA | 0.004410426 | 0 | 0 | 0.004410426 | 6.834412177 | 0 | 0 | 6.834412177 | 4.04118792 |
| Los Angele | 2026 | Annual | LDA | 0.449787454 | 0 | 0.075091213 | 0.524878667 | 3175.586226 | 0 | 118.0028 | 3293.589026 | 1877.724135 |
| Los Angele | 2026 | Annual | LDA | 0.003895693 | 0 | 0 | 0.003895693 | 6.343023374 | 0 | 0 | 6.343023374 | 3.750629721 |
| Los Angele | 2026 | Annual | LDA | 0.460221235 | 0 | 0.071182929 | 0.531404164 | 3424.001756 | 0 | 121.3282 | 3545.329956 | 2024.612238 |
| Los Angele | 2026 | Annual | LDA | 0.003722235 | 0 | 0 | 0.003722235 | 6.400091823 | 0 | 0 | 6.400091823 | 3.784374295 |
| Los Angele | 2026 | Annual | LDA | 0.460280537 | 0 | 0.064275235 | 0.524555772 | 3687.185279 | 0 | 123.4106 | 3810.595879 | 2180.232655 |
| Los Angele | 2026 | Annual | LDA | 0.003733159 | 0 | 0 | 0.003733159 | 6.82066037 | 0 | 0 | 6.82066037 | 4.033056477 |
| Los Angele | 2026 | Annual | LDA | 0.470324442 | 0 | 0.058326472 | 0.528650914 | 4027.172762 | 0 | 125.9614 | 4153.134162 | 2381.267254 |
| Los Angele | 2026 | Annual | LDA | 0.003975566 | 0 | 0 | 0.003975566 | 7.779729124 | 0 | 0 | 7.779729124 | 4.600153831 |
| Los Angele | 2026 | Annual | LDA | 0.488773065 | 0 | 0.052036375 | 0.54080944 | 4497.447791 | 0 | 128.7092 | 4626.156991 | 2659.340879 |
| Los Angele | 2026 | Annual | LDA | 0.004120364 | 0 | 0 | 0.004120364 | 8.728696889 | 0 | 0 | 8.728696889 | 5.161278471 |
| Los Angele | 2026 | Annual | LDA | 0.519410579 | 0 | 0.044353765 | 0.563764344 | 5184.391285 | 0 | 129.4012 | 5313.792485 | 3065.530567 |
| Los Angele | 2026 | Annual | LDA | 0.004545907 | 0 | 0 | 0.004545907 | 10.59523253 | 0 | 0 | 10.59523253 | 6.264960994 |
| Los Angele | 2026 | Annual | LDT1 | 0.010339364 | 0 | 0.002048276 | 0.01238764 | 75.27121028 | 0 | 3.146407 | 78.41761728 | 67.74408925 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | LDT1 | 0.02204512 | 0 | 0.00429118 | 0.0263363 | 164.6325946 | 0 | 6.835898 | 171.4684926 | 148.1693351 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | LDT1 | 0.021976057 | 0 | 0.004327036 | 0.026303093 | 157.9439994 | 0 | 6.521632 | 164.4656314 | 142.1495995 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | LDT1 | 0.026511299 | 0 | 0.00527003 | 0.031781329 | 182.8501621 | 0 | 7.490554 | 190.3407161 | 158.8053658 |
| Los Angele | 2026 | Annual | LDT1 | 2.13E-04 | 0 | 0 | 2.13E-04 | 0.203620696 | 0 | 0 | 0.203620696 | 0.176844574 |
| Los Angele | 2026 | Annual | LDT1 | 0.026715197 | 0 | 0.005261861 | 0.031977058 | 184.6511702 | 0 | 7.499472 | 192.1506422 | 142.2552615 |
| Los Angele | 2026 | Annual | LDT1 | 3.17E-04 | 0 | 0 | 3.17E-04 | 0.308488269 | 0 | 0 | 0.308488269 | 0.237659362 |
| Los Angele | 2026 | Annual | LDT1 | 0.027031501 | 0 | 0.005276577 | 0.032308078 | 187.3689187 | 0 | 7.552543 | 194.9214617 | 125.968124 |
| Los Angele | 2026 | Annual | LDT1 | 2.40E-04 | 0 | 0 | 2.40E-04 | 0.238191661 | 0 | 0 | 0.238191661 | 0.160136254 |
| Los Angele | 2026 | Annual | LDT1 | 0.0288942 | 0 | 0.005572587 | 0.034466787 | 201.0156289 | 0 | 8.020241 | 209.0358699 | 131.70544 |
| Los Angele | 2026 | Annual | LDT1 | 3.22E-04 | 0 | 0 | 3.22E-04 | 0.326565685 | 0 | 0 | 0.326565685 | 0.213965837 |
| Los Angele | 2026 | Annual | LDT1 | 0.030656497 | 0 | 0.005841784 | 0.036498281 | 214.2779634 | 0 | 8.467159 | 222.7451224 | 137.309319 |
| Los Angele | 2026 | Annual | LDT1 | 3.13E-04 | 0 | 0 | 3.13E-04 | 0.325764748 | 0 | 0 | 0.325764748 | 0.20875005 |
| Los Angele | 2026 | Annual | LDT1 | 0.03335561 | 0 | 0.006258617 | 0.039614227 | 234.561535 | 0 | 9.154666 | 243.716201 | 144.1849755 |
| Los Angele | 2026 | Annual | LDT1 | 3.24E-04 | 0 | 0 | 3.24E-04 | 0.345747503 | 0 | 0 | 0.345747503 | 0.21253099 |
| Los Angele | 2026 | Annual | LDT1 | 0.034753292 | 0 | 0.006418175 | 0.041171467 | 246.2854012 | 0 | 9.498528 | 255.7839292 | 145.6285577 |
| Los Angele | 2026 | Annual | LDT1 | 4.10E-04 | 0 | 0 | 4.10E-04 | 0.451419844 | 0 | 0 | 0.451419844 | 0.266924554 |
| Los Angele | 2026 | Annual | LDT1 | 0.036509425 | 0 | 0.006606199 | 0.043115623 | 261.3685992 | 0 | 9.928727 | 271.2973262 | 154.5472527 |
| Los Angele | 2026 | Annual | LDT1 | 2.86E-04 | 0 | 0 | 2.86E-04 | 0.324781215 | 0 | 0 | 0.324781215 | 0.192043132 |
| Los Angele | 2026 | Annual | LDT1 | 0.037594868 | 0 | 0.006642259 | 0.044237128 | 272.720288 | 0 | 10.18595 | 282.906238 | 161.2595063 |
| Los Angele | 2026 | Annual | LDT1 | 3.04E-04 | 0 | 0 | 3.04E-04 | 0.357930684 | 0 | 0 | 0.357930684 | 0.211644413 |
| Los Angele | 2026 | Annual | LDT1 | 0.038395559 | 0 | 0.00658143 | 0.044976989 | 283.73693 | 0 | 10.37763 | 294.11456 | 167.7736467 |
| Los Angele | 2026 | Annual | LDT1 | 3.54E-04 | 0 | 0 | 3.54E-04 | 0.434679244 | 0 | 0 | 0.434679244 | 0.257025837 |
| Los Angele | 2026 | Annual | LDT1 | 0.03915512 | 0 | 0.006449288 | 0.045604408 | 299.4396469 | 0 | 10.68113 | 310.1207769 | 177.0586632 |
| Los Angele | 2026 | Annual | LDT1 | 2.99E-04 | 0 | 0 | 2.99E-04 | 0.383388386 | 0 | 0 | 0.383388386 | 0.226697553 |
| Los Angele | 2026 | Annual | LDT1 | 0.039959813 | 0 | 0.006239954 | 0.046199766 | 327.6773826 | 0 | 11.37746 | 339.0548426 | 193.7556363 |
| Los Angele | 2026 | Annual | LDT1 | 2.20E-04 | 0 | 0 | 2.20E-04 | 0.297016505 | 0 | 0 | 0.297016505 | 0.175625859 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 Annual | LDA | 0 | 50.05406066 | 1143.535249 | 0.007088612 | 0 | 0.003317994 | 0.010406606 | 0.036534674 | 0.1678312 |
| Los Angele | 2026 Annual | LDA | 0 | 0 | 4.671540784 | 1.15E-04 | 0 | 0 | 1.15E-04 | 1.84E-04 | 8.44E-04 |
| Los Angele | 2026 Annual | LDA | 0 | 53.72230891 | 1253.679465 | 0.010136428 | 0 | 0.004781071 | 0.014917498 | 0.0417969 | 0.1920045 |
| Los Angele | 2026 Annual | LDA | 0 | 0 | 4.512447723 | 1.12E-04 | 0 | 0 | 1.12E-04 | 1.85E-04 | 8.50E-04 |
| Los Angele | 2026 Annual | LDA | 0 | 56.0328179 | 1335.659004 | 0.012922768 | 0 | 0.006049317 | 0.018972084 | 0.046338666 | 0.2128683 |
| Los Angele | 2026 Annual | LDA | 0 | 0 | 4.031143159 | 1.01E-04 | 0 | 0 | 1.01E-04 | 1.72E-04 | 7.89E-04 |
| Los Angele | 2026 Annual | LDA | 0 | 60.74738289 | 1484.235305 | 0.015625659 | 0 | 0.007169916 | 0.022795575 | 0.051549725 | 0.2368066 |
| Los Angele | 2026 Annual | LDA | 0 | 0 | 4.161565635 | 1.01E-04 | 0 | 0 | 1.01E-04 | 1.77E-04 | 8.15E-04 |
| Los Angele | 2026 Annual | LDA | 0 | 64.45743561 | 1617.779876 | 0.017732889 | 0 | 0.007934918 | 0.025667806 | 0.056254573 | 0.2584195 |
| Los Angele | 2026 Annual | LDA | 0 | 0 | 4.077133838 | 9.58E-05 | 0 | 0 | 9.58E-05 | 1.74E-04 | 7.98E-04 |
| Los Angele | 2026 Annual | LDA | 0 | 68.25931722 | 1767.857545 | 0.019396721 | 0 | 0.00842709 | 0.027823811 | 0.061535023 | 0.2826765 |
| Los Angele | 2026 Annual | LDA | 0 | 0 | 4.297386912 | 9.72E-05 | 0 | 0 | 9.72E-05 | 1.83E-04 | 8.41E-04 |
| Los Angele | 2026 Annual | LDA | 0 | 70.82981658 | 1901.616682 | 0.020887385 | 0 | 0.008744434 | 0.029631819 | 0.066264391 | 0.3044021 |
| Los Angele | 2026 Annual | LDA | 0 | 0 | 4.04118792 | 8.76E-05 | 0 | 0 | 8.76E-05 | 1.72E-04 | 7.91E-04 |
| Los Angele | 2026 Annual | LDA | 0 | 69.77505564 | 1947.499191 | 0.021416196 | 0 | 0.008614223 | 0.030030419 | 0.067940257 | 0.3121006 |
| Los Angele | 2026 Annual | LDA | 0 | 0 | 3.750629721 | 7.74E-05 | 0 | 0 | 7.74E-05 | 1.60E-04 | 7.34E-04 |
| Los Angele | 2026 Annual | LDA | 0 | 71.74136466 | 2096.353603 | 0.023084298 | 0 | 0.008856971 | 0.031941269 | 0.073231764 | 0.3364085 |
| Los Angele | 2026 Annual | LDA | 0 | 0 | 3.784374295 | 7.40E-05 | 0 | 0 | 7.40E-05 | 1.61E-04 | 7.41E-04 |
| Los Angele | 2026 Annual | LDA | 0 | 72.97268778 | 2253.205343 | 0.024850896 | 0 | 0.009008991 | 0.033859887 | 0.078835718 | 0.3621516 |
| Los Angele | 2026 Annual | LDA | 0 | 0 | 4.033056477 | 7.42E-05 | 0 | 0 | 7.42E-05 | 1.72E-04 | 7.89E-04 |
| Los Angele | 2026 Annual | LDA | 0 | 74.48097582 | 2455.74823 | 0.027133871 | 0 | 0.009195203 | 0.036329074 | 0.086079039 | 0.3954255 |
| Los Angele | 2026 Annual | LDA | 0 | 0 | 4.600153831 | 7.91E-05 | 0 | 0 | 7.91E-05 | 1.96E-04 | 9.00E-04 |
| Los Angele | 2026 Annual | LDA | 0 | 76.10574996 | 2735.446629 | 0.030292985 | 0 | 0.009395787 | 0.039688772 | 0.096101008 | 0.4414641 |
| Los Angele | 2026 Annual | LDA | 0 | 0 | 5.161278471 | 8.20E-05 | 0 | 0 | 8.20E-05 | 2.20E-04 | 0.001010242 |
| Los Angele | 2026 Annual | LDA | 0 | 76.51492956 | 3142.045497 | 0.034909064 | 0 | 0.009446304 | 0.044355369 | 0.1107407 | 0.5087151 |
| Los Angele | 2026 Annual | LDA | 0 | 0 | 6.264960994 | 9.05E-05 | 0 | 0 | 9.05E-05 | 2.67E-04 | 0.001226271 |
| Los Angele | 2026 Annual | LDT1 | 0 | 2.8317663 | 70.57585555 | 5.04E-05 | 0 | 6.52E-06 | 5.69E-05 | 0.001385303 | 0.006363736 |
| Los Angele | 2026 Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 Annual | LDT1 | 0 | 6.1523082 | 154.3216433 | 1.10E-04 | 0 | 1.84E-05 | 1.29E-04 | 0.003032618 | 0.01393109 |
| Los Angele | 2026 Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 Annual | LDT1 | 0 | 5.8694688 | 148.0190683 | 1.41E-04 | 0 | 2.78E-05 | 1.69E-04 | 0.002904444 | 0.013342292 |
| Los Angele | 2026 Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 Annual | LDT1 | 0 | 6.505546149 | 165.3109119 | 1.63E-04 | 0 | 3.93E-05 | 2.03E-04 | 0.003364521 | 0.015455769 |
| Los Angele | 2026 Annual | LDT1 | 0 | 0 | 0.176844574 | 3.52E-06 | 0 | 0 | 3.52E-06 | 5.13E-06 | 2.36E-05 |
| Los Angele | 2026 Annual | LDT1 | 0 | 5.777593229 | 148.0328548 | 2.47E-04 | 0 | 7.34E-05 | 3.21E-04 | 0.003398017 | 0.015609644 |
| Los Angele | 2026 Annual | LDT1 | 0 | 0 | 0.237659362 | 5.24E-06 | 0 | 0 | 5.24E-06 | 7.77E-06 | 3.57E-05 |
| Los Angele | 2026 Annual | LDT1 | 0 | 5.077574659 | 131.0456987 | 3.34E-04 | 0 | 1.04E-04 | 4.38E-04 | 0.003448285 | 0.015840558 |
| Los Angele | 2026 Annual | LDT1 | 0 | 0 | 0.160136254 | 3.97E-06 | 0 | 0 | 3.97E-06 | 6.00E-06 | 2.76E-05 |
| Los Angele | 2026 Annual | LDT1 | 0 | 5.254861903 | 136.9603019 | 5.38E-04 | 0 | 2.07E-04 | 7.45E-04 | 0.003699893 | 0.016996386 |
| Los Angele | 2026 Annual | LDT1 | 0 | 0 | 0.213965837 | 5.33E-06 | 0 | 0 | 5.33E-06 | 8.23E-06 | 3.78E-05 |
| Los Angele | 2026 Annual | LDT1 | 0 | 5.425755487 | 142.7350745 | 7.65E-04 | 0 | 3.09E-04 | 0.001073845 | 0.003944171 | 0.01811854 |
| Los Angele | 2026 Annual | LDT1 | 0 | 0 | 0.20875005 | 5.19E-06 | 0 | 0 | 5.19E-06 | 8.21E-06 | 3.77E-05 |
| Los Angele | 2026 Annual | LDT1 | 0 | 5.62737319 | 149.8123487 | 0.001046682 | 0 | 4.30E-04 | 0.001476821 | 0.004318159 | 0.019836545 |
| Los Angele | 2026 Annual | LDT1 | 0 | 0 | 0.21253099 | 5.36E-06 | 0 | 0 | 5.36E-06 | 8.71E-06 | 4.00E-05 |
| Los Angele | 2026 Annual | LDT1 | 0 | 5.616479606 | 151.2450373 | 0.001263847 | 0 | 5.21E-04 | 0.001784635 | 0.004534239 | 0.020829163 |
| Los Angele | 2026 Annual | LDT1 | 0 | 0 | 0.266924554 | 6.79E-06 | 0 | 0 | 6.79E-06 | 1.14E-05 | 5.22E-05 |
| Los Angele | 2026 Annual | LDT1 | 0 | 5.870856275 | 160.418109 | 0.001457879 | 0 | 5.95E-04 | 0.002053021 | 0.004811943 | 0.022104867 |
| Los Angele | 2026 Annual | LDT1 | 0 | 0 | 0.192043132 | 4.73E-06 | 0 | 0 | 4.73E-06 | 8.18E-06 | 3.76E-05 |
| Los Angele | 2026 Annual | LDT1 | 0 | 6.022952235 | 167.2824586 | 0.001582044 | 0 | 6.37E-04 | 0.002218857 | 0.00502163 | 0.023068117 |
| Los Angele | 2026 Annual | LDT1 | 0 | 0 | 0.211644413 | 5.03E-06 | 0 | 0 | 5.03E-06 | 9.02E-06 | 4.14E-05 |
| Los Angele | 2026 Annual | LDT1 | 0 | 6.136292619 | 173.9099393 | 0.001645453 | 0 | 6.51E-04 | 0.002296113 | 0.005222756 | 0.023992045 |
| Los Angele | 2026 Annual | LDT1 | 0 | 0 | 0.257025837 | 5.86E-06 | 0 | 0 | 5.86E-06 | 1.10E-05 | 5.03E-05 |
| Los Angele | 2026 Annual | LDT1 | 0 | 6.315752169 | 183.3744154 | 0.00173599 | 0 | 6.70E-04 | 0.00240568 | 0.005510462 | 0.025313685 |
| Los Angele | 2026 Annual | LDT1 | 0 | 0 | 0.226697553 | 4.95E-06 | 0 | 0 | 4.95E-06 | 9.66E-06 | 4.44E-05 |
| Los Angele | 2026 Annual | LDT1 | 0 | 6.727492098 | 200.4831284 | 0.001899121 | 0 | 7.13E-04 | 0.00261247 | 0.006027991 | 0.027691089 |
| Los Angele | 2026 Annual | LDT1 | 0 | 0 | 0.175625859 | 3.64E-06 | 0 | 0 | 3.64E-06 | 7.48E-06 | 3.44E-05 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDA | 0.21477248 | 0.006577063 | 0 | 0.003078551 | 0.009655613 | 0.009133669 | 0.071927637 | 0.090716919 | 0.017087348 |
| Los Angele | 2026 | Annual | LDA | 0.001141954 | 1.05E-04 | 0 | 0 | 1.05E-04 | 4.59E-05 | 3.62E-04 | 5.13E-04 | 6.96E-05 |
| Los Angele | 2026 | Annual | LDA | 0.248718898 | 0.009404933 | 0 | 0.004436046 | 0.013840979 | 0.010449225 | 0.082287654 | 0.106577858 | 0.01954654 |
| Los Angele | 2026 | Annual | LDA | 0.001146883 | 1.03E-04 | 0 | 0 | 1.03E-04 | 4.62E-05 | 3.64E-04 | 5.14E-04 | 7.01E-05 |
| Los Angele | 2026 | Annual | LDA | 0.27817905 | 0.011990196 | 0 | 0.005612768 | 0.017602964 | 0.011584667 | 0.091229253 | 0.120416884 | 0.021668084 |
| Los Angele | 2026 | Annual | LDA | 0.001062108 | 9.32E-05 | 0 | 0 | 9.32E-05 | 4.29E-05 | 3.38E-04 | 4.74E-04 | 6.51E-05 |
| Los Angele | 2026 | Annual | LDA | 0.3111519 | 0.014498034 | 0 | 0.006652499 | 0.021150533 | 0.012887431 | 0.1014885 | 0.135526464 | 0.024102727 |
| Los Angele | 2026 | Annual | LDA | 0.001093169 | 9.32E-05 | 0 | 0 | 9.32E-05 | 4.43E-05 | 3.49E-04 | 4.87E-04 | 6.72E-05 |
| Los Angele | 2026 | Annual | LDA | 0.340341879 | 0.016453196 | 0 | 0.007362295 | 0.02381549 | 0.014063643 | 0.1107512 | 0.148630333 | 0.026299253 |
| Los Angele | 2026 | Annual | LDA | 0.001067585 | 8.82E-05 | 0 | 0 | 8.82E-05 | 4.34E-05 | 3.42E-04 | 4.74E-04 | 6.58E-05 |
| Los Angele | 2026 | Annual | LDA | 0.372035334 | 0.017996956 | 0 | 0.00781895 | 0.025815906 | 0.015383756 | 0.1211471 | 0.162346762 | 0.0287735 |
| Los Angele | 2026 | Annual | LDA | 0.001121447 | 8.94E-05 | 0 | 0 | 8.94E-05 | 4.58E-05 | 3.60E-04 | 4.96E-04 | 6.94E-05 |
| Los Angele | 2026 | Annual | LDA | 0.40029831 | 0.019380049 | 0 | 0.008113391 | 0.02749344 | 0.016566098 | 0.130458 | 0.174517538 | 0.030991135 |
| Los Angele | 2026 | Annual | LDA | 0.001050786 | 8.06E-05 | 0 | 0 | 8.06E-05 | 4.30E-05 | 3.39E-04 | 4.63E-04 | 6.52E-05 |
| Los Angele | 2026 | Annual | LDA | 0.410071276 | 0.019870697 | 0 | 0.007992579 | 0.027863276 | 0.016985064 | 0.1337574 | 0.17860574 | 0.031780139 |
| Los Angele | 2026 | Annual | LDA | 9.71E-04 | 7.12E-05 | 0 | 0 | 7.12E-05 | 4.00E-05 | 3.15E-04 | 4.26E-04 | 6.06E-05 |
| Los Angele | 2026 | Annual | LDA | 0.441581533 | 0.021418424 | 0 | 0.008217806 | 0.02963623 | 0.018307941 | 0.1441751 | 0.192119271 | 0.034256559 |
| Los Angele | 2026 | Annual | LDA | 9.76E-04 | 6.80E-05 | 0 | 0 | 6.80E-05 | 4.03E-05 | 3.17E-04 | 4.26E-04 | 6.11E-05 |
| Los Angele | 2026 | Annual | LDA | 0.474847205 | 0.023057534 | 0 | 0.008358858 | 0.031416391 | 0.01970893 | 0.1552078 | 0.206333121 | 0.036882691 |
| Los Angele | 2026 | Annual | LDA | 0.00103546 | 6.83E-05 | 0 | 0 | 6.83E-05 | 4.30E-05 | 3.38E-04 | 4.50E-04 | 6.51E-05 |
| Los Angele | 2026 | Annual | LDA | 0.517833613 | 0.025175756 | 0 | 0.008531629 | 0.033707385 | 0.02151976 | 0.1694681 | 0.224695245 | 0.040277999 |
| Los Angele | 2026 | Annual | LDA | 0.001175474 | 7.27E-05 | 0 | 0 | 7.27E-05 | 4.90E-05 | 3.86E-04 | 5.08E-04 | 7.43E-05 |
| Los Angele | 2026 | Annual | LDA | 0.57725388 | 0.028106892 | 0 | 0.00871774 | 0.036824632 | 0.024025252 | 0.1891989 | 0.250048784 | 0.044975944 |
| Los Angele | 2026 | Annual | LDA | 0.001312134 | 7.54E-05 | 0 | 0 | 7.54E-05 | 5.50E-05 | 4.33E-04 | 5.63E-04 | 8.33E-05 |
| Los Angele | 2026 | Annual | LDA | 0.663811169 | 0.032389854 | 0 | 0.008764613 | 0.041154467 | 0.027685173 | 0.2180208 | 0.28686044 | 0.051839657 |
| Los Angele | 2026 | Annual | LDA | 0.001583715 | 8.33E-05 | 0 | 0 | 8.33E-05 | 6.67E-05 | 5.26E-04 | 6.76E-04 | 1.01E-04 |
| Los Angele | 2026 | Annual | LDT1 | 0.007805944 | 4.67E-05 | 0 | 6.05E-06 | 5.28E-05 | 3.46E-04 | 0.002727315 | 0.003126438 | 7.54E-04 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | LDT1 | 0.017092325 | 1.02E-04 | 0 | 1.71E-05 | 1.19E-04 | 7.58E-04 | 0.005970468 | 0.006847958 | 0.001648303 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | LDT1 | 0.016415453 | 1.31E-04 | 0 | 2.58E-05 | 1.57E-04 | 7.26E-04 | 0.005718125 | 0.006600777 | 0.001581267 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | LDT1 | 0.019022812 | 1.51E-04 | 0 | 3.65E-05 | 1.88E-04 | 8.41E-04 | 0.006623901 | 0.007652937 | 0.001830522 |
| Los Angele | 2026 | Annual | LDT1 | 3.22E-05 | 3.24E-06 | 0 | 0 | 3.24E-06 | 1.28E-06 | 1.01E-05 | 1.46E-05 | 1.94E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0.019328227 | 2.29E-04 | 0 | 6.81E-05 | 2.97E-04 | 8.50E-04 | 0.006689847 | 0.007836783 | 0.001848506 |
| Los Angele | 2026 | Annual | LDT1 | 4.87E-05 | 4.82E-06 | 0 | 0 | 4.82E-06 | 1.94E-06 | 1.53E-05 | 2.21E-05 | 2.95E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0.019727234 | 3.10E-04 | 0 | 9.65E-05 | 4.07E-04 | 8.62E-04 | 0.006788811 | 0.008057637 | 0.001875663 |
| Los Angele | 2026 | Annual | LDT1 | 3.75E-05 | 3.65E-06 | 0 | 0 | 3.65E-06 | 1.50E-06 | 1.18E-05 | 1.70E-05 | 2.27E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0.02144129 | 4.99E-04 | 0 | 1.92E-04 | 6.91E-04 | 9.25E-04 | 0.007284165 | 0.008900386 | 0.002012205 |
| Los Angele | 2026 | Annual | LDT1 | 5.14E-05 | 4.90E-06 | 0 | 0 | 4.90E-06 | 2.06E-06 | 1.62E-05 | 2.32E-05 | 3.12E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0.023136556 | 7.10E-04 | 0 | 2.87E-04 | 9.96E-04 | 9.86E-04 | 0.007765089 | 0.009747482 | 0.002144883 |
| Los Angele | 2026 | Annual | LDT1 | 5.11E-05 | 4.77E-06 | 0 | 0 | 4.77E-06 | 2.05E-06 | 1.62E-05 | 2.30E-05 | 3.11E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0.025631525 | 9.71E-04 | 0 | 3.99E-04 | 0.001370246 | 0.00107954 | 0.008501374 | 0.01095116 | 0.00234782 |
| Los Angele | 2026 | Annual | LDT1 | 5.41E-05 | 4.93E-06 | 0 | 0 | 4.93E-06 | 2.18E-06 | 1.71E-05 | 2.43E-05 | 3.30E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0.027148037 | 0.001172641 | 0 | 4.83E-04 | 0.001655847 | 0.00113356 | 0.008926786 | 0.011716192 | 0.002465037 |
| Los Angele | 2026 | Annual | LDT1 | 7.04E-05 | 6.25E-06 | 0 | 0 | 6.25E-06 | 2.84E-06 | 2.24E-05 | 3.15E-05 | 4.31E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0.028969831 | 0.001352671 | 0 | 5.52E-04 | 0.001904865 | 0.001202986 | 0.009473514 | 0.012581364 | 0.002615841 |
| Los Angele | 2026 | Annual | LDT1 | 5.05E-05 | 4.35E-06 | 0 | 0 | 4.35E-06 | 2.05E-06 | 1.61E-05 | 2.25E-05 | 3.10E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0.030308604 | 0.001467876 | 0 | 5.91E-04 | 0.002058733 | 0.001255408 | 0.009886336 | 0.013200477 | 0.002729266 |
| Los Angele | 2026 | Annual | LDT1 | 5.55E-05 | 4.63E-06 | 0 | 0 | 4.63E-06 | 2.25E-06 | 1.78E-05 | 2.46E-05 | 3.42E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0.031510914 | 0.001526709 | 0 | 6.04E-04 | 0.002130415 | 0.001305689 | 0.010282303 | 0.013718407 | 0.002839287 |
| Los Angele | 2026 | Annual | LDT1 | 6.71E-05 | 5.40E-06 | 0 | 0 | 5.40E-06 | 2.74E-06 | 2.16E-05 | 2.97E-05 | 4.15E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0.033229826 | 0.001610712 | 0 | 6.21E-04 | 0.002232074 | 0.001377615 | 0.010848722 | 0.014458411 | 0.002996116 |
| Los Angele | 2026 | Annual | LDT1 | 5.90E-05 | 4.55E-06 | 0 | 0 | 4.55E-06 | 2.41E-06 | 1.90E-05 | 2.60E-05 | 3.66E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0.03633155 | 0.001762071 | 0 | 6.62E-04 | 0.002423941 | 0.001506998 | 0.011867609 | 0.015798548 | 0.003278134 |
| Los Angele | 2026 | Annual | LDT1 | 4.55E-05 | 3.35E-06 | 0 | 0 | 3.35E-06 | 1.87E-06 | 1.47E-05 | 2.00E-05 | 2.84E-06 |

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| Los Angele | 2026 | Annual | LDA | 0 | 7.97E-04 | 0.017884803 | 190.7674 | 0 | 2.19E-04 | 2.06E-03 | 1.65E-04 | 5.02E-06 | 9.87E-05 | 4.66E-06 | 3.91E-05 | 8.63E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 6.96E-05 | 0 | 0.6561155 | 1.83E-05 | 1.72E-04 | 5.54E-04 | 1.10E-05 | 9.87E-05 | 1.01E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 8.92E-04 | 0.020438478 | 218.0061 | 0 | 1.99E-04 | 2.03E-03 | 1.63E-04 | 6.29E-06 | 9.87E-05 | 5.84E-06 | 3.91E-05 | 8.62E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 7.01E-05 | 0 | 0.6606806 | 1.77E-05 | 1.67E-04 | 5.40E-04 | 1.07E-05 | 9.87E-05 | 9.85E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 9.67E-04 | 0.022634806 | 241.4331 | 0 | 1.83E-04 | 1.98E-03 | 1.61E-04 | 7.22E-06 | 9.87E-05 | 6.70E-06 | 3.91E-05 | 8.62E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 6.51E-05 | 0 | 0.6135682 | 1.72E-05 | 1.62E-04 | 5.24E-04 | 1.04E-05 | 9.87E-05 | 9.57E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0.00104758 | 0.025150307 | 268.2646 | 0 | 1.67E-04 | 1.93E-03 | 1.59E-04 | 7.80E-06 | 9.87E-05 | 7.24E-06 | 3.91E-05 | 8.60E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 6.72E-05 | 0 | 0.6334195 | 1.66E-05 | 1.56E-04 | 5.08E-04 | 1.01E-05 | 9.87E-05 | 9.27E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0.001110926 | 0.027410179 | 292.3694 | 0 | 1.49E-04 | 1.87E-03 | 1.56E-04 | 8.05E-06 | 9.87E-05 | 7.47E-06 | 3.91E-05 | 8.59E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 6.58E-05 | 0 | 0.6205684 | 1.60E-05 | 1.50E-04 | 4.90E-04 | 9.73E-06 | 9.87E-05 | 8.95E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0.001175667 | 0.029949167 | 319.4513 | 0 | 1.32E-04 | 1.81E-03 | 1.53E-04 | 7.97E-06 | 9.87E-05 | 7.40E-06 | 3.91E-05 | 8.58E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 6.94E-05 | 0 | 0.6540924 | 1.53E-05 | 1.44E-04 | 4.71E-04 | 9.36E-06 | 9.87E-05 | 8.61E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0.001218885 | 0.03221002 | 343.5667 | 0 | 1.11E-04 | 1.72E-03 | 1.47E-04 | 7.89E-06 | 9.87E-05 | 7.32E-06 | 3.91E-05 | 8.57E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 6.52E-05 | 0 | 0.6150971 | 1.46E-05 | 1.37E-04 | 4.52E-04 | 8.97E-06 | 9.87E-05 | 8.25E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0.001199089 | 0.032979228 | 351.7714 | 0 | 9.79E-05 | 1.60E-03 | 1.36E-04 | 7.80E-06 | 9.87E-05 | 7.23E-06 | 3.91E-05 | 8.56E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 6.06E-05 | 0 | 0.5708721 | 1.38E-05 | 1.30E-04 | 4.30E-04 | 8.54E-06 | 9.87E-05 | 7.86E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0.001230117 | 0.035486676 | 378.517 | 0 | 8.52E-05 | 1.40E-03 | 1.28E-04 | 7.69E-06 | 9.87E-05 | 7.14E-06 | 3.91E-05 | 8.55E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 6.11E-05 | 0 | 0.5760083 | 1.30E-05 | 1.22E-04 | 4.07E-04 | 8.09E-06 | 9.87E-05 | 7.44E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0.001249349 | 0.03813204 | 406.7336 | 0 | 7.53E-05 | 1.27E-03 | 1.17E-04 | 7.58E-06 | 9.87E-05 | 7.03E-06 | 3.91E-05 | 8.53E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 6.51E-05 | 0 | 0.6138594 | 1.22E-05 | 1.14E-04 | 3.83E-04 | 7.62E-06 | 9.87E-05 | 7.01E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0.001273814 | 0.041551813 | 443.2104 | 0 | 6.70E-05 | 1.17E-03 | 1.08E-04 | 7.44E-06 | 9.87E-05 | 6.91E-06 | 3.91E-05 | 8.51E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 7.43E-05 | 0 | 0.7001756 | 1.13E-05 | 1.05E-04 | 3.58E-04 | 7.11E-06 | 9.87E-05 | 6.54E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0.001300413 | 0.046276357 | 493.6046 | 0 | 5.90E-05 | 1.08E-03 | 9.93E-05 | 7.28E-06 | 9.87E-05 | 6.76E-06 | 3.91E-05 | 8.49E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 8.33E-05 | 0 | 0.7855827 | 1.03E-05 | 9.59E-05 | 3.30E-04 | 6.57E-06 | 9.87E-05 | 6.05E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0.001306353 | 0.05314601 | 566.8794 | 0 | 4.98E-05 | 9.96E-04 | 8.98E-05 | 7.06E-06 | 9.87E-05 | 6.55E-06 | 3.91E-05 | 8.46E-06 |
| Los Angele | 2026 | Annual | LDA | 0 | 0 | 1.01E-04 | 0 | 0.9535709 | 9.25E-06 | 8.57E-05 | 3.00E-04 | 5.98E-06 | 9.87E-05 | 5.50E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 3.22E-05 | 7.86E-04 | 8.383943 | 0 | 4.45E-04 | 2.48E-03 | 1.58E-04 | 7.24E-07 | 9.87E-05 | 6.72E-07 | 3.91E-05 | 1.00E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2026 | Annual | LDT1 | 0 | 6.97E-05 | 0.001718051 | 18.32551 | 0 | 4.01E-04 | 2.26E-03 | 1.53E-04 | 7.48E-07 | 9.87E-05 | 6.94E-07 | 3.91E-05 | 9.99E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2026 | Annual | LDT1 | 0 | 6.65E-05 | 0.001647777 | 17.57594 | 0 | 3.63E-04 | 2.22E-03 | 1.60E-04 | 1.02E-06 | 9.87E-05 | 9.51E-07 | 3.91E-05 | 1.00E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Los Angele | 2026 | Annual | LDT1 | 0 | 7.63E-05 | 0.001906871 | 20.33955 | 0 | 3.29E-04 | 2.16E-03 | 1.67E-04 | 1.06E-06 | 9.87E-05 | 9.85E-07 | 3.91E-05 | 1.00E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 1.94E-06 | 0 | 0.018325863 | 2.39E-05 | 2.25E-04 | 7.31E-04 | 1.21E-05 | 9.87E-05 | 1.11E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 7.64E-05 | 0.001924932 | 20.53219 | 0 | 2.96E-04 | 2.14E-03 | 1.66E-04 | 1.66E-06 | 9.87E-05 | 1.54E-06 | 3.91E-05 | 9.99E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 2.95E-06 | 0 | 0.027763944 | 2.35E-05 | 2.21E-04 | 7.19E-04 | 1.19E-05 | 9.87E-05 | 1.09E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 7.70E-05 | 0.001952615 | 20.82748 | 0 | 2.64E-04 | 2.12E-03 | 1.65E-04 | 2.24E-06 | 9.87E-05 | 2.08E-06 | 3.91E-05 | 9.99E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 2.27E-06 | 0 | 0.02143725 | 2.30E-05 | 2.16E-04 | 7.05E-04 | 1.17E-05 | 9.87E-05 | 1.07E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 8.17E-05 | 0.002093901 | 22.3345 | 0 | 2.46E-04 | 2.09E-03 | 1.64E-04 | 3.55E-06 | 9.87E-05 | 3.30E-06 | 3.91E-05 | 9.98E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 3.12E-06 | 0 | 0.029390914 | 2.25E-05 | 2.11E-04 | 6.90E-04 | 1.14E-05 | 9.87E-05 | 1.05E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 8.62E-05 | 0.002231108 | 23.79801 | 0 | 2.27E-04 | 2.06E-03 | 1.63E-04 | 4.80E-06 | 9.87E-05 | 4.46E-06 | 3.91E-05 | 9.98E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 3.11E-06 | 0 | 0.029318824 | 2.19E-05 | 2.06E-04 | 6.74E-04 | 1.11E-05 | 9.87E-05 | 1.03E-05 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 9.32E-05 | 0.002441016 | 26.03698 | 0 | 2.05E-04 | 2.02E-03 | 1.62E-04 | 6.03E-06 | 9.87E-05 | 5.60E-06 | 3.91E-05 | 9.97E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 3.30E-06 | 0 | 0.031117275 | 2.13E-05 | 2.00E-04 | 6.56E-04 | 1.09E-05 | 9.87E-05 | 9.99E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 9.67E-05 | 0.002561693 | 27.32417 | 0 | 1.87E-04 | 1.97E-03 | 1.60E-04 | 6.94E-06 | 9.87E-05 | 6.44E-06 | 3.91E-05 | 9.96E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 4.31E-06 | 0 | 0.040627785 | 2.06E-05 | 1.93E-04 | 6.36E-04 | 1.05E-05 | 9.87E-05 | 9.69E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 1.01E-04 | 0.002716825 | 28.97888 | 0 | 1.70E-04 | 1.92E-03 | 1.58E-04 | 7.52E-06 | 9.87E-05 | 6.98E-06 | 3.91E-05 | 9.96E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 3.10E-06 | 0 | 0.02923031 | 1.99E-05 | 1.86E-04 | 6.16E-04 | 1.02E-05 | 9.87E-05 | 9.38E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 1.04E-04 | 0.002832809 | 30.21603 | 0 | 1.50E-04 | 1.86E-03 | 1.55E-04 | 7.79E-06 | 9.87E-05 | 7.23E-06 | 3.91E-05 | 9.95E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 3.42E-06 | 0 | 0.032213762 | 1.92E-05 | 1.79E-04 | 5.94E-04 | 9.84E-06 | 9.87E-05 | 9.05E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 1.05E-04 | 0.00294471 | 31.40961 | 0 | 1.30E-04 | 1.80E-03 | 1.52E-04 | 7.75E-06 | 9.87E-05 | 7.19E-06 | 3.91E-05 | 9.94E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 4.15E-06 | 0 | 0.039121132 | 1.83E-05 | 1.71E-04 | 5.70E-04 | 9.44E-06 | 9.87E-05 | 8.69E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 1.08E-04 | 0.003104532 | 33.11435 | 0 | 1.06E-04 | 1.71E-03 | 1.46E-04 | 7.70E-06 | 9.87E-05 | 7.14E-06 | 3.91E-05 | 9.94E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 3.66E-06 | 0 | 0.034504954 | 1.75E-05 | 1.63E-04 | 5.45E-04 | 9.03E-06 | 9.87E-05 | 8.31E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 1.15E-04 | 0.003393473 | 36.19632 | 0 | 9.26E-05 | 1.59E-03 | 1.35E-04 | 7.64E-06 | 9.87E-05 | 7.09E-06 | 3.91E-05 | 9.93E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 2.84E-06 | 0 | 0.026731491 | 1.65E-05 | 1.54E-04 | 5.18E-04 | 8.59E-06 | 9.87E-05 | 7.90E-06 | 3.91E-05 | 6.68E-06 |

| | | | | |
|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDA | 2.76E-04 |
| Los Angele | 2026 | Annual | LDA | 2.24E-04 |
| Los Angele | 2026 | Annual | LDA | 2.65E-04 |
| Los Angele | 2026 | Annual | LDA | 2.15E-04 |
| Los Angele | 2026 | Annual | LDA | 2.54E-04 |
| Los Angele | 2026 | Annual | LDA | 2.07E-04 |
| Los Angele | 2026 | Annual | LDA | 2.54E-04 |
| Los Angele | 2026 | Annual | LDA | 2.07E-04 |
| Los Angele | 2026 | Annual | LDA | 2.54E-04 |
| Los Angele | 2026 | Annual | LDA | 2.07E-04 |
| Los Angele | 2026 | Annual | LDA | 2.53E-04 |
| Los Angele | 2026 | Annual | LDA | 2.07E-04 |
| Los Angele | 2026 | Annual | LDA | 2.53E-04 |
| Los Angele | 2026 | Annual | LDA | 2.07E-04 |
| Los Angele | 2026 | Annual | LDA | 2.53E-04 |
| Los Angele | 2026 | Annual | LDA | 2.07E-04 |
| Los Angele | 2026 | Annual | LDA | 2.52E-04 |
| Los Angele | 2026 | Annual | LDA | 2.07E-04 |
| Los Angele | 2026 | Annual | LDA | 2.52E-04 |
| Los Angele | 2026 | Annual | LDA | 2.07E-04 |
| Los Angele | 2026 | Annual | LDA | 2.52E-04 |
| Los Angele | 2026 | Annual | LDA | 2.07E-04 |
| Los Angele | 2026 | Annual | LDA | 2.51E-04 |
| Los Angele | 2026 | Annual | LDA | 2.07E-04 |
| Los Angele | 2026 | Annual | LDA | 2.50E-04 |
| Los Angele | 2026 | Annual | LDA | 2.07E-04 |
| Los Angele | 2026 | Annual | LDT1 | 4.49E-04 |
| Los Angele | 2026 | Annual | LDT1 | |
| Los Angele | 2026 | Annual | LDT1 | 4.49E-04 |
| Los Angele | 2026 | Annual | LDT1 | |
| Los Angele | 2026 | Annual | LDT1 | 4.49E-04 |
| Los Angele | 2026 | Annual | LDT1 | |
| Los Angele | 2026 | Annual | LDT1 | 4.33E-04 |
| Los Angele | 2026 | Annual | LDT1 | 3.04E-04 |
| Los Angele | 2026 | Annual | LDT1 | 3.84E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.70E-04 |
| Los Angele | 2026 | Annual | LDT1 | 3.35E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.35E-04 |
| Los Angele | 2026 | Annual | LDT1 | 3.26E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.29E-04 |
| Los Angele | 2026 | Annual | LDT1 | 3.19E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.24E-04 |
| Los Angele | 2026 | Annual | LDT1 | 3.06E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.15E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.94E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.94E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.94E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.94E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.93E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.93E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.07E-04 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDT1 | GAS | 2022 | AllSpeeds | 18980.79 | 728464.5675 | 123173 | 0.007414523 | 0 | 0.005690476 | 0.013104999 |
| Los Angele | 2026 | Annual | LDT1 | DSL | 2022 | AllSpeeds | 19.83228 | 761.1482577 | 128.6986 | 5.91E-06 | 0 | 0 | 5.91E-06 |
| Los Angele | 2026 | Annual | LDT1 | GAS | 2023 | AllSpeeds | 19360.49 | 774955.2172 | 125830.6 | 0.007340006 | 0 | 0.005442779 | 0.012782785 |
| Los Angele | 2026 | Annual | LDT1 | DSL | 2023 | AllSpeeds | 26.52448 | 1061.718545 | 172.3918 | 7.70E-06 | 0 | 0 | 7.70E-06 |
| Los Angele | 2026 | Annual | LDT1 | GAS | 2024 | AllSpeeds | 19990.12 | 842792.7204 | 130322.5 | 0.007552194 | 0 | 0.005303013 | 0.012855207 |
| Los Angele | 2026 | Annual | LDT1 | DSL | 2024 | AllSpeeds | 31.56067 | 1330.619811 | 205.755 | 8.91E-06 | 0 | 0 | 8.91E-06 |
| Los Angele | 2026 | Annual | LDT1 | GAS | 2025 | AllSpeeds | 20454.34 | 923793.8638 | 133758 | 0.007756998 | 0 | 0.005050318 | 0.012807316 |
| Los Angele | 2026 | Annual | LDT1 | DSL | 2025 | AllSpeeds | 36.4809 | 1647.621576 | 238.5612 | 1.01E-05 | 0 | 0 | 1.01E-05 |
| Los Angele | 2026 | Annual | LDT1 | GAS | 2026 | AllSpeeds | 20618.83 | 1036825.339 | 135246 | 0.007940948 | 0 | 0.004586923 | 0.012527871 |
| Los Angele | 2026 | Annual | LDT1 | DSL | 2026 | AllSpeeds | 35.66412 | 1793.391912 | 233.9333 | 9.84E-06 | 0 | 0 | 9.84E-06 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2010 | AllSpeeds | 469.959183 | 15877.86984 | 0 | 0.002587279 | 1.09E-04 | 0 | 0.002696021 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2011 | AllSpeeds | 526.5061483 | 18841.50889 | 0 | 0.003009682 | 1.22E-04 | 0 | 0.003131507 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2012 | AllSpeeds | 581.306052 | 24202.03466 | 0 | 0.003787899 | 1.35E-04 | 0 | 0.003922404 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2013 | AllSpeeds | 438.8551724 | 18544.68661 | 0 | 0.002279282 | 1.02E-04 | 0 | 0.002380826 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2014 | AllSpeeds | 731.8737165 | 30645.19995 | 0 | 0.003684568 | 1.69E-04 | 0 | 0.003853912 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2015 | AllSpeeds | 1390.286984 | 56769.19854 | 0 | 0.006661516 | 3.22E-04 | 0 | 0.006983206 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2016 | AllSpeeds | 723.9339774 | 35324.14216 | 0 | 0.004036018 | 1.68E-04 | 0 | 0.004203525 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2017 | AllSpeeds | 1117.575115 | 51454.31924 | 0 | 0.005710024 | 2.59E-04 | 0 | 0.005968613 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2018 | AllSpeeds | 382.69423 | 24453.78845 | 0 | 0.002628352 | 8.85E-05 | 0 | 0.002716901 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2019 | AllSpeeds | 451.642223 | 30679.94646 | 0 | 0.003183697 | 1.05E-04 | 0 | 0.0032882 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2020 | AllSpeeds | 538.1589944 | 38799.3672 | 0 | 0.003873188 | 1.25E-04 | 0 | 0.00399771 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2021 | AllSpeeds | 589.0488066 | 44871.93477 | 0 | 0.004291538 | 1.36E-04 | 0 | 0.004427834 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2022 | AllSpeeds | 580.0234494 | 46313.15995 | 0 | 0.004224563 | 1.34E-04 | 0 | 0.004358772 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2023 | AllSpeeds | 591.5215356 | 48919.34085 | 0 | 0.004235543 | 1.37E-04 | 0 | 0.004372411 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2024 | AllSpeeds | 623.6243219 | 52555.36015 | 0 | 0.004298029 | 1.44E-04 | 0 | 0.004442326 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2025 | AllSpeeds | 686.2967563 | 57596.66974 | 0 | 0.004428592 | 1.59E-04 | 0 | 0.00458739 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2026 | AllSpeeds | 615.2279564 | 51639.90367 | 0 | 0.003719081 | 1.42E-04 | 0 | 0.003861435 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2027 | AllSpeeds | 151.4062187 | 5302.010131 | 0 | 3.56E-04 | 3.50E-05 | 0 | 3.91E-04 |
| Los Angele | 2026 | Annual | LDA/LDT1 | GAS&DSI | >2007 | AllSpeeds | 3714028.05 | 126221710.6 | 23630998.94 | 1.410373323 | 0 | 1.208594161 | 2.618967485 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | >2007 | AllSpeeds | 11189.94084 | 652790.4413 | 0 | 0.066994879 | 0.002589177 | 0 | 0.069584055 |

**onsite transit**

Clean Trucks Program

EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | T6 instate heavy | DSL | 2007 | 5 | 0 | 51.92972264 | 0 | 1.15E-04 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | DSL | 2008 | 5 | 0 | 46.29857194 | 0 | 9.52E-05 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | DSL | 2009 | 5 | 0 | 30.38673352 | 0 | 5.74E-05 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | DSL | 2010 | 5 | 0 | 39.11478796 | 0 | 4.59E-05 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | DSL | 2011 | 5 | 0 | 46.53969724 | 0 | 5.05E-05 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | DSL | 2012 | 5 | 0 | 54.30341709 | 0 | 5.40E-05 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | DSL | 2013 | 5 | 0 | 51.03094911 | 0 | 4.45E-05 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | DSL | 2014 | 5 | 0 | 5.735423598 | 0 | 4.66E-06 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | DSL | >2007 | 5 | 0 | 325.3393031 | 0 | 0.000467044 | 0 | 0 | 0 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDT1 | 9.60E-04 | 0.00163716 | 0.012549173 | 8.15E-04 | 0.029065909 | 0.013799366 | 0 | 0.006075674 | 0.01987504 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 5.91E-06 | 6.73E-06 | 0 | 0 | 6.73E-06 |
| Los Angele | 2026 | Annual | LDT1 | 8.68E-04 | 0.001279467 | 0.01152412 | 6.81E-04 | 0.027134763 | 0.01366068 | 0 | 0.005811209 | 0.01947189 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 7.70E-06 | 8.76E-06 | 0 | 0 | 8.76E-06 |
| Los Angele | 2026 | Annual | LDT1 | 8.18E-04 | 0.001048159 | 0.010925502 | 5.98E-04 | 0.026244742 | 0.01405559 | 0 | 0.005661983 | 0.019717572 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.91E-06 | 1.01E-05 | 0 | 0 | 1.01E-05 |
| Los Angele | 2026 | Annual | LDT1 | 7.84E-04 | 8.84E-04 | 0.0103074 | 5.39E-04 | 0.025322244 | 0.014436753 | 0 | 0.005392183 | 0.019828936 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.01E-05 | 1.15E-05 | 0 | 0 | 1.15E-05 |
| Los Angele | 2026 | Annual | LDT1 | 7.55E-04 | 7.64E-04 | 0.009693929 | 4.95E-04 | 0.024236012 | 0.014779111 | 0 | 0.004897419 | 0.01967653 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 9.84E-06 | 1.12E-05 | 0 | 0 | 1.12E-05 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002696021 | 0.002945421 | 1.24E-04 | 0 | 0.003069214 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003131507 | 0.003426294 | 1.39E-04 | 0 | 0.003564983 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003922404 | 0.004312235 | 1.53E-04 | 0 | 0.004465359 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002380826 | 0.002594789 | 1.16E-04 | 0 | 0.002710389 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003853912 | 0.004194601 | 1.93E-04 | 0 | 0.004387386 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.006983206 | 0.007583629 | 3.66E-04 | 0 | 0.007949849 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004203525 | 0.0045947 | 1.91E-04 | 0 | 0.004785393 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005968613 | 0.006500427 | 2.94E-04 | 0 | 0.006794811 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002716901 | 0.002992179 | 1.01E-04 | 0 | 0.003092985 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.0032882 | 0.003624397 | 1.19E-04 | 0 | 0.003743366 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00399771 | 0.00440933 | 1.42E-04 | 0 | 0.004551088 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004427834 | 0.004885589 | 1.55E-04 | 0 | 0.005040752 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004358772 | 0.004809344 | 1.53E-04 | 0 | 0.00496213 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004372411 | 0.004821843 | 1.56E-04 | 0 | 0.004977658 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004442326 | 0.004892979 | 1.64E-04 | 0 | 0.00505725 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00458739 | 0.005041615 | 1.81E-04 | 0 | 0.005222395 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003861435 | 0.004233891 | 1.62E-04 | 0 | 0.00439595 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.91E-04 | 4.05E-04 | 3.99E-05 | 0 | 4.45E-04 |
| Los Angele | 2026 | Annual | LDA/LDT1 | 0.331431414 | 1.066165814 | 4.007039613 | 0.369783259 | 8.393387585 | 2.622667751 | 0 | 1.290405791 | 3.913073542 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.069584055 | 0.07626857 | 0.002947581 | 0 | 0.07921615 |

**onsite transit**

Clean Trucks Program

EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.31E-04 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.08E-04 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 6.54E-05 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 5.23E-05 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 5.75E-05 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 6.15E-05 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 5.07E-05 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 5.31E-06 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.000531694 | 0 | 0 | 0 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDT1 | 9.60E-04 | 0.00163716 | 0.012549173 | 8.15E-04 | 0.03583595 | 0.416136935 | 0 | 0.089468792 | 0.505605727 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 6.73E-06 | 5.49E-05 | 0 | 0 | 5.49E-05 |
| Los Angele | 2026 | Annual | LDT1 | 8.68E-04 | 0.001279467 | 0.01152412 | 6.81E-04 | 0.033823868 | 0.405083619 | 0 | 0.081856698 | 0.486940317 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 8.76E-06 | 7.13E-05 | 0 | 0 | 7.13E-05 |
| Los Angele | 2026 | Annual | LDT1 | 8.18E-04 | 0.001048159 | 0.010925502 | 5.98E-04 | 0.033107107 | 0.411155389 | 0 | 0.078027882 | 0.489183271 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.01E-05 | 8.23E-05 | 0 | 0 | 8.23E-05 |
| Los Angele | 2026 | Annual | LDT1 | 7.84E-04 | 8.84E-04 | 0.0103074 | 5.39E-04 | 0.032343864 | 0.422644734 | 0 | 0.074437886 | 0.49708262 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.15E-05 | 9.26E-05 | 0 | 0 | 9.26E-05 |
| Los Angele | 2026 | Annual | LDT1 | 7.55E-04 | 7.64E-04 | 0.009693929 | 4.95E-04 | 0.031384671 | 0.446337595 | 0 | 0.070684657 | 0.517022252 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0 | 0 | 1.12E-05 | 9.01E-05 | 0 | 0 | 9.01E-05 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003069214 | 0.010770883 | 0.001285872 | 0 | 0.012056755 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003564983 | 0.012529352 | 0.001440592 | 0 | 0.013969943 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004465359 | 0.015769082 | 0.001590532 | 0 | 0.017359614 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.002710389 | 0.009488684 | 0.001200767 | 0 | 0.010689451 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004387386 | 0.015338913 | 0.002002505 | 0 | 0.017341418 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.007949849 | 0.027731991 | 0.003804012 | 0 | 0.031536003 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004785393 | 0.016802005 | 0.001980781 | 0 | 0.018782786 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.006794811 | 0.023770914 | 0.003057836 | 0 | 0.02682875 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003092985 | 0.010941869 | 0.001047103 | 0 | 0.011988972 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.003743366 | 0.01325378 | 0.001235754 | 0 | 0.014489534 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004551088 | 0.016124141 | 0.001472475 | 0 | 0.017596617 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005040752 | 0.017865736 | 0.001611717 | 0 | 0.019477452 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00496213 | 0.01758692 | 0.001587022 | 0 | 0.019173943 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.004977658 | 0.017632628 | 0.001618483 | 0 | 0.01925111 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00505725 | 0.017892762 | 0.00170632 | 0 | 0.019599082 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.005222395 | 0.018436295 | 0.0018778 | 0 | 0.020314095 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.00439595 | 0.015482592 | 0.001683346 | 0 | 0.017165939 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.45E-04 | 0.001482143 | 4.14E-04 | 0 | 0.001896411 |
| Los Angele | 2026 | Annual | LDA/LDT1 | 0.331431414 | 1.066165814 | 4.007039613 | 0.369783259 | 9.687493642 | 79.88834288 | 0 | 20.50896919 | 100.3973121 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.07921615 | 0.278900692 | 0.030617184 | 0 | 0.309517876 |

**onsite transit**

Clean Trucks Program

EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 2.04E-04 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.69E-04 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.02E-04 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 8.15E-05 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 8.96E-05 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.57E-05 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 7.89E-05 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 8.27E-06 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.000828201 | 0 | 0 | 0 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDT1 | 0.040359449 | 0 | 0.005919194 | 0.046278643 | 349.3273235 | 0 | 11.73643 | 361.0637535 | 206.5572464 |
| Los Angele | 2026 | Annual | LDT1 | 1.86E-04 | 0 | 0 | 1.86E-04 | 0.266412657 | 0 | 0 | 0.266412657 | 0.157529804 |
| Los Angele | 2026 | Annual | LDT1 | 0.039794676 | 0 | 0.005346992 | 0.045141668 | 371.7333162 | 0 | 11.98964 | 383.7229562 | 219.8059099 |
| Los Angele | 2026 | Annual | LDT1 | 2.44E-04 | 0 | 0 | 2.44E-04 | 0.371616534 | 0 | 0 | 0.371616534 | 0.219736856 |
| Los Angele | 2026 | Annual | LDT1 | 0.040448956 | 0 | 0.004910945 | 0.0453599 | 404.4113717 | 0 | 12.41811 | 416.8294817 | 239.1284441 |
| Los Angele | 2026 | Annual | LDT1 | 2.85E-04 | 0 | 0 | 2.85E-04 | 0.465735735 | 0 | 0 | 0.465735735 | 0.27538954 |
| Los Angele | 2026 | Annual | LDT1 | 0.041238099 | 0 | 0.004392383 | 0.045630482 | 443.4260338 | 0 | 12.74582 | 456.1718538 | 262.1978138 |
| Los Angele | 2026 | Annual | LDT1 | 3.25E-04 | 0 | 0 | 3.25E-04 | 0.576690759 | 0 | 0 | 0.576690759 | 0.340997246 |
| Los Angele | 2026 | Annual | LDT1 | 0.04270103 | 0 | 0.003766382 | 0.046467412 | 497.8589411 | 0 | 12.88831 | 510.7472511 | 294.3839919 |
| Los Angele | 2026 | Annual | LDT1 | 3.21E-04 | 0 | 0 | 3.21E-04 | 0.627712473 | 0 | 0 | 0.627712473 | 0.371166385 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.036534235 | 0.001942688 | 0 | 0.038476923 | 19.66740798 | 0.386349013 | 0 | 20.05375699 | 17.70066718 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.040104342 | 0.002176438 | 0 | 0.04228078 | 23.3383726 | 0.43283574 | 0 | 23.77120834 | 21.00453534 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.04598908 | 0.002402967 | 0 | 0.048392047 | 29.97828389 | 0.477886224 | 0 | 30.45617011 | 26.9804555 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.028710758 | 0.001814112 | 0 | 0.030524871 | 22.91784136 | 0.360778699 | 0 | 23.27862006 | 20.62605722 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.045971962 | 0.003025374 | 0 | 0.048997336 | 37.87186302 | 0.601666481 | 0 | 38.4735295 | 34.08467672 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.082214129 | 0.005747082 | 0 | 0.08796121 | 70.15634795 | 1.14294182 | 0 | 71.29928977 | 63.14071315 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.049197428 | 0.002992553 | 0 | 0.052189981 | 43.65417995 | 0.595139296 | 0 | 44.24931924 | 39.28876195 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.06862624 | 0.004619762 | 0 | 0.073246003 | 63.58812908 | 0.918747964 | 0 | 64.50687704 | 57.22931617 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.031081093 | 0.001581958 | 0 | 0.03266305 | 30.22041063 | 0.314609318 | 0 | 30.53501995 | 27.19836957 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.036948686 | 0.001866971 | 0 | 0.038815656 | 37.91480335 | 0.371290813 | 0 | 38.28609417 | 34.12332302 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.04397652 | 0.002224608 | 0 | 0.046201129 | 47.94892258 | 0.442415435 | 0 | 48.39133801 | 43.15403032 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.047483806 | 0.002434973 | 0 | 0.049918779 | 55.4535056 | 0.484251469 | 0 | 55.93775707 | 49.90815504 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.045328567 | 0.002397665 | 0 | 0.047726232 | 57.23459636 | 0.476831808 | 0 | 57.71142817 | 51.51113672 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.0438048 | 0.002445195 | 0 | 0.046249994 | 60.45535936 | 0.486284277 | 0 | 60.94164364 | 54.40982342 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.042526505 | 0.002577899 | 0 | 0.045104404 | 64.94881429 | 0.512675675 | 0 | 65.46148997 | 58.45393286 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.041543465 | 0.002836971 | 0 | 0.044380436 | 71.17895104 | 0.564198092 | 0 | 71.74314913 | 64.06105593 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.032727723 | 0.002543191 | 0 | 0.035270914 | 63.81747749 | 0.505773102 | 0 | 64.32325059 | 57.43572974 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.002896243 | 6.26E-04 | 0 | 0.003522117 | 6.552314938 | 0.124469625 | 0 | 6.676784562 | 5.897083444 |
| Los Angele | 2026 | Annual | LDA/LDT1 | 7.316826871 | 0 | 1.245051588 | 8.561878458 | 52755.5888 | 0 | 1954.934207 | 54710.523 | 32741.86198 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.765665582 | 0.046256281 | 0 | 0.811921864 | 806.8975815 | 9.19914485 | 0 | 816.0967263 | 726.2078233 |

**onsite transit**

Clean Trucks Program

EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | T6 instate heavy | 8.16E-04 | 0 | 0 | 0 | 0.15194285 | 0 | 0 | 0 | 0.150423422 |
| Los Angele | 2013 | Annual | T6 instate heavy | 6.59E-04 | 0 | 0 | 0 | 0.135466485 | 0 | 0 | 0 | 0.13411182 |
| Los Angele | 2013 | Annual | T6 instate heavy | 3.69E-04 | 0 | 0 | 0 | 0.088909523 | 0 | 0 | 0 | 0.088020428 |
| Los Angele | 2013 | Annual | T6 instate heavy | 1.63E-04 | 0 | 0 | 0 | 0.110623266 | 0 | 0 | 0 | 0.109517033 |
| Los Angele | 2013 | Annual | T6 instate heavy | 1.58E-04 | 0 | 0 | 0 | 0.131622171 | 0 | 0 | 0 | 0.130305949 |
| Los Angele | 2013 | Annual | T6 instate heavy | 1.36E-04 | 0 | 0 | 0 | 0.153579289 | 0 | 0 | 0 | 0.152043496 |
| Los Angele | 2013 | Annual | T6 instate heavy | 1.05E-04 | 0 | 0 | 0 | 0.143992032 | 0 | 0 | 0 | 0.142552112 |
| Los Angele | 2013 | Annual | T6 instate heavy | 1.02E-05 | 0 | 0 | 0 | 0.01618342 | 0 | 0 | 0 | 0.016021586 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0.002417284 | 0 | 0 | 0 | 0.932319036 | 0 | 0 | 0 | 0.922995846 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDT1 | 0 | 6.939751059 | 213.4969974 | 0.002023984 | 0 | 7.36E-04 | 0.00275984 | 0.006423959 | 0.029510066 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0.157529804 | 3.09E-06 | 0 | 0 | 3.09E-06 | 6.71E-06 | 3.08E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 7.089474132 | 226.895384 | 0.002153151 | 0 | 7.52E-04 | 0.002904882 | 0.006833936 | 0.031393398 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0.219736856 | 4.05E-06 | 0 | 0 | 4.05E-06 | 9.36E-06 | 4.30E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 7.342828443 | 246.4712725 | 0.00234172 | 0 | 7.79E-04 | 0.003120315 | 0.00743216 | 0.034141485 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0.27538954 | 4.72E-06 | 0 | 0 | 4.72E-06 | 1.17E-05 | 5.39E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 7.536603366 | 269.7344172 | 0.002566854 | 0 | 7.99E-04 | 0.003365997 | 0.008146468 | 0.037422843 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0.340997246 | 5.39E-06 | 0 | 0 | 5.39E-06 | 1.45E-05 | 6.67E-05 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 7.620857703 | 302.0048496 | 0.002881077 | 0 | 8.08E-04 | 0.003689153 | 0.009143234 | 0.042001735 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 0.371166385 | 5.34E-06 | 0 | 0 | 5.34E-06 | 1.58E-05 | 7.27E-05 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.347714112 | 0 | 18.04838129 | 0.001259205 | 4.57E-06 | 0 | 0.001263771 | 2.10E-04 | 0.002281257 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.389552166 | 0 | 21.3940875 | 0.001460074 | 5.12E-06 | 0 | 0.001465189 | 2.49E-04 | 0.002707059 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.430097602 | 0 | 27.4105531 | 0.001831408 | 5.65E-06 | 0 | 0.001837056 | 3.20E-04 | 0.003477234 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.324700829 | 0 | 20.95075805 | 0.001070565 | 4.26E-06 | 0 | 0.001074829 | 2.45E-04 | 0.002664413 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.541499833 | 0 | 34.62617655 | 0.001721335 | 7.11E-06 | 0 | 0.001728446 | 4.05E-04 | 0.004402957 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.028647638 | 0 | 64.16936079 | 0.003093095 | 1.35E-05 | 0 | 0.003106602 | 7.51E-04 | 0.008156329 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.535625367 | 0 | 39.82438732 | 0.001861076 | 7.03E-06 | 0 | 0.00186811 | 4.67E-04 | 0.005075205 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.826873167 | 0 | 58.05618934 | 0.002612398 | 1.09E-05 | 0 | 0.002623255 | 6.81E-04 | 0.007392713 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.283148386 | 0 | 27.48151796 | 0.001191791 | 3.72E-06 | 0 | 0.001195509 | 3.23E-04 | 0.003513404 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.334161732 | 0 | 34.45748475 | 0.001428856 | 4.39E-06 | 0 | 0.001433244 | 4.06E-04 | 0.004407949 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.398173891 | 0 | 43.55220421 | 0.001717764 | 5.23E-06 | 0 | 0.001722993 | 5.13E-04 | 0.005574509 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.435826323 | 0 | 50.34398136 | 0.001877102 | 5.72E-06 | 0 | 0.001882825 | 5.94E-04 | 0.006446987 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.429148628 | 0 | 51.94028535 | 0.001817991 | 5.64E-06 | 0 | 0.001823626 | 6.13E-04 | 0.006654055 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.437655849 | 0 | 54.84747927 | 0.001788105 | 5.75E-06 | 0 | 0.001793852 | 6.47E-04 | 0.007028499 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.461408107 | 0 | 58.91534097 | 0.001773909 | 6.06E-06 | 0 | 0.001779968 | 6.95E-04 | 0.007550905 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.507778283 | 0 | 64.56883422 | 0.001779832 | 6.67E-06 | 0 | 0.0017865 | 7.62E-04 | 0.008275216 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.455195792 | 0 | 57.89092553 | 0.001449142 | 5.98E-06 | 0 | 0.001455119 | 6.83E-04 | 0.007419376 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.112022662 | 0 | 6.009106106 | 1.34E-04 | 1.47E-06 | 0 | 1.35E-04 | 7.01E-05 | 7.62E-04 |
| Los Angele | 2026 | Annual | LDA/LDT1 | 0 | 1229.429062 | 33971.29104 | 0.303669832 | 0 | 0.114051174 | 0.417721006 | 1.113085034 | 5.113234996 |
| Los Angele | 2026 | Annual | T6 instate heavy | 8.279230365 | 0 | 734.4870537 | 0.029867382 | 0.000108718 | 0 | 0.029976099 | 0.008634939 | 0.093789834 |

**onsite transit**

Clean Trucks Program

EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.87E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.38E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.44E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.70E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.82E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.89E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.48E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.49E-07 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.37265E-05 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDT1 | 0.038693865 | 0.001877924 | 0 | 6.83E-04 | 0.002560676 | 0.00160599 | 0.012647171 | 0.016813837 | 0.003493827 |
| Los Angele | 2026 | Annual | LDT1 | 4.06E-05 | 2.84E-06 | 0 | 0 | 2.84E-06 | 1.68E-06 | 1.32E-05 | 1.77E-05 | 2.54E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0.041132216 | 0.001997769 | 0 | 6.97E-04 | 0.002695252 | 0.001708484 | 0.013454312 | 0.017858047 | 0.003717301 |
| Los Angele | 2026 | Annual | LDT1 | 5.64E-05 | 3.72E-06 | 0 | 0 | 3.72E-06 | 2.34E-06 | 1.84E-05 | 2.45E-05 | 3.55E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0.04469396 | 0.00217273 | 0 | 7.22E-04 | 0.002895138 | 0.00185804 | 0.014632066 | 0.019385244 | 0.004043592 |
| Los Angele | 2026 | Annual | LDT1 | 7.04E-05 | 4.35E-06 | 0 | 0 | 4.35E-06 | 2.93E-06 | 2.31E-05 | 3.04E-05 | 4.45E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0.048935308 | 0.002381617 | 0 | 7.41E-04 | 0.00312309 | 0.002036617 | 0.016038362 | 0.021198069 | 0.004433218 |
| Los Angele | 2026 | Annual | LDT1 | 8.67E-05 | 4.96E-06 | 0 | 0 | 4.96E-06 | 3.63E-06 | 2.86E-05 | 3.72E-05 | 5.51E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0.054834122 | 0.002673164 | 0 | 7.50E-04 | 0.003422926 | 0.002285809 | 0.018000744 | 0.023709478 | 0.004976936 |
| Los Angele | 2026 | Annual | LDT1 | 9.38E-05 | 4.91E-06 | 0 | 0 | 4.91E-06 | 3.95E-06 | 3.11E-05 | 4.00E-05 | 5.99E-06 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.003755057 | 0.001158469 | 4.20E-06 | 0 | 0.00116267 | 5.25E-05 | 9.78E-04 | 0.002192858 | 1.88E-04 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.004421478 | 0.001343268 | 4.71E-06 | 0 | 0.001347974 | 6.23E-05 | 0.001160168 | 0.002570449 | 2.23E-04 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.005634427 | 0.001684895 | 5.20E-06 | 0 | 0.001690091 | 8.00E-05 | 0.001490243 | 0.003260369 | 2.86E-04 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.003984546 | 9.85E-04 | 3.92E-06 | 0 | 9.89E-04 | 6.13E-05 | 0.001141891 | 0.00219206 | 2.19E-04 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.00653677 | 0.001583629 | 6.54E-06 | 0 | 0.00159017 | 1.01E-04 | 0.001886982 | 0.003578494 | 3.61E-04 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.012013859 | 0.002845647 | 1.24E-05 | 0 | 0.002858074 | 1.88E-04 | 0.00349557 | 0.006541376 | 6.69E-04 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.007410573 | 0.00171219 | 6.47E-06 | 0 | 0.001718661 | 1.17E-04 | 0.002175088 | 0.004010564 | 4.16E-04 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.010696592 | 0.002403406 | 9.99E-06 | 0 | 0.002413395 | 1.70E-04 | 0.003168305 | 0.005751856 | 6.07E-04 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.005032382 | 0.001096448 | 3.42E-06 | 0 | 0.001099868 | 8.09E-05 | 0.001505745 | 0.00268648 | 2.88E-04 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.006247019 | 0.001314547 | 4.04E-06 | 0 | 0.001318584 | 1.01E-04 | 0.001889121 | 0.003309162 | 3.62E-04 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.007810729 | 0.001580343 | 4.81E-06 | 0 | 0.001585153 | 1.28E-04 | 0.002389075 | 0.004102536 | 4.57E-04 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.008923366 | 0.001726934 | 5.27E-06 | 0 | 0.001732199 | 1.48E-04 | 0.002762994 | 0.004643582 | 5.29E-04 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.0090903 | 0.001672552 | 5.18E-06 | 0 | 0.001677736 | 1.53E-04 | 0.002851738 | 0.004682629 | 5.46E-04 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.009469443 | 0.001645057 | 5.29E-06 | 0 | 0.001650344 | 1.62E-04 | 0.003012214 | 0.004824331 | 5.77E-04 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.010026061 | 0.001631996 | 5.57E-06 | 0 | 0.00163757 | 1.74E-04 | 0.003236102 | 0.005047469 | 6.20E-04 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.01082359 | 0.001637446 | 6.13E-06 | 0 | 0.00164358 | 1.90E-04 | 0.003546521 | 0.00538057 | 6.79E-04 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.009557575 | 0.00133321 | 5.50E-06 | 0 | 0.00133871 | 1.71E-04 | 0.003179733 | 0.004689212 | 6.09E-04 |
| Los Angele | 2026 | Annual | T6 instate heavy | 9.67E-04 | 1.23E-04 | 1.35E-06 | 0 | 1.24E-04 | 1.75E-05 | 3.26E-04 | 4.68E-04 | 6.25E-05 |
| Los Angele | 2026 | Annual | LDA/LDT1 | 6.644041036 | 0.281740968 | 0 | 0.105820674 | 0.387561642 | 0.278271258 | 2.191386371 | 2.857219271 | 0.527861766 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0.132400873 | 0.027477991 | 0.00010002 | 0 | 0.027578011 | 0.002158735 | 0.040195643 | 0.069932389 | 0.00769818 |

**onsite transit**

Clean Trucks Program

EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 2.64E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 2.19E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 1.33E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 1.56E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 1.67E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 1.73E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 1.36E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 1.37E-07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 1.26284E-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDT1 | 0 | 1.19E-04 | 0.003612561 | 38.53321 | 0 | 7.98E-05 | 1.39E-03 | 1.27E-04 | 7.58E-06 | 9.87E-05 | 7.03E-06 | 3.91E-05 | 9.92E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 2.54E-06 | 0 | 0.023977142 | 1.55E-05 | 1.44E-04 | 4.89E-04 | 8.12E-06 | 9.87E-05 | 7.47E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 1.21E-04 | 0.003838436 | 40.94248 | 0 | 7.00E-05 | 1.26E-03 | 1.17E-04 | 7.50E-06 | 9.87E-05 | 6.96E-06 | 3.91E-05 | 9.91E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 3.55E-06 | 0 | 0.033445492 | 1.45E-05 | 1.34E-04 | 4.60E-04 | 7.63E-06 | 9.87E-05 | 7.02E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 1.25E-04 | 0.004168939 | 44.46779 | 0 | 6.23E-05 | 1.16E-03 | 1.08E-04 | 7.40E-06 | 9.87E-05 | 6.87E-06 | 3.91E-05 | 9.89E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 4.45E-06 | 0 | 0.041916225 | 1.34E-05 | 1.24E-04 | 4.28E-04 | 7.10E-06 | 9.87E-05 | 6.53E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 1.29E-04 | 0.004561771 | 48.65792 | 0 | 5.48E-05 | 1.08E-03 | 9.88E-05 | 7.29E-06 | 9.87E-05 | 6.76E-06 | 3.91E-05 | 9.88E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 5.51E-06 | 0 | 0.051902167 | 1.22E-05 | 1.12E-04 | 3.94E-04 | 6.55E-06 | 9.87E-05 | 6.02E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 1.30E-04 | 0.005106838 | 54.47184 | 0 | 4.68E-05 | 9.97E-04 | 8.96E-05 | 7.12E-06 | 9.87E-05 | 6.60E-06 | 3.91E-05 | 9.85E-06 |
| Los Angele | 2026 | Annual | LDT1 | 0 | 0 | 5.99E-06 | 0 | 0.056494128 | 1.10E-05 | 1.00E-04 | 3.58E-04 | 5.96E-06 | 9.87E-05 | 5.48E-06 | 3.91E-05 | 6.68E-06 |
| Los Angele | 2026 | Annual | T6 instate heavy | 3.69E-06 | 0 | 1.91E-04 | 0 | 1.804838129 | 3.40E-04 | 1.52E-03 | 4.85E-03 | 1.59E-04 | 3.14E-04 | 1.46E-04 | 1.30E-04 | 2.41E-05 |
| Los Angele | 2026 | Annual | T6 instate heavy | 4.13E-06 | 0 | 2.27E-04 | 0 | 2.13940875 | 3.32E-04 | 1.48E-03 | 4.49E-03 | 1.56E-04 | 3.14E-04 | 1.43E-04 | 1.30E-04 | 2.41E-05 |
| Los Angele | 2026 | Annual | T6 instate heavy | 4.56E-06 | 0 | 2.91E-04 | 0 | 2.74105531 | 3.24E-04 | 1.43E-03 | 4.00E-03 | 1.52E-04 | 3.14E-04 | 1.40E-04 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2026 | Annual | T6 instate heavy | 3.44E-06 | 0 | 2.22E-04 | 0 | 2.095075805 | 2.57E-04 | 1.15E-03 | 3.29E-03 | 1.16E-04 | 3.14E-04 | 1.07E-04 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2026 | Annual | T6 instate heavy | 5.74E-06 | 0 | 3.67E-04 | 0 | 3.462617655 | 2.52E-04 | 1.13E-03 | 3.20E-03 | 1.13E-04 | 3.14E-04 | 1.04E-04 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.09E-05 | 0 | 6.80E-04 | 0 | 6.416936079 | 2.46E-04 | 1.11E-03 | 3.10E-03 | 1.09E-04 | 3.14E-04 | 1.01E-04 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2026 | Annual | T6 instate heavy | 5.68E-06 | 0 | 4.22E-04 | 0 | 3.982438732 | 2.38E-04 | 1.06E-03 | 2.95E-03 | 1.06E-04 | 3.14E-04 | 9.73E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2026 | Annual | T6 instate heavy | 8.77E-06 | 0 | 6.15E-04 | 0 | 5.805618934 | 2.32E-04 | 1.04E-03 | 2.85E-03 | 1.02E-04 | 3.14E-04 | 9.38E-05 | 1.30E-04 | 2.39E-05 |
| Los Angele | 2026 | Annual | T6 instate heavy | 3.00E-06 | 0 | 2.91E-04 | 0 | 2.748151796 | 2.22E-04 | 9.81E-04 | 2.67E-03 | 9.78E-05 | 3.14E-04 | 9.00E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2026 | Annual | T6 instate heavy | 3.54E-06 | 0 | 3.65E-04 | 0 | 3.445748475 | 2.14E-04 | 9.45E-04 | 2.53E-03 | 9.34E-05 | 3.14E-04 | 8.60E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2026 | Annual | T6 instate heavy | 4.22E-06 | 0 | 4.62E-04 | 0 | 4.355220421 | 2.06E-04 | 9.07E-04 | 2.38E-03 | 8.88E-05 | 3.14E-04 | 8.17E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2026 | Annual | T6 instate heavy | 4.62E-06 | 0 | 5.34E-04 | 0 | 5.034398136 | 1.97E-04 | 8.68E-04 | 2.22E-03 | 8.39E-05 | 3.14E-04 | 7.72E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2026 | Annual | T6 instate heavy | 4.55E-06 | 0 | 5.51E-04 | 0 | 5.194028535 | 1.88E-04 | 8.28E-04 | 2.06E-03 | 7.88E-05 | 3.14E-04 | 7.25E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2026 | Annual | T6 instate heavy | 4.64E-06 | 0 | 5.81E-04 | 0 | 5.484747927 | 1.79E-04 | 7.87E-04 | 1.89E-03 | 7.33E-05 | 3.14E-04 | 6.75E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2026 | Annual | T6 instate heavy | 4.89E-06 | 0 | 6.25E-04 | 0 | 5.891534097 | 1.69E-04 | 7.46E-04 | 1.72E-03 | 6.77E-05 | 3.14E-04 | 6.23E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2026 | Annual | T6 instate heavy | 5.38E-06 | 0 | 6.84E-04 | 0 | 6.456883422 | 1.59E-04 | 7.05E-04 | 1.54E-03 | 6.20E-05 | 3.14E-04 | 5.71E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2026 | Annual | T6 instate heavy | 4.83E-06 | 0 | 6.14E-04 | 0 | 5.789092553 | 1.50E-04 | 6.65E-04 | 1.37E-03 | 5.64E-05 | 3.14E-04 | 5.18E-05 | 1.30E-04 | 2.38E-05 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.19E-06 | 0 | 6.37E-05 | 0 | 0.600910611 | 1.48E-04 | 7.15E-04 | 1.33E-03 | 5.10E-05 | 3.14E-04 | 4.69E-05 | 1.30E-04 | 2.40E-05 |
| Los Angele | 2026 | Annual | LDA/LDT1 | 0 | 0.019873784 | 0.54773555 | 5828.372273 | 12.39422886 | 1.33E-04 | 1.59E-03 | 1.36E-04 | 6.62E-06 | 9.87E-05 | 6.14E-06 | 3.91E-05 | 8.68E-06 |
| Los Angele | 2026 | Annual | T6 instate heavy | 8.77641E-05 | 0 | 0.007785944 | 0 | 73.44870537 | 2.13E-04 | 9.48E-04 | 2.49E-03 | 9.18E-05 | 3.14E-04 | 8.45E-05 | 1.30E-04 | 2.39E-05 |

**onsite transit**

Clean Trucks Program

EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.260129079 | 4.42E-03 | 7.85E-03 | 3.14E-02 | 1.10E-04 | 0.00E+00 | 1.02E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.796379027 | 4.11E-03 | 7.29E-03 | 2.85E-02 | 1.03E-04 | 0.00E+00 | 9.48E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 2.490686778 | 3.78E-03 | 6.70E-03 | 2.43E-02 | 9.51E-05 | 0.00E+00 | 8.75E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.098939655 | 2.35E-03 | 4.17E-03 | 8.34E-03 | 8.68E-05 | 0.00E+00 | 7.98E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.686650385 | 2.17E-03 | 3.85E-03 | 6.80E-03 | 7.82E-05 | 0.00E+00 | 7.19E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.301800395 | 1.99E-03 | 3.53E-03 | 5.02E-03 | 6.95E-05 | 0.00E+00 | 6.39E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.03333173 | 1.74E-03 | 3.09E-03 | 4.11E-03 | 5.79E-05 | 0.00E+00 | 5.33E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.458313742 | 1.63E-03 | 2.88E-03 | 3.55E-03 | 5.20E-05 | 0.00E+00 | 4.79E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2013 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 26.12623079 | 2.87E-03 | 5.09E-03 | 1.49E-02 | 8.44E-05 | 0.00E+00 | 7.76E-05 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories

| | | | | |
|---|---|---|---|---|
| Los Angele | 2026 | Annual | LDT1 | 2.93E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.93E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.92E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.92E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.91E-04 |
| Los Angele | 2026 | Annual | LDT1 | 2.07E-04 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.14E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.14E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.12E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.13E-03 |
| Los Angele | 2026 | Annual | LDA/LDT1 | 2.69E-04 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.13E-03 |

**onsite transit**

Clean Trucks Program

EMFAC 2011
2013 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2013 | Annual | T6 instate heavy | 2.90E-03 |
| Los Angele | 2013 | Annual | T6 instate heavy | 2.90E-03 |
| Los Angele | 2013 | Annual | T6 instate heavy | 2.90E-03 |
| Los Angele | 2013 | Annual | T6 instate heavy | 2.80E-03 |
| Los Angele | 2013 | Annual | T6 instate heavy | 2.80E-03 |
| Los Angele | 2013 | Annual | T6 instate heavy | 2.80E-03 |
| Los Angele | 2013 | Annual | T6 instate heavy | 2.79E-03 |
| Los Angele | 2013 | Annual | T6 instate heavy | 2.79E-03 |
| Los Angele | 2013 | Annual | T6 instate heavy | 2.84E-03 |

EMFAC 2011
2014 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories

Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | T6 instate heavy | DSL | 2007 | | 5 | 0 | 42.97908598 | 0 | 1.01E-04 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | DSL | 2008 | | 5 | 0 | 41.49337882 | 0 | 9.18E-05 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | DSL | 2009 | | 5 | 0 | 30.51693483 | 0 | 6.27E-05 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | DSL | 2010 | | 5 | 0 | 38.76293032 | 0 | 4.89E-05 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | DSL | 2011 | | 5 | 0 | 45.81185108 | 0 | 5.38E-05 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | DSL | 2012 | | 5 | 0 | 52.69942025 | 0 | 5.72E-05 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | DSL | 2013 | | 5 | 0 | 59.99442321 | 0 | 5.59E-05 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | DSL | 2014 | | 5 | 0 | 57.8294364 | 0 | 5.04E-05 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | DSL | 2015 | | 5 | 0 | 6.389641735 | 0 | 5.20E-06 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | DSL | >2007 | | 5 | 0 | 333.4980166 | 0 | 0.00042586 | 0 | 0 | 0 |

EMFAC 2011
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EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | 2007 | | 5 | 0 | 37.23409364 | 0 | 9.30E-05 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | 2008 | | 5 | 0 | 41.90908192 | 0 | 9.89E-05 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | 2009 | | 5 | 0 | 28.24556473 | 0 | 6.25E-05 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | 2010 | | 5 | 0 | 74.87891325 | 0 | 1.01E-04 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | 2011 | | 5 | 0 | 46.88703779 | 0 | 5.91E-05 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | 2012 | | 5 | 0 | 53.57462602 | 0 | 6.29E-05 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | 2013 | | 5 | 0 | 60.12979832 | 0 | 5.95E-05 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | 2014 | | 5 | 0 | 70.21453079 | 0 | 6.54E-05 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | 2015 | | 5 | 0 | 66.53671994 | 0 | 5.80E-05 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | 2016 | | 5 | 0 | 7.11311113 | 0 | 5.78E-06 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | DSL | >2007 | | 5 | 0 | 407.580302 | 0 | 0.000473814 | 0 | 0 | 0 |

EMFAC 2011
2016 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
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| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | 2007 | | 5 | 0 | 49.26360884 | 0 | 1.30E-04 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | 2008 | | 5 | 0 | 34.6540409 | 0 | 8.66E-05 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | 2009 | | 5 | 0 | 22.64179752 | 0 | 5.34E-05 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | 2010 | | 5 | 0 | 74.74871951 | 0 | 1.06E-04 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | 2011 | | 5 | 0 | 57.24680262 | 0 | 7.69E-05 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | 2012 | | 5 | 0 | 51.42485964 | 0 | 6.48E-05 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | 2013 | | 5 | 0 | 57.32949414 | 0 | 6.01E-05 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | 2014 | | 5 | 0 | 66.00103344 | 0 | 6.54E-05 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | 2015 | | 5 | 0 | 75.76859068 | 0 | 7.05E-05 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | 2016 | | 5 | 0 | 69.46953654 | 0 | 6.06E-05 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | 2017 | | 5 | 0 | 7.563383561 | 0 | 6.15E-06 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | DSL | >2007 | | 5 | 0 | 459.5524201 | 0 | 0.000510672 | 0 | 0 | 0 |

Los Angeles COUNTY
South Coast AIR BASIN
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| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.15E-04 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.04E-04 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 7.14E-05 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 5.56E-05 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 6.13E-05 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 6.51E-05 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 6.36E-05 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 5.74E-05 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 5.91E-06 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.000484809 | 0 | 0 | 0 |

EMFAC 2011
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EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
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| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.06E-04 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.13E-04 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 7.11E-05 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.14E-04 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 6.73E-05 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 7.16E-05 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 6.78E-05 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 7.44E-05 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 6.61E-05 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 6.58E-06 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.000539401 | 0 | 0 | 0 |

EMFAC 2011
2016 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
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| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.47E-04 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 9.86E-05 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 6.08E-05 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.21E-04 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 8.75E-05 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 7.38E-05 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 6.84E-05 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 7.44E-05 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 8.03E-05 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 6.90E-05 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 7.00E-06 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.000581361 | 0 | 0 | 0 |

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| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.80E-04 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.63E-04 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.11E-04 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 8.67E-05 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 9.54E-05 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.01E-04 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 9.91E-05 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 8.94E-05 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 9.21E-06 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.000755171 | 0 | 0 | 0 |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
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| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.65E-04 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.75E-04 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.11E-04 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.78E-04 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.05E-04 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.12E-04 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.06E-04 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.16E-04 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.03E-04 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.03E-05 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.000840206 | 0 | 0 | 0 |

EMFAC 2011
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| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 2.30E-04 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.54E-04 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 9.48E-05 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.88E-04 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.36E-04 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.15E-04 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.07E-04 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.16E-04 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.25E-04 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.07E-04 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.09E-05 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.000905566 | 0 | 0 | 0 |

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| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | T6 instate heavy | 6.91E-04 | 0 | 0 | 0 | 0.125753894 | 0 | 0 | 0 | 0.123867585 |
| Los Angele | 2014 | Annual | T6 instate heavy | 6.07E-04 | 0 | 0 | 0 | 0.121406815 | 0 | 0 | 0 | 0.119585713 |
| Los Angele | 2014 | Annual | T6 instate heavy | 3.82E-04 | 0 | 0 | 0 | 0.089290484 | 0 | 0 | 0 | 0.087951126 |
| Los Angele | 2014 | Annual | T6 instate heavy | 1.75E-04 | 0 | 0 | 0 | 0.109628153 | 0 | 0 | 0 | 0.10798373 |
| Los Angele | 2014 | Annual | T6 instate heavy | 1.73E-04 | 0 | 0 | 0 | 0.129563698 | 0 | 0 | 0 | 0.127620243 |
| Los Angele | 2014 | Annual | T6 instate heavy | 1.52E-04 | 0 | 0 | 0 | 0.149042914 | 0 | 0 | 0 | 0.14680727 |
| Los Angele | 2014 | Annual | T6 instate heavy | 1.40E-04 | 0 | 0 | 0 | 0.169283917 | 0 | 0 | 0 | 0.166744658 |
| Los Angele | 2014 | Annual | T6 instate heavy | 1.19E-04 | 0 | 0 | 0 | 0.163175058 | 0 | 0 | 0 | 0.160727432 |
| Los Angele | 2014 | Annual | T6 instate heavy | 1.13E-05 | 0 | 0 | 0 | 0.018029402 | 0 | 0 | 0 | 0.017758961 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0.001759782 | 0 | 0 | 0 | 0.94942044 | 0 | 0 | 0 | 0.935179133 |

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Los Angeles COUNTY
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| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | T6 instate heavy | 6.12E-04 | 0 | 0 | 0 | 0.108944435 | 0 | 0 | 0 | 0.106220824 |
| Los Angele | 2015 | Annual | T6 instate heavy | 6.28E-04 | 0 | 0 | 0 | 0.122623134 | 0 | 0 | 0 | 0.119557556 |
| Los Angele | 2015 | Annual | T6 instate heavy | 3.64E-04 | 0 | 0 | 0 | 0.082644609 | 0 | 0 | 0 | 0.080578493 |
| Los Angele | 2015 | Annual | T6 instate heavy | 3.64E-04 | 0 | 0 | 0 | 0.211770288 | 0 | 0 | 0 | 0.206476031 |
| Los Angele | 2015 | Annual | T6 instate heavy | 1.93E-04 | 0 | 0 | 0 | 0.132604509 | 0 | 0 | 0 | 0.129289396 |
| Los Angele | 2015 | Annual | T6 instate heavy | 1.74E-04 | 0 | 0 | 0 | 0.151518144 | 0 | 0 | 0 | 0.147730191 |
| Los Angele | 2015 | Annual | T6 instate heavy | 1.58E-04 | 0 | 0 | 0 | 0.169665899 | 0 | 0 | 0 | 0.165424252 |
| Los Angele | 2015 | Annual | T6 instate heavy | 1.64E-04 | 0 | 0 | 0 | 0.198121594 | 0 | 0 | 0 | 0.193168554 |
| Los Angele | 2015 | Annual | T6 instate heavy | 1.37E-04 | 0 | 0 | 0 | 0.187744059 | 0 | 0 | 0 | 0.183050458 |
| Los Angele | 2015 | Annual | T6 instate heavy | 1.26E-05 | 0 | 0 | 0 | 0.020070787 | 0 | 0 | 0 | 0.019569018 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0.001567661 | 0 | 0 | 0 | 1.15413989 | 0 | 0 | 0 | 1.125286392 |

EMFAC 2011
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EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
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| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | T6 instate heavy | 8.25E-04 | 0 | 0 | 0 | 0.144141982 | 0 | 0 | 0 | 0.139097012 |
| Los Angele | 2016 | Annual | T6 instate heavy | 5.31E-04 | 0 | 0 | 0 | 0.101395376 | 0 | 0 | 0 | 0.097846538 |
| Los Angele | 2016 | Annual | T6 instate heavy | 3.00E-04 | 0 | 0 | 0 | 0.066248365 | 0 | 0 | 0 | 0.063929673 |
| Los Angele | 2016 | Annual | T6 instate heavy | 3.88E-04 | 0 | 0 | 0 | 0.211402078 | 0 | 0 | 0 | 0.204003005 |
| Los Angele | 2016 | Annual | T6 instate heavy | 2.56E-04 | 0 | 0 | 0 | 0.161903684 | 0 | 0 | 0 | 0.156237055 |
| Los Angele | 2016 | Annual | T6 instate heavy | 1.85E-04 | 0 | 0 | 0 | 0.14543824 | 0 | 0 | 0 | 0.140347901 |
| Los Angele | 2016 | Annual | T6 instate heavy | 1.67E-04 | 0 | 0 | 0 | 0.16176439 | 0 | 0 | 0 | 0.156102637 |
| Los Angele | 2016 | Annual | T6 instate heavy | 1.73E-04 | 0 | 0 | 0 | 0.186232534 | 0 | 0 | 0 | 0.179714395 |
| Los Angele | 2016 | Annual | T6 instate heavy | 1.77E-04 | 0 | 0 | 0 | 0.213793268 | 0 | 0 | 0 | 0.206310503 |
| Los Angele | 2016 | Annual | T6 instate heavy | 1.43E-04 | 0 | 0 | 0 | 0.196019473 | 0 | 0 | 0 | 0.189158792 |
| Los Angele | 2016 | Annual | T6 instate heavy | 1.34E-05 | 0 | 0 | 0 | 0.021341303 | 0 | 0 | 0 | 0.020594358 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0.001501712 | 0 | 0 | 0 | 1.29789497 | 0 | 0 | 0 | 1.252468646 |

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| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.53E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.29E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.57E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.84E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.99E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.06E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.91E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.67E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.66E-07 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.35072E-05 | 0 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2015 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.31E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.46E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.56E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.86E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.23E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.32E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.09E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.24E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.93E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.85E-07 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.64122E-05 | 0 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2016 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.21E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.15E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.33E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 4.13E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.95E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.44E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.16E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.30E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.41E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.01E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.97E-07 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.86032E-05 | 0 | 0 | 0 | 0 | 0 | 0 |

Los Angeles COUNTY
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| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 2.32E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 2.11E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 1.45E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 1.70E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 1.83E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 1.90E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 1.76E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 1.54E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 1.53E-07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2014 | Annual | T6 instate heavy | 0 | 1.24266E-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
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Los Angeles COUNTY
South Coast AIR BASIN
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| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 2.13E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 2.27E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 1.44E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 3.55E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 2.05E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 2.14E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 1.93E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 2.06E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 1.77E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 1.70E-07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2015 | Annual | T6 instate heavy | 0 | 1.50992E-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
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Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 2.96E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 1.98E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 1.22E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 3.80E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 2.71E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 2.25E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 1.99E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 2.11E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 2.22E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 1.85E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 1.81E-07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2016 | Annual | T6 instate heavy | 0 | 1.71149E-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 3.52775548 | 4.72E-03 | 8.37E-03 | 3.22E-02 | 1.18E-04 | 0.00E+00 | 1.08E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 3.403968684 | 4.42E-03 | 7.85E-03 | 2.92E-02 | 1.10E-04 | 0.00E+00 | 1.02E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 2.50232019 | 4.11E-03 | 7.29E-03 | 2.51E-02 | 1.03E-04 | 0.00E+00 | 9.48E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 3.071940637 | 2.52E-03 | 4.47E-03 | 9.05E-03 | 9.51E-05 | 0.00E+00 | 8.75E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 3.629526566 | 2.35E-03 | 4.17E-03 | 7.54E-03 | 8.68E-05 | 0.00E+00 | 7.98E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 4.174593938 | 2.17E-03 | 3.85E-03 | 5.76E-03 | 7.82E-05 | 0.00E+00 | 7.19E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 4.741777587 | 1.86E-03 | 3.30E-03 | 4.68E-03 | 6.37E-05 | 0.00E+00 | 5.86E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 4.570663585 | 1.74E-03 | 3.09E-03 | 4.11E-03 | 5.79E-05 | 0.00E+00 | 5.33E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0.510591862 | 1.63E-03 | 2.88E-03 | 3.55E-03 | 5.20E-05 | 0.00E+00 | 4.79E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2014 | Annual | T6 instate heavy | | 0 | 0 | 0 | 26.60538305 | 2.55E-03 | 4.53E-03 | 1.06E-02 | 8.10E-05 | 0.00E+00 | 7.45E-05 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
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EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 2.919741761 | 5.00E-03 | 8.86E-03 | 3.29E-02 | 1.24E-04 | 0.00E+00 | 1.14E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 3.288109432 | 4.72E-03 | 8.37E-03 | 3.00E-02 | 1.18E-04 | 0.00E+00 | 1.08E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 2.212396963 | 4.42E-03 | 7.85E-03 | 2.58E-02 | 1.10E-04 | 0.00E+00 | 1.02E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 5.69941819 | 2.69E-03 | 4.76E-03 | 9.73E-03 | 1.03E-04 | 0.00E+00 | 9.48E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 3.547768637 | 2.52E-03 | 4.47E-03 | 8.25E-03 | 9.51E-05 | 0.00E+00 | 8.75E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 4.052636847 | 2.35E-03 | 4.17E-03 | 6.48E-03 | 8.68E-05 | 0.00E+00 | 7.98E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 4.537449065 | 1.98E-03 | 3.51E-03 | 5.25E-03 | 6.96E-05 | 0.00E+00 | 6.41E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 5.29863158 | 1.86E-03 | 3.30E-03 | 4.68E-03 | 6.37E-05 | 0.00E+00 | 5.86E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 5.021091184 | 1.74E-03 | 3.09E-03 | 4.11E-03 | 5.79E-05 | 0.00E+00 | 5.33E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0.54269843 | 1.63E-03 | 2.88E-03 | 3.55E-03 | 5.20E-05 | 0.00E+00 | 4.79E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2015 | Annual | T6 instate heavy | | 0 | 0 | 0 | 30.9120909 | 2.33E-03 | 4.12E-03 | 7.69E-03 | 8.05E-05 | 0.00E+00 | 7.41E-05 | 0.00E+00 | 0.00E+00 |

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| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 3.865468945 | 5.26E-03 | 9.33E-03 | 3.35E-02 | 1.30E-04 | 0.00E+00 | 1.20E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 2.72075319 | 5.00E-03 | 8.86E-03 | 3.06E-02 | 1.24E-04 | 0.00E+00 | 1.14E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 1.774423592 | 4.72E-03 | 8.37E-03 | 2.65E-02 | 1.18E-04 | 0.00E+00 | 1.08E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 5.695137881 | 2.84E-03 | 5.04E-03 | 1.04E-02 | 1.10E-04 | 0.00E+00 | 1.02E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 4.342462891 | 2.69E-03 | 4.76E-03 | 8.93E-03 | 1.03E-04 | 0.00E+00 | 9.48E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 3.891121897 | 2.52E-03 | 4.47E-03 | 7.18E-03 | 9.51E-05 | 0.00E+00 | 8.75E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 4.32676422 | 2.10E-03 | 3.72E-03 | 5.81E-03 | 7.54E-05 | 0.00E+00 | 6.94E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 4.980488676 | 1.98E-03 | 3.51E-03 | 5.25E-03 | 6.96E-05 | 0.00E+00 | 6.41E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 5.71774909 | 1.86E-03 | 3.30E-03 | 4.68E-03 | 6.37E-05 | 0.00E+00 | 5.86E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 5.242400993 | 1.74E-03 | 3.09E-03 | 4.11E-03 | 5.79E-05 | 0.00E+00 | 5.33E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0.577048199 | 1.63E-03 | 2.88E-03 | 3.55E-03 | 5.20E-05 | 0.00E+00 | 4.79E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2016 | Annual | T6 instate heavy | | 0 | 0 | 0 | 34.77317385 | 2.22E-03 | 3.94E-03 | 6.54E-03 | 8.10E-05 | 0.00E+00 | 7.45E-05 | 0.00E+00 | 0.00E+00 |

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| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2014 | Annual | T6 instate heavy | 2.88E-03 |
| Los Angele | 2014 | Annual | T6 instate heavy | 2.88E-03 |
| Los Angele | 2014 | Annual | T6 instate heavy | 2.88E-03 |
| Los Angele | 2014 | Annual | T6 instate heavy | 2.79E-03 |
| Los Angele | 2014 | Annual | T6 instate heavy | 2.79E-03 |
| Los Angele | 2014 | Annual | T6 instate heavy | 2.79E-03 |
| Los Angele | 2014 | Annual | T6 instate heavy | 2.78E-03 |
| Los Angele | 2014 | Annual | T6 instate heavy | 2.78E-03 |
| Los Angele | 2014 | Annual | T6 instate heavy | 2.78E-03 |
| Los Angele | 2014 | Annual | T6 instate heavy | 2.80E-03 |

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| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2015 | Annual | T6 instate heavy | 2.85E-03 |
| Los Angele | 2015 | Annual | T6 instate heavy | 2.85E-03 |
| Los Angele | 2015 | Annual | T6 instate heavy | 2.85E-03 |
| Los Angele | 2015 | Annual | T6 instate heavy | 2.76E-03 |
| Los Angele | 2015 | Annual | T6 instate heavy | 2.76E-03 |
| Los Angele | 2015 | Annual | T6 instate heavy | 2.76E-03 |
| Los Angele | 2015 | Annual | T6 instate heavy | 2.75E-03 |
| Los Angele | 2015 | Annual | T6 instate heavy | 2.75E-03 |
| Los Angele | 2015 | Annual | T6 instate heavy | 2.75E-03 |
| Los Angele | 2015 | Annual | T6 instate heavy | 2.75E-03 |
| Los Angele | 2015 | Annual | T6 instate heavy | 2.76E-03 |

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| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2016 | Annual | T6 instate heavy | 2.82E-03 |
| Los Angele | 2016 | Annual | T6 instate heavy | 2.82E-03 |
| Los Angele | 2016 | Annual | T6 instate heavy | 2.82E-03 |
| Los Angele | 2016 | Annual | T6 instate heavy | 2.73E-03 |
| Los Angele | 2016 | Annual | T6 instate heavy | 2.73E-03 |
| Los Angele | 2016 | Annual | T6 instate heavy | 2.73E-03 |
| Los Angele | 2016 | Annual | T6 instate heavy | 2.72E-03 |
| Los Angele | 2016 | Annual | T6 instate heavy | 2.72E-03 |
| Los Angele | 2016 | Annual | T6 instate heavy | 2.72E-03 |
| Los Angele | 2016 | Annual | T6 instate heavy | 2.72E-03 |
| Los Angele | 2016 | Annual | T6 instate heavy | 2.72E-03 |
| Los Angele | 2016 | Annual | T6 instate heavy | 2.73E-03 |

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South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2007 | 5 | 0 | 45.47560239 | 0 | 1.25E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2008 | 5 | 0 | 42.6152182 | 0 | 1.12E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2009 | 5 | 0 | 18.26984367 | 0 | 4.57E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2010 | 5 | 0 | 59.08869282 | 0 | 8.83E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2011 | 5 | 0 | 49.34430066 | 0 | 7.01E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2012 | 5 | 0 | 49.67778063 | 0 | 6.67E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2013 | 5 | 0 | 54.650139 | 0 | 6.04E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2014 | 5 | 0 | 62.49254007 | 0 | 6.55E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2015 | 5 | 0 | 70.72863881 | 0 | 7.00E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2016 | 5 | 0 | 78.55944407 | 0 | 7.31E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2017 | 5 | 0 | 73.3462697 | 0 | 6.40E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | 2018 | 5 | 0 | 7.661451149 | 0 | 6.23E-06 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | DSL | >2007 | 5 | 0 | 446.4605641 | 0 | 0.000476093 | 0 | 0 | 0 | 0 |

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Los Angeles COUNTY
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| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2007 | 5 | 0 | 39.99905655 | 0 | 1.15E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2008 | 5 | 0 | 38.46951704 | 0 | 1.06E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2009 | 5 | 0 | 23.70975061 | 0 | 6.24E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2010 | 5 | 0 | 46.10199823 | 0 | 7.21E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2011 | 5 | 0 | 38.61942052 | 0 | 5.77E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2012 | 5 | 0 | 42.29502417 | 0 | 6.01E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2013 | 5 | 0 | 52.13949154 | 0 | 6.04E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2014 | 5 | 0 | 58.83375352 | 0 | 6.50E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2015 | 5 | 0 | 66.13940514 | 0 | 6.93E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2016 | 5 | 0 | 72.42499403 | 0 | 7.17E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2017 | 5 | 0 | 81.91518525 | 0 | 7.63E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2018 | 5 | 0 | 73.37678212 | 0 | 6.40E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | 2019 | 5 | 0 | 7.659742606 | 0 | 6.23E-06 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | DSL | >2007 | 5 | 0 | 454.7843784 | 0 | 0.000473015 | 0 | 0 | 0 | 0 |

EMFAC 2011
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Los Angeles COUNTY
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South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2007 | 5 | 0 | 41.95487772 | 0 | 1.25E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2008 | 5 | 0 | 41.89691921 | 0 | 1.20E-04 | 0 | 0 | 0 | 0 |

EMFAC 2011
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EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.43E-04 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.28E-04 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 5.20E-05 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.01E-04 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 7.98E-05 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 7.60E-05 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 6.87E-05 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 7.46E-05 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 7.97E-05 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 8.33E-05 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 7.28E-05 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 7.09E-06 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.000541996 | 0 | 0 | 0 |

EMFAC 2011
2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.31E-04 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.21E-04 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 7.10E-05 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 8.20E-05 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 6.57E-05 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 6.84E-05 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 6.87E-05 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 7.40E-05 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 7.89E-05 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 8.16E-05 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 8.68E-05 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 7.28E-05 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 7.09E-06 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.000538492 | 0 | 0 | 0 |

EMFAC 2011
2019 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.42E-04 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.37E-04 | 0 | 0 | 0 |

EMFAC 2011
2017 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 2.22E-04 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.99E-04 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 8.10E-05 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.57E-04 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.24E-04 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.18E-04 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.07E-04 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.16E-04 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.24E-04 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.30E-04 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.13E-04 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.10E-05 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.000844248 | 0 | 0 | 0 |

EMFAC 2011
2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
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| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 2.03E-04 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.88E-04 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.11E-04 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.28E-04 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.02E-04 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.07E-04 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.07E-04 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.15E-04 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.23E-04 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.27E-04 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.35E-04 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.13E-04 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 1.10E-05 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 0.00083879 | 0 | 0 | 0 |

EMFAC 2011
2019 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 2.21E-04 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0 | 2.13E-04 | 0 | 0 | 0 |

EMFAC 2011
2017 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | T6 instate heavy | 7.76E-04 | 0 | 0 | 0 | 0.133058531 | 0 | 0 | 0 | 0.126405605 |
| Los Angele | 2017 | Annual | T6 instate heavy | 6.66E-04 | 0 | 0 | 0 | 0.124689241 | 0 | 0 | 0 | 0.118454779 |
| Los Angele | 2017 | Annual | T6 instate heavy | 2.48E-04 | 0 | 0 | 0 | 0.053456325 | 0 | 0 | 0 | 0.050783508 |
| Los Angele | 2017 | Annual | T6 instate heavy | 3.24E-04 | 0 | 0 | 0 | 0.167112862 | 0 | 0 | 0 | 0.158757219 |
| Los Angele | 2017 | Annual | T6 instate heavy | 2.36E-04 | 0 | 0 | 0 | 0.139554066 | 0 | 0 | 0 | 0.132576362 |
| Los Angele | 2017 | Annual | T6 instate heavy | 1.95E-04 | 0 | 0 | 0 | 0.140497204 | 0 | 0 | 0 | 0.133472343 |
| Los Angele | 2017 | Annual | T6 instate heavy | 1.74E-04 | 0 | 0 | 0 | 0.154204159 | 0 | 0 | 0 | 0.146493951 |
| Los Angele | 2017 | Annual | T6 instate heavy | 1.82E-04 | 0 | 0 | 0 | 0.176332755 | 0 | 0 | 0 | 0.167516117 |
| Los Angele | 2017 | Annual | T6 instate heavy | 1.86E-04 | 0 | 0 | 0 | 0.199572233 | 0 | 0 | 0 | 0.189593621 |
| Los Angele | 2017 | Annual | T6 instate heavy | 1.84E-04 | 0 | 0 | 0 | 0.221668109 | 0 | 0 | 0 | 0.210584704 |
| Los Angele | 2017 | Annual | T6 instate heavy | 1.51E-04 | 0 | 0 | 0 | 0.206958299 | 0 | 0 | 0 | 0.196610384 |
| Los Angele | 2017 | Annual | T6 instate heavy | 1.36E-05 | 0 | 0 | 0 | 0.021618017 | 0 | 0 | 0 | 0.020537116 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0.001320574 | 0 | 0 | 0 | 1.260404841 | 0 | 0 | 0 | 1.197384599 |

EMFAC 2011
2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | T6 instate heavy | 6.94E-04 | 0 | 0 | 0 | 0.117034529 | 0 | 0 | 0 | 0.109427285 |
| Los Angele | 2018 | Annual | T6 instate heavy | 6.13E-04 | 0 | 0 | 0 | 0.1125592 | 0 | 0 | 0 | 0.105242852 |
| Los Angele | 2018 | Annual | T6 instate heavy | 3.29E-04 | 0 | 0 | 0 | 0.069373124 | 0 | 0 | 0 | 0.064863871 |
| Los Angele | 2018 | Annual | T6 instate heavy | 2.66E-04 | 0 | 0 | 0 | 0.130384283 | 0 | 0 | 0 | 0.121909305 |
| Los Angele | 2018 | Annual | T6 instate heavy | 1.97E-04 | 0 | 0 | 0 | 0.109222282 | 0 | 0 | 0 | 0.102122834 |
| Los Angele | 2018 | Annual | T6 instate heavy | 1.79E-04 | 0 | 0 | 0 | 0.119617514 | 0 | 0 | 0 | 0.111842376 |
| Los Angele | 2018 | Annual | T6 instate heavy | 1.79E-04 | 0 | 0 | 0 | 0.147119963 | 0 | 0 | 0 | 0.137557166 |
| Los Angele | 2018 | Annual | T6 instate heavy | 1.87E-04 | 0 | 0 | 0 | 0.1660089 | 0 | 0 | 0 | 0.155218322 |
| Los Angele | 2018 | Annual | T6 instate heavy | 1.92E-04 | 0 | 0 | 0 | 0.186622972 | 0 | 0 | 0 | 0.174492478 |
| Los Angele | 2018 | Annual | T6 instate heavy | 1.90E-04 | 0 | 0 | 0 | 0.204358772 | 0 | 0 | 0 | 0.191075452 |
| Los Angele | 2018 | Annual | T6 instate heavy | 1.92E-04 | 0 | 0 | 0 | 0.231136873 | 0 | 0 | 0 | 0.216112976 |
| Los Angele | 2018 | Annual | T6 instate heavy | 1.51E-04 | 0 | 0 | 0 | 0.207044395 | 0 | 0 | 0 | 0.193586509 |
| Los Angele | 2018 | Annual | T6 instate heavy | 1.36E-05 | 0 | 0 | 0 | 0.021613196 | 0 | 0 | 0 | 0.020208338 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0.001284038 | 0 | 0 | 0 | 1.283522585 | 0 | 0 | 0 | 1.200093617 |

EMFAC 2011
2019 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | T6 instate heavy | 7.39E-04 | 0 | 0 | 0 | 0.12275713 | 0 | 0 | 0 | 0.112936559 |
| Los Angele | 2019 | Annual | T6 instate heavy | 6.79E-04 | 0 | 0 | 0 | 0.122587547 | 0 | 0 | 0 | 0.112780543 |

EMFAC 2011
2017 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.10E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.78E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.13E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.47E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.73E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.56E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.21E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.36E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.46E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.50E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.12E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.99E-07 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.71409E-05 | 0 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.84E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.62E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.55E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.86E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.27E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.34E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.25E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.38E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.49E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.52E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.61E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.12E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.99E-07 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.69166E-05 | 0 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2019 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.08E-06 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.97E-06 | 0 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2017 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 2.85E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 2.56E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 1.04E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 3.19E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 2.51E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 2.35E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 2.04E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 2.17E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 2.27E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 2.30E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 1.95E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 1.83E-07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2017 | Annual | T6 instate heavy | 0 | 1.57696E-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 2.61E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 2.41E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 1.42E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 2.63E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 2.09E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 2.15E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 2.07E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 2.19E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 2.29E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 2.32E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 2.40E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 1.95E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 1.83E-07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2018 | Annual | T6 instate heavy | 0 | 1.55633E-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2019 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
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| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 2.84E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 2.73E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2017 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 3.570613447 | 5.51E-03 | 9.76E-03 | 3.41E-02 | 1.36E-04 | 0.00E+00 | 1.25E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 3.346487776 | 5.26E-03 | 9.33E-03 | 3.13E-02 | 1.30E-04 | 0.00E+00 | 1.20E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 1.432642419 | 5.00E-03 | 8.86E-03 | 2.72E-02 | 1.24E-04 | 0.00E+00 | 1.14E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 4.504178348 | 2.99E-03 | 5.30E-03 | 1.10E-02 | 1.18E-04 | 0.00E+00 | 1.08E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 3.744640784 | 2.84E-03 | 5.04E-03 | 9.58E-03 | 1.10E-04 | 0.00E+00 | 1.02E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 3.76042042 | 2.69E-03 | 4.76E-03 | 7.85E-03 | 1.03E-04 | 0.00E+00 | 9.48E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 4.125728719 | 2.21E-03 | 3.92E-03 | 6.35E-03 | 8.10E-05 | 0.00E+00 | 7.45E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 4.716429865 | 2.10E-03 | 3.72E-03 | 5.81E-03 | 7.54E-05 | 0.00E+00 | 6.94E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 5.337238529 | 1.98E-03 | 3.51E-03 | 5.25E-03 | 6.96E-05 | 0.00E+00 | 6.41E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 5.92835746 | 1.86E-03 | 3.30E-03 | 4.68E-03 | 6.37E-05 | 0.00E+00 | 5.86E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 5.534953395 | 1.74E-03 | 3.09E-03 | 4.11E-03 | 5.79E-05 | 0.00E+00 | 5.33E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0.584530729 | 1.63E-03 | 2.88E-03 | 3.55E-03 | 5.20E-05 | 0.00E+00 | 4.79E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2017 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 33.7322999 | 2.13E-03 | 3.78E-03 | 5.92E-03 | 7.68E-05 | 0.00E+00 | 7.06E-05 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 3.142861096 | 5.74E-03 | 1.02E-02 | 3.47E-02 | 1.42E-04 | 0.00E+00 | 1.30E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 3.022572743 | 5.51E-03 | 9.76E-03 | 3.19E-02 | 1.36E-04 | 0.00E+00 | 1.25E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 1.860387253 | 5.26E-03 | 9.33E-03 | 2.78E-02 | 1.30E-04 | 0.00E+00 | 1.20E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 3.515822222 | 3.13E-03 | 5.54E-03 | 1.16E-02 | 1.24E-04 | 0.00E+00 | 1.14E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 2.932056426 | 2.99E-03 | 5.30E-03 | 1.02E-02 | 1.18E-04 | 0.00E+00 | 1.08E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 3.203136365 | 2.84E-03 | 5.04E-03 | 8.48E-03 | 1.10E-04 | 0.00E+00 | 1.02E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 3.9377606 | 2.32E-03 | 4.11E-03 | 6.87E-03 | 8.63E-05 | 0.00E+00 | 7.94E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 4.441567493 | 2.21E-03 | 3.92E-03 | 6.35E-03 | 8.10E-05 | 0.00E+00 | 7.45E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 4.99166901 | 2.10E-03 | 3.72E-03 | 5.81E-03 | 7.54E-05 | 0.00E+00 | 6.94E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 5.46525085 | 1.98E-03 | 3.51E-03 | 5.25E-03 | 6.96E-05 | 0.00E+00 | 6.41E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 6.181597695 | 1.86E-03 | 3.30E-03 | 4.68E-03 | 6.37E-05 | 0.00E+00 | 5.86E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 5.537260507 | 1.74E-03 | 3.09E-03 | 4.11E-03 | 5.79E-05 | 0.00E+00 | 5.33E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0.584402004 | 1.63E-03 | 2.88E-03 | 3.55E-03 | 5.20E-05 | 0.00E+00 | 4.79E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2018 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 34.34264452 | 2.08E-03 | 3.69E-03 | 5.65E-03 | 7.44E-05 | 0.00E+00 | 6.84E-05 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
2019 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 2.627148756 | 5.95E-03 | 1.06E-02 | 3.52E-02 | 1.47E-04 | 0.00E+00 | 1.35E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2019 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 2.622837367 | 5.74E-03 | 1.02E-02 | 3.24E-02 | 1.42E-04 | 0.00E+00 | 1.30E-04 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
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EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
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| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2017 | Annual | T6 instate heavy | 2.78E-03 |
| Los Angele | 2017 | Annual | T6 instate heavy | 2.78E-03 |
| Los Angele | 2017 | Annual | T6 instate heavy | 2.78E-03 |
| Los Angele | 2017 | Annual | T6 instate heavy | 2.69E-03 |
| Los Angele | 2017 | Annual | T6 instate heavy | 2.69E-03 |
| Los Angele | 2017 | Annual | T6 instate heavy | 2.69E-03 |
| Los Angele | 2017 | Annual | T6 instate heavy | 2.68E-03 |
| Los Angele | 2017 | Annual | T6 instate heavy | 2.68E-03 |
| Los Angele | 2017 | Annual | T6 instate heavy | 2.68E-03 |
| Los Angele | 2017 | Annual | T6 instate heavy | 2.68E-03 |
| Los Angele | 2017 | Annual | T6 instate heavy | 2.68E-03 |
| Los Angele | 2017 | Annual | T6 instate heavy | 2.68E-03 |
| Los Angele | 2017 | Annual | T6 instate heavy | 2.68E-03 |

EMFAC 2011
2018 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
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| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2018 | Annual | T6 instate heavy | 2.74E-03 |
| Los Angele | 2018 | Annual | T6 instate heavy | 2.74E-03 |
| Los Angele | 2018 | Annual | T6 instate heavy | 2.74E-03 |
| Los Angele | 2018 | Annual | T6 instate heavy | 2.64E-03 |
| Los Angele | 2018 | Annual | T6 instate heavy | 2.64E-03 |
| Los Angele | 2018 | Annual | T6 instate heavy | 2.64E-03 |
| Los Angele | 2018 | Annual | T6 instate heavy | 2.64E-03 |
| Los Angele | 2018 | Annual | T6 instate heavy | 2.64E-03 |
| Los Angele | 2018 | Annual | T6 instate heavy | 2.64E-03 |
| Los Angele | 2018 | Annual | T6 instate heavy | 2.64E-03 |
| Los Angele | 2018 | Annual | T6 instate heavy | 2.64E-03 |
| Los Angele | 2018 | Annual | T6 instate heavy | 2.64E-03 |
| Los Angele | 2018 | Annual | T6 instate heavy | 2.64E-03 |

EMFAC 2011
2019 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2019 | Annual | T6 instate heavy | 2.69E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.69E-03 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2009 | 5 | 0 | 27.0657841 | 0 | 7.45E-05 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2010 | 5 | 0 | 58.83309116 | 0 | 9.58E-05 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2011 | 5 | 0 | 38.41637402 | 0 | 6.01E-05 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2012 | 5 | 0 | 41.63906351 | 0 | 6.22E-05 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2013 | 5 | 0 | 55.58341038 | 0 | 6.72E-05 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2014 | 5 | 0 | 70.28316249 | 0 | 8.14E-05 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2015 | 5 | 0 | 77.96612473 | 0 | 8.61E-05 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2016 | 5 | 0 | 84.80196903 | 0 | 8.89E-05 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2017 | 5 | 0 | 94.55956639 | 0 | 9.36E-05 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2018 | 5 | 0 | 102.6115614 | 0 | 9.55E-05 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2019 | 5 | 0 | 91.86087476 | 0 | 8.01E-05 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | 2020 | 5 | 0 | 9.534278124 | 0 | 7.75E-06 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | DSL | >2007 | 5 | 0 | 587.2009473 | 0 | 0.000600653 | 0 | 0 | 0 |

EMFAC 2011
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EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
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| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2007 | 5 | 0 | 37.81999181 | 0 | 1.16E-04 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2008 | 5 | 0 | 35.10161597 | 0 | 1.04E-04 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2009 | 5 | 0 | 23.89228471 | 0 | 6.85E-05 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2010 | 5 | 0 | 50.1633411 | 0 | 8.47E-05 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2011 | 5 | 0 | 46.17120623 | 0 | 7.52E-05 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2012 | 5 | 0 | 33.30493366 | 0 | 5.21E-05 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2013 | 5 | 0 | 69.06709209 | 0 | 8.68E-05 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2014 | 5 | 0 | 60.06086492 | 0 | 7.26E-05 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2015 | 5 | 0 | 92.65406687 | 0 | 1.07E-04 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2016 | 5 | 0 | 80.13673824 | 0 | 8.85E-05 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2017 | 5 | 0 | 88.75685637 | 0 | 9.31E-05 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2018 | 5 | 0 | 94.95902462 | 0 | 9.40E-05 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2019 | 5 | 0 | 102.9860944 | 0 | 9.59E-05 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2020 | 5 | 0 | 91.67299048 | 0 | 7.99E-05 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | 2021 | 5 | 0 | 9.423602954 | 0 | 7.66E-06 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | DSL | >2007 | 5 | 0 | 620.6502389 | 0 | 0.000639007 | 0 | 0 | 0 |

EMFAC 2011
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EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2007 | 5 | 0 | 63.74611012 | 0 | 2.02E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2008 | 5 | 0 | 32.57348602 | 0 | 1.00E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2009 | 5 | 0 | 20.8753749 | 0 | 6.21E-05 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2010 | 5 | 0 | 43.5376357 | 0 | 7.60E-05 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2011 | 5 | 0 | 42.90152434 | 0 | 7.25E-05 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2012 | 5 | 0 | 45.10064521 | 0 | 7.34E-05 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2013 | 5 | 0 | 57.02880324 | 0 | 7.42E-05 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2014 | 5 | 0 | 113.7368416 | 0 | 1.43E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2015 | 5 | 0 | 81.18717545 | 0 | 9.81E-05 | 0 | 0 | 0 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 8.48E-05 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.09E-04 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 6.84E-05 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 7.08E-05 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 7.65E-05 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.27E-05 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.80E-05 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.01E-04 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.07E-04 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.09E-04 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.12E-05 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 8.83E-06 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.000683797 | 0 | 0 | 0 |

EMFAC 2011
2020 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.32E-04 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.19E-04 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 7.80E-05 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.65E-05 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 8.56E-05 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 5.93E-05 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.88E-05 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 8.27E-05 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.22E-04 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.01E-04 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.06E-04 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.07E-04 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.09E-04 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.10E-05 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 8.72E-06 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.000727461 | 0 | 0 | 0 |

EMFAC 2011
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EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 2.30E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.14E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 7.07E-05 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 8.66E-05 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 8.25E-05 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 8.36E-05 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 8.45E-05 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.63E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.12E-04 | 0 | 0 | 0 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.32E-04 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.70E-04 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.06E-04 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.10E-04 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.19E-04 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.44E-04 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.53E-04 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.58E-04 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.66E-04 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.69E-04 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.42E-04 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.37E-05 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.001065127 | 0 | 0 | 0 |

EMFAC 2011
2020 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 2.06E-04 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.85E-04 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.22E-04 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.50E-04 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.33E-04 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.23E-05 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.54E-04 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.29E-04 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.90E-04 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.57E-04 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.65E-04 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.67E-04 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.70E-04 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.42E-04 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.36E-05 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.001133141 | 0 | 0 | 0 |

EMFAC 2011
2021 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 3.58E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.78E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.10E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.35E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.29E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.30E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.32E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 2.53E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.74E-04 | 0 | 0 | 0 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | T6 instate heavy | 3.84E-04 | 0 | 0 | 0 | 0.07919265 | 0 | 0 | 0 | 0.072857238 |
| Los Angele | 2019 | Annual | T6 instate heavy | 3.56E-04 | 0 | 0 | 0 | 0.166389977 | 0 | 0 | 0 | 0.153078779 |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.07E-04 | 0 | 0 | 0 | 0.108648032 | 0 | 0 | 0 | 0.09995619 |
| Los Angele | 2019 | Annual | T6 instate heavy | 1.89E-04 | 0 | 0 | 0 | 0.117762346 | 0 | 0 | 0 | 0.108341358 |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.04E-04 | 0 | 0 | 0 | 0.156837534 | 0 | 0 | 0 | 0.144290531 |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.41E-04 | 0 | 0 | 0 | 0.19831525 | 0 | 0 | 0 | 0.18245003 |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.48E-04 | 0 | 0 | 0 | 0.219993963 | 0 | 0 | 0 | 0.202394446 |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.46E-04 | 0 | 0 | 0 | 0.239282398 | 0 | 0 | 0 | 0.220139806 |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.48E-04 | 0 | 0 | 0 | 0.266815029 | 0 | 0 | 0 | 0.245469826 |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.40E-04 | 0 | 0 | 0 | 0.289535028 | 0 | 0 | 0 | 0.266372226 |
| Los Angele | 2019 | Annual | T6 instate heavy | 1.89E-04 | 0 | 0 | 0 | 0.259200236 | 0 | 0 | 0 | 0.238464217 |
| Los Angele | 2019 | Annual | T6 instate heavy | 1.69E-05 | 0 | 0 | 0 | 0.0269025 | 0 | 0 | 0 | 0.0247503 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0.001634387 | 0 | 0 | 0 | 1.656881937 | 0 | 0 | 0 | 1.524331382 |

EMFAC 2011
2020 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | T6 instate heavy | 6.76E-04 | 0 | 0 | 0 | 0.110658734 | 0 | 0 | 0 | 0.09959286 |
| Los Angele | 2020 | Annual | T6 instate heavy | 5.78E-04 | 0 | 0 | 0 | 0.10270495 | 0 | 0 | 0 | 0.092434455 |
| Los Angele | 2020 | Annual | T6 instate heavy | 3.45E-04 | 0 | 0 | 0 | 0.069907206 | 0 | 0 | 0 | 0.062916486 |
| Los Angele | 2020 | Annual | T6 instate heavy | 3.16E-04 | 0 | 0 | 0 | 0.141870451 | 0 | 0 | 0 | 0.127683406 |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.61E-04 | 0 | 0 | 0 | 0.130580015 | 0 | 0 | 0 | 0.117522014 |
| Los Angele | 2020 | Annual | T6 instate heavy | 1.61E-04 | 0 | 0 | 0 | 0.094192011 | 0 | 0 | 0 | 0.08477281 |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.70E-04 | 0 | 0 | 0 | 0.194883911 | 0 | 0 | 0 | 0.17539552 |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.21E-04 | 0 | 0 | 0 | 0.169471392 | 0 | 0 | 0 | 0.152524253 |
| Los Angele | 2020 | Annual | T6 instate heavy | 3.18E-04 | 0 | 0 | 0 | 0.261438355 | 0 | 0 | 0 | 0.23529452 |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.55E-04 | 0 | 0 | 0 | 0.226118699 | 0 | 0 | 0 | 0.203506829 |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.58E-04 | 0 | 0 | 0 | 0.250441749 | 0 | 0 | 0 | 0.225397574 |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.49E-04 | 0 | 0 | 0 | 0.267942164 | 0 | 0 | 0 | 0.241147948 |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.41E-04 | 0 | 0 | 0 | 0.290591833 | 0 | 0 | 0 | 0.26153265 |
| Los Angele | 2020 | Annual | T6 instate heavy | 1.89E-04 | 0 | 0 | 0 | 0.25867009 | 0 | 0 | 0 | 0.232803081 |
| Los Angele | 2020 | Annual | T6 instate heavy | 1.67E-05 | 0 | 0 | 0 | 0.026590212 | 0 | 0 | 0 | 0.023931191 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0.001747423 | 0 | 0 | 0 | 1.751264494 | 0 | 0 | 0 | 1.576138045 |

EMFAC 2011
2021 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | T6 instate heavy | 0.001153058 | 0 | 0 | 0 | 0.186516799 | 0 | 0 | 0 | 0.167865119 |
| Los Angele | 2021 | Annual | T6 instate heavy | 5.45E-04 | 0 | 0 | 0 | 0.095307813 | 0 | 0 | 0 | 0.085777032 |
| Los Angele | 2021 | Annual | T6 instate heavy | 3.07E-04 | 0 | 0 | 0 | 0.061079933 | 0 | 0 | 0 | 0.054971939 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.84E-04 | 0 | 0 | 0 | 0.123131831 | 0 | 0 | 0 | 0.110818647 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.53E-04 | 0 | 0 | 0 | 0.1213328 | 0 | 0 | 0 | 0.10919952 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.29E-04 | 0 | 0 | 0 | 0.127552287 | 0 | 0 | 0 | 0.114797058 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.35E-04 | 0 | 0 | 0 | 0.160915943 | 0 | 0 | 0 | 0.144824348 |
| Los Angele | 2021 | Annual | T6 instate heavy | 4.45E-04 | 0 | 0 | 0 | 0.320926796 | 0 | 0 | 0 | 0.288834116 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.99E-04 | 0 | 0 | 0 | 0.229082676 | 0 | 0 | 0 | 0.206174409 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.84E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.84E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.39E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.45E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.54E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.03E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.16E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.20E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.29E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.27E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.66E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.48E-07 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.13933E-05 | 0 | 0 | 0 | 0 | 0 |

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South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.87E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.58E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.69E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.42E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.01E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.07E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.32E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.74E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 4.00E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.24E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.35E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.31E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.28E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.65E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.45E-07 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.28175E-05 | 0 | 0 | 0 | 0 | 0 |

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EMFAC 2011 Vehicle Categories
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South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 4.98E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.47E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.53E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.09E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.92E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.94E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.87E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 5.46E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.71E-06 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 1.70E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 3.53E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 2.19E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 2.25E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 2.34E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 2.79E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 2.90E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 2.94E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 3.03E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 3.01E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 2.45E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 2.28E-07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 1.96818E-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 2.64E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 2.37E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 1.56E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 3.14E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 2.77E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 1.90E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 3.05E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 2.52E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 3.68E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 2.98E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 3.08E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 3.04E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 3.02E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 2.44E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 2.26E-07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 2.09921E-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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EMFAC 2011 Vehicle Categories
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South Coast AIR BASIN
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| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 4.58E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 2.27E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 1.41E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 2.84E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 2.69E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 2.71E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 2.64E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 5.03E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 3.41E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 1.692211208 | 5.51E-03 | 9.76E-03 | 2.84E-02 | 1.36E-04 | 0.00E+00 | 1.25E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.569831602 | 3.26E-03 | 5.77E-03 | 1.21E-02 | 1.30E-04 | 0.00E+00 | 1.20E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 2.323690083 | 3.13E-03 | 5.54E-03 | 1.08E-02 | 1.24E-04 | 0.00E+00 | 1.14E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 2.512440267 | 2.99E-03 | 5.30E-03 | 9.08E-03 | 1.18E-04 | 0.00E+00 | 1.08E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.344298884 | 2.42E-03 | 4.29E-03 | 7.36E-03 | 9.13E-05 | 0.00E+00 | 8.40E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.226668383 | 2.32E-03 | 4.11E-03 | 6.87E-03 | 8.63E-05 | 0.00E+00 | 7.94E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.686830623 | 2.21E-03 | 3.92E-03 | 6.35E-03 | 8.10E-05 | 0.00E+00 | 7.45E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 5.096293985 | 2.10E-03 | 3.72E-03 | 5.81E-03 | 7.54E-05 | 0.00E+00 | 6.94E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 5.681851653 | 1.98E-03 | 3.51E-03 | 5.25E-03 | 6.96E-05 | 0.00E+00 | 6.41E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 6.165885885 | 1.86E-03 | 3.30E-03 | 4.68E-03 | 6.37E-05 | 0.00E+00 | 5.86E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 5.519881483 | 1.74E-03 | 3.09E-03 | 4.11E-03 | 5.79E-05 | 0.00E+00 | 5.33E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.579254855 | 1.63E-03 | 2.88E-03 | 3.55E-03 | 5.20E-05 | 0.00E+00 | 4.79E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2019 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 35.30096575 | 2.05E-03 | 3.63E-03 | 5.57E-03 | 7.29E-05 | 0.00E+00 | 6.70E-05 | 0.00E+00 | 0.00E+00 |

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Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 2.370658473 | 6.15E-03 | 1.09E-02 | 3.57E-02 | 1.52E-04 | 0.00E+00 | 1.40E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 2.199061798 | 5.95E-03 | 1.06E-02 | 3.29E-02 | 1.47E-04 | 0.00E+00 | 1.35E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 1.494866715 | 5.74E-03 | 1.02E-02 | 2.89E-02 | 1.42E-04 | 0.00E+00 | 1.30E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.044399732 | 3.38E-03 | 5.99E-03 | 1.26E-02 | 1.36E-04 | 0.00E+00 | 1.25E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 2.792675508 | 3.26E-03 | 5.77E-03 | 1.13E-02 | 1.30E-04 | 0.00E+00 | 1.20E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 2.010798093 | 3.13E-03 | 5.54E-03 | 9.64E-03 | 1.24E-04 | 0.00E+00 | 1.14E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.172314229 | 2.51E-03 | 4.46E-03 | 7.82E-03 | 9.61E-05 | 0.00E+00 | 8.84E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.613683926 | 2.42E-03 | 4.29E-03 | 7.36E-03 | 9.13E-05 | 0.00E+00 | 8.40E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 5.583869298 | 2.32E-03 | 4.11E-03 | 6.87E-03 | 8.63E-05 | 0.00E+00 | 7.94E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.817299339 | 2.21E-03 | 3.92E-03 | 6.35E-03 | 8.10E-05 | 0.00E+00 | 7.45E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 5.333953117 | 2.10E-03 | 3.72E-03 | 5.81E-03 | 7.54E-05 | 0.00E+00 | 6.94E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 5.705836081 | 1.98E-03 | 3.51E-03 | 5.25E-03 | 6.96E-05 | 0.00E+00 | 6.41E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 6.188370705 | 1.86E-03 | 3.30E-03 | 4.68E-03 | 6.37E-05 | 0.00E+00 | 5.86E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 5.508572201 | 1.74E-03 | 3.09E-03 | 4.11E-03 | 5.79E-05 | 0.00E+00 | 5.33E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.572523941 | 1.63E-03 | 2.88E-03 | 3.55E-03 | 5.20E-05 | 0.00E+00 | 4.79E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2020 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 37.32410861 | 2.06E-03 | 3.65E-03 | 5.63E-03 | 7.35E-05 | 0.00E+00 | 6.76E-05 | 0.00E+00 | 0.00E+00 |

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South Coast AIR BASIN
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| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.865678059 | 6.34E-03 | 1.12E-02 | 3.62E-02 | 1.56E-04 | 0.00E+00 | 1.44E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 1.973182689 | 6.15E-03 | 1.09E-02 | 3.34E-02 | 1.52E-04 | 0.00E+00 | 1.40E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 1.262789947 | 5.95E-03 | 1.06E-02 | 2.94E-02 | 1.47E-04 | 0.00E+00 | 1.35E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 2.55347793 | 3.49E-03 | 6.19E-03 | 1.31E-02 | 1.42E-04 | 0.00E+00 | 1.30E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 2.507928203 | 3.38E-03 | 5.99E-03 | 1.18E-02 | 1.36E-04 | 0.00E+00 | 1.25E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 2.632214489 | 3.26E-03 | 5.77E-03 | 1.02E-02 | 1.30E-04 | 0.00E+00 | 1.20E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.32962753 | 2.60E-03 | 4.62E-03 | 8.25E-03 | 1.01E-04 | 0.00E+00 | 9.25E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 6.647882673 | 2.51E-03 | 4.46E-03 | 7.82E-03 | 9.61E-05 | 0.00E+00 | 8.84E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.728224976 | 2.42E-03 | 4.29E-03 | 7.36E-03 | 9.13E-05 | 0.00E+00 | 8.40E-05 | 0.00E+00 | 0.00E+00 |

| | | | | |
|---|---|---|---|---|
| Los Angele | 2019 | Annual | T6 instate heavy | 2.69E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.60E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.60E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.60E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.60E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.60E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.60E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.60E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.60E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.60E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.60E-03 |
| Los Angele | 2019 | Annual | T6 instate heavy | 2.60E-03 |

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Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2020 | Annual | T6 instate heavy | 2.63E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.63E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.63E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.55E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.55E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.55E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2020 | Annual | T6 instate heavy | 2.54E-03 |

EMFAC 2011
2021 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2021 | Annual | T6 instate heavy | 2.63E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.63E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.63E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.55E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.55E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.55E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.54E-03 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2016 | 5 | 0 | 124.284855 | 0 | 1.44E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2017 | 5 | 0 | 87.2251975 | 0 | 9.63E-05 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2018 | 5 | 0 | 92.68479063 | 0 | 9.72E-05 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2019 | 5 | 0 | 99.12007293 | 0 | 9.82E-05 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2020 | 5 | 0 | 106.8965335 | 0 | 9.95E-05 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2021 | 5 | 0 | 94.2328231 | 0 | 8.22E-05 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | 2022 | 5 | 0 | 9.696836592 | 0 | 7.88E-06 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | DSL | >2007 | 5 | 0 | 695.3282847 | 0 | 0.00072334 | 0 | 0 | 0 |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2007 | 5 | 0 | 52.08977529 | 0 | 1.69E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2008 | 5 | 0 | 51.01706718 | 0 | 1.62E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2009 | 5 | 0 | 18.94776633 | 0 | 5.83E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2010 | 5 | 0 | 35.31290824 | 0 | 6.36E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2011 | 5 | 0 | 37.45674638 | 0 | 6.54E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2012 | 5 | 0 | 41.56510513 | 0 | 7.02E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2013 | 5 | 0 | 64.20632663 | 0 | 8.63E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2014 | 5 | 0 | 91.553263 | 0 | 1.19E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2015 | 5 | 0 | 119.4476419 | 0 | 1.50E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2016 | 5 | 0 | 104.7107048 | 0 | 1.27E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2017 | 5 | 0 | 121.9369017 | 0 | 1.41E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2018 | 5 | 0 | 88.25128689 | 0 | 9.75E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2019 | 5 | 0 | 93.71549986 | 0 | 9.83E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2020 | 5 | 0 | 99.66696922 | 0 | 9.87E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2021 | 5 | 0 | 106.4447171 | 0 | 9.91E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2022 | 5 | 0 | 93.86307094 | 0 | 8.19E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | 2023 | 5 | 0 | 9.762472596 | 0 | 7.94E-06 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | DSL | >2007 | 5 | 0 | 718.3516231 | 0 | 0.000751122 | 0 | 0 | 0 | 0 |

EMFAC 2011
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EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2010 | 5 | 0 | 30.29513131 | 0 | 5.61E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2011 | 5 | 0 | 31.45495947 | 0 | 5.66E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2012 | 5 | 0 | 37.06694652 | 0 | 6.47E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2013 | 5 | 0 | 57.48642927 | 0 | 7.95E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2014 | 5 | 0 | 93.71923978 | 0 | 1.26E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2015 | 5 | 0 | 161.692198 | 0 | 2.10E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2016 | 5 | 0 | 84.0260054 | 0 | 1.06E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2017 | 5 | 0 | 149.9708081 | 0 | 1.81E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2018 | 5 | 0 | 85.48298965 | 0 | 9.90E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2019 | 5 | 0 | 89.59875488 | 0 | 9.90E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2020 | 5 | 0 | 94.59546372 | 0 | 9.92E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2021 | 5 | 0 | 99.6548029 | 0 | 9.87E-05 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.64E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.10E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.11E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.12E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.13E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.36E-05 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 8.98E-06 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.000823468 | 0 | 0 | 0 |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.93E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.84E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 6.64E-05 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 7.24E-05 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 7.45E-05 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 7.99E-05 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.82E-05 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.36E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.71E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.44E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.61E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.11E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.12E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.12E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.13E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.32E-05 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.04E-06 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.000855095 | 0 | 0 | 0 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 6.38E-05 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 6.45E-05 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 7.37E-05 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.05E-05 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.43E-04 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 2.40E-04 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.20E-04 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 2.06E-04 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.13E-04 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.13E-04 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.13E-04 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.12E-04 | 0 | 0 | 0 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 2.55E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.71E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.72E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.74E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.76E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.46E-04 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.40E-05 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.001282687 | 0 | 0 | 0 |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 3.00E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 2.87E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.03E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.13E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.16E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.25E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.53E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 2.11E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 2.66E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 2.24E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 2.50E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.73E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.74E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.75E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.76E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.45E-04 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.41E-05 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.001331952 | 0 | 0 | 0 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.94E-05 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.00E-04 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.15E-04 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.41E-04 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 2.23E-04 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 3.73E-04 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.87E-04 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 3.21E-04 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.76E-04 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.75E-04 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.76E-04 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.75E-04 | 0 | 0 | 0 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | T6 instate heavy | 4.27E-04 | 0 | 0 | 0 | 0.350689712 | 0 | 0 | 0 | 0.315620741 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.77E-04 | 0 | 0 | 0 | 0.246119927 | 0 | 0 | 0 | 0.221507934 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.69E-04 | 0 | 0 | 0 | 0.261525047 | 0 | 0 | 0 | 0.235372542 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.60E-04 | 0 | 0 | 0 | 0.279683231 | 0 | 0 | 0 | 0.251714908 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.50E-04 | 0 | 0 | 0 | 0.301625766 | 0 | 0 | 0 | 0.271463189 |
| Los Angele | 2021 | Annual | T6 instate heavy | 1.94E-04 | 0 | 0 | 0 | 0.26589307 | 0 | 0 | 0 | 0.239303763 |
| Los Angele | 2021 | Annual | T6 instate heavy | 1.72E-05 | 0 | 0 | 0 | 0.027361184 | 0 | 0 | 0 | 0.024625066 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0.00199354 | 0 | 0 | 0 | 1.961980614 | 0 | 0 | 0 | 1.765782553 |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | 9.52E-04 | 0 | 0 | 0 | 0.152411153 | 0 | 0 | 0 | 0.137170038 |
| Los Angele | 2022 | Annual | T6 instate heavy | 8.64E-04 | 0 | 0 | 0 | 0.149272482 | 0 | 0 | 0 | 0.134345234 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.83E-04 | 0 | 0 | 0 | 0.05543988 | 0 | 0 | 0 | 0.049895892 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.39E-04 | 0 | 0 | 0 | 0.099870904 | 0 | 0 | 0 | 0.089883814 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.30E-04 | 0 | 0 | 0 | 0.105934042 | 0 | 0 | 0 | 0.095340638 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.22E-04 | 0 | 0 | 0 | 0.117553179 | 0 | 0 | 0 | 0.105797861 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.78E-04 | 0 | 0 | 0 | 0.18116848 | 0 | 0 | 0 | 0.163051632 |
| Los Angele | 2022 | Annual | T6 instate heavy | 3.78E-04 | 0 | 0 | 0 | 0.25833226 | 0 | 0 | 0 | 0.232499034 |
| Los Angele | 2022 | Annual | T6 instate heavy | 4.67E-04 | 0 | 0 | 0 | 0.337040737 | 0 | 0 | 0 | 0.303336664 |
| Los Angele | 2022 | Annual | T6 instate heavy | 3.85E-04 | 0 | 0 | 0 | 0.295458099 | 0 | 0 | 0 | 0.265912289 |
| Los Angele | 2022 | Annual | T6 instate heavy | 4.19E-04 | 0 | 0 | 0 | 0.344064584 | 0 | 0 | 0 | 0.309658126 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.80E-04 | 0 | 0 | 0 | 0.249015203 | 0 | 0 | 0 | 0.224113683 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.72E-04 | 0 | 0 | 0 | 0.264433359 | 0 | 0 | 0 | 0.237990023 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.62E-04 | 0 | 0 | 0 | 0.281226387 | 0 | 0 | 0 | 0.253103749 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.49E-04 | 0 | 0 | 0 | 0.300350893 | 0 | 0 | 0 | 0.270315804 |
| Los Angele | 2022 | Annual | T6 instate heavy | 1.93E-04 | 0 | 0 | 0 | 0.264849755 | 0 | 0 | 0 | 0.238364779 |
| Los Angele | 2022 | Annual | T6 instate heavy | 1.73E-05 | 0 | 0 | 0 | 0.027546387 | 0 | 0 | 0 | 0.024791748 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0.002078001 | 0 | 0 | 0 | 2.026944667 | 0 | 0 | 0 | 1.824250201 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | 2.11E-04 | 0 | 0 | 0 | 0.085679778 | 0 | 0 | 0 | 0.0771118 |
| Los Angele | 2023 | Annual | T6 instate heavy | 2.00E-04 | 0 | 0 | 0 | 0.088959969 | 0 | 0 | 0 | 0.080063972 |
| Los Angele | 2023 | Annual | T6 instate heavy | 2.06E-04 | 0 | 0 | 0 | 0.104831622 | 0 | 0 | 0 | 0.09434846 |
| Los Angele | 2023 | Annual | T6 instate heavy | 2.60E-04 | 0 | 0 | 0 | 0.162207208 | 0 | 0 | 0 | 0.145986487 |
| Los Angele | 2023 | Annual | T6 instate heavy | 4.06E-04 | 0 | 0 | 0 | 0.264443912 | 0 | 0 | 0 | 0.237999521 |
| Los Angele | 2023 | Annual | T6 instate heavy | 6.67E-04 | 0 | 0 | 0 | 0.456240549 | 0 | 0 | 0 | 0.410616494 |
| Los Angele | 2023 | Annual | T6 instate heavy | 3.28E-04 | 0 | 0 | 0 | 0.237092892 | 0 | 0 | 0 | 0.213383603 |
| Los Angele | 2023 | Annual | T6 instate heavy | 5.52E-04 | 0 | 0 | 0 | 0.423166761 | 0 | 0 | 0 | 0.380850085 |
| Los Angele | 2023 | Annual | T6 instate heavy | 2.94E-04 | 0 | 0 | 0 | 0.241204007 | 0 | 0 | 0 | 0.217083606 |
| Los Angele | 2023 | Annual | T6 instate heavy | 2.85E-04 | 0 | 0 | 0 | 0.252817301 | 0 | 0 | 0 | 0.227535571 |
| Los Angele | 2023 | Annual | T6 instate heavy | 2.75E-04 | 0 | 0 | 0 | 0.266916319 | 0 | 0 | 0 | 0.240224687 |
| Los Angele | 2023 | Annual | T6 instate heavy | 2.62E-04 | 0 | 0 | 0 | 0.281192058 | 0 | 0 | 0 | 0.253072852 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 5.36E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.53E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.49E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.45E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.41E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.73E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.52E-07 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.59327E-05 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 4.16E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.98E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.44E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.60E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.66E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.83E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.36E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 4.60E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 5.74E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 4.78E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 5.26E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.57E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.53E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.47E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.39E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.72E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.54E-07 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.69816E-05 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.30E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.31E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.63E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.12E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 4.91E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 8.13E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 4.04E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 6.85E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.69E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.63E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.57E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.47E-06 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 4.93E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 3.25E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 3.21E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 3.17E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 3.13E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 2.51E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 2.32E-07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 2.3858E-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 3.83E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 3.66E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 1.32E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 2.39E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 2.44E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 2.61E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 3.09E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 4.23E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 5.28E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 4.40E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 4.84E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 3.29E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 3.25E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 3.19E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 3.12E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 2.50E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 2.34E-07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2022 | Annual | T6 instate heavy | 0 | 2.4823E-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 2.11E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 2.13E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 2.42E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 2.87E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 4.52E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 7.48E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 3.71E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 6.30E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 3.39E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 3.34E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 3.28E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 3.19E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 7.247861597 | 2.32E-03 | 4.11E-03 | 6.87E-03 | 8.63E-05 | 0.00E+00 | 7.94E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 5.065354609 | 2.21E-03 | 3.92E-03 | 6.35E-03 | 8.10E-05 | 0.00E+00 | 7.45E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 5.38086518 | 2.10E-03 | 3.72E-03 | 5.81E-03 | 7.54E-05 | 0.00E+00 | 6.94E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 5.753611671 | 1.98E-03 | 3.51E-03 | 5.25E-03 | 6.96E-05 | 0.00E+00 | 6.41E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 6.205215784 | 1.86E-03 | 3.30E-03 | 4.68E-03 | 6.37E-05 | 0.00E+00 | 5.86E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 5.47009743 | 1.74E-03 | 3.09E-03 | 4.11E-03 | 5.79E-05 | 0.00E+00 | 5.33E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.569093377 | 1.63E-03 | 2.88E-03 | 3.55E-03 | 5.20E-05 | 0.00E+00 | 4.79E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2021 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 40.42032462 | 2.08E-03 | 3.69E-03 | 5.73E-03 | 7.46E-05 | 0.00E+00 | 6.86E-05 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 3.166120325 | 6.49E-03 | 1.15E-02 | 3.66E-02 | 1.60E-04 | 0.00E+00 | 1.47E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2022 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 3.094170529 | 6.34E-03 | 1.12E-02 | 3.39E-02 | 1.56E-04 | 0.00E+00 | 1.44E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2022 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 1.14735318 | 6.15E-03 | 1.09E-02 | 2.99E-02 | 1.52E-04 | 0.00E+00 | 1.40E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2022 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 2.07224622 | 3.60E-03 | 6.39E-03 | 1.35E-02 | 1.47E-04 | 0.00E+00 | 1.35E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2022 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 2.190840917 | 3.49E-03 | 6.19E-03 | 1.23E-02 | 1.42E-04 | 0.00E+00 | 1.30E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2022 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 2.427511493 | 3.38E-03 | 5.99E-03 | 1.07E-02 | 1.36E-04 | 0.00E+00 | 1.25E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2022 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 3.747231916 | 2.69E-03 | 4.77E-03 | 8.66E-03 | 1.05E-04 | 0.00E+00 | 9.64E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2022 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 5.353033044 | 2.60E-03 | 4.62E-03 | 8.25E-03 | 1.01E-04 | 0.00E+00 | 9.25E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2022 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 6.981553814 | 2.51E-03 | 4.46E-03 | 7.82E-03 | 9.61E-05 | 0.00E+00 | 8.84E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2022 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 6.107769325 | 2.42E-03 | 4.29E-03 | 7.36E-03 | 9.13E-05 | 0.00E+00 | 8.40E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2022 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 7.107028718 | 2.32E-03 | 4.11E-03 | 6.87E-03 | 8.63E-05 | 0.00E+00 | 7.94E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2022 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 5.12488229 | 2.21E-03 | 3.92E-03 | 6.35E-03 | 8.10E-05 | 0.00E+00 | 7.45E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2022 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 5.440644335 | 2.10E-03 | 3.72E-03 | 5.81E-03 | 7.54E-05 | 0.00E+00 | 6.94E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2022 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 5.785288415 | 1.98E-03 | 3.51E-03 | 5.25E-03 | 6.96E-05 | 0.00E+00 | 6.41E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2022 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 6.17891049 | 1.86E-03 | 3.30E-03 | 4.68E-03 | 6.37E-05 | 0.00E+00 | 5.86E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2022 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 5.448561556 | 1.74E-03 | 3.09E-03 | 4.11E-03 | 5.79E-05 | 0.00E+00 | 5.33E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2022 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0.572919731 | 1.63E-03 | 2.88E-03 | 3.55E-03 | 5.20E-05 | 0.00E+00 | 4.79E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2022 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 41.76600486 | 2.09E-03 | 3.71E-03 | 5.79E-03 | 7.51E-05 | 0.00E+00 | 6.91E-05 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 1.778819873 | 3.70E-03 | 6.56E-03 | 1.39E-02 | 1.52E-04 | 0.00E+00 | 1.40E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2023 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 1.841094883 | 3.60E-03 | 6.39E-03 | 1.27E-02 | 1.47E-04 | 0.00E+00 | 1.35E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2023 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 2.166367026 | 3.49E-03 | 6.19E-03 | 1.11E-02 | 1.42E-04 | 0.00E+00 | 1.30E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2023 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 3.356377391 | 2.77E-03 | 4.91E-03 | 9.04E-03 | 1.09E-04 | 0.00E+00 | 1.00E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2023 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 5.476278913 | 2.69E-03 | 4.77E-03 | 8.66E-03 | 1.05E-04 | 0.00E+00 | 9.64E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2023 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 9.463633165 | 2.60E-03 | 4.62E-03 | 8.25E-03 | 1.01E-04 | 0.00E+00 | 9.25E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2023 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 4.903430667 | 2.51E-03 | 4.46E-03 | 7.82E-03 | 9.61E-05 | 0.00E+00 | 8.84E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2023 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 8.761437818 | 2.42E-03 | 4.29E-03 | 7.36E-03 | 9.13E-05 | 0.00E+00 | 8.40E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2023 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 4.965969821 | 2.32E-03 | 4.11E-03 | 6.87E-03 | 8.63E-05 | 0.00E+00 | 7.94E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2023 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 5.202995024 | 2.21E-03 | 3.92E-03 | 6.35E-03 | 8.10E-05 | 0.00E+00 | 7.45E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2023 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 5.491595322 | 2.10E-03 | 3.72E-03 | 5.81E-03 | 7.54E-05 | 0.00E+00 | 6.94E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2023 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 5.784426477 | 1.98E-03 | 3.51E-03 | 5.25E-03 | 6.96E-05 | 0.00E+00 | 6.41E-05 | 0.00E+00 | 0.00E+00 |

| | | | | |
|---|---|---|---|---|
| Los Angele | 2021 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2021 | Annual | T6 instate heavy | 2.54E-03 |

EMFAC 2011
2022 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2022 | Annual | T6 instate heavy | 2.63E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.63E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.63E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.55E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.55E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.55E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2022 | Annual | T6 instate heavy | 2.54E-03 |

EMFAC 2011
2023 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | 2.55E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 2.55E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 2.55E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 2.54E-03 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2022 | 5 | 0 | 106.4751516 | 0 | 9.91E-05 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2023 | 5 | 0 | 94.84703719 | 0 | 8.27E-05 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | 2024 | 5 | 0 | 9.978897188 | 0 | 8.11E-06 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | DSL | >2007 | 5 | 0 | 730.6039053 | 0 | 0.000767076 | 0 | 0 | 0 |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2010 | 5 | 0 | 40.47513614 | 0 | 7.67E-05 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2011 | 5 | 0 | 26.30239282 | 0 | 4.87E-05 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2012 | 5 | 0 | 29.30831076 | 0 | 5.28E-05 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2013 | 5 | 0 | 46.16185218 | 0 | 6.56E-05 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2014 | 5 | 0 | 77.18638221 | 0 | 1.07E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2015 | 5 | 0 | 142.4222347 | 0 | 1.91E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2016 | 5 | 0 | 62.50524473 | 0 | 8.14E-05 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2017 | 5 | 0 | 112.2650891 | 0 | 1.41E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2018 | 5 | 0 | 68.65701909 | 0 | 8.30E-05 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2019 | 5 | 0 | 80.6614231 | 0 | 9.34E-05 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2020 | 5 | 0 | 84.0595609 | 0 | 9.28E-05 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2021 | 5 | 0 | 87.88509737 | 0 | 9.21E-05 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2022 | 5 | 0 | 92.58634908 | 0 | 9.17E-05 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2023 | 5 | 0 | 99.90145837 | 0 | 9.30E-05 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2024 | 5 | 0 | 89.86374277 | 0 | 7.84E-05 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | 2025 | 5 | 0 | 9.500393033 | 0 | 7.72E-06 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | DSL | >2007 | 5 | 0 | 613.1150437 | 0 | 0.000632192 | 0 | 0 | 0 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2010 | 5 | 0 | 32.78998274 | 0 | 6.34E-05 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2011 | 5 | 0 | 41.3896451 | 0 | 7.84E-05 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2012 | 5 | 0 | 26.61974665 | 0 | 4.93E-05 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2013 | 5 | 0 | 38.17608406 | 0 | 5.56E-05 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2014 | 5 | 0 | 66.7586309 | 0 | 9.49E-05 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2015 | 5 | 0 | 121.7350157 | 0 | 1.68E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2016 | 5 | 0 | 71.34756643 | 0 | 9.59E-05 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2017 | 5 | 0 | 88.41560469 | 0 | 1.15E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2018 | 5 | 0 | 54.55796708 | 0 | 6.86E-05 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2019 | 5 | 0 | 69.3973515 | 0 | 8.39E-05 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2020 | 5 | 0 | 81.05837636 | 0 | 9.39E-05 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2021 | 5 | 0 | 83.64540245 | 0 | 9.24E-05 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2022 | 5 | 0 | 87.47446486 | 0 | 9.17E-05 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2023 | 5 | 0 | 93.06385191 | 0 | 9.22E-05 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2024 | 5 | 0 | 101.4057397 | 0 | 9.44E-05 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2025 | 5 | 0 | 91.74252538 | 0 | 8.00E-05 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | 2026 | 5 | 0 | 9.60674366 | 0 | 7.81E-06 | 0 | 0 | 0 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.13E-04 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.42E-05 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.24E-06 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.000873258 | 0 | 0 | 0 |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 8.73E-05 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 5.54E-05 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 6.01E-05 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 7.47E-05 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.22E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 2.18E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.26E-05 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.61E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.45E-05 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.06E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.06E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.05E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.04E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.06E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 8.92E-05 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 8.79E-06 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.000719702 | 0 | 0 | 0 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 7.22E-05 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 8.93E-05 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 5.61E-05 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 6.33E-05 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.08E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.92E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.09E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.31E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 7.80E-05 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.55E-05 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.07E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.05E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.04E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.05E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.07E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.11E-05 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 8.89E-06 | 0 | 0 | 0 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.76E-04 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.47E-04 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.44E-05 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.001360243 | 0 | 0 | 0 |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.36E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 8.63E-05 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.36E-05 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.16E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.89E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 3.39E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.44E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 2.50E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.47E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.66E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.65E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.63E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.63E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.65E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.39E-04 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.37E-05 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.001121055 | 0 | 0 | 0 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.12E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.39E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 8.73E-05 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.86E-05 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.68E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 2.99E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.70E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 2.04E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.22E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.49E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.66E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.64E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.63E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.63E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.67E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.42E-04 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.39E-05 | 0 | 0 | 0 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | 2.49E-04 | 0 | 0 | 0 | 0.300436769 | 0 | 0 | 0 | 0.270393092 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.95E-04 | 0 | 0 | 0 | 0.267626174 | 0 | 0 | 0 | 0.240863556 |
| Los Angele | 2023 | Annual | T6 instate heavy | 1.77E-05 | 0 | 0 | 0 | 0.028157064 | 0 | 0 | 0 | 0.025341357 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0.002128581 | 0 | 0 | 0 | 2.061516452 | 0 | 0 | 0 | 1.855364807 |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | T6 instate heavy | 2.89E-04 | 0 | 0 | 0 | 0.114470561 | 0 | 0 | 0 | 0.103023505 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.73E-04 | 0 | 0 | 0 | 0.074387636 | 0 | 0 | 0 | 0.066948872 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.69E-04 | 0 | 0 | 0 | 0.082888882 | 0 | 0 | 0 | 0.074599994 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.17E-04 | 0 | 0 | 0 | 0.130253092 | 0 | 0 | 0 | 0.117227783 |
| Los Angele | 2024 | Annual | T6 instate heavy | 3.49E-04 | 0 | 0 | 0 | 0.217793795 | 0 | 0 | 0 | 0.196014415 |
| Los Angele | 2024 | Annual | T6 instate heavy | 6.17E-04 | 0 | 0 | 0 | 0.401867247 | 0 | 0 | 0 | 0.361680522 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.58E-04 | 0 | 0 | 0 | 0.176368603 | 0 | 0 | 0 | 0.158731743 |
| Los Angele | 2024 | Annual | T6 instate heavy | 4.39E-04 | 0 | 0 | 0 | 0.316774009 | 0 | 0 | 0 | 0.285096608 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.53E-04 | 0 | 0 | 0 | 0.193726824 | 0 | 0 | 0 | 0.174354142 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.77E-04 | 0 | 0 | 0 | 0.227599181 | 0 | 0 | 0 | 0.204839263 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.67E-04 | 0 | 0 | 0 | 0.237187574 | 0 | 0 | 0 | 0.213468817 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.55E-04 | 0 | 0 | 0 | 0.24798194 | 0 | 0 | 0 | 0.223183746 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.43E-04 | 0 | 0 | 0 | 0.261247278 | 0 | 0 | 0 | 0.235122551 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.34E-04 | 0 | 0 | 0 | 0.281888036 | 0 | 0 | 0 | 0.253699233 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.85E-04 | 0 | 0 | 0 | 0.253565007 | 0 | 0 | 0 | 0.228208506 |
| Los Angele | 2024 | Annual | T6 instate heavy | 1.68E-05 | 0 | 0 | 0 | 0.026806887 | 0 | 0 | 0 | 0.024126199 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0.001730747 | 0 | 0 | 0 | 1.730002729 | 0 | 0 | 0 | 1.557002456 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | 2.40E-04 | 0 | 0 | 0 | 0.092735642 | 0 | 0 | 0 | 0.083462078 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.79E-04 | 0 | 0 | 0 | 0.117056948 | 0 | 0 | 0 | 0.105351253 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.59E-04 | 0 | 0 | 0 | 0.075285166 | 0 | 0 | 0 | 0.067756649 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.86E-04 | 0 | 0 | 0 | 0.107719963 | 0 | 0 | 0 | 0.096947966 |
| Los Angele | 2025 | Annual | T6 instate heavy | 3.14E-04 | 0 | 0 | 0 | 0.188370217 | 0 | 0 | 0 | 0.169533195 |
| Los Angele | 2025 | Annual | T6 instate heavy | 5.50E-04 | 0 | 0 | 0 | 0.343494931 | 0 | 0 | 0 | 0.309145438 |
| Los Angele | 2025 | Annual | T6 instate heavy | 3.09E-04 | 0 | 0 | 0 | 0.201318637 | 0 | 0 | 0 | 0.181186773 |
| Los Angele | 2025 | Annual | T6 instate heavy | 3.65E-04 | 0 | 0 | 0 | 0.249478852 | 0 | 0 | 0 | 0.224530967 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.13E-04 | 0 | 0 | 0 | 0.153944081 | 0 | 0 | 0 | 0.138549673 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.55E-04 | 0 | 0 | 0 | 0.195815791 | 0 | 0 | 0 | 0.176234212 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.78E-04 | 0 | 0 | 0 | 0.228719249 | 0 | 0 | 0 | 0.205847324 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.66E-04 | 0 | 0 | 0 | 0.236018959 | 0 | 0 | 0 | 0.212417063 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.54E-04 | 0 | 0 | 0 | 0.246823275 | 0 | 0 | 0 | 0.222140947 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.44E-04 | 0 | 0 | 0 | 0.26259463 | 0 | 0 | 0 | 0.236335167 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.37E-04 | 0 | 0 | 0 | 0.286132608 | 0 | 0 | 0 | 0.257519347 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.89E-04 | 0 | 0 | 0 | 0.258866294 | 0 | 0 | 0 | 0.232979665 |
| Los Angele | 2025 | Annual | T6 instate heavy | 1.70E-05 | 0 | 0 | 0 | 0.027106973 | 0 | 0 | 0 | 0.024396275 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.39E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.75E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.60E-07 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.75978E-05 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.16E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.00E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.15E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.59E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 4.19E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 7.46E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.14E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 5.39E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.14E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.48E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.40E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.31E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.22E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.18E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.60E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.47E-07 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.25872E-05 | 0 | 0 | 0 | 0 | 0 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.62E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.23E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.02E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.21E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.75E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 6.62E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.74E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 4.44E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.62E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.17E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.50E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.39E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.30E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.24E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.23E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.66E-06 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.50E-07 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 3.12E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 2.53E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 2.39E-07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 2.539E-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 2.91E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 1.84E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 1.98E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 2.39E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 3.86E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 6.86E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 2.89E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 4.96E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 2.88E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 3.20E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 3.13E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 3.05E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 2.97E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 2.93E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 2.39E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 2.27E-07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 2.07803E-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

EMFAC 2011
2025 Estimated Annual Emissions
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Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 2.41E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 2.97E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 1.86E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 2.03E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 3.45E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 6.09E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 3.44E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 4.09E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 2.41E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 2.92E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 3.22E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 3.12E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 3.03E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 2.98E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 2.97E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 2.44E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 2.30E-07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 6.180501036 | 1.86E-03 | 3.30E-03 | 4.68E-03 | 6.37E-05 | 0.00E+00 | 5.86E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 5.505513885 | 1.74E-03 | 3.09E-03 | 4.11E-03 | 5.79E-05 | 0.00E+00 | 5.33E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.585561516 | 1.63E-03 | 2.88E-03 | 3.55E-03 | 5.20E-05 | 0.00E+00 | 4.79E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2023 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 42.4780009 | 2.10E-03 | 3.72E-03 | 5.83E-03 | 7.55E-05 | 0.00E+00 | 6.95E-05 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 2.55383245 | 3.79E-03 | 6.72E-03 | 1.43E-02 | 1.56E-04 | 0.00E+00 | 1.44E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 1.655582941 | 3.70E-03 | 6.56E-03 | 1.31E-02 | 1.52E-04 | 0.00E+00 | 1.40E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 1.841956921 | 3.60E-03 | 6.39E-03 | 1.16E-02 | 1.47E-04 | 0.00E+00 | 1.35E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 2.897156095 | 2.84E-03 | 5.04E-03 | 9.40E-03 | 1.12E-04 | 0.00E+00 | 1.03E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.847218206 | 2.77E-03 | 4.91E-03 | 9.04E-03 | 1.09E-04 | 0.00E+00 | 1.00E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 8.953420727 | 2.69E-03 | 4.77E-03 | 8.66E-03 | 1.05E-04 | 0.00E+00 | 9.64E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.920588625 | 2.60E-03 | 4.62E-03 | 8.25E-03 | 1.01E-04 | 0.00E+00 | 9.25E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 7.050220667 | 2.51E-03 | 4.46E-03 | 7.82E-03 | 9.61E-05 | 0.00E+00 | 8.84E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.287473216 | 2.42E-03 | 4.29E-03 | 7.36E-03 | 9.13E-05 | 0.00E+00 | 8.40E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 5.034650131 | 2.32E-03 | 4.11E-03 | 6.87E-03 | 8.63E-05 | 0.00E+00 | 7.94E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 5.244666344 | 2.21E-03 | 3.92E-03 | 6.35E-03 | 8.10E-05 | 0.00E+00 | 7.45E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 5.481793056 | 2.10E-03 | 3.72E-03 | 5.81E-03 | 7.54E-05 | 0.00E+00 | 6.94E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 5.774162132 | 1.98E-03 | 3.51E-03 | 5.25E-03 | 6.96E-05 | 0.00E+00 | 6.41E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 6.230566946 | 1.86E-03 | 3.30E-03 | 4.68E-03 | 6.37E-05 | 0.00E+00 | 5.86E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 5.604531347 | 1.74E-03 | 3.09E-03 | 4.11E-03 | 5.79E-05 | 0.00E+00 | 5.33E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.5989897 | 1.63E-03 | 2.88E-03 | 3.55E-03 | 5.20E-05 | 0.00E+00 | 4.79E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2024 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 38.25683287 | 2.06E-03 | 3.66E-03 | 5.65E-03 | 7.37E-05 | 0.00E+00 | 6.78E-05 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 2.073514975 | 3.87E-03 | 6.86E-03 | 1.46E-02 | 1.60E-04 | 0.00E+00 | 1.47E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 2.608421908 | 3.79E-03 | 6.72E-03 | 1.35E-02 | 1.56E-04 | 0.00E+00 | 1.44E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 1.674776018 | 3.70E-03 | 6.56E-03 | 1.20E-02 | 1.52E-04 | 0.00E+00 | 1.40E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 2.397556121 | 2.91E-03 | 5.16E-03 | 9.74E-03 | 1.16E-04 | 0.00E+00 | 1.07E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.194175336 | 2.84E-03 | 5.04E-03 | 9.40E-03 | 1.12E-04 | 0.00E+00 | 1.03E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 7.65376157 | 2.77E-03 | 4.91E-03 | 9.04E-03 | 1.09E-04 | 0.00E+00 | 1.00E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.473493251 | 2.69E-03 | 4.77E-03 | 8.66E-03 | 1.05E-04 | 0.00E+00 | 9.64E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 5.55397582 | 2.60E-03 | 4.62E-03 | 8.25E-03 | 1.01E-04 | 0.00E+00 | 9.25E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 3.408963133 | 2.51E-03 | 4.46E-03 | 7.82E-03 | 9.61E-05 | 0.00E+00 | 8.84E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 4.333745824 | 2.42E-03 | 4.29E-03 | 7.36E-03 | 9.13E-05 | 0.00E+00 | 8.40E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 5.059476136 | 2.32E-03 | 4.11E-03 | 6.87E-03 | 8.63E-05 | 0.00E+00 | 7.94E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 5.218875835 | 2.21E-03 | 3.92E-03 | 6.35E-03 | 8.10E-05 | 0.00E+00 | 7.45E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 5.456228803 | 2.10E-03 | 3.72E-03 | 5.81E-03 | 7.54E-05 | 0.00E+00 | 6.94E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 5.803998393 | 1.98E-03 | 3.51E-03 | 5.25E-03 | 6.96E-05 | 0.00E+00 | 6.41E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 6.324450079 | 1.86E-03 | 3.30E-03 | 4.68E-03 | 6.37E-05 | 0.00E+00 | 5.86E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 5.721767601 | 1.74E-03 | 3.09E-03 | 4.11E-03 | 5.79E-05 | 0.00E+00 | 5.33E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0.605717283 | 1.63E-03 | 2.88E-03 | 3.55E-03 | 5.20E-05 | 0.00E+00 | 4.79E-05 | 0.00E+00 | 0.00E+00 |

| | | | | |
|---|---|---|---|---|
| Los Angele | 2023 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2023 | Annual | T6 instate heavy | 2.54E-03 |

EMFAC 2011
2024 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2024 | Annual | T6 instate heavy | 2.55E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.55E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.55E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2024 | Annual | T6 instate heavy | 2.54E-03 |

EMFAC 2011
2025 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | 2.55E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.55E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.55E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.54E-03 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | >2007 | 5 | 0 | 617.3944558 | 0 | 0.000636257 | 0 | 0 | 0 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | Fuel | MdlYr | Speed (Miles/hr) | Pop (Vehicles) | VMT (Miles/day) | Trips (Trips/day) | ROG_RUNEX (Tons/day) | ROG_IDLEX (Tons/day) | ROG_STREX (Tons/day) | ROG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2010 | 5 | 0 | 28.53997508 | 0 | 5.63E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2011 | 5 | 0 | 33.86702371 | 0 | 6.55E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2012 | 5 | 0 | 43.50240134 | 0 | 8.24E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2013 | 5 | 0 | 33.33349492 | 0 | 4.96E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2014 | 5 | 0 | 55.08378969 | 0 | 8.02E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2015 | 5 | 0 | 102.0408611 | 0 | 1.45E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2016 | 5 | 0 | 63.49404216 | 0 | 8.78E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2017 | 5 | 0 | 92.48753163 | 0 | 1.24E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2018 | 5 | 0 | 43.95492091 | 0 | 5.72E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2019 | 5 | 0 | 55.14624546 | 0 | 6.93E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2020 | 5 | 0 | 69.74065062 | 0 | 8.43E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2021 | 5 | 0 | 80.65590115 | 0 | 9.34E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2022 | 5 | 0 | 83.24645838 | 0 | 9.20E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2023 | 5 | 0 | 87.93098715 | 0 | 9.22E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2024 | 5 | 0 | 94.46661827 | 0 | 9.35E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2025 | 5 | 0 | 103.5282148 | 0 | 9.64E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2026 | 5 | 0 | 92.82111384 | 0 | 8.09E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | DSL | 2027 | 5 | 0 | 9.530197598 | 0 | 7.75E-06 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | DSL | >2007 | 5 | 0 | 621.9201418 | 0 | 0.000640487 | 0 | 0 | 0 | 0 |

**Onsite Idling**

| CY | EMFAC2007 Vehicle Category | Fuel_Type | air_basin | season | HC (g/hr | CO (g/hr-veh) | NOX (g/hr-veh) | PM10 (g/hr-veh) | PM2.5 (g/hr-veh) | CO2 (g/hr-veh) | CO2 (with Pavle | TOG (g/hr-veh) | ROG (g/hr-veh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2011 | HHDT | DSL | SC | a | 6.800976 | 43.55988298 | 89.56178051 | 0.908308154 | 0.835643502 | 6963.297868 | 6945.889624 | 9.804966898 | 8.61275583 |
| 2014 | HHDT | DSL | SC | a | 4.948574 | 33.36070239 | 69.56009316 | 0.333140401 | 0.306489169 | 7025.820713 | 6920.433403 | 7.134358523 | 6.266873575 |
| 2015 | HHDT | DSL | SC | a | 5.003949 | 34.45930061 | 64.04939667 | 0.268041304 | 0.246598 | 7031.68361 | 6855.89152 | 7.214193078 | 6.337000842 |
| 2016 | HHDT | DSL | SC | a | 4.755796 | 33.68569766 | 58.40385488 | 0.147376333 | 0.135586227 | 7045.920402 | 6799.313188 | 6.856431597 | 6.022740497 |
| 2017 | HHDT | DSL | SC | a | 4.864191 | 34.55956513 | 54.80816944 | 0.125406403 | 0.115373891 | 7045.639672 | 6693.357688 | 7.012704834 | 6.16001207 |
| 2018 | HHDT | DSL | SC | a | 5.031719 | 35.78542496 | 52.00089698 | 0.122676517 | 0.112862396 | 7043.595692 | 6585.761972 | 7.254229844 | 6.372169435 |
| 2019 | HHDT | DSL | SC | a | 5.152159 | 36.67252902 | 49.98445378 | 0.120390429 | 0.110759195 | 7042.622306 | 6479.212521 | 7.427868118 | 6.524694586 |
| 2020 | HHDT | DSL | SC | a | 5.318626 | 37.90816039 | 47.21982867 | 0.116801038 | 0.107456955 | 7042.896253 | 6338.606628 | 7.667863645 | 6.735508442 |
| 2021 | HHDT | DSL | SC | a | 5.542788 | 39.53636585 | 43.45252148 | 0.113728567 | 0.104630282 | 7039.319954 | 6335.387958 | 7.991037685 | 7.019386922 |
| 2022 | HHDT | DSL | SC | a | 5.752878 | 41.04677717 | 39.90223013 | 0.111612805 | 0.102683781 | 7033.906281 | 6330.515653 | 8.293924058 | 7.285444563 |
| 2023 | HHDT | DSL | SC | a | 5.759777 | 41.11434876 | 39.71802211 | 0.110180944 | 0.101366468 | 7034.243665 | 6330.819299 | 8.303871031 | 7.294182058 |
| 2024 | HHDT | DSL | SC | a | 5.767434 | 41.17452468 | 39.59488769 | 0.109848495 | 0.101060616 | 7034.431284 | 6330.988155 | 8.314910031 | 7.303878798 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.00072433 | 0 | 0 | 0 | | |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | ROG_DIURN (Tons/day) | ROG_HTSK (Tons/day) | ROG_RUNLS (Tons/day) | ROG_RESTL (Tons/day) | ROG_TOTAL (Tons/day) | TOG_RUNEX (Tons/day) | TOG_IDLEX (Tons/day) | TOG_STREX (Tons/day) | TOG_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 6.41E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 7.46E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.39E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 5.65E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.13E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.65E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.00E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.41E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 6.51E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 7.89E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.60E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.06E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.05E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.05E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.06E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.10E-04 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.22E-05 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 8.82E-06 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.000729146 | 0 | 0 | 0 | 0 |

**Onsite Idling**

| CY | EMFAC2007 Vehicle Category | Fuel_Type | air_basin | Sox (g/hr-veh) |
|---|---|---|---|---|
| 2011 | HHDT | DSL | SC | 0.066433117 |
| 2014 | HHDT | DSL | SC | 0.067029614 |
| 2015 | HHDT | DSL | SC | 0.067085549 |
| 2016 | HHDT | DSL | SC | 0.067221374 |
| 2017 | HHDT | DSL | SC | 0.067218696 |
| 2018 | HHDT | DSL | SC | 0.067199196 |
| 2019 | HHDT | DSL | SC | 0.067189909 |
| 2020 | HHDT | DSL | SC | 0.067192523 |
| 2021 | HHDT | DSL | SC | 0.067158403 |
| 2022 | HHDT | DSL | SC | 0.067106754 |
| 2023 | HHDT | DSL | SC | 0.067109973 |
| 2024 | HHDT | DSL | SC | 0.067111763 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.001128263 | 0 | 0 | 0 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | TOG_DIURN (Tons/day) | TOG_HTSK (Tons/day) | TOG_RUNLS (Tons/day) | TOG_RESTL (Tons/day) | TOG_TOTAL (Tons/day) | CO_RUNEX (Tons/day) | CO_IDLEX (Tons/day) | CO_STREX (Tons/day) | CO_TOTEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 9.99E-05 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.16E-04 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.46E-04 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 8.80E-05 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.42E-04 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 2.57E-04 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.56E-04 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 2.20E-04 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.01E-04 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.23E-04 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.49E-04 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.66E-04 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.63E-04 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.63E-04 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.66E-04 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.71E-04 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.44E-04 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 1.37E-05 | 0 | 0 | 0 | |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 0 | 0 | 0.001135765 | 0 | 0 | 0 | |

**Onsite Idling**

| CY | EMFAC2007 Vehicle Category | Fuel_Type | air_basin |
|---|---|---|---|
| 2011 | HHDT | DSL | SC |
| 2014 | HHDT | DSL | SC |
| 2015 | HHDT | DSL | SC |
| 2016 | HHDT | DSL | SC |
| 2017 | HHDT | DSL | SC |
| 2018 | HHDT | DSL | SC |
| 2019 | HHDT | DSL | SC |
| 2020 | HHDT | DSL | SC |
| 2021 | HHDT | DSL | SC |
| 2022 | HHDT | DSL | SC |
| 2023 | HHDT | DSL | SC |
| 2024 | HHDT | DSL | SC |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | 0.001741153 | 0 | 0 | 0 | 1.742077779 | 0 | 0 | 0 | 1.567870001 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | NOX_RUNEX (Tons/day) | NOX_IDLEX (Tons/day) | NOX_STREX (Tons/day) | NOX_TOTEX (Tons/day) | CO2_RUNEX (Tons/day) | CO2_IDLEX (Tons/day) | CO2_STREX (Tons/day) | CO2_TOTEX (Tons/day) | CO2_RUNEX(Pavl (Tons/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | T6 instate heavy | 2.13E-04 | 0 | 0 | 0 | 0.080715898 | 0 | 0 | 0 | 0.072644308 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.34E-04 | 0 | 0 | 0 | 0.095781697 | 0 | 0 | 0 | 0.086203527 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.68E-04 | 0 | 0 | 0 | 0.123032182 | 0 | 0 | 0 | 0.110728964 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.67E-04 | 0 | 0 | 0 | 0.094055818 | 0 | 0 | 0 | 0.084650237 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.68E-04 | 0 | 0 | 0 | 0.155427774 | 0 | 0 | 0 | 0.139884997 |
| Los Angele | 2026 | Annual | T6 instate heavy | 4.80E-04 | 0 | 0 | 0 | 0.287924705 | 0 | 0 | 0 | 0.259132235 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.87E-04 | 0 | 0 | 0 | 0.179158654 | 0 | 0 | 0 | 0.161242789 |
| Los Angele | 2026 | Annual | T6 instate heavy | 4.00E-04 | 0 | 0 | 0 | 0.260968449 | 0 | 0 | 0 | 0.234871604 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.81E-04 | 0 | 0 | 0 | 0.12402588 | 0 | 0 | 0 | 0.111623292 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.16E-04 | 0 | 0 | 0 | 0.155604003 | 0 | 0 | 0 | 0.140043603 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.57E-04 | 0 | 0 | 0 | 0.196784465 | 0 | 0 | 0 | 0.177106019 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.77E-04 | 0 | 0 | 0 | 0.2275836 | 0 | 0 | 0 | 0.20482524 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.64E-04 | 0 | 0 | 0 | 0.234893274 | 0 | 0 | 0 | 0.211403947 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.56E-04 | 0 | 0 | 0 | 0.248111426 | 0 | 0 | 0 | 0.223300283 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.48E-04 | 0 | 0 | 0 | 0.26655276 | 0 | 0 | 0 | 0.239897484 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.42E-04 | 0 | 0 | 0 | 0.292121513 | 0 | 0 | 0 | 0.262909362 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.91E-04 | 0 | 0 | 0 | 0.261909705 | 0 | 0 | 0 | 0.235718735 |
| Los Angele | 2026 | Annual | T6 instate heavy | 1.69E-05 | 0 | 0 | 0 | 0.026890986 | 0 | 0 | 0 | 0.024201887 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0.001751829 | 0 | 0 | 0 | 1.75484773 | 0 | 0 | 0 | 1.579362957 |

**Onsite Idling**

| CY | EMFAC2007 Vehicle Category | Fuel_Type | air_basin |
|---|---|---|---|
| 2011 | HHDT | DSL | SC |
| 2014 | HHDT | DSL | SC |
| 2015 | HHDT | DSL | SC |
| 2016 | HHDT | DSL | SC |
| 2017 | HHDT | DSL | SC |
| 2018 | HHDT | DSL | SC |
| 2019 | HHDT | DSL | SC |
| 2020 | HHDT | DSL | SC |
| 2021 | HHDT | DSL | SC |
| 2022 | HHDT | DSL | SC |
| 2023 | HHDT | DSL | SC |
| 2024 | HHDT | DSL | SC |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.27276E-05 | 0 | 0 | 0 | 0 | 0 | |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | CO2_IDLEX(Pavle (Tons/day) | CO2_STREX(Pavle (Tons/day) | CO2_TOTEX(Pavl (Tons/day) | PM10_RUNEX (Tons/day) | PM10_IDLEX (Tons/day) | PM10_STREX (Tons/day) | PM10_TOTEX (Tons/day) | PM10_PMTW (Tons/day) | PM10_PMBW (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.33E-06 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.71E-06 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.40E-06 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 1.98E-06 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.19E-06 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 5.73E-06 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.45E-06 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 4.84E-06 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.21E-06 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.65E-06 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.18E-06 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.48E-06 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.37E-06 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.31E-06 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.29E-06 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 3.30E-06 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.69E-06 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.48E-07 | 0 | 0 | 0 | 0 | 0 | |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 0 | 0 | 2.28727E-05 | 0 | 0 | 0 | 0 | 0 | |

**Onsite Idling**

| CY | EMFAC2007 Vehicle Category | Fuel_Type | air_basin |
|---|---|---|---|
| 2011 | HHDT | DSL | SC |
| 2014 | HHDT | DSL | SC |
| 2015 | HHDT | DSL | SC |
| 2016 | HHDT | DSL | SC |
| 2017 | HHDT | DSL | SC |
| 2018 | HHDT | DSL | SC |
| 2019 | HHDT | DSL | SC |
| 2020 | HHDT | DSL | SC |
| 2021 | HHDT | DSL | SC |
| 2022 | HHDT | DSL | SC |
| 2023 | HHDT | DSL | SC |
| 2024 | HHDT | DSL | SC |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 2.09094E-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | PM10_TOTAL (Tons/day) | PM2_5_RUNEX (Tons/day) | PM2_5_IDLEX (Tons/day) | PM2_5_STREX (Tons/day) | PM2_5_TOTEX (Tons/day) | PM2_5_PMTW (Tons/day) | PM2_5_PMBW (Tons/day) | PM2_5_TOTAL (Tons/day) | SOX_RUNEX (Tons/day) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 2.15E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 2.49E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 3.12E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 1.83E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 2.94E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 5.28E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 3.17E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 4.46E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 2.03E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 2.44E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 2.93E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 3.20E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 3.10E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 3.05E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 3.03E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 3.04E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 2.47E-06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2026 | Annual | T6 instate heavy | 0 | 2.28E-07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Los Angele | 2025 | Annual | T6 instate heavy | 0 | 2.10429E-05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**Onsite Idling**

| CY | EMFAC2007 Vehicle Category | Fuel_Type | air_basin |
|---|---|---|---|
| 2011 | HHDT | DSL | SC |
| 2014 | HHDT | DSL | SC |
| 2015 | HHDT | DSL | SC |
| 2016 | HHDT | DSL | SC |
| 2017 | HHDT | DSL | SC |
| 2018 | HHDT | DSL | SC |
| 2019 | HHDT | DSL | SC |
| 2020 | HHDT | DSL | SC |
| 2021 | HHDT | DSL | SC |
| 2022 | HHDT | DSL | SC |
| 2023 | HHDT | DSL | SC |
| 2024 | HHDT | DSL | SC |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 38.52425995 | 2.06E-03 | 3.65E-03 | 5.64E-03 | 7.36E-05 | 0.00E+00 | 6.77E-05 | 0.00E+00 | 0.00E+00 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | SOX_IDLEX (Tons/day) | SOX_STREX (Tons/day) | SOX_TOTEX (Tons/day) | FUEL_GAS (1000 Gallons) | FUEL_DSL (1000 Gallons) | exhaust ROG lb/mile | exhaust CO lb/mile | exhaust NOx lb/mile | exhaust PM10 lb/mile | tire wear a PM10 lb/mile | exaust PM2.5 lb/mile | tire wear a PM2.5 lb/mile | exaust SOx lb/mile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Los Angele | 2026 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 1.804838129 | 3.95E-03 | 7.00E-03 | 1.49E-02 | 1.64E-04 | 0.00E+00 | 1.51E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2026 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 2.13940875 | 3.87E-03 | 6.86E-03 | 1.38E-02 | 1.60E-04 | 0.00E+00 | 1.47E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2026 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 2.74105531 | 3.79E-03 | 6.72E-03 | 1.23E-02 | 1.56E-04 | 0.00E+00 | 1.44E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2026 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 2.095075805 | 2.98E-03 | 5.28E-03 | 1.00E-02 | 1.19E-04 | 0.00E+00 | 1.10E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2026 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 3.462617655 | 2.91E-03 | 5.16E-03 | 9.74E-03 | 1.16E-04 | 0.00E+00 | 1.07E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2026 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 6.416936079 | 2.84E-03 | 5.04E-03 | 9.40E-03 | 1.12E-04 | 0.00E+00 | 1.03E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2026 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 3.982438732 | 2.77E-03 | 4.91E-03 | 9.04E-03 | 1.09E-04 | 0.00E+00 | 1.00E-04 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2026 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 5.805618934 | 2.69E-03 | 4.77E-03 | 8.66E-03 | 1.05E-04 | 0.00E+00 | 9.64E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2026 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 2.748151796 | 2.60E-03 | 4.62E-03 | 8.25E-03 | 1.01E-04 | 0.00E+00 | 9.25E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2026 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 3.445748475 | 2.51E-03 | 4.46E-03 | 7.82E-03 | 9.61E-05 | 0.00E+00 | 8.84E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2026 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 4.355220421 | 2.42E-03 | 4.29E-03 | 7.36E-03 | 9.13E-05 | 0.00E+00 | 8.40E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2026 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 5.034398136 | 2.32E-03 | 4.11E-03 | 6.87E-03 | 8.63E-05 | 0.00E+00 | 7.94E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2026 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 5.194028535 | 2.21E-03 | 3.92E-03 | 6.35E-03 | 8.10E-05 | 0.00E+00 | 7.45E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2026 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 5.484747927 | 2.10E-03 | 3.72E-03 | 5.81E-03 | 7.54E-05 | 0.00E+00 | 6.94E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2026 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 5.891534097 | 1.98E-03 | 3.51E-03 | 5.25E-03 | 6.96E-05 | 0.00E+00 | 6.41E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2026 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 6.456883422 | 1.86E-03 | 3.30E-03 | 4.68E-03 | 6.37E-05 | 0.00E+00 | 5.86E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2026 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 5.789092553 | 1.74E-03 | 3.09E-03 | 4.11E-03 | 5.79E-05 | 0.00E+00 | 5.33E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2026 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 0.600910611 | 1.63E-03 | 2.88E-03 | 3.55E-03 | 5.20E-05 | 0.00E+00 | 4.79E-05 | 0.00E+00 | 0.00E+00 |
| Los Angele | 2025 | Annual | T6 instate heavy | | 0 | 0 | 0 | 0 | 38.8068157 | 2.06E-03 | 3.65E-03 | 5.63E-03 | 7.36E-05 | 0.00E+00 | 6.77E-05 | 0.00E+00 | 0.00E+00 |

**Onsite Idling**

| CY | EMFAC2007 Vehicle Category | Fuel_Type | air_basin |
|---|---|---|---|
| 2011 | HHDT | DSL | SC |
| 2014 | HHDT | DSL | SC |
| 2015 | HHDT | DSL | SC |
| 2016 | HHDT | DSL | SC |
| 2017 | HHDT | DSL | SC |
| 2018 | HHDT | DSL | SC |
| 2019 | HHDT | DSL | SC |
| 2020 | HHDT | DSL | SC |
| 2021 | HHDT | DSL | SC |
| 2022 | HHDT | DSL | SC |
| 2023 | HHDT | DSL | SC |
| 2024 | HHDT | DSL | SC |

| | | | | |
|---|---|---|---|---|
| Los Angele | 2025 | Annual | T6 instate heavy | 2.54E-03 |

EMFAC 2011
2026 Estimated Annual Emissions
EMFAC 2011 Vehicle Categories
Los Angeles COUNTY
South Coast AIR BASIN
South Coast AQMD

| Area | CalYr | Season | Veh | exaust CO2 ton/mile |
|---|---|---|---|---|
| Los Angele | 2026 | Annual | T6 instate heavy | 2.55E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.55E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.55E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2026 | Annual | T6 instate heavy | 2.54E-03 |
| Los Angele | 2025 | Annual | T6 instate heavy | 2.54E-03 |

**Onsite Idling**

| CY | EMFAC2007 Vehicle Category | Fuel_Type | air_basin |
|---|---|---|---|
| 2011 | HHDT | DSL | SC |
| 2014 | HHDT | DSL | SC |
| 2015 | HHDT | DSL | SC |
| 2016 | HHDT | DSL | SC |
| 2017 | HHDT | DSL | SC |
| 2018 | HHDT | DSL | SC |
| 2019 | HHDT | DSL | SC |
| 2020 | HHDT | DSL | SC |
| 2021 | HHDT | DSL | SC |
| 2022 | HHDT | DSL | SC |
| 2023 | HHDT | DSL | SC |
| 2024 | HHDT | DSL | SC |

C

# TRAFFIC STUDY

# TRAFFIC STUDY
# FOR THE
# CITY DOCK #1 DEVELOPMENT
# ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT REPORT

May 2012

Prepared for:

**ICF INTERNATIONAL**

Prepared by:

**FEHR & PEERS**
201 Santa Monica Boulevard, Suite 500
Santa Monica, California 90401
(310) 458-9916

Ref: SM11-2463

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# I. INTRODUCTION

Fehr & Peers conducted a traffic study to evaluate the potential traffic impacts of the proposed City Dock No. 1 Marine Research Center Project (proposed project) within the Port of Los Angeles (POLA) in Los Angeles, CA. This report identifies the base data and assumptions, explains the methodologies used, and summarizes the findings of the study, which was conducted in support of the environmental impact report (EIR) being prepared for the project. The traffic impact analysis conducted for this report includes analysis of existing (Year 2011) conditions, opening year (Year 2016), full buildout (Year 2024) and cumulative (Year 2042) conditions with the project.

## PROJECT DESCRIPTION

The City Dock No. 1 project site is located within the POLA boundaries at Berths 56-60 and 70-71. Figure 1 shows the project site area. The City Dock No. 1 Project site lies within the San Pedro Waterfront Plan area, which generally encompasses approximately 400 acres along the west side of the Los Angeles Harbor's Main Channel, from the Vincent Thomas Bridge to Cabrillo Beach, adjacent to the City of Los Angeles community of San Pedro. Specifically, the proposed project is located at Berths 56-60 and Berths 70-71. Berth 56 currently hosts a field office and vessel berth for the California Department of Fish and Game. Berths 57 through 60 are currently in use for warehouse operations, and Berths 70 and 71 are part of the Westway Terminal site, formerly used for liquid bulk storage.

The proposed Project would provide a world-class marine research center to support the research needs of the region's universities, research and educational institutions, and government agencies, as well as to provide an incubator for marine-related business ventures. Provided below is a summary of project objectives:

- Provide a location at Berths 56 to 60 and 70 to 71 for marine researchers in Southern California with world-class facilities including laboratories, offices, classrooms, a lecture hall/auditorium and storage space to conduct marine research, including, the study of global climate change and its related phenomena, fisheries, marine resource conservation and management, and other related marine science applications.

- Provide an opportunity for the Southern California Marine Institute (SCMI) and its members, government and other institutional researchers and research organizations to berth research vessels that range in size from small vessels to large 250- to 300-foot vessels at the proposed Project site.

- Provide public amenities, including public education classroom space and interpretive exhibits related to marine studies, along with a continuous waterfront promenade as approved in the San Pedro Waterfront Project.

- Replace existing SCMI facilities now located at Berth 260 in Fish Harbor with a location that allows for an expanded and upgraded SCMI facility in the Los Angeles Harbor to address SCMI's desire for increased research laboratory space with a sea water circulation system, access to deep draft docks to accommodate research vessels, and teaching space.

- Construct the world's largest wave tank using seawater to allow scientists from around the world to study tsunamis, rouge waves, and the generation of wave energy.

City Dock No. 1 Marine Research Center Project . 206278.14
SOURCE: POLA; ESA, 2010

FEHR PEERS

**PROJECT SITE**

Dec 15, 2011 JS
\\fpla1\data\Jobs\Active\2400s\2463 – City Dock 1 EIR–POLA\Graphics\ACAD\2463_Base Map_New.dwg

**FIGURE 1**

- Provide a location for a marine-related business incubator park for synergy among research and commercial interests, such uses as aquaculture, sustainable energy production, and marine exploration.

The following is a brief summary of project's key elements

- Relocation of SCMI from its existing location at Berth 260 on Terminal Island to Berth 56 and 57.
- Adaptive reuse of the transit sheds at Berths 57-60 to accommodate research, teaching and meeting spaces within a collaborative environment to create research synergies among universities and colleges offering marine science programs. Wharf retrofits of Berths 57-60 and related infrastructure improvements would occur.
- Establishment of a marine science business park/incubator space with offices and research lab space within Berths 59 to 60 Transit Sheds.
- Development of Berths 70 and 71, following the demolition of the existing Westway Terminal site. This development would include the construction of new building for NOAA operations, the use of existing berthing space for research vessels, and the construction of a new building to host "the largest wave tank facility in the world."

Appendix D provides a detailed summary of project components by each of the two phases.

## STUDY SCOPE

The scope of work for this study was developed in conjunction with the Los Angeles Department of Transportation (LADOT). The base assumptions and technical methodologies were discussed as part of the study approach. The study analyzes potential project-generated traffic impacts on the adjacent street system for three peak hours against existing conditions and three future horizon years. The analysis of future year traffic forecasts is based on projected conditions in years 2016, 2024 and 2042, both without and with the addition of project traffic. The following traffic scenarios were analyzed for the weekday morning (between 7:00 and 10:00 AM) and evening (between 3:00 and 6:00 PM) peak hours and weekend midday peak hour (between 11:00 AM and 2:00 PM):

- Existing (Year 2011) Conditions – The analysis of existing Year 2011 traffic conditions provides a basis for the remainder of the study. The existing conditions analysis includes an assessment of streets, traffic volumes, and operating conditions. The existing traffic conditions are the baseline for assessing the significance of project impacts under the California Environmental Quality Act (CEQA).

- Existing (Year 2011) plus Project Conditions – This is an analysis of existing traffic conditions with traffic expected from the proposed project added to the traffic volumes. This is assessed under stabilized project attendance conditions.

- Cumulative Base Conditions – Future traffic conditions are projected without the proposed project in the opening year 2016 and cumulative conditions in 2024 and 2042. The objective of this phase of analysis is to project future traffic growth and operating conditions that could be expected to result from regional ambient growth and known cumulative projects if the proposed project were not developed. The cumulative base traffic forecasts are used to develop cumulative baseline operating conditions that provide the basis for determining cumulative project impacts under CEQA.

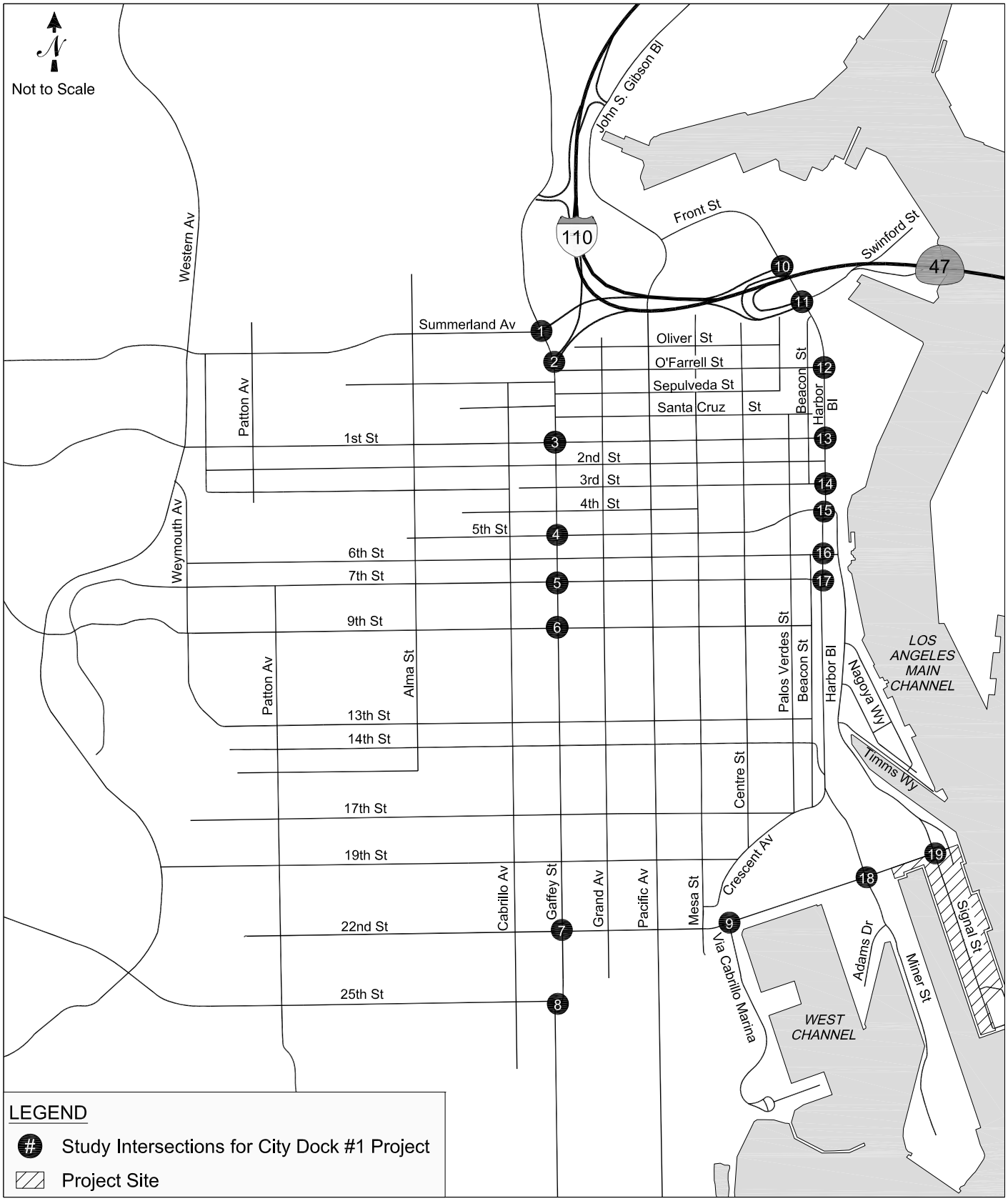
- Cumulative plus Project Conditions – This is an analysis of future traffic conditions with traffic expected from the proposed project added to the cumulative base traffic forecasts. Cumulative plus proposed project conditions were developed for years 2016, 2024 and 2042. The objective of this analysis is to develop the traffic forecasts of the proposed project that are then used to identify potential impacts.

Figure 2 shows location of study intersections in the study area. As shown, 19 intersections were identified, for weekday morning and afternoon and weekend midday peak hour analysis as part of the scope of work for this project.

| No. | Intersection[1] |
|---|---|
| 1 | Gaffey Street & Summerland Avenue |
| 2 | Gaffey Street & I-110 Ramps |
| 3 | Gaffey Street & 1st Street |
| 4 | Gaffey Street & 5th Street |
| 5 | Gaffey Street & 7th Street |
| 6 | Gaffey Street & 9th Street |
| 7 | Gaffey Street & 22nd Street |
| 8 | Gaffey Street & 25th Street |
| 9 | Via Cabrillo Marina & 22nd Street |
| 10 | Harbor Boulevard & SR-47 Westbound Ramps (Unsignalized) |
| 11 | Harbor Boulevard & Swinford Street/SR-47 Eastbound Ramps |
| 12 | Harbor Boulevard & O'Farrell Street |
| 13 | Harbor Boulevard & 1st Street |
| 14 | Harbor Boulevard & 3rd Street (Unsignalized) |
| 15 | Harbor Boulevard & 5th Street |
| 16 | Harbor Boulevard & 6th Street |
| 17 | Harbor Boulevard & 7th Street |
| 18 | Miner Street & 22nd Street |
| 19 | Signal Street & 22nd Street (Unsignalized) |

This report is divided into seven chapters, including this introduction (Chapter I). Chapter II describes the existing conditions in the study area including an inventory of the streets, highways, and transit service in the study area, a summary of traffic volumes and an assessment of operating conditions. The methodologies used to develop traffic forecasts for the existing plus project, cumulative base and cumulative plus project are included in Chapter III. Chapter IV presents an assessment of potential intersection traffic impacts generated by the proposed project. The results of the regional transportation system analysis are provided in Chapter V. Chapter VI provides an analysis of parking proposed for the project. Chapter VII summarizes the key findings and conclusions of the study. Appendices to this report include details of the technical analysis.

[1] Per LADOT traffic study guidelines, a significant impact analysis was not conducted for the unsignalized intersections. A warrant analysis was conducted to determine if any of the unsignalized intersection meet City's signal warrants criteria.




FEHR PEERS

**PROJECT SITE AND ANALYZED INTERSECTIONS**

Dec 14, 2011 JS
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**FIGURE 2**

# II. EXISTING CONDITIONS

A comprehensive data collection effort was undertaken to develop a detailed description of existing conditions in the study area. The assessment of conditions relevant to this study includes an inventory of the street and highway systems, traffic volumes on these facilities, and operating conditions at key intersections. A detailed description of these elements in presented in this chapter.

## EXISTING HIGHWAY AND STREET SYSTEM

The project site is in the San Pedro community of the City of Los Angeles. Primary regional access to the project area is provided by the Harbor Freeway (I-110) northwest of the project site and by the Vincent Thomas Bridge and Seaside Avenue (SR-47) northeast of the project site. Year 2009 data from the California Department of Transportation (Caltrans) shows that the average daily traffic (ADT) volume on the Harbor Freeway to the north of Gaffey Street was approximately 66,000 vehicles per day (vpd) and 50,000 vpd on the Vincent Thomas Bridge (*2009 Traffic Volumes on California State Highways,* California Department of Transportation, obtained November 2011). From SR-47, the project site can be accessed via ramps on Harbor Boulevard.

Local access to the project site is provided by a well-defined grid of arterial and collector roads. The primary roadway facilities in the project study area are:

- Gaffey Street – Gaffey Street is classified as a Major Class II Highway that runs north/south in the study area. This arterial provides a connection for local and regional travel from San Pedro to other parts of Los Angeles and the South Bay region. Gaffey Street is a major commercial corridor within San Pedro.

- Harbor Boulevard/Miner Street – Harbor Boulevard is classified as a Major Class II Highway and provides north/south access along the eastern edge of the San Pedro community. It continues as Front Street north of the site and as Miner Street south of Crescent Avenue.

- Via Cabrillo Marina – Via Cabrillo Marina is classified as a Local Street and provides north/south access along the eastern edge of San Pedro from the Cabrillo Marina. The four-lane divided roadway terminates at 22nd Street.

- Signal Street – Signal Street is a Local Street providing north/south access in San Pedro. It is a two lane-undivided roadway, which continues as Sampson Way north of its intersection with 22nd Street.

- Summerland Avenue – Summerland Avenue is classified as a Secondary Highway and provides east/west access in San Pedro. It is a two-lane undivided roadway between its terminus to the west at Western Avenue and to the east at its terminus with Gaffey Street/Gaffey Place.

- O'Farrell Street – O'Farrell Street is classified as a Collector Street and provides east/west access in San Pedro. It is a predominantly residential corridor. The two-lane roadway terminates in the east at Harbor Boulevard and in the west terminates at Gaffey Street.

- 1st Street – 1st Street is classified as a Secondary Highway that provides east/west access in San Pedro. It is a predominantly residential corridor in San Pedro. The two-lane roadway terminates in the east at Harbor Boulevard and in the west terminates at Miraleste Drive.

- 3rd Street – 3rd Street is classified as a Collector Street and provides east/west access in San Pedro. It is a predominantly residential corridor with one travel lane in each direction. 3rd Street terminates to the east at Harbor Boulevard and to the west at South Harbor View Avenue.

- 5th Street – 5th Street is classified as a Secondary Highway and provides east/west access in San Pedro. 5th Street has a mix of commercial and residential land uses. The two-lane undivided roadway terminates to the west at South Bandini Street and to the east at Harbor Boulevard. 5th Street provides access directly to the Port of Los Angeles and the Maritime Museum parking lot.

- 6th Street – 6th Street is classified as a Local Street and provides east/west access in San Pedro. The two-lane undivided roadway extends from Weymouth Avenue eastbound to Sampson Way. Development along 6th Street is predominantly commercial east of Gaffey Street, and residential in nature west of Gaffey Street.

- 7th Street – 7th Street is classified as a Secondary Highway between Weymouth Avenue and Harbor Boulevard and provides east/west access through the central portion of the community of San Pedro. This roadway starts just east of Western Avenue and terminates at Harbor Boulevard.

- 9th Street – 9th Street is classified as a Major Class II Highway between Western Avenue and Pacific Avenue, providing east/west access through the central portion of the community of San Pedro. Between Pacific Avenue and Beacon Street, it is classified as a Local Street. This roadway starts west of Western Avenue and terminates at Beacon Street, one block west of Harbor Boulevard.

- 22nd Street – 22nd Street is classified as a Secondary Highway east of Gaffey Street and as a Local Street west of Gaffey Street. 22nd Street has a mix of residential and commercial land uses, and is a two-lane undivided roadway. 22nd Street extends from Elanita Drive eastbound to Signal Place.

- 25th Street – 25th Street is classified as a Major Class II Highway providing east/west access through the southern portion of the community of San Pedro. This roadway starts west of Western Avenue and terminates at Pacific Avenue.

Diagrams of the existing lane configurations at the analyzed intersections are provided in Appendix A.

## EXISTING TRANSIT SERVICE

The project study area is served by bus transit lines operated by the Los Angeles County Metropolitan Transportation Authority (Metro), LADOT, and the Municipal Area Express (MAX) lines. To complement the traditional transit service in the study area, the Port operates the Waterfront Red Car Line, a historic streetcar line. The following transit routes provide service in the project vicinity:

- Metro Line 205 – Metro Line 205 travels along 1st Street, Harbor Boulevard, 7th Street, Pacific Avenue, and 13th Street in the vicinity of the project site. Line 205 provides service between San Pedro and the Metro Green Line Imperial/Wilmington Station with stops in Compton, Carson, and the Willowbrook and Harbor Gateway communities. Line 205 provides service from approximately 5:00 AM to midnight on weekdays, and from 5:00 to 11:15 AM on weekends and holidays. Bus headways are 30 to 60 minutes on weekdays and 60 minutes on weekends.

- Metro Line 246 – Metro Line 246 operates on Pacific Avenue in the vicinity of the project site. Line 446 provides service between San Pedro and Gardena, where it terminates at the Artesia Transit Center. Line 246 provides service from approximately 4:00 AM to 2:00 AM on weekdays and

weekends. Bus headways are 30 to 60 minutes on weekdays and Saturdays, and hourly on Sundays and holidays.

- Metro Line 450 – Metro Line 450 travels along 22nd Street, Gaffey Street, 19th Street, Pacific Avenue, 1st Street, and Harbor Boulevard in the vicinity of the project site. Line 450 provides service between San Pedro and Downtown Los Angeles, with stops in Gardena and Carson. Line 450 provides service from approximately 5:00 AM to 9:00 PM on weekdays and Saturdays and 7:00 AM to 9:00 PM on Sundays and holidays. Line 450 operates at 30- to 60-minute headways on weekdays, 40-minute headways on Saturdays, and 60-minute headways on Sundays and holidays. From San Pedro, this line provides freeway express service via the Harbor Transitway (on I-110) to the 7th Street/Metro Center station in downtown Los Angeles.

- Metro Line 550 – Line 550 travels along Gaffey Street, 7th Street and 13th Street in the study area. It operates from 5:00 AM to 11:45 PM on weekdays, and from 6:00 AM to 11:45 PM on weekends and holidays, with headways of approximately 30- to 60-minute headways on weekdays and 60-minute headways on weekends. This line provides express connection from San Pedro to West Hollywood.

- LADOT Commuter Express Line 142 – Line 142 travels along 7th Street in the vicinity of the project site. This line provides service between Ports O' Call in east San Pedro, downtown San Pedro, and the Long Beach Transit Center via the Vincent Thomas Bridge. The line runs from approximately 5:30 AM to 11:30 PM, seven days a week, with frequencies of 25 to 60 minutes.

- DASH San Pedro – This line travels along Gaffey Street, 7th Street, and 19th Street near the project site. This route provides local service in the community of San Pedro. The line runs from 6:30 AM to 7:30 PM on Monday through Friday, and from 9:00 AM to 6:30 PM on weekends and holidays. Service frequencies are 20 to 30 minutes.

- Waterfront Red Car Line – This local line is a 1.5-mile historic streetcar line connecting the World Cruise Center with attractions along the San Pedro waterfront in the vicinity of the project site. Hours of operation are from 12:00 noon to 9:30 PM Friday through Sunday, with service every 20 minutes. Red Cars also run on mid-week days when cruise ships are in Port.

- MAX Line 3 – This line travels along 9th Street and Pacific Avenue in San Pedro. It is a directional express line that brings passengers from the South Bay to the El Segundo and Los Angeles International Airport (LAX) area. The weekday morning northbound route has four buses with frequencies of 20 to 30 minutes starting at 5:20 AM. The afternoon southbound route also has four buses with frequencies of 20 to 30 minutes starting at 5:03 PM.

- MAX Line 3X – This line travels along Pacific Avenue and Gaffey Street near the project site. It is a directional express line that brings passengers from the South Bay to the El Segundo and LAX area. The weekday morning northbound route has four buses with frequencies of approximately 20 minutes starting at 6:00 AM. The afternoon southbound route also has four buses with frequencies of approximately 30 minutes starting at 4:36 PM.

## EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

This section presents the existing peak hour turning movement traffic volumes for the analyzed intersections, describes the methodology used to assess the traffic conditions at each intersection, and analyzes the resulting operating conditions at each, indicating volume-to-capacity (V/C) ratios and level of service (LOS).

### *Existing Traffic Volumes*

New traffic counts were conducted for the weekday morning peak period (between 7:00 and 10:00 AM), the evening peak period (between 3:00 and 6:00 PM) and the Saturday midday peak period (between 11:00 AM and 2:00 PM) in April 2011 on days when the cruise ships were present at the World Cruise Center. The existing weekday and Saturday peak hour traffic volumes at the analyzed intersections are presented in Figure 3. Traffic count data sheets are provided in Appendix B.

### *Level of Service Methodology*

LOS is a qualitative measure used to describe the condition of traffic flow, ranging from excellent "free-flow" conditions at LOS A to overloaded "stop-and-go" conditions at LOS F. LOS D is typically considered to be the minimum acceptable level of service in urban areas.

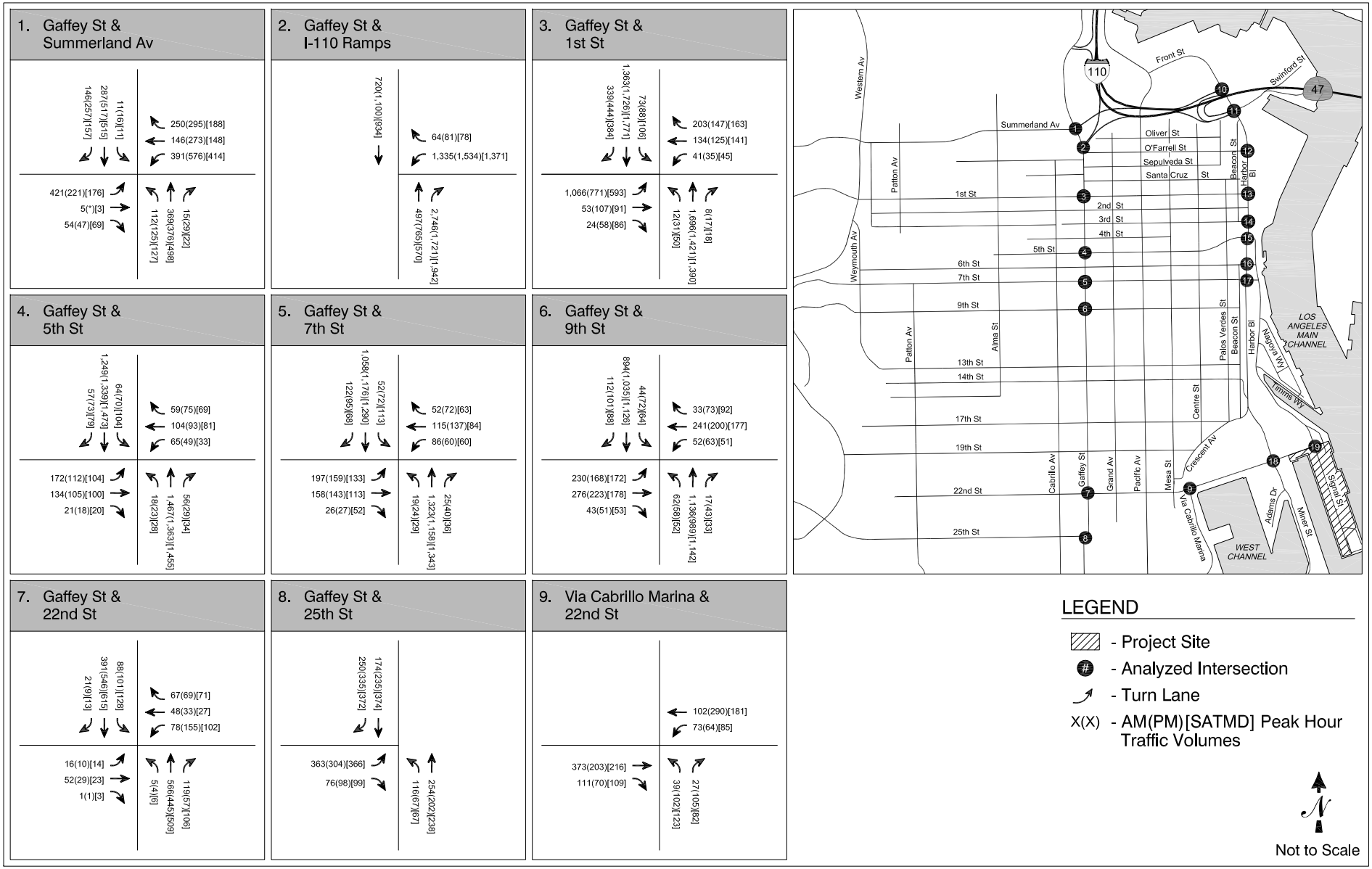
According to *Traffic Study Policies and Procedures* (LADOT, August 2011), this study is required to use the Critical Movement Analysis (CMA) method of intersection capacity calculation (Transportation Research Circular No. 212, Transportation Research Board, 1980) to analyze the LOS at signalized intersections. The CMA methodology determines the V/C ratio of an intersection based on the number of approach lanes, the traffic signal phasing and the traffic volumes. The CMA worksheet developed by LADOT was used to implement the CMA methodology in this study. The V/C ratio is then used to find the corresponding LOS based on the definitions in Table 1.

Sixteen of the 19 analyzed intersections are currently controlled by traffic signals. All but two of these intersections are currently controlled by the City's Automated Traffic Surveillance and Control (ATSAC) and Adaptive Traffic Control System (ATCS) system. The intersections of I-110 Eastbound Ramps/Swinford Street & Harbor Boulevard/Front Street and Miner Street & 22nd Street currently do not have ATSAC and ATCS installed. In accordance with LADOT procedures, a capacity increase of 10% was applied to reflect the benefits of ATSAC (7% credit) and ATCS (3% credit) in locations where these signals are installed.

Three study intersections, Harbor Boulevard & SR-47 Westbound On-Ramp, Harbor Boulevard & 3rd Street, and Signal Street & 22nd Street are unsignalized and were analyzed for information purposes using the stop-controlled methodologies from *Highway Capacity Manual* (Transportation Research Board, 2000), which determines the average vehicle delay and the LOS using the relationship. The results of the analysis of these three unsignalized intersections are presented in Appendix E.

### *Existing Peak Hour Levels of Service*

The existing weekday and weekend peak hour turning movement volumes presented in Figure 3 were used in conjunction with the LOS methodology described above to determine existing operating conditions at each of the study intersections. LOS calculation worksheets are included in Appendix C.




FEHR & PEERS

# EXISTING PEAK HOUR INTERSECTION VOLUMES

**FIGURE 3**

Feb 06, 2012 SK
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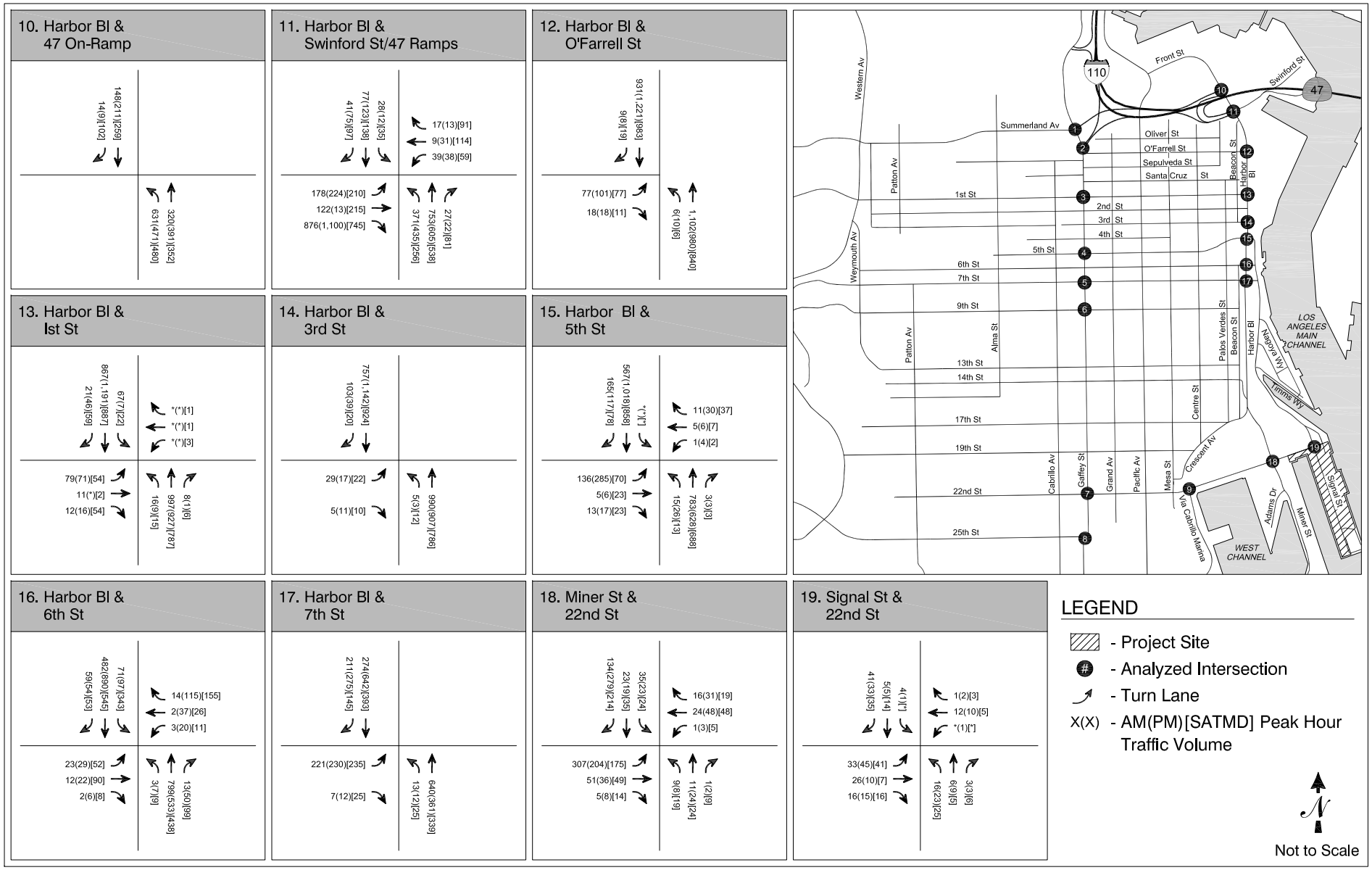


FEHR & PEERS

# EXISTING PEAK HOUR INTERSECTION VOLUMES

**FIGURE 3 (CONT.)**

Feb 06, 2012 JS
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**TABLE 1**
**LEVEL OF SERVICE DEFINITIONS**
**FOR SIGNALIZED INTERSECTIONS**

| Level of Service | Intersection Capacity Utilization | Definition |
|---|---|---|
| A | 0.000-0.600 | EXCELLENT. No Vehicle waits longer than one red light and no approach phase is fully used. |
| B | 0.601-0.700 | VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles. |
| C | 0.701-0.800 | GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles. |
| D | 0.801-0.900 | FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups. |
| E | 0.901-1.000 | POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles. |
| F | > 1.000 | FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths. |

Source: *Transportation Research Circular No. 212, Interim Materials on Highway Capacity,*
Transportation Research N:\Jobs\Active\2400s\2463 - City Dock 1 EIR-POLA\Report

**Table 2 summarizes the existing weekday evening and weekend midday** peak hour V/C ratios and **corresponding LOS at each of the study intersections. The results of this analysis indicate that all** 16 signalized study intersections are cu**rrently operating at acceptable LOS (LOS D or better) during the weekday morning** and **evening** and weekend midday peak hours.

**TABLE 2**
**EXISTING CONDITIONS LEVEL OF SERVICE RESULTS**

| | INTERSECTION [1] | PEAK HOUR | Existing V/C | Existing LOS |
|---|---|---|---|---|
| 1 | Gaffey St & Summerland Ave | AM | 0.704 | C |
| | | PM | 0.813 | D |
| | | WK | 0.584 | A |
| 2 | Gaffey St & I-110 Ramps | AM | 0.377 | A |
| | | PM | 0.514 | A |
| | | WK | 0.429 | A |
| 3 | Gaffey St & 1st St | AM | 0.860 | D |
| | | PM | 0.825 | D |
| | | WK | 0.778 | C |
| 4 | Gaffey St & 5th St | AM | 0.715 | C |
| | | PM | 0.634 | B |
| | | WK | 0.674 | B |
| 5 | Gaffey St & 7th St | AM | 0.627 | B |
| | | PM | 0.593 | A |
| | | WK | 0.622 | B |
| 6 | Gaffey St & 9th St | AM | 0.650 | B |
| | | PM | 0.611 | B |
| | | WK | 0.633 | B |
| 7 | Gaffey St & 22nd St | AM | 0.330 | A |
| | | PM | 0.333 | A |
| | | WK | 0.427 | A |
| 8 | Gaffey St & 25th St | AM | 0.358 | A |
| | | PM | 0.325 | A |
| | | WK | 0.466 | A |
| 9 | Via Cabrillo Marina & 22nd St | AM | 0.136 | A |
| | | PM | 0.080 | A |
| | | WK | 0.122 | A |
| 11 | Harbor Blvd & Swinford St/SR-47 EB Ramps | AM | 0.505 | A |
| | | PM | 0.485 | A |
| | | WK | 0.583 | A |
| 12 | Harbor Blvd & O'Farrell St | AM | 0.431 | A |
| | | PM | 0.493 | A |
| | | WK | 0.391 | A |
| 13 | Harbor Blvd & 1st St | AM | 0.333 | A |
| | | PM | 0.351 | A |
| | | WK | 0.245 | A |
| 15 | Harbor Blvd & 5th St | AM | 0.258 | A |
| | | PM | 0.498 | A |
| | | WK | 0.282 | A |
| 16 | Harbor Blvd & 6th St | AM | 0.252 | A |
| | | PM | 0.282 | A |
| | | WK | 0.406 | A |
| 17A | Harbor Blvd & 7th St | AM | 0.189 | A |
| | | PM | 0.203 | A |
| | | WK | 0.135 | A |
| 17B | Harbor Blvd & Sampson Way | AM | Intersection Does Not Exist | |
| | | PM | | |
| | | WK | | |
| 18 | Miner St & 22nd St | AM | 0.258 | A |
| | | PM | 0.301 | A |
| | | WK | 0.249 | A |

Source: Fehr & Peers, 2011

Notes: Intersections analyzed using LADOT CMA analysis methodology.

[1] - CMA analysis was not conducted for the three unsignalized intersections: Intersections #10 - Harbor Blvd & SR-47 Ramps; Intersection #14 - Harbor Blvd & 3rd St; and Intersection # 19 - Signal St & 22nd St. These intersections were analyzed using Highway Capacity Manual (2000) methodology. Results of the LOS analysis are provided in the appendix.

# III. TRAFFIC PROJECTIONS

## PROJECT TRAFFIC VOLUMES

Development of the traffic generation estimates for the proposed project involved a three-step process including traffic generation, trip distribution, and traffic assignment.

### *Project Traffic Generation*

Trip generation rates and equations from *Trip Generation, 8th Edition* and other sources were used to develop trip generation estimates for the proposed project. The trip generation estimates proposed project is summarized in Table 3 for the interim Year 2016, the full buildout Year 2024, and end-of-lease term Year 2042. When a land use proposed as part of the project had an associated trip generation rate in *Trip Generation, 8th Edition*, that rate was used.

Trip generation rates for the boat slips on the East Channel were developed based on the following assumptions:

- Two external crew members making two round-trip commute trips would be necessary to serve the vessel.
- One daily round trip truck trip would be necessary to serve the vessel.
- All researchers on the vessel would be accounted for in trip generation for office/lab/classroom uses.
- All weekday vehicle trips would be made outside AM and PM peak hours.
- Outbound trips for crew would occur during the weekend midday peak hour.
- Six vessel sailings per day (half of the 12 small vessel slips would be used per weekday) on weekdays and three on weekend days (one quarter of the 12 small vessel slips would be used per weekend day).

Trip generation rates for the Public Plaza were developed using the *San Diego Land Development Code Trip Generation Manual* (City of San Diego, 2003). In order to provide a conservative estimate of potential traffic impacts of the proposed project, no adjustments were made to account for possible reductions due to either pass-by trips or internal capture with the exception of the small waterfront café, which would generally serve City Dock users.

In 2016, as shown in Table 3, the project is estimated to generate a total of approximately 1,046 daily weekday trips, including approximately 102 (83 inbound/19 outbound) trips during the AM peak hour and 96 (22 inbound/74 outbound) trips during the PM peak hour. The project is projected to generate approximately 518 daily weekend trips, including 53 (32 inbound/21 outbound) trips during the weekend peak hour.

In 2024, as shown in Table 3, using the same methodology as described above, the proposed project is projected to generate approximately 2,935 daily weekday trips, including approximately 384 (318 inbound/66 outbound) trips during the AM peak hour and 343 (60 inbound/283 outbound) trips during the PM peak hour. The project is projected to generate approximately 997 daily weekend trips, including 112 (77 inbound/35 outbound) trips during the weekend peak hour.

**TABLE 3**
**CITY DOCK #1 TRIP GENERATION ESTIMATES**

| Facility | Description | Location | Size | WEEKDAY | | | | | | | WEEKEND | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | AM Peak Hour | | | PM Peak Hour | | | | Midday Peak Hour | | |
| | | | | Weekday Daily | Inbound | Outbound | Total | Inbound | Outbound | Total | Weekend Daily | Inbound | Outbound | Total |
| **PHASE 1** | | | | | | | | | | | | | | |
| ***Proposed*** | | | | | | | | | | | | | | |
| SCMI | Research & Development Facility | Berth 56/57 | 37.083 KSF | 301 | 37 | 8 | 45 | 6 | 34 | 40 | 70 | 7 | 2 | 9 |
| | Support Facilities & Storage | Berth 56/57 | 13.020 KSF | 46 | 3 | 1 | 4 | 1 | 3 | 4 | 16 | 1 | 1 | 2 |
| | Learning Center - Museum/Interpretive center | Berth 56 | 1.574 KSF | 6 | * | * | * | * | * | * | 8 | * | * | * |
| | Learning Center - Classrooms & Auditorium(Seats) | Berth 56 | 270 Seats [1] | 643 | 46 | 11 | 57 | 17 | 40 | 57 | 351 | 25 | 6 | 31 |
| | Boat Slips (Floating Finger Dock) | East Channel | 12 Slips | 72 | * | * | * | * | * | * | 72 | * | 12 | 12 |
| | Public Plaza | Berth 57 | 7.500 KSF | 9 | * | * | * | * | * | * | 9 | * | * | 0 |
| | ***Total New Square Footage*** | | ***87.603 KSF*** | ***1,068*** | ***86*** | ***20*** | ***106*** | ***24*** | ***77*** | ***101*** | ***517*** | ***33*** | ***21*** | ***54*** |
| ***Existing to be Removed*** | | | | | | | | | | | | | | |
| Crescent Warehouse | Transit Shed 57-58 | Berths 57-58 | 8 People | (31) | (3) | (1) | (4) | (2) | (3) | (5) | (8) | (1) | 0 | (1) |
| **Phase 1 Net New Trips** | | | **87.603 KSF** | **1,037** | **83** | **19** | **102** | **22** | **74** | **96** | **509** | **32** | **21** | **53** |
| **PHASE 2** | | | | | | | | | | | | | | |
| ***Proposed*** | | | | | | | | | | | | | | |
| Berths 58-60 | Research & Development Facility | Berth 58-60 | 180.000 KSF | 1,460 | 183 | 37 | 220 | 29 | 164 | 193 | 342 | 34 | 9 | 43 |
| | Waterfront Café | Berth 58-60 | 0.280 KSF | 36 | 2 | 1 | 3 | 2 | 1 | 3 | 44 | 2 | 2 | 4 |
| | Waterfront Café Internalization | Berth 58-60 | 50% internalized | (18) | (1) | (1) | (2) | (1) | (1) | (2) | (7) | 0 | 0 | 0 |
| | Public Plaza | Berth 60 | 4.000 KSF | 5 | * | * | * | * | * | * | 5 | * | * | * |
| **Net Trips Berths 58-60** | | | ***184.780 KSF*** | ***1,483*** | ***184*** | ***37*** | ***221*** | ***30*** | ***164*** | ***194*** | ***384*** | ***36*** | ***11*** | ***47*** |
| Berth 70-71 (Westways) | NOAA Administration/Research Facility | Berth 70-71 | 50.000 KSF | 406 | 51 | 10 | 61 | 8 | 45 | 53 | 95 | 9 | 3 | 12 |
| **Net Trips Berths 70-71** | | | ***50.000 KSF*** | ***406*** | ***51*** | ***10*** | ***61*** | ***8*** | ***45*** | ***53*** | ***95*** | ***9*** | ***3*** | ***12*** |
| **Phase 2 Net New Trips** | | | **234.780 KSF** | **1,889** | **235** | **47** | **282** | **38** | **209** | **247** | **479** | **45** | **14** | **59** |
| **Total Net New Trips (Phase 1 & Phase 2)** | | | | **2,926** | **318** | **66** | **384** | **60** | **283** | **343** | **988** | **77** | **35** | **112** |

Notes:
KSF = 1,000 square feet
[1] = Square footage of approximately 9.87 ksf is reflected in seat count per NOP

### *Project Traffic Distribution*

The geographic distribution of trips generated by the proposed project is dependent on characteristics of the street system serving the site, the level of accessibility of routes to and from the proposed project site, the locations of employment and commercial centers to which residents of the project would be drawn, and the geographic distribution of population from which employees and potential patrons of the proposed commercial elements of the project would be drawn. The general distribution pattern used in this study was developed in consultation with LADOT and is illustrated in Figure 4.

### *Project Traffic Assignment*

The trip generation estimates for Phase 1 and Phase 2 conditions summarized in Table 3 and the distribution patterns illustrated in Figure 4 were used to assign the project-generated traffic to the local and regional street system. Figures 5 and 6 illustrate the estimated project-generated peak hour traffic volumes at each of the analyzed intersections during a typical weekday morning and evening peak hour and weekend midday peak hour, for opening year and stabilized year, respectively. Project traffic assignment for years 2024 and 2042 account for the proposed reconfiguration of Harbor Boulevard south of 7$^{th}$ Street, which will include a junction with Sampson Way.

## EXISTING PLUS PROJECT TRAFFIC PROJECTIONS

The proposed project traffic volumes for both Phase 1 and Phase 2 were added to the 2011 traffic counts to develop the existing plus project traffic volumes. Figure 7 illustrates the resulting projected existing plus project peak hour traffic volumes for a typical weekday AM and PM peak hour and weekend peak hour with Phase 1 developed, and Figure 8 illustrates the Existing plus Project conditions with the addition of Phase 2 project trips.

## FUTURE BASE TRAFFIC VOLUMES

The future base traffic projections reflect the changes to existing traffic conditions expected from: (1) ambient growth in traffic, which reflects increases in traffic because of regional growth and development; (2) traffic generated by specific development projects located in, or in the vicinity of, the study area; and (3) roadway or intersection capacity enhancements. These factors are described below.

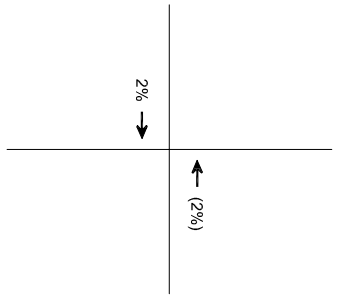
### *Areawide Traffic Growth*

Regional background (ambient) traffic growth was estimated using data from a computerized traffic analysis tool known as the Port Area Travel Demand Model, which includes traffic growth for the port and the local area. Background traffic growth occurs as a result of regional growth in employment, population, schools, and other activities. Related projects are covered by the growth forecasts of the Port Travel Demand Model. Local projects not included in the SCAG Regional Travel Demand Forecasting Model were separately accounted for in the Port Travel Demand Model, such as detailed Ports of Long Beach and Los Angeles projected container and non-container terminal growth and the Wilmington Waterfront.

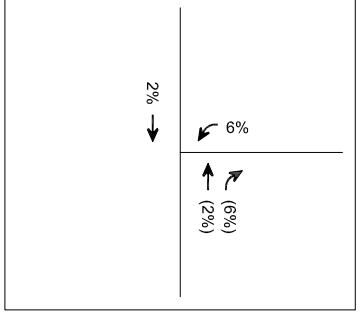
### *Related Project Traffic Generation and Assignment*

Future base traffic forecasts include the effects of specific cumulative development projects, also called related projects, expected to be built in the vicinity of the proposed project site prior to the proposed project's future years of 2016, 2024 and 2042. The following projects were included in the related project traffic generation and assignment:

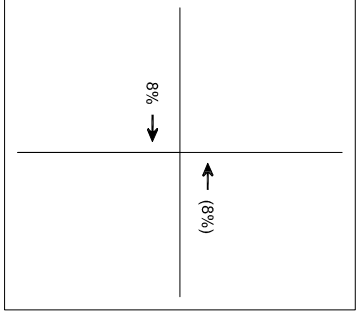
1. Gaffey St & Summerland Av



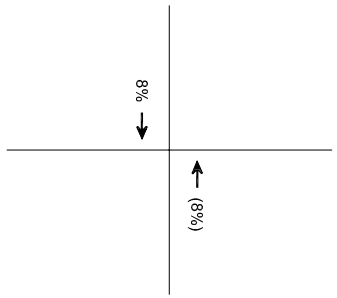

2. Gaffey St & I-110 Ramps



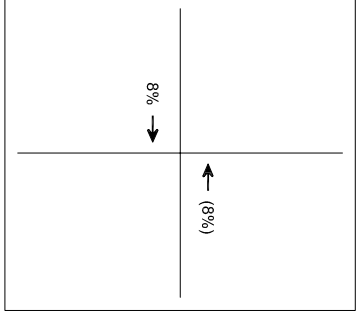

3. Gaffey St & 1st St



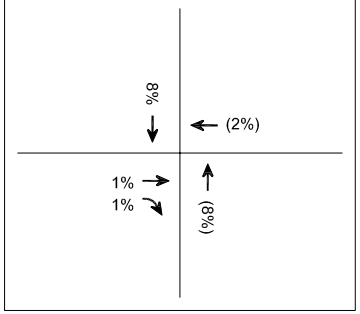

4. Gaffey St & 5th St



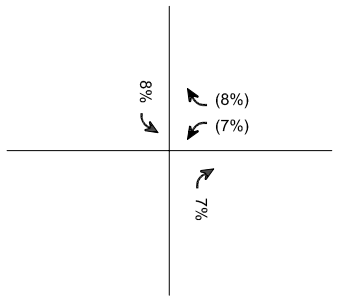

5. Gaffey St & 7th St



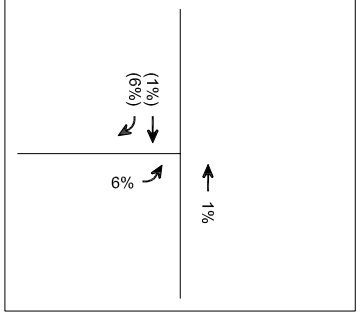

6. Gaffey St & 9th St



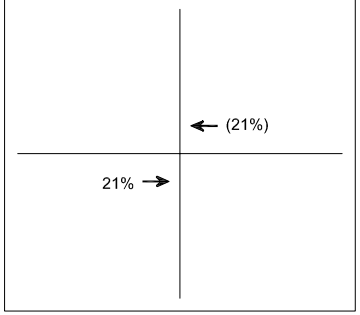

7. Gaffey St & 22nd St

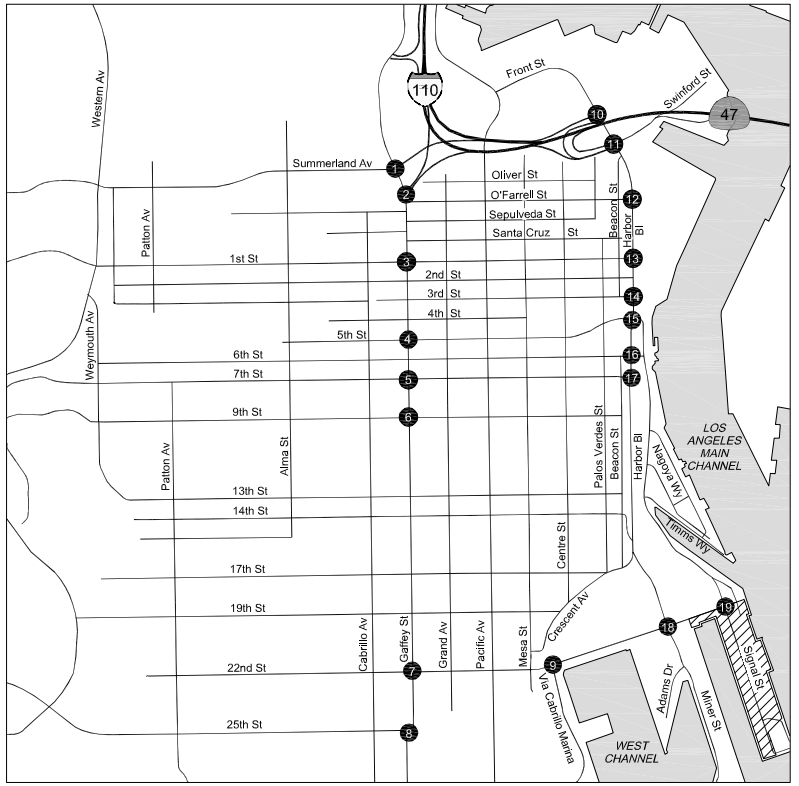



8. Gaffey St & 25th St




9. Via Cabrillo Marina & 22nd St




## LEGEND

- Project Site
- # - Analyzed Intersection
- Turning Movement
- X%(X%) - Inbound(Outbound) Trip Distribution

Not to Scale

FEHR & PEERS

# TRIP DISTRIBUTION

FIGURE 4

Dec 14, 2011 TP
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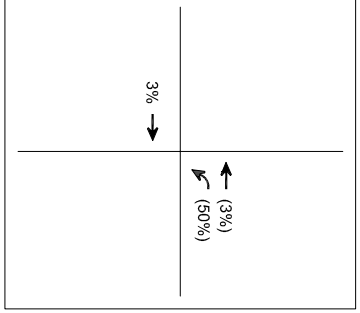
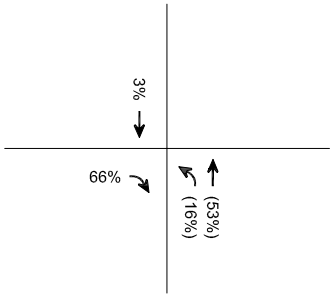
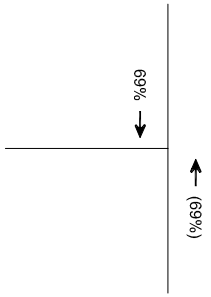
10. Harbor Bl & 47 On-Ramp

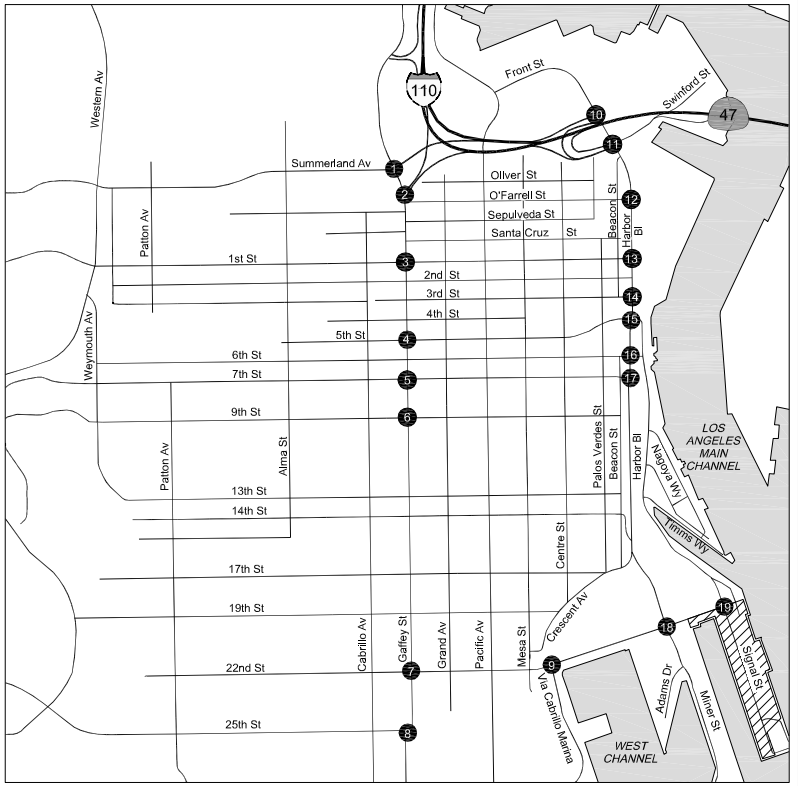



11. Harbor Bl & Swinford St/47 Ramps

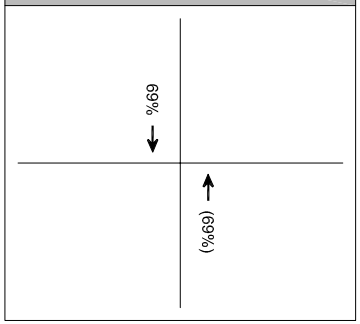



12. Harbor Bl & O'Farrell St

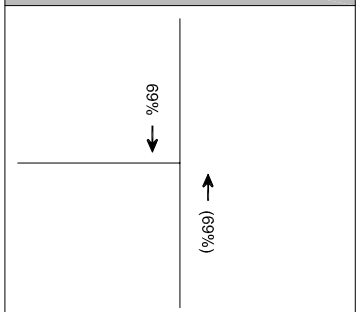


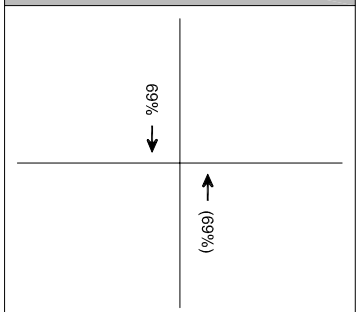

13. Harbor Bl & 1st St



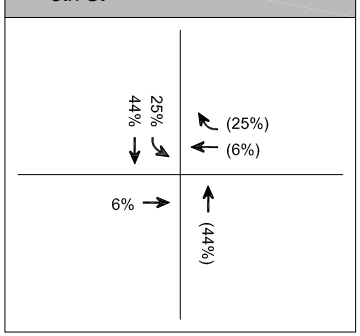

14. Harbor Bl & 3rd St



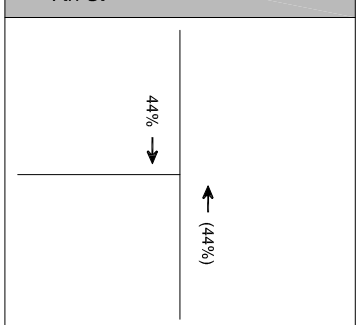

15. Harbor Bl & 5th St



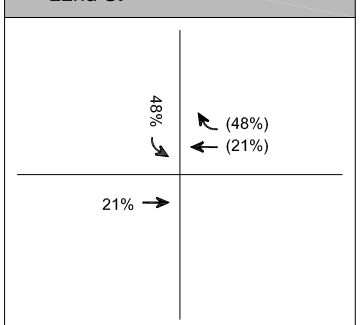

16. Harbor Bl & 6th St



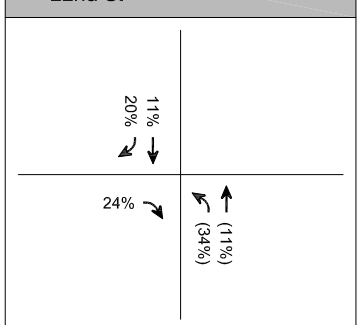

17. Harbor Bl & 7th St




18. Miner St & 22nd St




19. Signal St & 22nd St




## LEGEND

- Project Site
- # - Analyzed Intersection
- Turning Movement
- X%(X%) - Inbound(Outbound) Trip Distribution

Not to Scale

FEHR & PEERS

# TRIP DISTRIBUTION

**FIGURE 4**

Dec 14, 2011 TP
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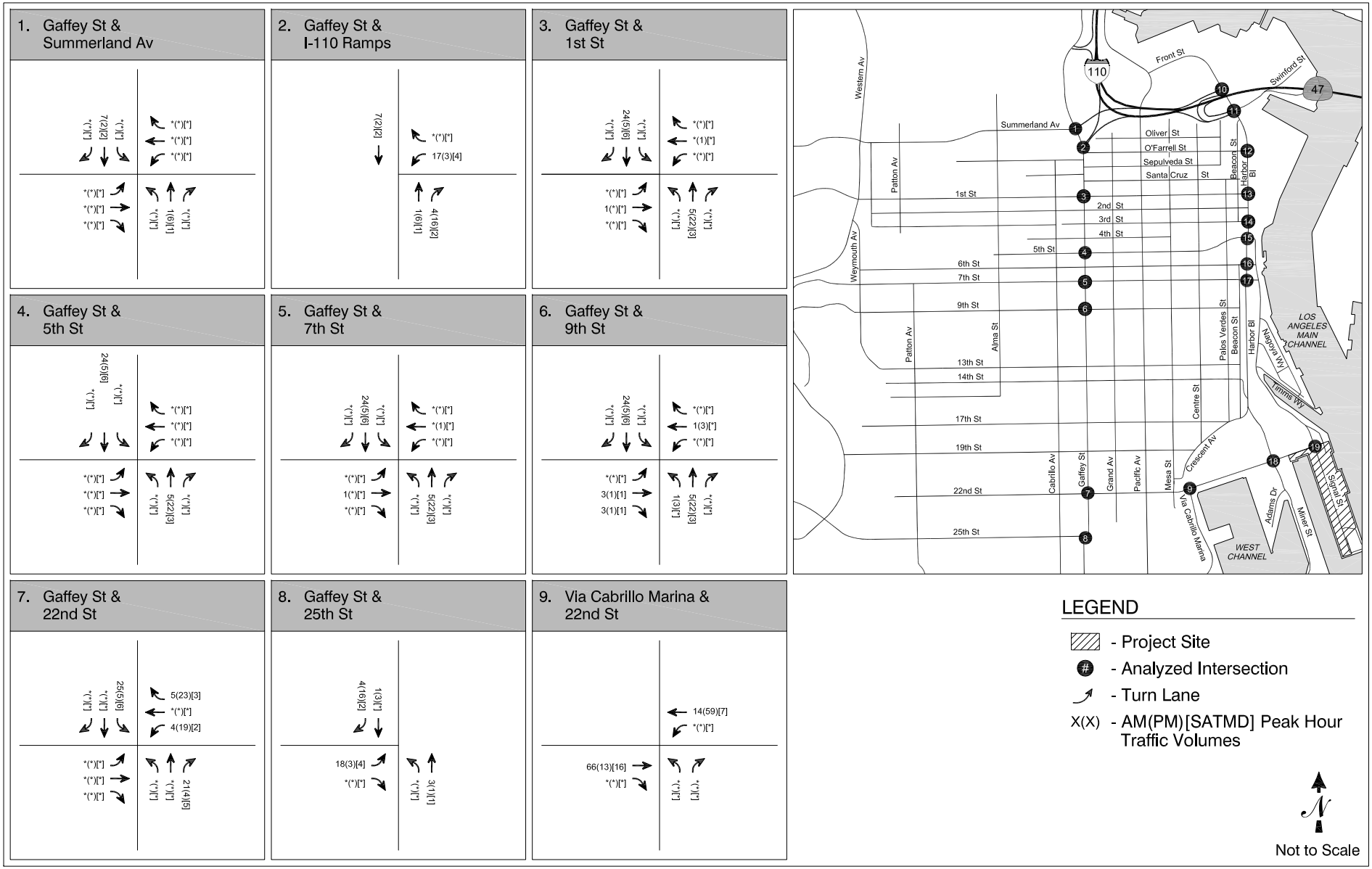


Note: Project Only volumes reflect future year graphic assignment

FEHR PEERS

# PROJECT ONLY PHASE 1
# PEAK HOUR INTERSECTION VOLUMES

**FIGURE 5**

May 10, 2012 SK
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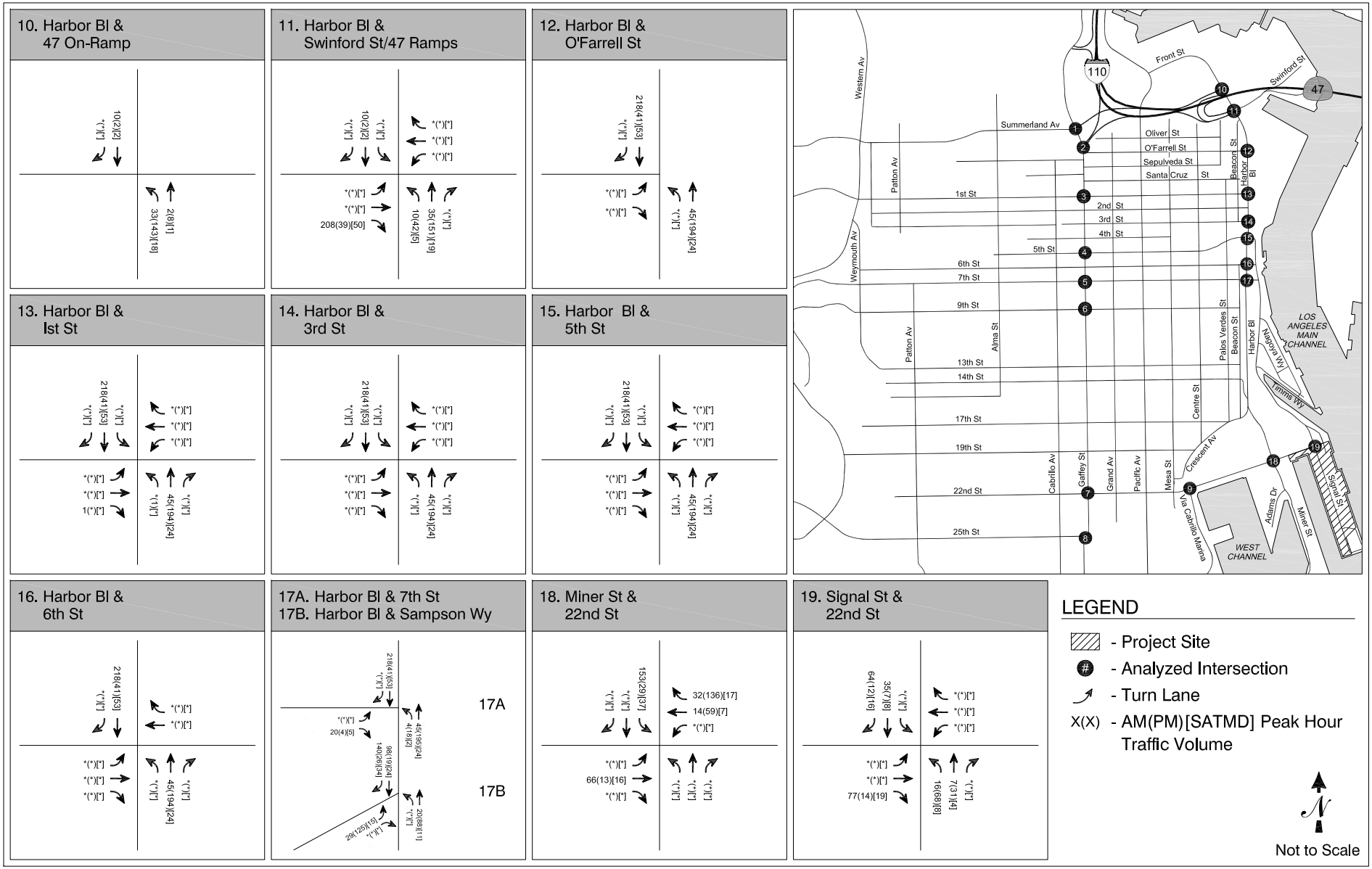


Note: Project Only volumes reflect future year graphic assignment

FEHR PEERS

# PROJECT ONLY PHASE 1
# PEAK HOUR INTERSECTION VOLUMES

**FIGURE 5 (CONT.)**

May 10, 2012 JS
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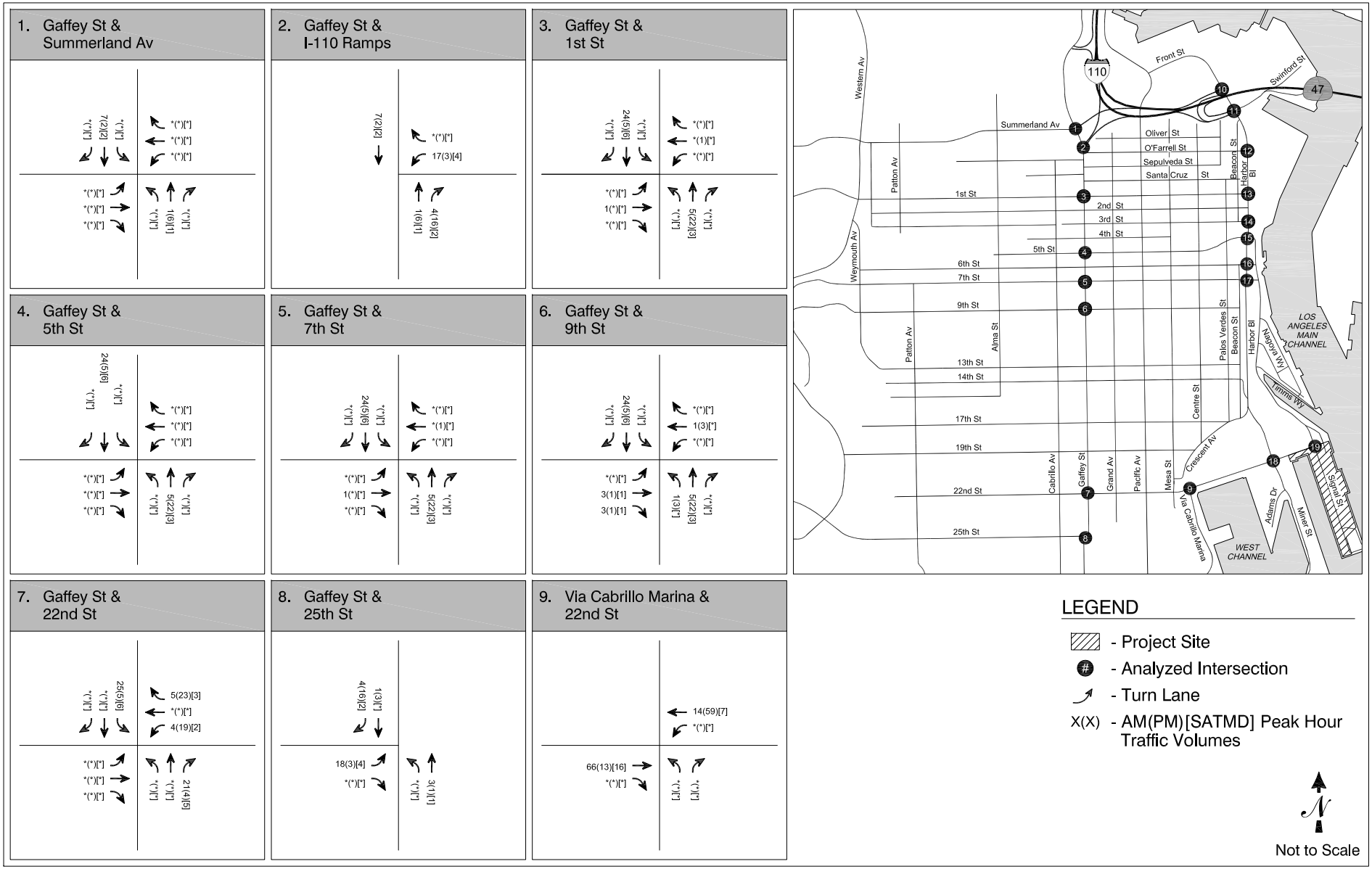


Note: Project Only volumes reflect future year graphic assignment

FEHR PEERS

# PROJECT ONLY PHASE 2 PEAK HOUR INTERSECTION VOLUMES

FIGURE 6

May 10, 2012 SK
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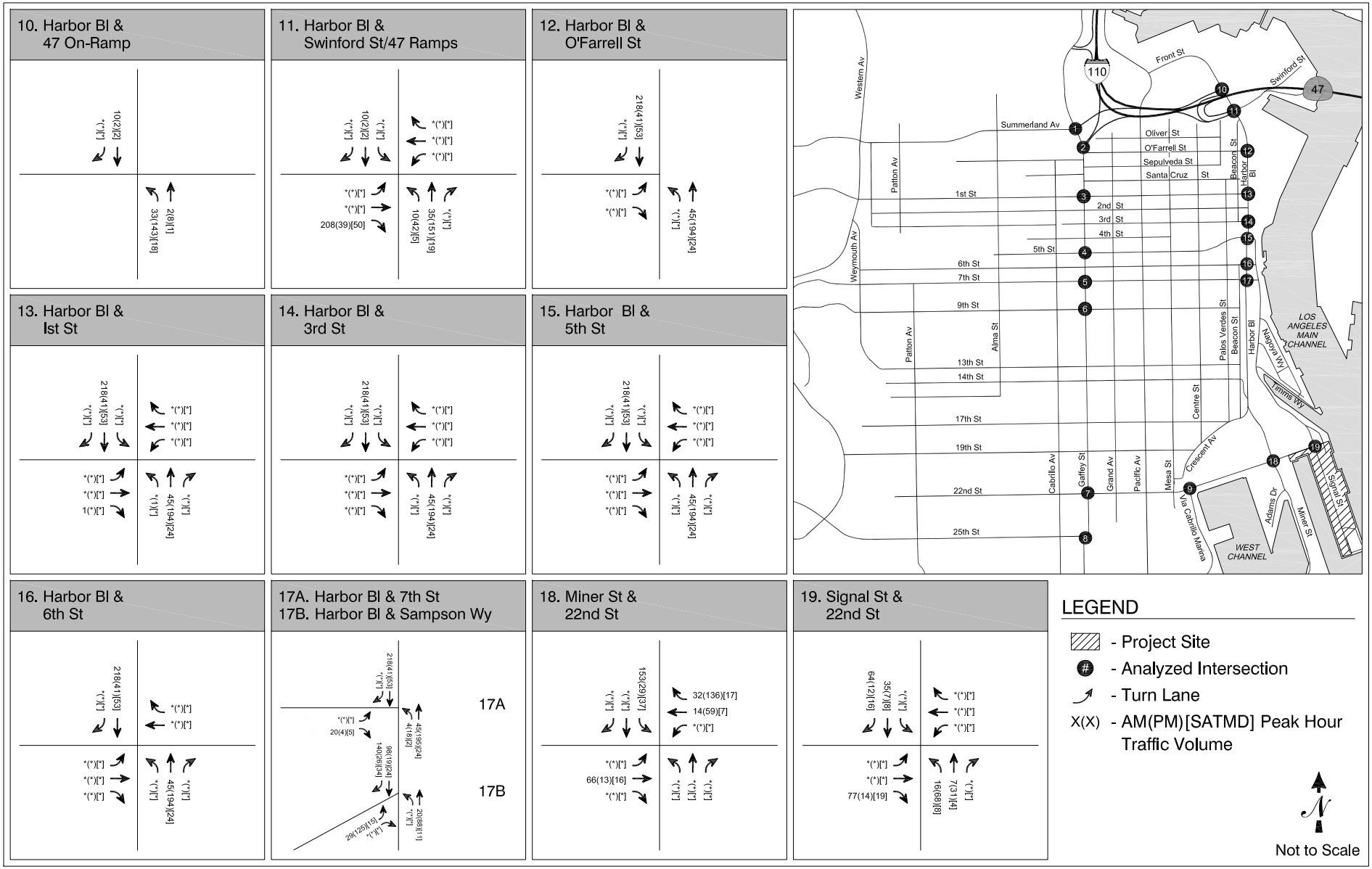


Note: Project Only volumes reflect future year graphic assignment

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# PROJECT ONLY PHASE 2
# PEAK HOUR INTERSECTION VOLUMES

**FIGURE 6 (CONT.)**

May 10, 2012 JS
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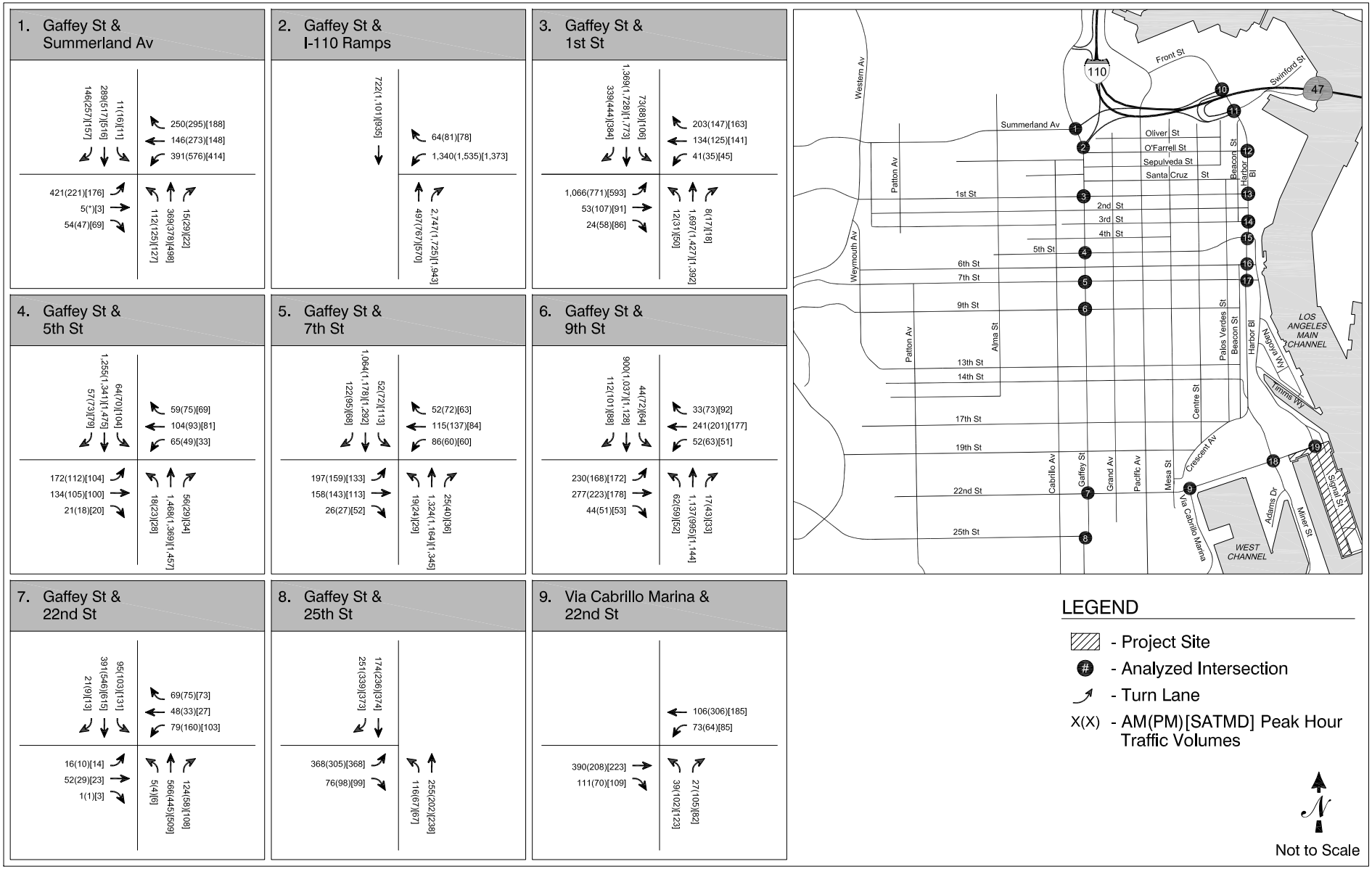


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# EXISTING PLUS PROJECT PHASE 1 PEAK HOUR INTERSECTION VOLUMES

**FIGURE 7**

Feb 06, 2012 SK
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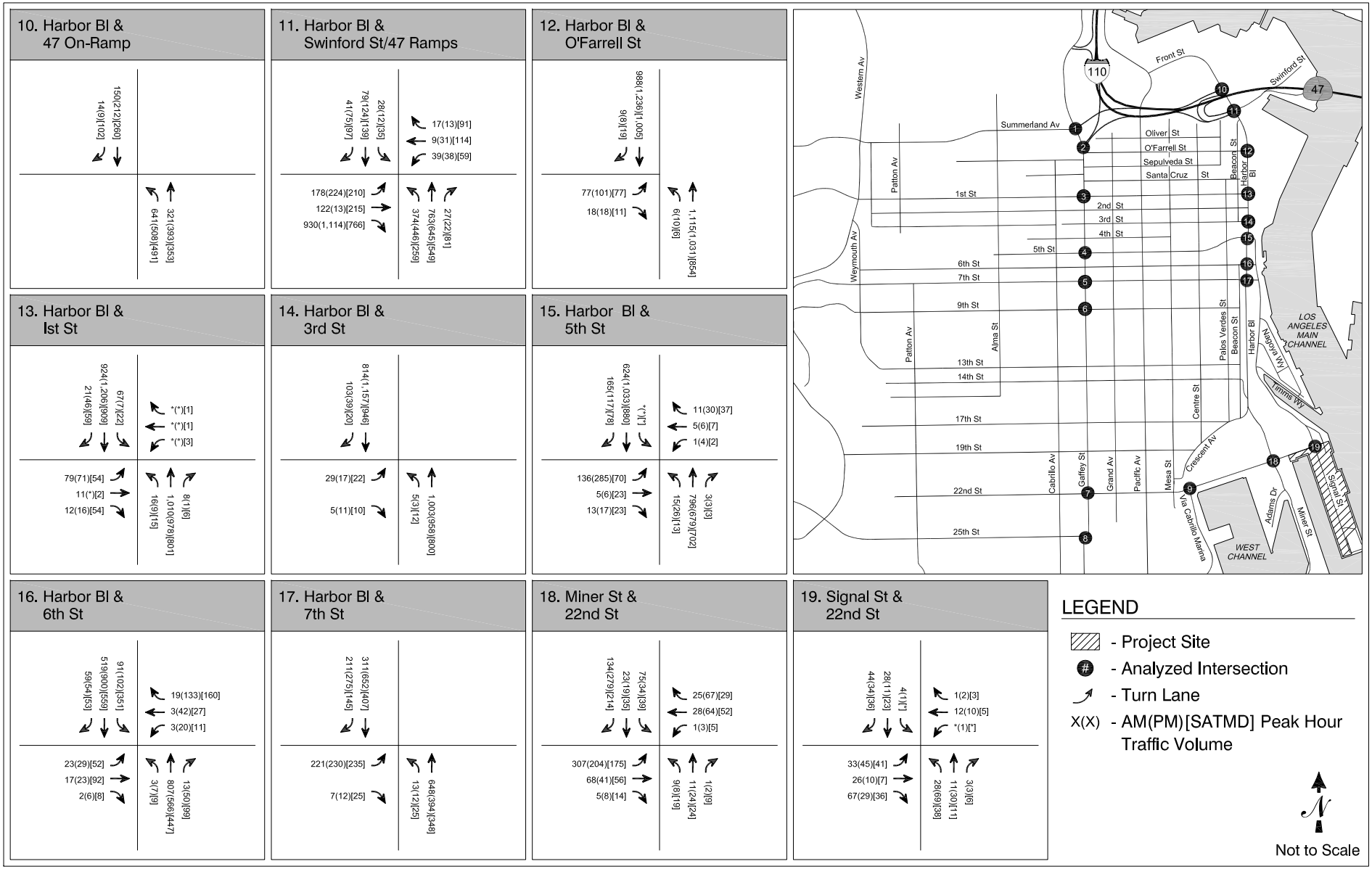


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# EXISTING PLUS PROJECT PHASE 1 PEAK HOUR INTERSECTION VOLUMES

**FIGURE 7 (CONT.)**

Feb 06, 2012 JS
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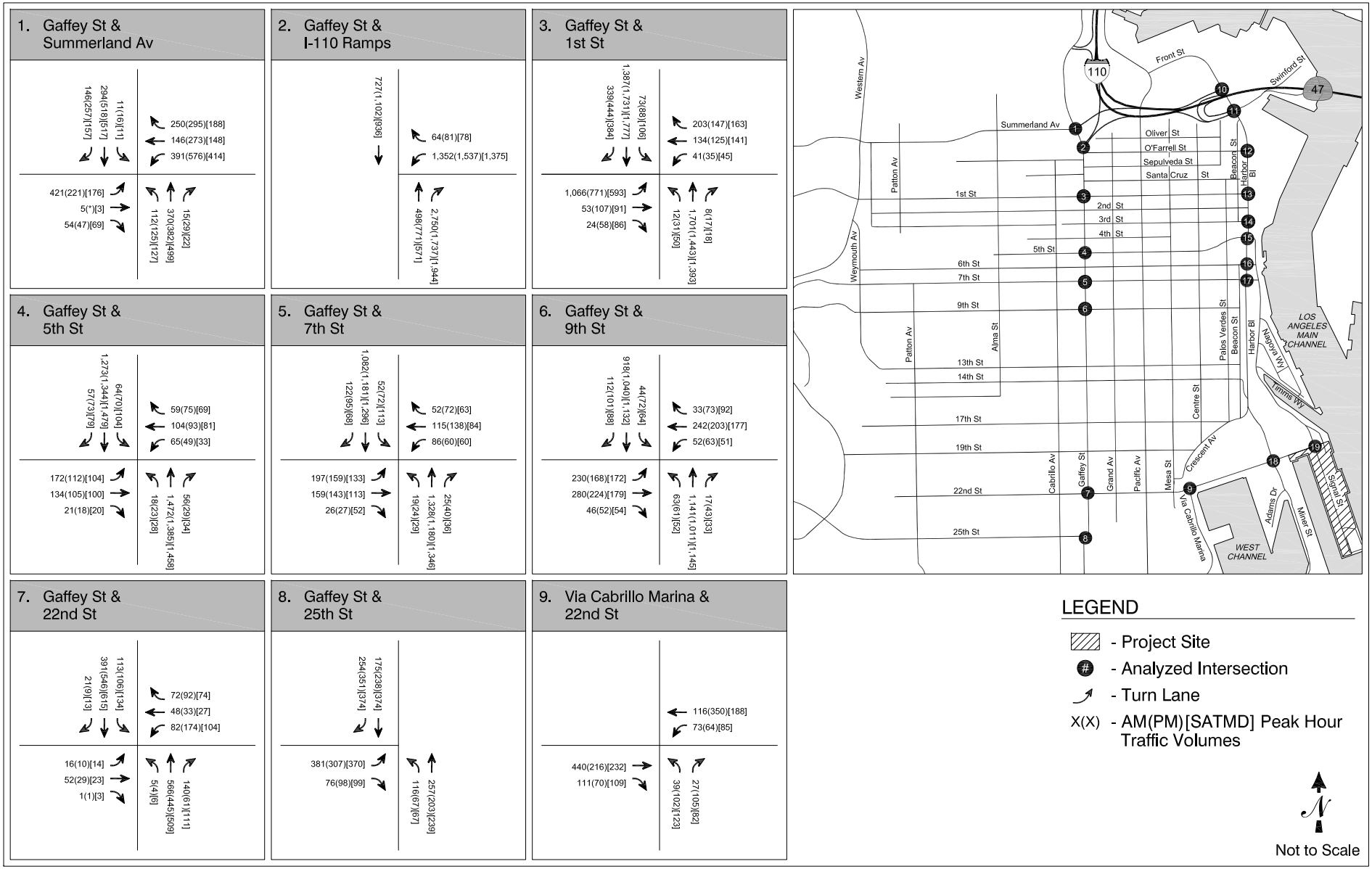


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# EXISTING PLUS PROJECT PHASE 2 PEAK HOUR INTERSECTION VOLUMES

**FIGURE 8**

Feb 06, 2012 SK
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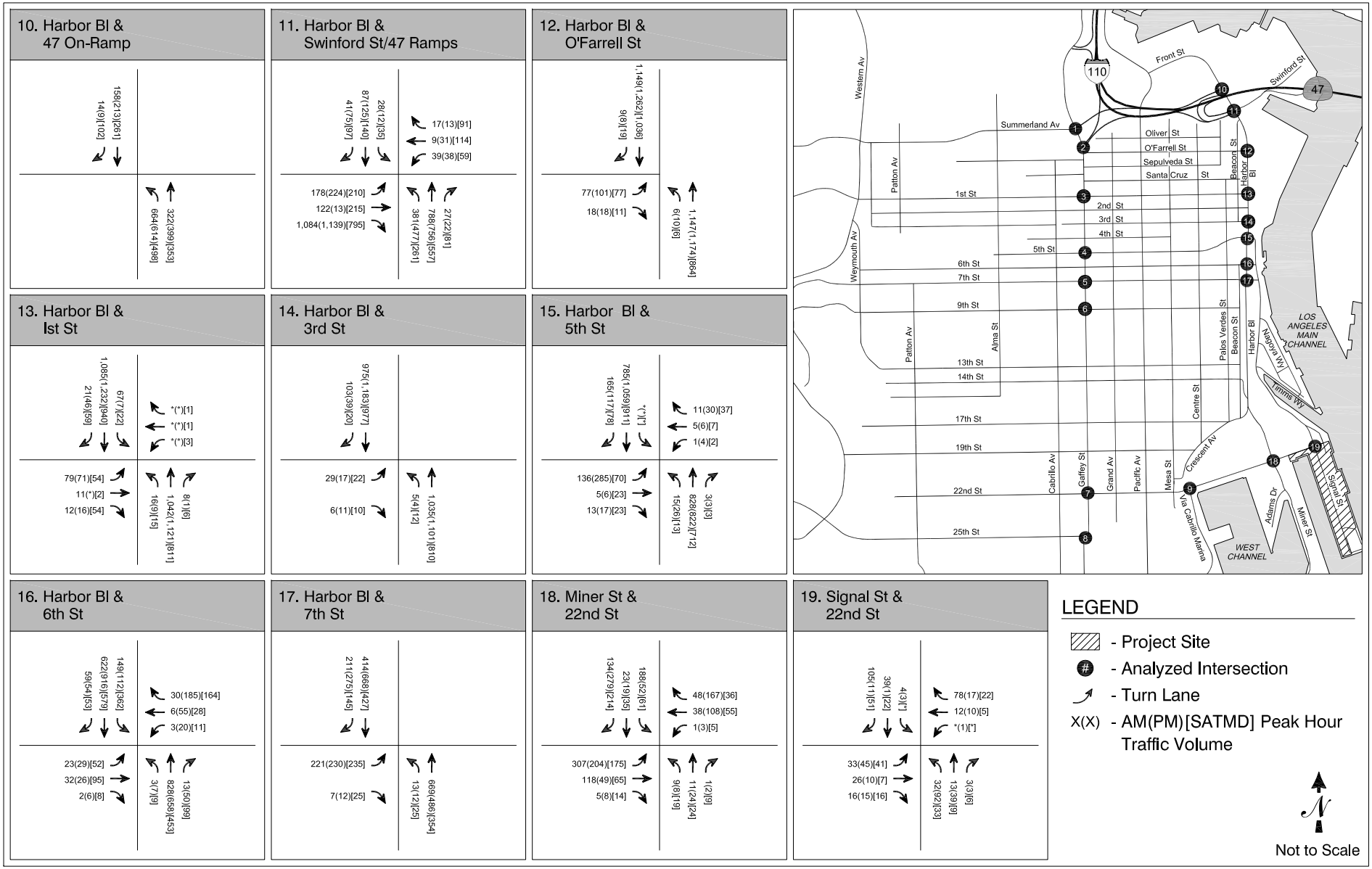



FEHR & PEERS

# EXISTING PLUS PROJECT PHASE 2 PEAK HOUR INTERSECTION VOLUMES

**FIGURE 8 (CONT.)**

Feb 06, 2012 JS
N:\Jobs\Active\2400s\2463 – City Dock 1 EIR–POLA\Graphics\ACAD\2463_Base Map_New.dwg

- CRAFTED in San Pedro (Warehouses #9 and #10) – CRAFTED would be located in Warehouses #9 and #10 in San Pedro, near Miner Street & 22nd Street, approximately 1.5 miles from the project site. This project would consist of adaptive reuse of the existing warehouses to create a permanent craft marketplace. The building programming would be composed of juried vendor stalls selling handmade wares. The building would also feature concession areas and a demonstration area. CRAFTED would be open throughout the week, with peak activity occurring on weekends.

- USS Iowa – USS Iowa would be located at City Dock #1 would be located at Berth 87, near the intersection of Harbor Boulevard & 1st Street, approximately 1.5 miles from the project site. This project consists of a 33,800-square foot visitor center, including a museum and education center aboard the USS Iowa battleship. There would also be concession areas, ticketing and gift-shop facilities on the project site.

- San Pedro Waterfront – The San Pedro waterfront transformation is a long-range specific plan for the San Pedro side of the Los Angeles waterfront. It includes redevelopment of Ports O'Call, the primary retail outlet along the waterfront, additional promenades and boat harbors, and several recreational elements. The project is expected to increase utilization of the Waterfront area with adaptive reuse of underutilized buildings and new development opportunities along the waterfront.

***Future Baseline Street Improvements***

Per information received from POLA, a future improvement along Harbor Boulevard (expected by year 2016) to the intersection of Harbor Boulevard & 7th Street will include a junction with Sampson Way. By year 2024, as part of the San Pedro Waterfront Project: Harbor Boulevard will be re-striped, and the median will be removed/reconstructed as needed to provide three northbound through and southbound through lanes between the reconstructed Sampson Way & Harbor Boulevard intersection and the Westbound On-Ramp & Front Street intersection. This will result in the removal of parking and the bike lane on the northbound side. However, the existing and planned promenade on the east side of Harbor Boulevard will provide the replacement bike lane. The parking and 5' bike lane on the southbound side south of O' Farrell Street will be preserved (this is predicated upon 10' interior lanes, with the exception of the outer southbound through lane, adjacent to the bike lane, which would be maintained at 11' wide). North of O'Farrell Street, the parking and parking lane on the southbound side would need to be removed to accommodate the northbound dual left-turn lane. The innermost northbound through lane at the eastbound off-ramp intersection would become a forced left-turn lane at the SR 47 Westbound On-Ramp. This improvement is projected to be needed by the year 2024. The POLA will monitor operational conditions on an ongoing basis to confirm the need and timing for these improvements.

Additionally, the current improvement plan would equip all remaining intersections with ATSAC and install the state-of-the-art Adaptive Traffic Control System (ATCS) as an additional feature of the ATSAC system. In the analysis of future operating conditions, a capacity increase of 10% (0.10 V/C adjustment) was applied to reflect the benefit of ATSAC/ATCS control at all signalized study intersections.

These improvements would result in capacity changes at the specified locations throughout the study area. Future lane geometries are included in Appendix A of this report.

***Traffic Assignment***

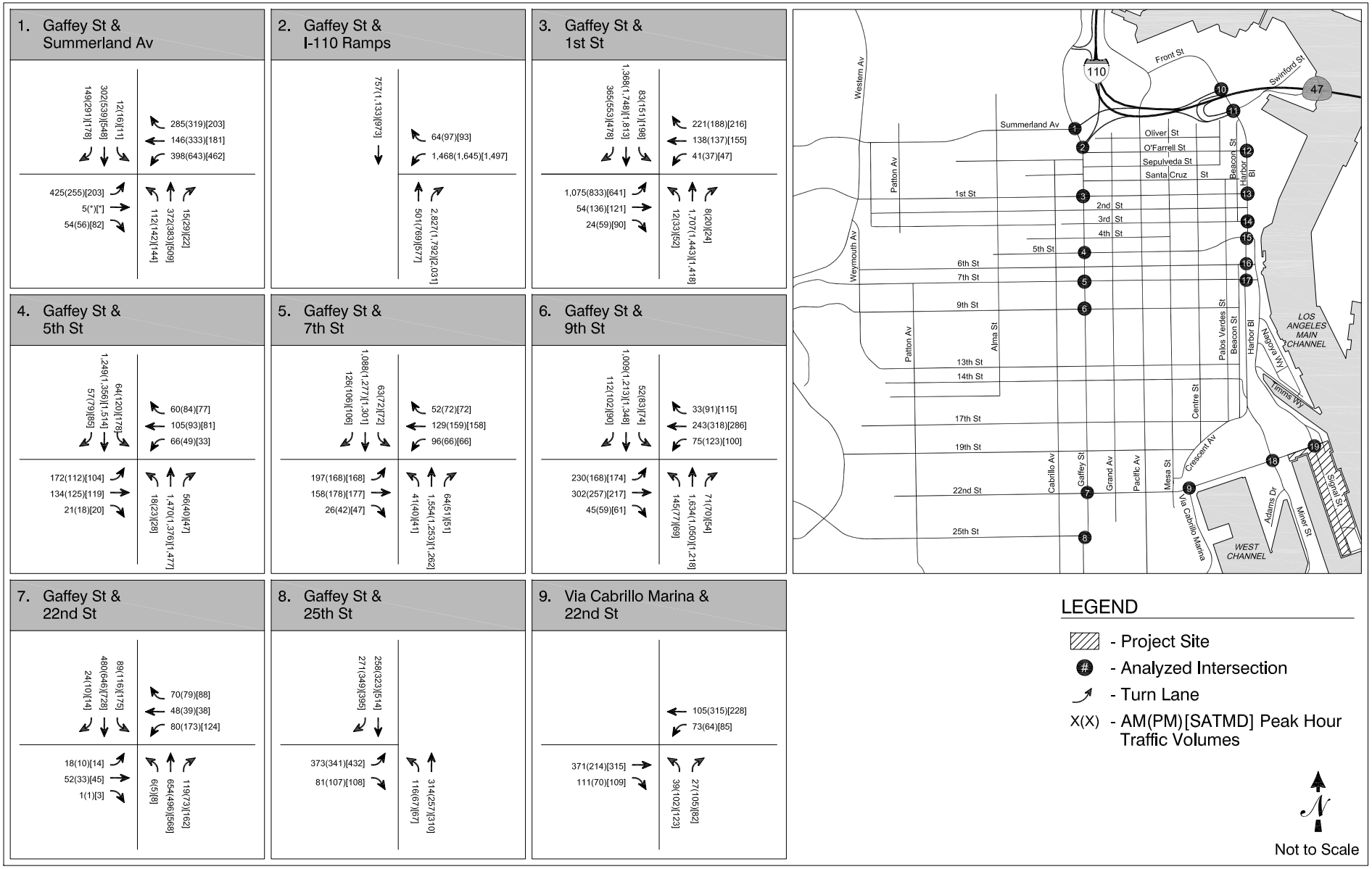
Using the estimated trip generation and trip distribution patterns described above, traffic generated by the related projects was assigned to the street network.

***Future Base Traffic Projections***

Figures 9, 10, and 11 illustrate the future base for the future Years 2016, 2024, and 2042 at the analyzed intersections for weekday morning and evening peak and weekend afternoon peak hours. The future base traffic conditions represent an estimate of future conditions without development of the proposed project.

## FUTURE PLUS PROJECT TRAFFIC PROJECTIONS

The proposed project traffic volumes were then added to the future base traffic projections to develop the future plus project traffic forecasts for years 2016, 2024 and 2042. Figure 12 illustrates the resulting projected future plus project peak hour traffic volumes for a typical weekday AM and PM peak hour and weekend PM peak hour in 2016. Figure 13 illustrates the resulting projected future plus project peak hour traffic volumes for a typical weekday AM and PM peak hour and weekend peak hour in 2024, with the inclusion of project traffic. Finally, Figure 14 shows information for 2042. These volumes represent future traffic conditions following completion of the proposed project for the three future analysis years.




FEHR & PEERS

# 2016 FUTURE BASE PEAK HOUR INTERSECTION VOLUMES

**FIGURE 9**

Feb 06, 2012 SK
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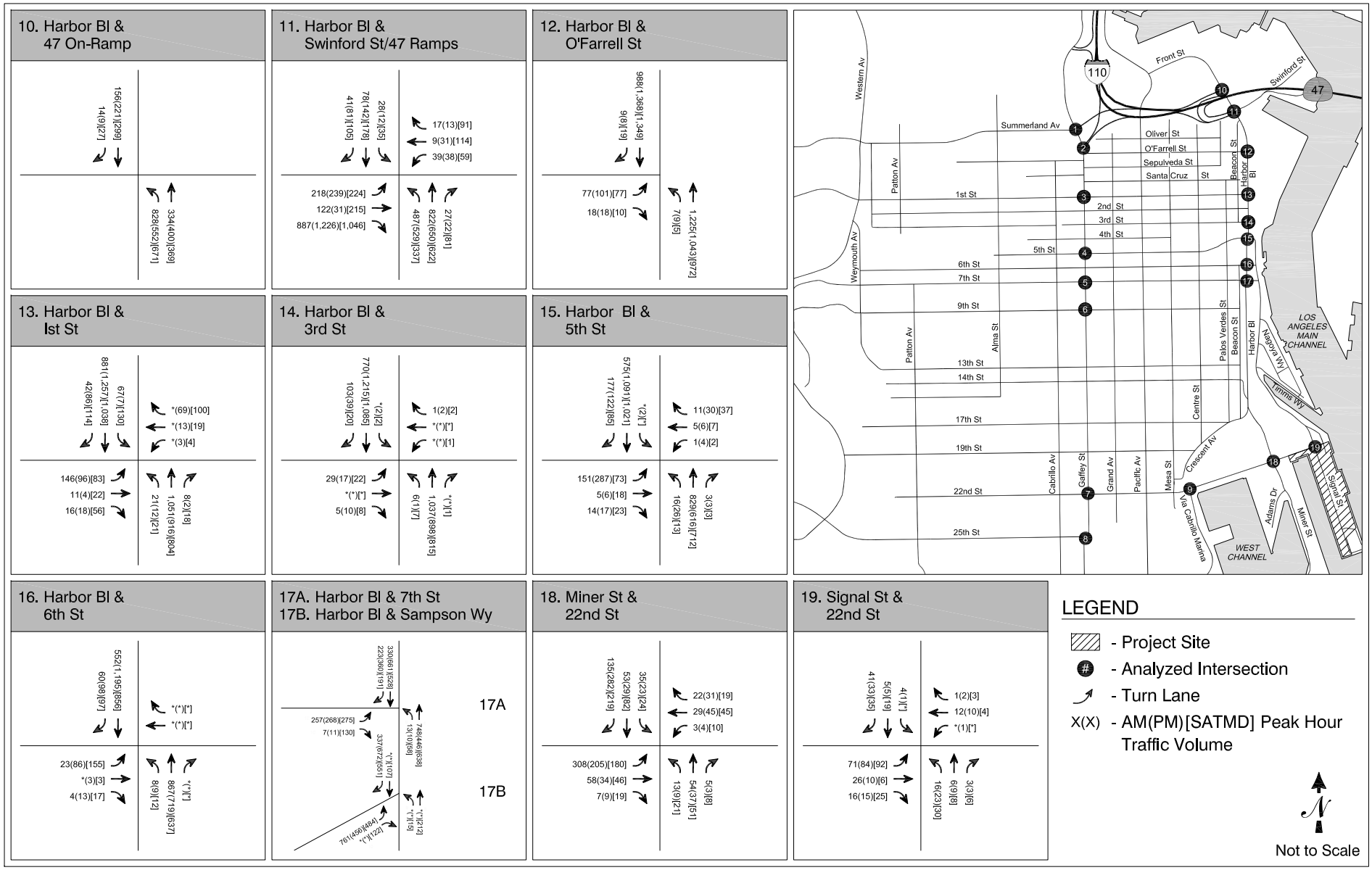
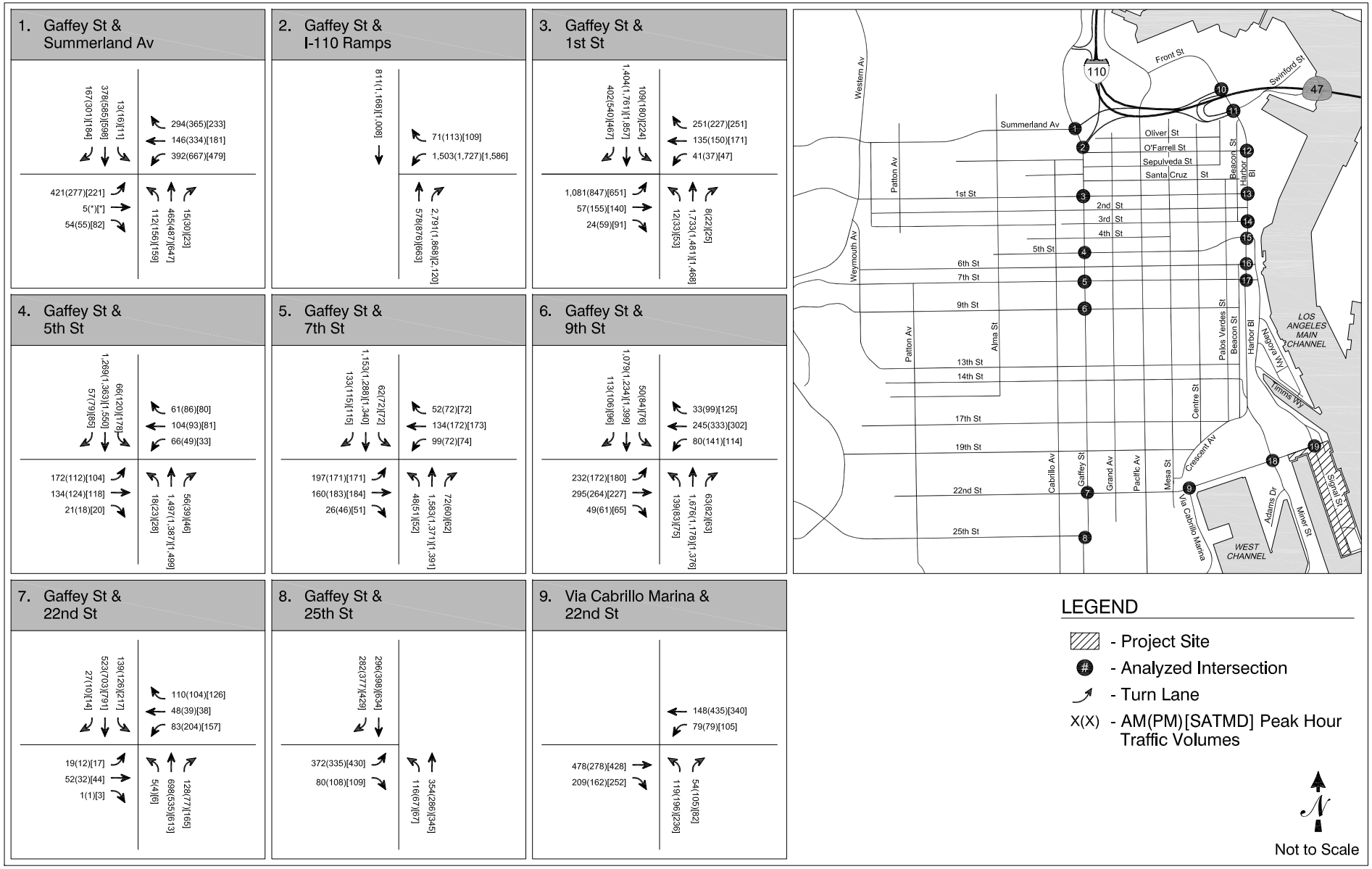



FEHR & PEERS

# 2016 FUTURE BASE PEAK HOUR INTERSECTION VOLUMES

**FIGURE 9 (CONT.)**

Feb 06, 2012 JS
N:\Jobs\Active\2400s\2463 – City Dock 1 EIR–POLA\Graphics\ACAD\2463_Base Map_New.dwg

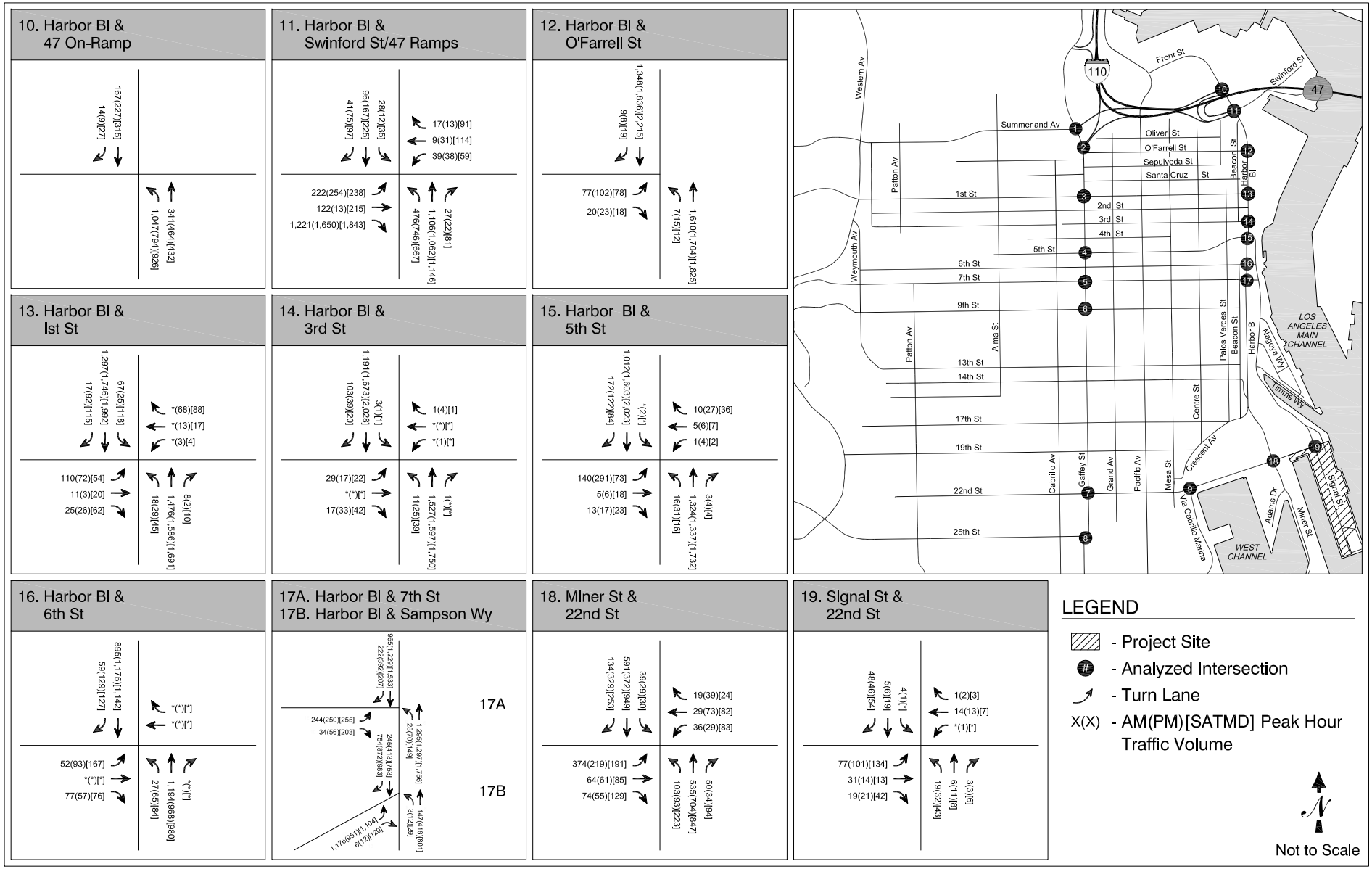



FEHR & PEERS

# 2024 FUTURE BASE PEAK HOUR INTERSECTION VOLUMES

**FIGURE 10**

Feb 06, 2012 SK
N:\Jobs\Active\2400s\2463 – City Dock 1 EIR–POLA\Graphics\ACAD\2463_Base Map_New.dwg

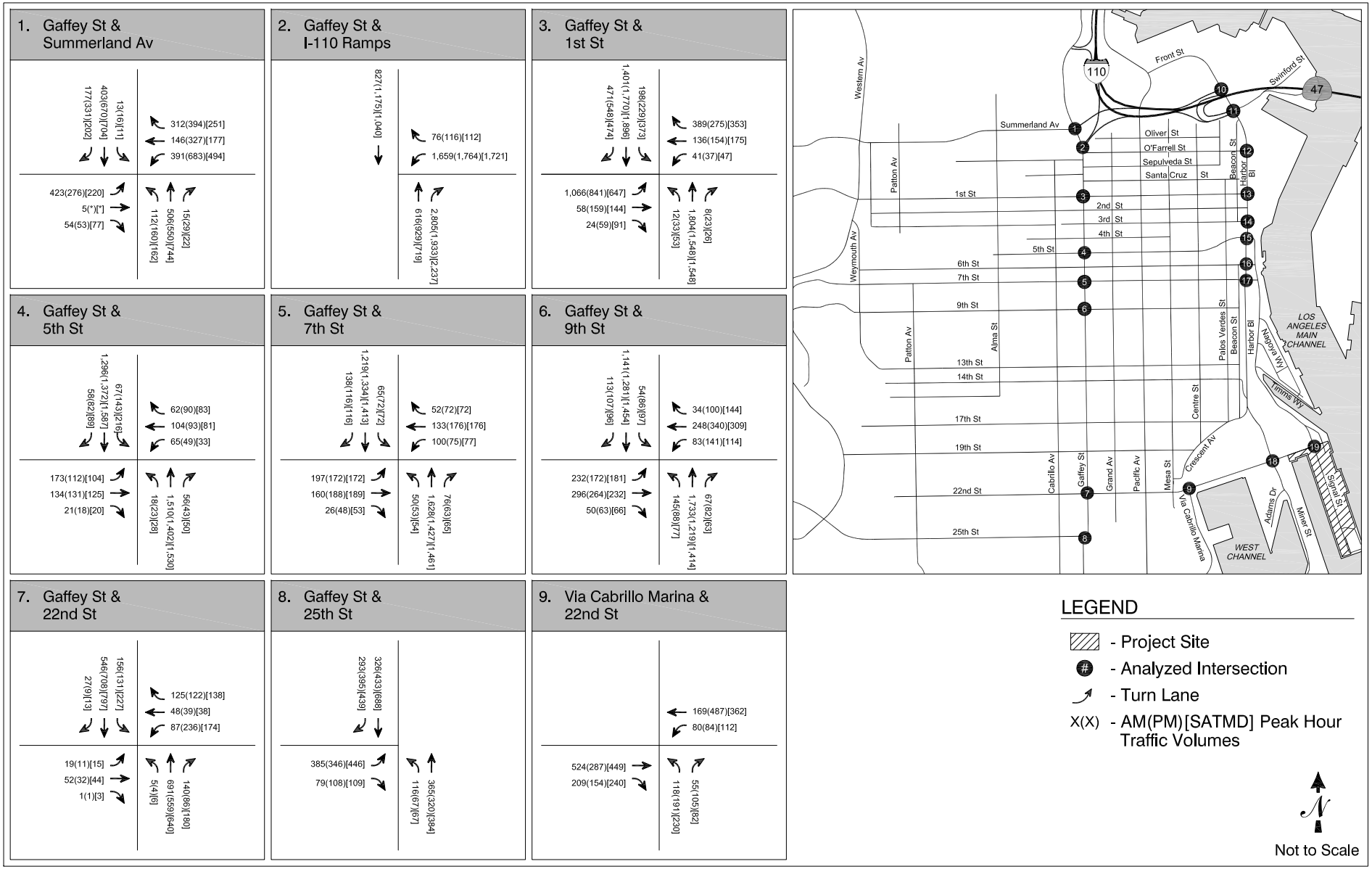



FEHR & PEERS

# 2024 FUTURE BASE PEAK HOUR INTERSECTION VOLUMES

**FIGURE 10 (CONT.)**

Feb 06, 2012 JS
N:\Jobs\Active\2400s\2463 – City Dock 1 EIR–POLA\Graphics\ACAD\2463_Base Map_New.dwg

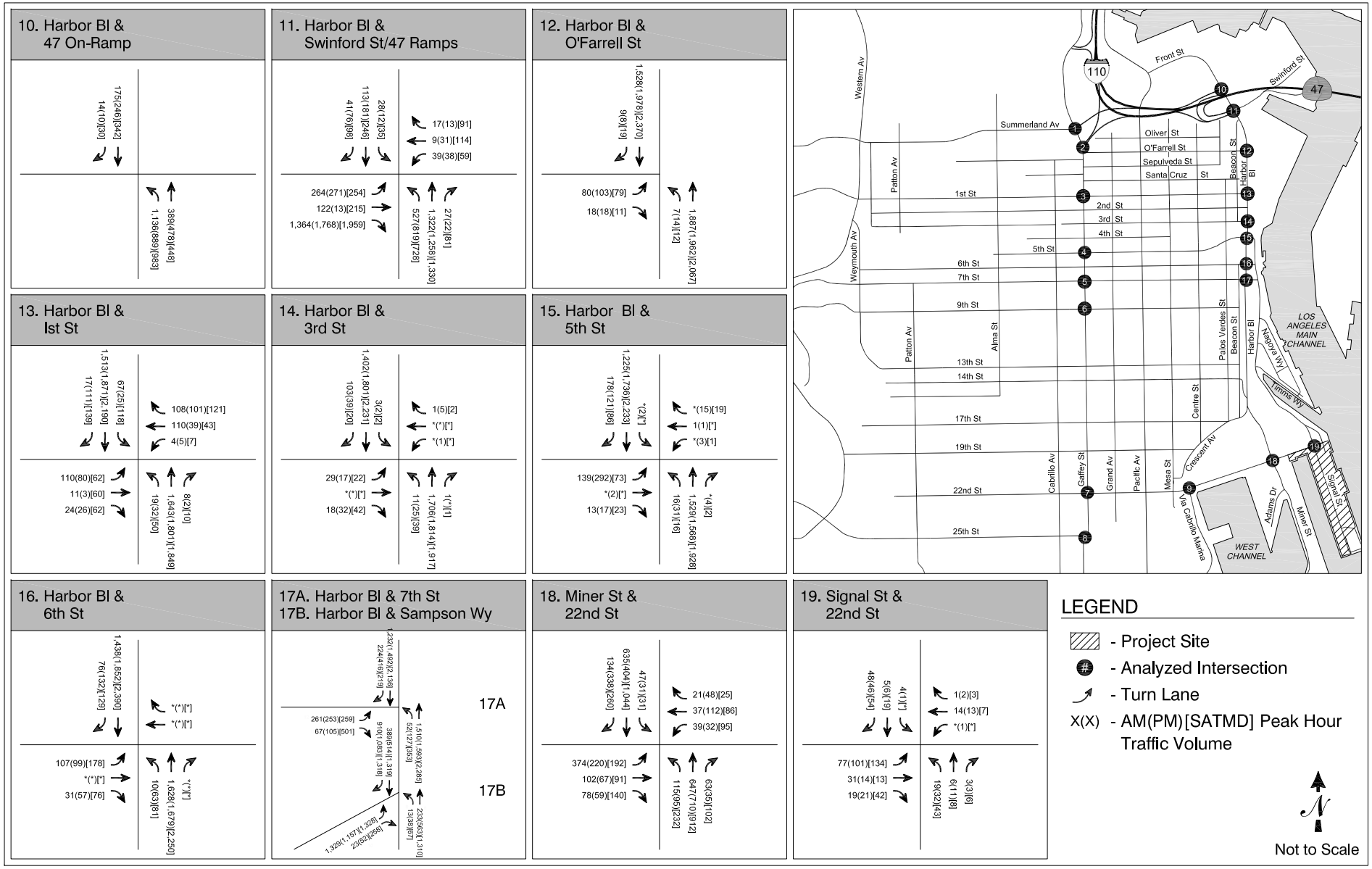



FEHR & PEERS

# 2042 FUTURE BASE PEAK HOUR INTERSECTION VOLUMES

**FIGURE 11**

Feb 06, 2012 SK
N:\Jobs\Active\2400s\2463 – City Dock 1 EIR–POLA\Graphics\ACAD\2463_Base Map_New.dwg

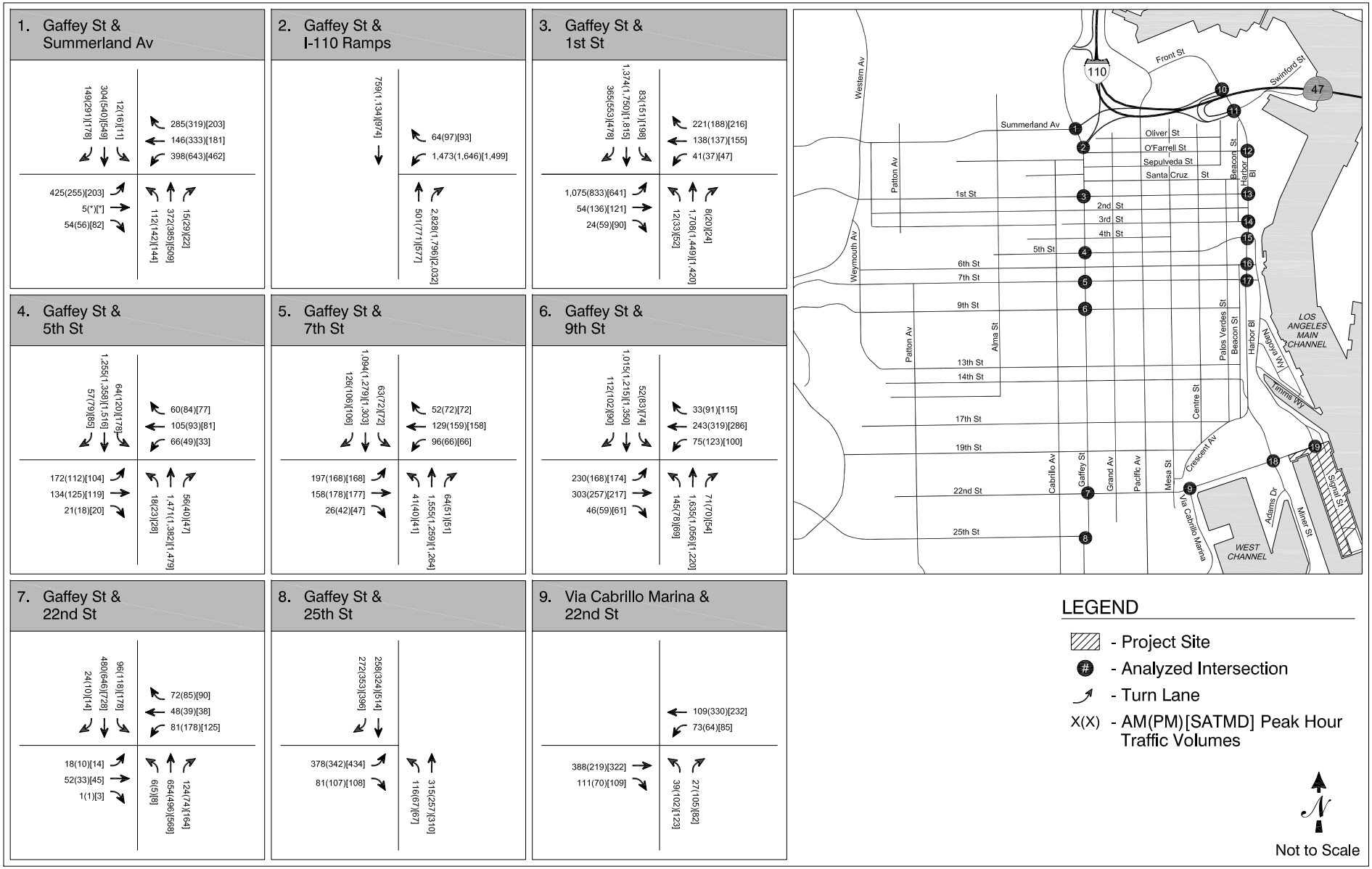



FEHR & PEERS

# 2042 FUTURE BASE PEAK HOUR INTERSECTION VOLUMES

**FIGURE 11 (CONT.)**

Feb 06, 2012 JS
N:\Jobs\Active\2400s\2463 – City Dock 1 EIR–POLA\Graphics\ACAD\2463_Base Map_New.dwg

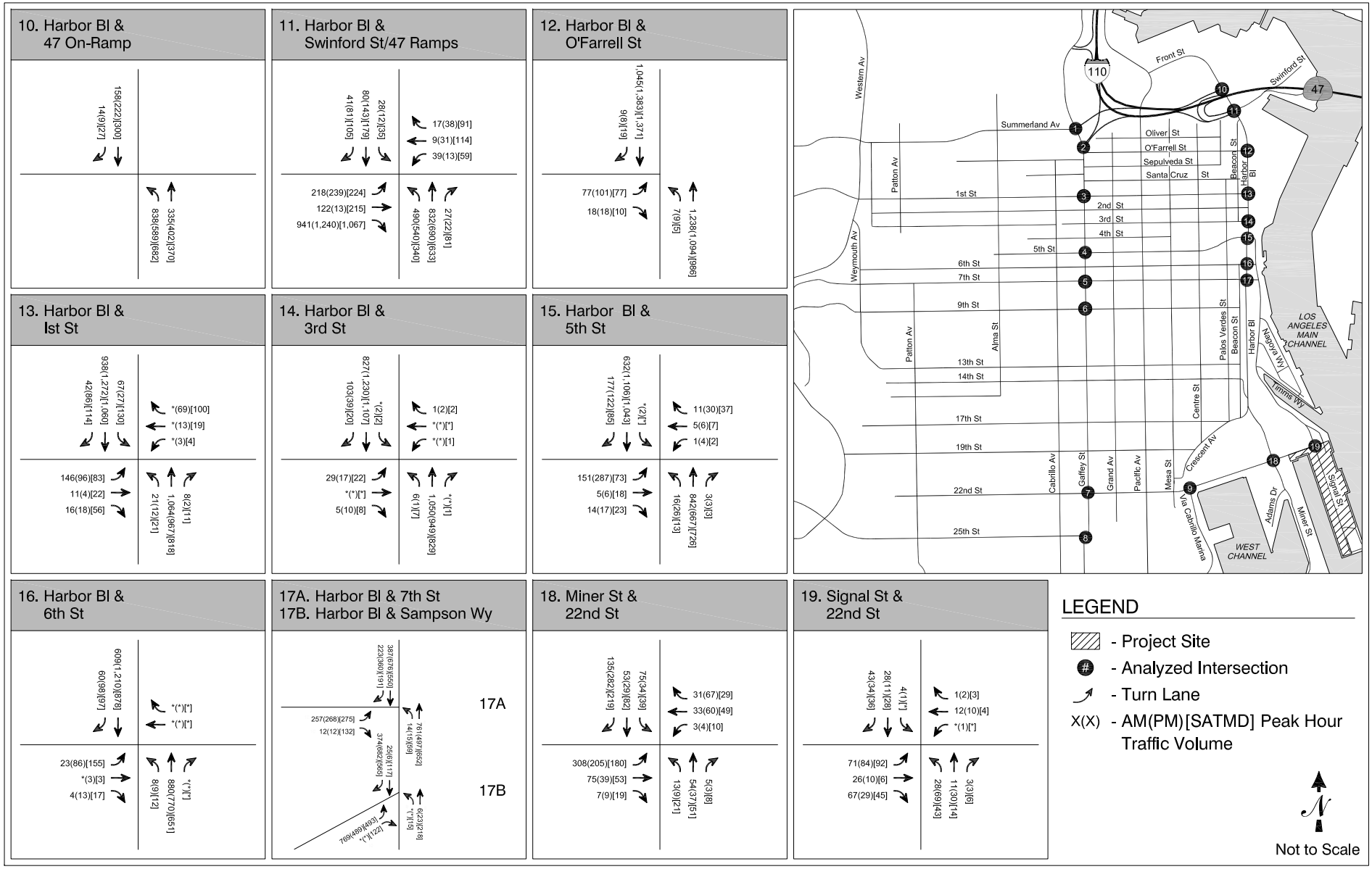



FEHR & PEERS

# 2016 WITH PROJECT PEAK HOUR INTERSECTION VOLUMES

**FIGURE 12**

Feb 06, 2012 SK
N:\Jobs\Active\2400s\2463 – City Dock 1 EIR–POLA\Graphics\ACAD\2463_Base Map_New.dwg

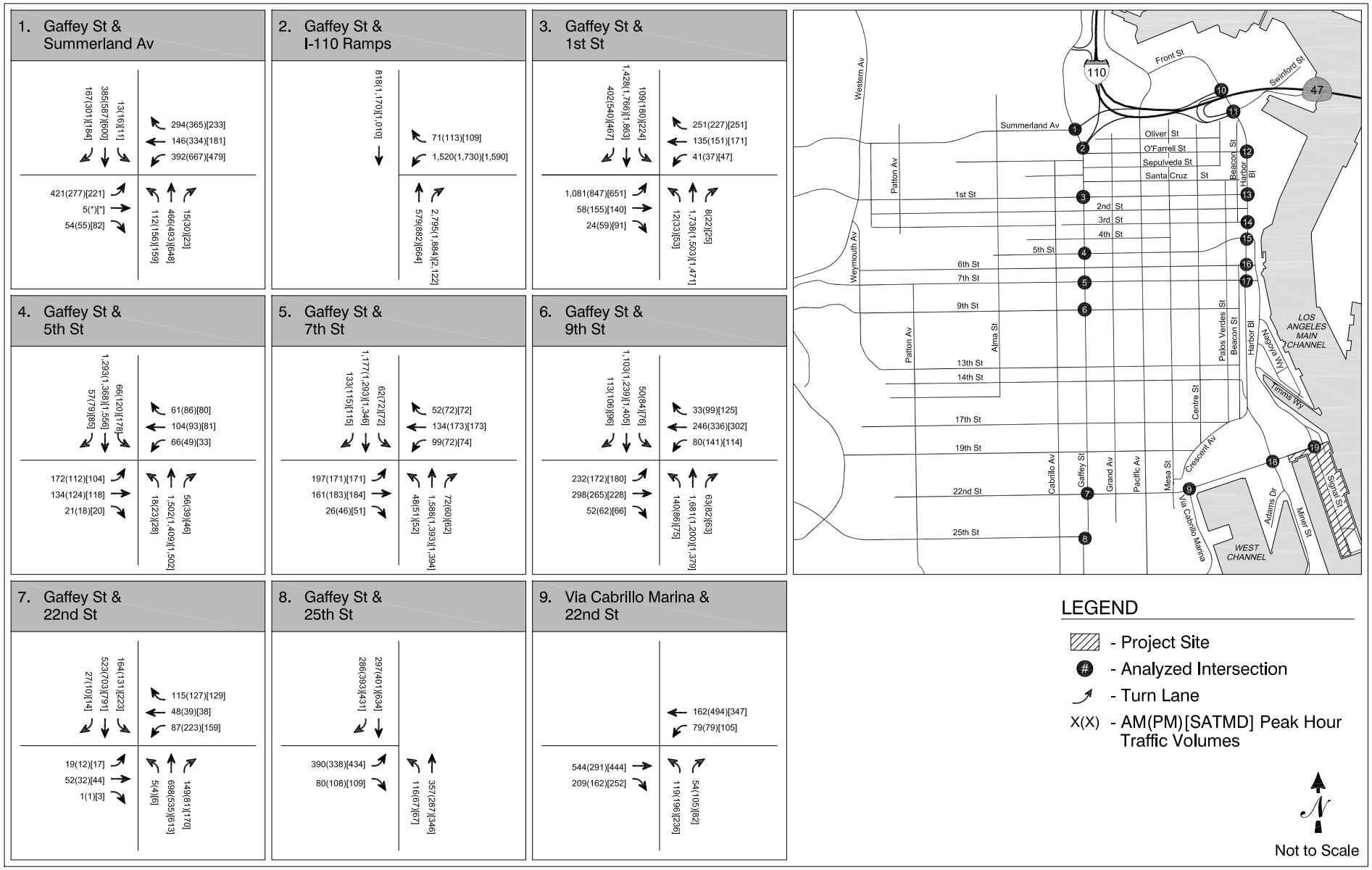



FEHR & PEERS

# 2016 WITH PROJECT PEAK HOUR INTERSECTION VOLUMES

**FIGURE 12 (CONT.)**

Feb 06, 2012 JS
N:\Jobs\Active\2400s\2463 – City Dock 1 EIR–POLA\Graphics\ACAD\2463_Base Map_New.dwg

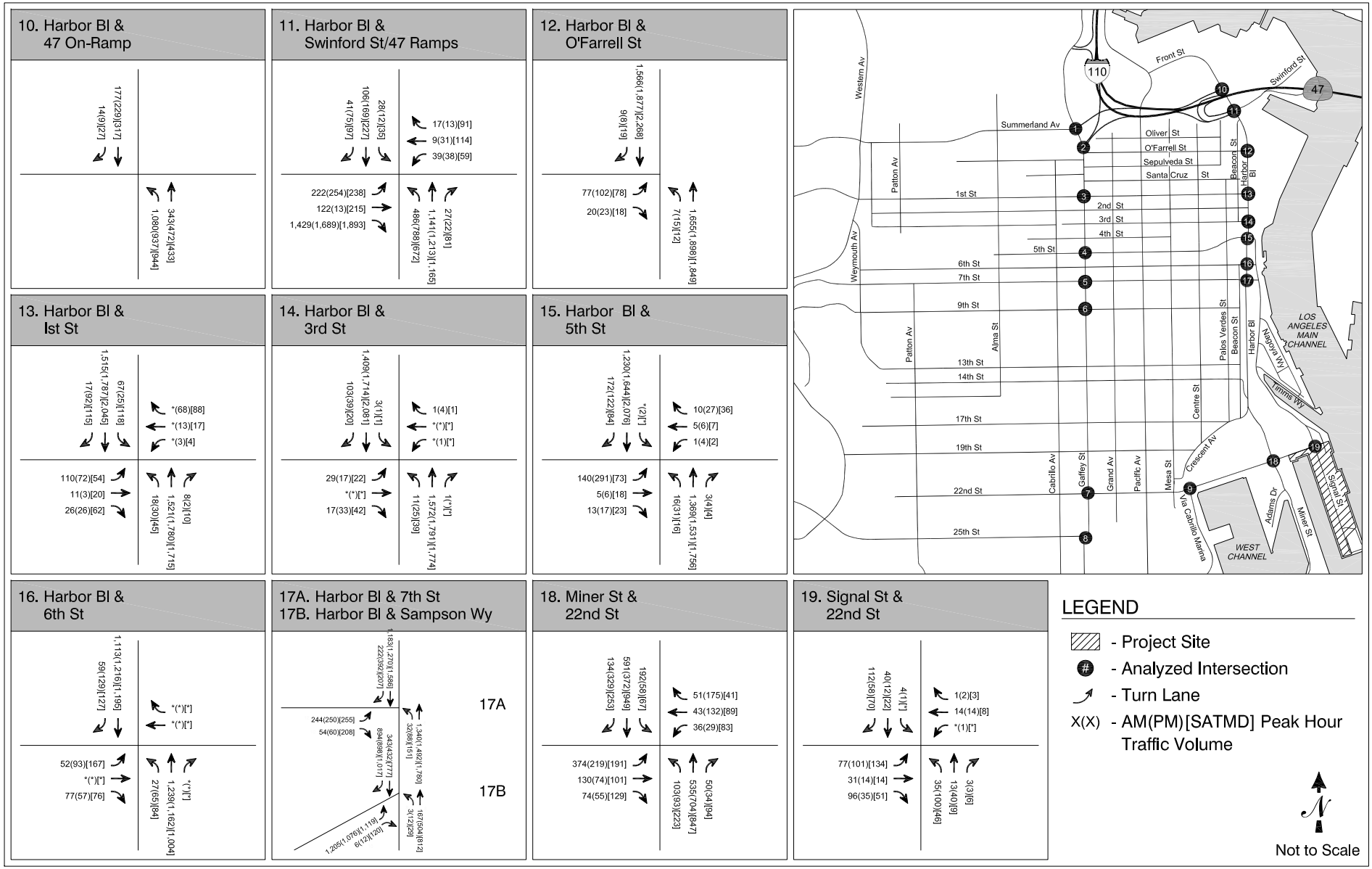



FEHR & PEERS

# 2024 PLUS PROJECT
# PEAK HOUR INTERSECTION VOLUMES

**FIGURE 13**

Feb 06, 2012 SK
N:\Jobs\Active\2400s\2463 – City Dock 1 EIR–POLA\Graphics\ACAD\2463_Base Map_New.dwg

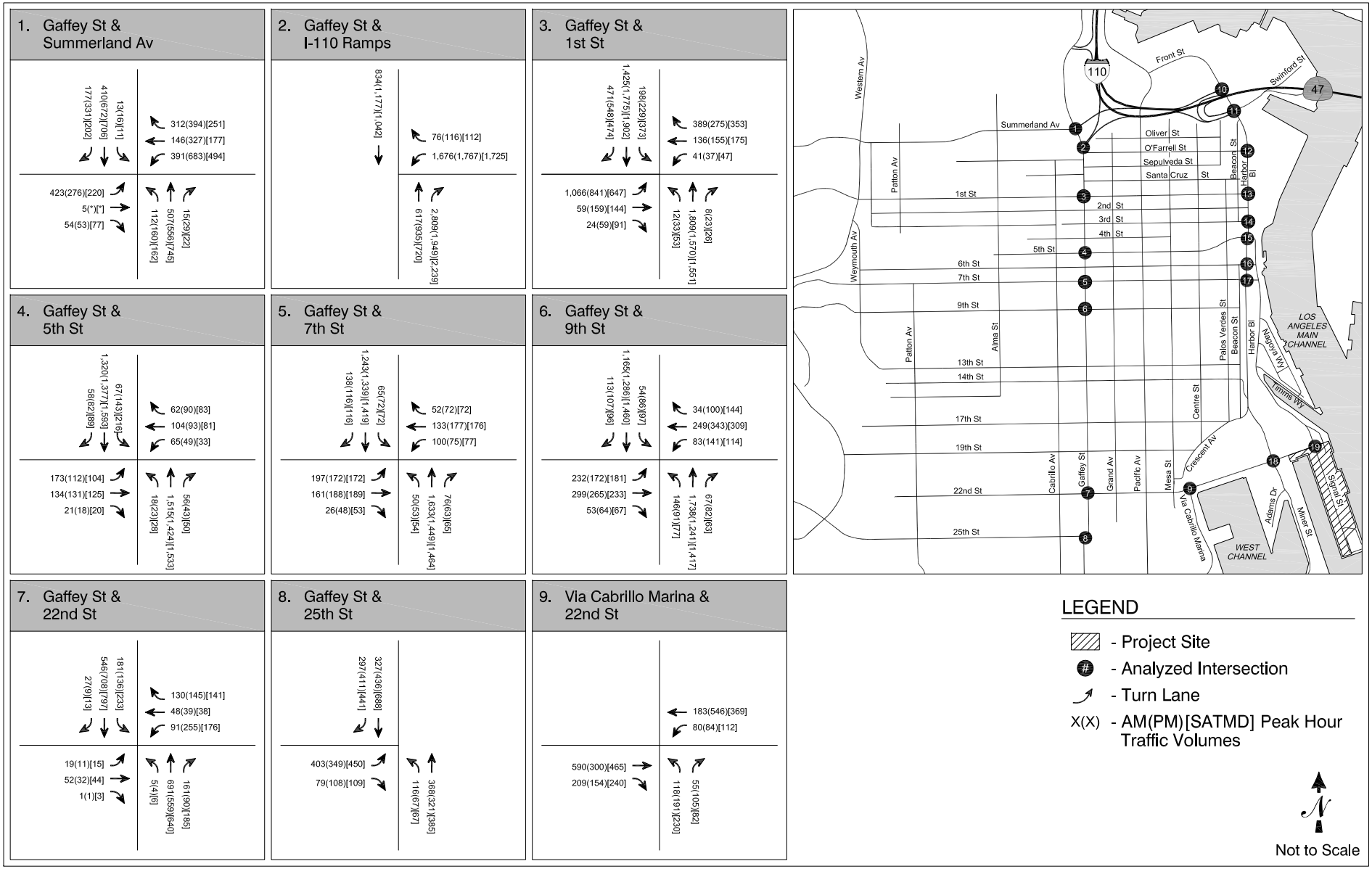



FEHR & PEERS

# 2024 PLUS PROJECT PEAK HOUR INTERSECTION VOLUMES

**FIGURE 13 (CONT.)**

Feb 06, 2012 JS
N:\Jobs\Active\2400s\2463 – City Dock 1 EIR–POLA\Graphics\ACAD\2463_Base Map_New.dwg

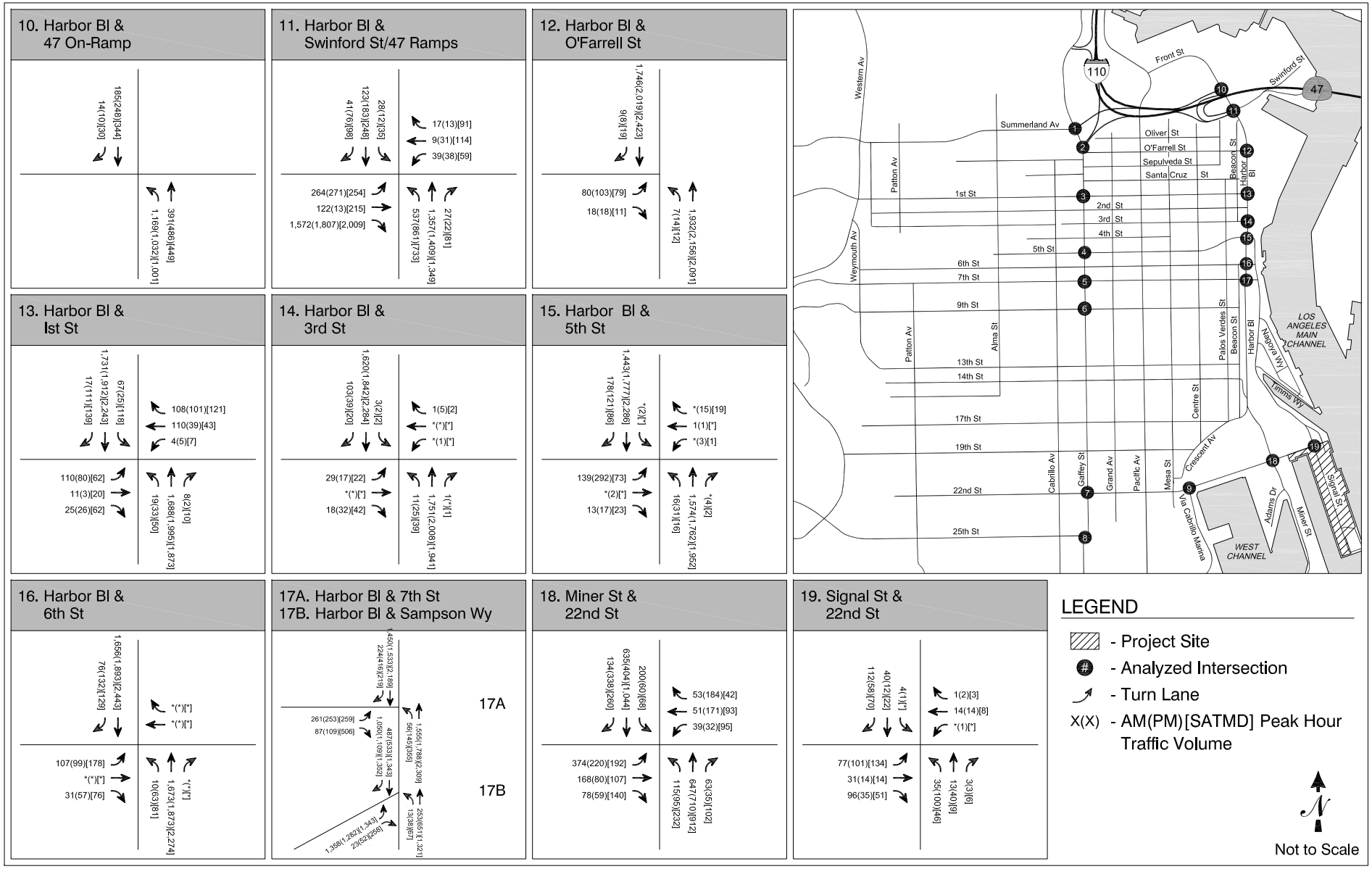



FEHR & PEERS

# 2042 PLUS PROJECT
# PEAK HOUR INTERSECTION VOLUMES

**FIGURE 14**

Feb 06, 2012 SK
N:\Jobs\Active\2400s\2463 – City Dock 1 EIR–POLA\Graphics\ACAD\2463_Base Map_New.dwg




FEHR & PEERS

# 2042 PLUS PROJECT
# PEAK HOUR INTERSECTION VOLUMES

**FIGURE 14**

Feb 06, 2012 JS
N:\Jobs\Active\2400s\2463 – City Dock 1 EIR–POLA\Graphics\ACAD\2463_Base Map_New.dwg

# IV. LEVEL OF SERVICE AND SIGNIFICANT IMPACT ANALYSIS

This section presents an analysis of the existing and future without and with project volumes to determine the potential traffic impacts of the proposed project on the operating conditions of the surrounding street system. The traffic impact analysis compares the projected LOS at each study intersection under existing and future plus project conditions to the existing and future base conditions to estimate the increase in the V/C ratio caused by the proposed project. This provides the information needed to assess the potential impact of the project using significance criteria established by LADOT. Detailed LOS calculations for the proposed project for Existing plus Project and future years 2016, 2024, and 2042 are included in Appendix C.

## CRITERIA FOR DETERMINATION OF SIGNIFICANT TRAFFIC IMPACT

All study intersections are in the City of Los Angeles. Significance criteria established by the City of Los Angeles was used to assess the potential for significant project impacts at the study intersections.

The City of Los Angeles has established threshold criteria to determine significant traffic impact of a proposed project in its jurisdiction. Under the LADOT guidelines, an intersection would be significantly impacted with an increase in V/C ratio equal to or greater than 0.04 for intersections operating at LOS C, equal to or greater than 0.02 for intersections operating at LOS D, and equal to or greater than 0.01 for intersections operating at LOS E or F after the addition of project traffic. Intersections operating at LOS A or B after the addition of the project traffic are not considered significantly impacted regardless of the increase in V/C ratio. The following summarizes the impact criteria:

| LOS | Final V/C Ratio | Project-related Increase in V/C |
|---|---|---|
| C | >0.700 - 0.800 | equal to or greater than 0.040 |
| D | > 0.800 - 0.900 | equal to or greater than 0.020 |
| E or F | > 0.900 | equal to or greater than 0.010 |

## LEVEL OF SERVICE ANALYSIS

### *Existing plus Project (Phase 1) Traffic Conditions*

The resulting existing plus project peak hour traffic volumes with Phase 1 of development, illustrated in Figure 7, were analyzed to determine the projected existing operating conditions with the addition of the proposed project traffic. The results of the existing plus project analysis are presented in Table 4. As indicated in the table, all 16 signalized intersections operate at LOS D or better during both peak hours.

### *Project Intersection Impacts – Existing plus Project (Phase 1)*

To determine whether significant impacts would occur at the study intersections, the existing plus project operating conditions were compared to the existing operating conditions. As shown in Table 4, using the City of Los Angeles criteria for determination of significant impacts, under Existing Conditions with opening year attendance, the proposed project will not result in any significant impacts.

**TABLE 4**
**EXISTING PLUS PROJECT CONDITIONS LEVEL OF SERVICE RESULTS - CITY DOCK PHASE 1**

| | INTERSECTION [1] | PEAK HOUR | Existing | | Existing + Project (Phase 1) | | | |
|---|---|---|---|---|---|---|---|---|
| | | | V/C | LOS | V/C | LOS | Change | Impact |
| 1 | Gaffey St & | AM | 0.704 | C | 0.705 | C | 0.001 | NO |
| | Summerland Ave | PM | 0.813 | D | 0.814 | D | 0.001 | NO |
| | | WK | 0.584 | A | 0.585 | A | 0.001 | NO |
| 2 | Gaffey St & | AM | 0.377 | A | 0.378 | A | 0.001 | NO |
| | I-110 Ramps | PM | 0.514 | A | 0.515 | A | 0.001 | NO |
| | | WK | 0.429 | A | 0.431 | A | 0.002 | NO |
| 3 | Gaffey St & | AM | 0.860 | D | 0.860 | D | 0.000 | NO |
| | 1st St | PM | 0.825 | D | 0.826 | D | 0.001 | NO |
| | | WK | 0.778 | C | 0.779 | C | 0.001 | NO |
| 4 | Gaffey St & | AM | 0.715 | C | 0.715 | C | 0.000 | NO |
| | 5th St | PM | 0.634 | B | 0.636 | B | 0.002 | NO |
| | | WK | 0.674 | B | 0.675 | B | 0.001 | NO |
| 5 | Gaffey St & | AM | 0.627 | B | 0.627 | B | 0.000 | NO |
| | 7th St | PM | 0.593 | A | 0.595 | A | 0.002 | NO |
| | | WK | 0.622 | B | 0.623 | B | 0.001 | NO |
| 6 | Gaffey St & | AM | 0.650 | B | 0.650 | B | 0.000 | NO |
| | 9th St | PM | 0.611 | B | 0.613 | B | 0.002 | NO |
| | | WK | 0.633 | B | 0.634 | B | 0.001 | NO |
| 7 | Gaffey St & | AM | 0.330 | A | 0.338 | A | 0.008 | NO |
| | 22nd St | PM | 0.333 | A | 0.342 | A | 0.009 | NO |
| | | WK | 0.427 | A | 0.433 | A | 0.006 | NO |
| 8 | Gaffey St & | AM | 0.358 | A | 0.362 | A | 0.004 | NO |
| | 25th St | PM | 0.325 | A | 0.327 | A | 0.002 | NO |
| | | WK | 0.466 | A | 0.468 | A | 0.002 | NO |
| 9 | Via Cabrillo Marina & | AM | 0.136 | A | 0.142 | A | 0.006 | NO |
| | 22nd St | PM | 0.080 | A | 0.082 | A | 0.002 | NO |
| | | WK | 0.122 | A | 0.124 | A | 0.002 | NO |
| 11 | Harbor Blvd & | AM | 0.505 | A | 0.519 | A | 0.014 | NO |
| | Swinford St/SR-47 EB Ramps | PM | 0.485 | A | 0.503 | A | 0.018 | NO |
| | | WK | 0.583 | A | 0.588 | A | 0.005 | NO |
| 12 | Harbor Blvd & | AM | 0.431 | A | 0.435 | A | 0.004 | NO |
| | O'Farrell St | PM | 0.493 | A | 0.498 | A | 0.005 | NO |
| | | WK | 0.391 | A | 0.398 | A | 0.007 | NO |
| 13 | Harbor Blvd & | AM | 0.333 | A | 0.337 | A | 0.004 | NO |
| | 1st St | PM | 0.351 | A | 0.355 | A | 0.004 | NO |
| | | WK | 0.245 | A | 0.253 | A | 0.008 | NO |
| 15 | Harbor Blvd & | AM | 0.258 | A | 0.269 | A | 0.011 | NO |
| | 5th St | PM | 0.498 | A | 0.503 | A | 0.005 | NO |
| | | WK | 0.282 | A | 0.289 | A | 0.007 | NO |
| 16 | Harbor Blvd & | AM | 0.252 | A | 0.270 | A | 0.018 | NO |
| | 6th St | PM | 0.282 | A | 0.289 | A | 0.007 | NO |
| | | WK | 0.406 | A | 0.416 | A | 0.010 | NO |
| 17A | Harbor Blvd & | AM | 0.189 | A | 0.192 | A | 0.003 | NO |
| | 7th St | PM | 0.203 | A | 0.206 | A | 0.003 | NO |
| | | WK | 0.135 | A | 0.139 | A | 0.004 | NO |
| 17B | Harbor Blvd & | AM | | | | | | |
| | Sampson Way | PM | Intersection Does Not Exist | | | | | |
| | | WK | | | | | | |
| 18 | Miner St & | AM | 0.258 | A | 0.291 | A | 0.033 | NO |
| | 22nd St | PM | 0.301 | A | 0.317 | A | 0.016 | NO |
| | | WK | 0.249 | A | 0.254 | A | 0.005 | NO |

Source: Fehr & Peers, 2011

Notes: Intersections analyzed using LADOT CMA analysis methodology and significance criteria.

[1] - Significant Impact analysis was not conducted for the three unsignalized intersections: Intersections #10 - Harbor Blvd & SR-47 Ramps; Intersection #14 - Harbor Blvd & 3rd St; and Intersection # 19 - Signal St & 22nd St. These intersections were analyzed using Highway Capacity Manual (2000) methodology. Results of the LOS analysis are provided in the appendix.

***Existing plus Project (Phase 2) Traffic Conditions***

The resulting existing plus project peak hour traffic volumes with Phase 2 of development, illustrated in Figure 8, were analyzed to determine the projected existing operating conditions with the addition of the proposed project traffic. The results of the existing plus project analysis are presented in Table 5. As indicated in the table, all 16 signalized intersections operate at LOS D or better during both peak hours.

***Project Intersection Impacts – Existing plus Project (Phase 2)***

To determine whether significant impacts would occur at the study intersections, the existing plus project operating conditions were compared to the existing operating conditions. As shown in Table 5, using the City of Los Angeles criteria for determination of significant impacts, under Existing Conditions with opening year attendance, the proposed project will not result in any significant impacts.

***Future Base (Year 2016) Traffic Conditions***

Future (year 2016) base traffic projections presented in Figure 9 were analyzed to establish future (year 2016) base operating conditions without the project. As shown in Table 6, 15 of the 16 signalized intersections operate at LOS D or better during both peak hours. The following intersections are projected to operate at LOS E or worse during one or more analyzed peak hours:

- Summerland Avenue & Gaffey Street (weekday PM only)

***Future Base (Year 2024) Traffic Conditions***

Future (Year 2024) base traffic projections presented in Figure 10 were analyzed to establish future (Year 2024) base operating conditions without the project. As shown in Table 7, 14 of the 16 signalized intersections operate at LOS D or better during both peak hours. The following intersections are projected to operate at LOS E or worse during one or more analyzed peak hours:

- Summerland Avenue & Gaffey Street (weekday PM only)
- 1st Street & Gaffey Street (weekday AM and PM peak hours)

***Future Base (Year 2042) Traffic Conditions***

Future (Year 2042) base traffic projections presented in Figure 11 were analyzed to establish future (year 2042) base operating conditions without the project. As shown in Table 8, 14 of the 16 intersections operate at LOS D or better during both peak hours. The following intersections are projected to operate at LOS E or worse during one or more analyzed peak hours:

- Summerland Avenue & Gaffey Street (weekday PM only)
- 1st Street & Gaffey Street (both weekday AM and PM and weekend midday peak hours)

**TABLE 5**
**EXISTING PLUS PROJECT CONDITIONS LEVEL OF SERVICE RESULTS - CITY DOCK BUILDOUT**

| | INTERSECTION [1] | PEAK HOUR | Existing | | Existing + Project (Buildout) | | | |
|---|---|---|---|---|---|---|---|---|
| | | | V/C | LOS | V/C | LOS | Change | Impact |
| 1 | Gaffey St & | AM | 0.704 | C | 0.706 | C | 0.002 | NO |
| | Summerland Ave | PM | 0.813 | D | 0.814 | D | 0.001 | NO |
| | | WK | 0.584 | A | 0.585 | A | 0.001 | NO |
| 2 | Gaffey St & | AM | 0.377 | A | 0.381 | A | 0.004 | NO |
| | I-110 Ramps | PM | 0.514 | A | 0.517 | A | 0.003 | NO |
| | | WK | 0.429 | A | 0.431 | A | 0.001 | NO |
| 3 | Gaffey St & | AM | 0.860 | D | 0.861 | D | 0.001 | NO |
| | 1st St | PM | 0.825 | D | 0.827 | D | 0.002 | NO |
| | | WK | 0.778 | C | 0.779 | C | 0.001 | NO |
| 4 | Gaffey St & | AM | 0.715 | C | 0.716 | C | 0.001 | NO |
| | 5th St | PM | 0.634 | B | 0.642 | B | 0.008 | NO |
| | | WK | 0.674 | B | 0.675 | B | 0.001 | NO |
| 5 | Gaffey St & | AM | 0.627 | B | 0.629 | B | 0.002 | NO |
| | 7th St | PM | 0.593 | A | 0.601 | B | 0.008 | NO |
| | | WK | 0.622 | B | 0.623 | B | 0.001 | NO |
| 6 | Gaffey St & | AM | 0.650 | B | 0.652 | B | 0.002 | NO |
| | 9th St | PM | 0.611 | B | 0.617 | B | 0.006 | NO |
| | | WK | 0.633 | B | 0.635 | B | 0.002 | NO |
| 7 | Gaffey St & | AM | 0.330 | A | 0.359 | A | 0.029 | NO |
| | 22nd St | PM | 0.333 | A | 0.365 | A | 0.032 | NO |
| | | WK | 0.427 | A | 0.438 | A | 0.011 | NO |
| 8 | Gaffey St & | AM | 0.358 | A | 0.372 | A | 0.014 | NO |
| | 25th St | PM | 0.325 | A | 0.329 | A | 0.004 | NO |
| | | WK | 0.466 | A | 0.469 | A | 0.003 | NO |
| 9 | Via Cabrillo Marina & | AM | 0.136 | A | 0.159 | A | 0.023 | NO |
| | 22nd St | PM | 0.080 | A | 0.085 | A | 0.005 | NO |
| | | WK | 0.122 | A | 0.127 | A | 0.005 | NO |
| 11 | Harbor Blvd & | AM | 0.505 | A | 0.559 | A | 0.054 | NO |
| | Swinford St/SR-47 EB Ramps | PM | 0.485 | A | 0.548 | A | 0.063 | NO |
| | | WK | 0.583 | A | 0.592 | A | 0.009 | NO |
| 12 | Harbor Blvd & | AM | 0.431 | A | 0.451 | A | 0.020 | NO |
| | O'Farrell St | PM | 0.493 | A | 0.507 | A | 0.014 | NO |
| | | WK | 0.391 | A | 0.408 | A | 0.017 | NO |
| 13 | Harbor Blvd & | AM | 0.333 | A | 0.347 | A | 0.014 | NO |
| | 1st St | PM | 0.351 | A | 0.365 | A | 0.014 | NO |
| | | WK | 0.245 | A | 0.263 | A | 0.018 | NO |
| 15 | Harbor Blvd & | AM | 0.258 | A | 0.323 | A | 0.065 | NO |
| | 5th St | PM | 0.498 | A | 0.511 | A | 0.013 | NO |
| | | WK | 0.282 | A | 0.300 | A | 0.018 | NO |
| 16 | Harbor Blvd & | AM | 0.252 | A | 0.326 | A | 0.074 | NO |
| | 6th St | PM | 0.282 | A | 0.304 | A | 0.022 | NO |
| | | WK | 0.406 | A | 0.428 | A | 0.022 | NO |
| 17A | Harbor Blvd & | AM | 0.189 | A | 0.199 | A | 0.010 | NO |
| | 7th St | PM | 0.203 | A | 0.211 | A | 0.008 | NO |
| | | WK | 0.135 | A | 0.146 | A | 0.011 | NO |
| 17B | Harbor Blvd & | AM | | | | | | |
| | Sampson Way | PM | Intersection Does Not Exist | | | | | |
| | | WK | | | | | | |
| 18 | Miner St & | AM | 0.258 | A | 0.378 | A | 0.120 | NO |
| | 22nd St | PM | 0.301 | A | 0.372 | A | 0.071 | NO |
| | | WK | 0.249 | A | 0.258 | A | 0.009 | NO |

Source: Fehr & Peers, 2011

Notes: Intersections analyzed using LADOT CMA analysis methodology and significance criteria.

[1] - Significant Impact analysis was not conducted for the three unsignalized intersections: Intersections #10 - Harbor Blvd & SR-47 Ramps; Intersection #14 - Harbor Blvd & 3rd St; and Intersection # 19 - Signal St & 22nd St. These intersections were analyzed using Highway Capacity Manual (2000) methodology. Results of the LOS analysis are provided in the appendix.

**TABLE 6**
**2016 PLUS PROJECT CONDITIONS LEVEL OF SERVICE RESULTS - CITY DOCK PHASE 1**

| | INTERSECTION [1] | PEAK HOUR | 2016 | | 2016 + Project (Phase 1) | | | |
|---|---|---|---|---|---|---|---|---|
| | | | V/C | LOS | V/C | LOS | Change | Impact |
| 1 | Gaffey St & | AM | 0.738 | C | 0.739 | C | 0.001 | NO |
| | Summerland Ave | PM | 0.927 | E | 0.928 | E | 0.001 | NO |
| | | WK | 0.668 | B | 0.668 | B | 0.000 | NO |
| 2 | Gaffey St & | AM | 0.409 | A | 0.410 | A | 0.001 | NO |
| | I-110 Ramps | PM | 0.544 | A | 0.545 | A | 0.001 | NO |
| | | WK | 0.469 | A | 0.471 | A | 0.002 | NO |
| 3 | Gaffey St & | AM | 0.882 | D | 0.882 | D | 0.000 | NO |
| | 1st St | PM | 0.898 | D | 0.899 | D | 0.001 | NO |
| | | WK | 0.849 | D | 0.849 | D | 0.000 | NO |
| 4 | Gaffey St & | AM | 0.717 | C | 0.718 | C | 0.001 | NO |
| | 5th St | PM | 0.684 | B | 0.686 | B | 0.002 | NO |
| | | WK | 0.744 | C | 0.744 | C | 0.000 | NO |
| 5 | Gaffey St & | AM | 0.733 | C | 0.734 | C | 0.001 | NO |
| | 7th St | PM | 0.654 | B | 0.655 | B | 0.001 | NO |
| | | WK | 0.662 | B | 0.663 | B | 0.001 | NO |
| 6 | Gaffey St & | AM | 0.841 | D | 0.841 | D | 0.000 | NO |
| | 9th St | PM | 0.775 | C | 0.777 | C | 0.002 | NO |
| | | WK | 0.809 | D | 0.809 | D | 0.000 | NO |
| 7 | Gaffey St & | AM | 0.365 | A | 0.373 | A | 0.008 | NO |
| | 22nd St | PM | 0.400 | A | 0.409 | A | 0.009 | NO |
| | | WK | 0.562 | A | 0.568 | A | 0.006 | NO |
| 8 | Gaffey St & | AM | 0.424 | A | 0.428 | A | 0.004 | NO |
| | 25th St | PM | 0.413 | A | 0.414 | A | 0.001 | NO |
| | | WK | 0.611 | B | 0.612 | B | 0.001 | NO |
| 9 | Via Cabrillo Marina & | AM | 0.135 | A | 0.141 | A | 0.006 | NO |
| | 22nd St | PM | 0.084 | A | 0.086 | A | 0.002 | NO |
| | | WK | 0.156 | A | 0.159 | A | 0.003 | NO |
| 11 | Harbor Blvd & | AM | 0.418 | A | 0.431 | A | 0.013 | NO |
| | Swinford St/SR-47 EB Ramps | PM | 0.405 | A | 0.423 | A | 0.018 | NO |
| | | WK | 0.554 | A | 0.558 | A | 0.004 | NO |
| 12 | Harbor Blvd & | AM | 0.372 | A | 0.376 | A | 0.004 | NO |
| | O'Farrell St | PM | 0.441 | A | 0.447 | A | 0.006 | NO |
| | | WK | 0.411 | A | 0.419 | A | 0.008 | NO |
| 13 | Harbor Blvd & | AM | 0.421 | A | 0.426 | A | 0.005 | NO |
| | 1st St | PM | 0.498 | A | 0.503 | A | 0.005 | NO |
| | | WK | 0.424 | A | 0.431 | A | 0.007 | NO |
| 15 | Harbor Blvd & | AM | 0.306 | A | 0.311 | A | 0.005 | NO |
| | 5th St | PM | 0.566 | A | 0.571 | A | 0.005 | NO |
| | | WK | 0.374 | A | 0.382 | A | 0.008 | NO |
| 16 | Harbor Blvd & | AM | 0.232 | A | 0.237 | A | 0.005 | NO |
| | 6th St | PM | 0.404 | A | 0.409 | A | 0.005 | NO |
| | | WK | 0.333 | A | 0.341 | A | 0.008 | NO |
| 17A | Harbor Blvd & | AM | 0.176 | A | 0.177 | A | 0.001 | NO |
| | 7th St | PM | 0.243 | A | 0.247 | A | 0.004 | NO |
| | | WK | 0.197 | A | 0.205 | A | 0.008 | NO |
| 17B | Harbor Blvd & | AM | 0.179 | A | 0.191 | A | 0.012 | NO |
| | Sampson Way | PM | 0.348 | A | 0.355 | A | 0.007 | NO |
| | | WK | 0.277 | A | 0.365 | A | 0.088 | NO |
| 18 | Miner St & | AM | 0.191 | A | 0.224 | A | 0.033 | NO |
| | 22nd St | PM | 0.214 | A | 0.230 | A | 0.016 | NO |
| | | WK | 0.163 | A | 0.168 | A | 0.005 | NO |

Source: Fehr & Peers, 2011

Notes: Intersections analyzed using LADOT CMA criteria.

[1] - Significant Impact analysis was not conducted for the three unsignalized intersections: Intersections #10 - Harbor Blvd & SR-47 Ramp; Intersection #14 - Harbor Blvd & 3rd St; and Intersection #19 - Signal St & 22nd St. These intersections were analyzed using Highway Capacity Manual (2000) methodology. Results of the LOS analysis are provided in the appendix.

**TABLE 7**
**2024 PLUS PROJECT CONDITIONS LEVEL OF SERVICE RESULTS - CITY DOCK WITH PROJECT BUILDOUT**

| | INTERSECTION [1] | PEAK HOUR | 2024 | | 2024 + Project (Buildout) | | | |
|---|---|---|---|---|---|---|---|---|
| | | | V/C | LOS | V/C | LOS | Change | Impact |
| 1 | Gaffey St & | AM | 0.774 | C | 0.776 | C | 0.002 | NO |
| | Summerland Ave | PM | 1.005 | F | 1.006 | F | 0.001 | NO |
| | | WK | 0.732 | C | 0.732 | C | 0.000 | NO |
| 2 | Gaffey St & | AM | 0.443 | A | 0.447 | A | 0.004 | NO |
| | I-110 Ramps | PM | 0.601 | B | 0.603 | B | 0.002 | NO |
| | | WK | 0.501 | A | 0.502 | A | 0.001 | NO |
| 3 | Gaffey St & | AM | 0.921 | E | 0.923 | E | 0.002 | NO |
| | 1st St | PM | 0.918 | E | 0.920 | E | 0.002 | NO |
| | | WK | 0.879 | D | 0.880 | D | 0.001 | NO |
| 4 | Gaffey St & | AM | 0.728 | C | 0.729 | C | 0.001 | NO |
| | 5th St | PM | 0.689 | B | 0.696 | B | 0.007 | NO |
| | | WK | 0.753 | C | 0.754 | C | 0.001 | NO |
| 5 | Gaffey St & | AM | 0.749 | C | 0.750 | C | 0.001 | NO |
| | 7th St | PM | 0.702 | C | 0.710 | C | 0.008 | NO |
| | | WK | 0.710 | C | 0.711 | C | 0.001 | NO |
| 6 | Gaffey St & | AM | 0.853 | D | 0.855 | D | 0.002 | NO |
| | 9th St | PM | 0.805 | D | 0.811 | D | 0.006 | NO |
| | | WK | 0.853 | D | 0.855 | D | 0.002 | NO |
| 7 | Gaffey St & | AM | 0.445 | A | 0.475 | A | 0.030 | NO |
| | 22nd St | PM | 0.548 | A | 0.583 | A | 0.035 | NO |
| | | WK | 0.666 | B | 0.669 | B | 0.003 | NO |
| 8 | Gaffey St & | AM | 0.450 | A | 0.464 | A | 0.014 | NO |
| | 25th St | PM | 0.461 | A | 0.466 | A | 0.005 | NO |
| | | WK | 0.694 | B | 0.696 | B | 0.002 | NO |
| 9 | Via Cabrillo Marina & | AM | 0.242 | A | 0.266 | A | 0.024 | NO |
| | 22nd St | PM | 0.186 | A | 0.191 | A | 0.005 | NO |
| | | WK | 0.304 | A | 0.309 | A | 0.005 | NO |
| 11 | Harbor Blvd & | AM | 0.424 | A | 0.466 | A | 0.042 | NO |
| | Swinford St/SR-47 EB Ramps | PM | 0.473 | A | 0.517 | A | 0.044 | NO |
| | | WK | 0.696 | B | 0.705 | C | 0.009 | NO |
| 12 | Harbor Blvd & | AM | 0.323 | A | 0.333 | A | 0.010 | NO |
| | O'Farrell St | PM | 0.403 | A | 0.412 | A | 0.009 | NO |
| | | WK | 0.469 | A | 0.480 | A | 0.011 | NO |
| 13 | Harbor Blvd & | AM | 0.372 | A | 0.382 | A | 0.010 | NO |
| | 1st St | PM | 0.440 | A | 0.450 | A | 0.010 | NO |
| | | WK | 0.502 | A | 0.515 | A | 0.013 | NO |
| 15 | Harbor Blvd & | AM | 0.315 | A | 0.344 | A | 0.029 | NO |
| | 5th St | PM | 0.548 | A | 0.558 | A | 0.010 | NO |
| | | WK | 0.480 | A | 0.493 | A | 0.013 | NO |
| 16 | Harbor Blvd & | AM | 0.245 | A | 0.260 | A | 0.015 | NO |
| | 6th St | PM | 0.331 | A | 0.341 | A | 0.010 | NO |
| | | WK | 0.390 | A | 0.403 | A | 0.013 | NO |
| 17A | Harbor Blvd & | AM | 0.297 | A | 0.345 | A | 0.048 | NO |
| | 7th St | PM | 0.423 | A | 0.447 | A | 0.024 | NO |
| | | WK | 0.494 | A | 0.524 | A | 0.030 | NO |
| 17B | Harbor Blvd & | AM | 0.415 | A | 0.498 | A | 0.083 | NO |
| | Sampson Way | PM | 0.489 | A | 0.507 | A | 0.018 | NO |
| | | WK | 0.575 | A | 0.597 | A | 0.022 | NO |
| 18 | Miner St & | AM | 0.528 | A | 0.556 | A | 0.028 | NO |
| | 22nd St | PM | 0.423 | A | 0.488 | A | 0.065 | NO |
| | | WK | 0.677 | B | 0.685 | B | 0.008 | NO |

Source: Fehr & Peers, 2011

Notes: Intersections analyzed using LADOT CMA methodology and significance criteria.

[1] - Significant Impact analysis was not conducted for the three unsignalized intersections: Intersections #10 - Harbor Blvd & SR-47 Ramp; Intersection #14 - Harbor Blvd & 3rd St; and Intersection #19 - Signal St & 22nd St. These intersections were analyzed using Highway Capacity Manual (2000) methodology. Results of the LOS analysis are provided in the appendix.

**TABLE 8**
**2042 PLUS PROJECT CONDITIONS LEVEL OF SERVICE RESULTS - CITY DOCK WITH PROJECT BUILDOUT**

| | INTERSECTION [1] | PEAK HOUR | 2042 | | 2042 + Project (Buildout) | | | |
|---|---|---|---|---|---|---|---|---|
| | | | V/C | LOS | V/C | LOS | Change | Impact |
| 1 | Gaffey St & | AM | 0.800 | C | 0.803 | D | 0.003 | NO |
| | Summerland Ave | PM | 1.064 | F | 1.064 | F | 0.000 | NO |
| | | WK | 0.786 | C | 0.787 | C | 0.001 | NO |
| 2 | Gaffey St & | AM | 0.491 | A | 0.495 | A | 0.004 | NO |
| | I-110 Ramps | PM | 0.628 | B | 0.631 | B | 0.003 | NO |
| | | WK | 0.547 | A | 0.548 | A | 0.001 | NO |
| 3 | Gaffey St & | AM | 1.061 | F | 1.063 | F | 0.002 | NO |
| | 1st St | PM | 0.929 | E | 0.930 | E | 0.001 | NO |
| | | WK | 0.931 | E | 0.932 | E | 0.001 | NO |
| 4 | Gaffey St & | AM | 0.734 | C | 0.736 | C | 0.002 | NO |
| | 5th St | PM | 0.715 | C | 0.722 | C | 0.007 | NO |
| | | WK | 0.794 | C | 0.795 | C | 0.001 | NO |
| 5 | Gaffey St & | AM | 0.766 | C | 0.768 | C | 0.002 | NO |
| | 7th St | PM | 0.725 | C | 0.733 | C | 0.008 | NO |
| | | WK | 0.737 | C | 0.738 | C | 0.001 | NO |
| 6 | Gaffey St & | AM | 0.879 | D | 0.881 | D | 0.002 | NO |
| | 9th St | PM | 0.829 | D | 0.835 | D | 0.006 | NO |
| | | WK | 0.891 | D | 0.893 | D | 0.002 | NO |
| 7 | Gaffey St & | AM | 0.471 | A | 0.500 | A | 0.029 | NO |
| | 22nd St | PM | 0.589 | A | 0.623 | B | 0.034 | NO |
| | | WK | 0.687 | B | 0.691 | B | 0.004 | NO |
| 8 | Gaffey St & | AM | 0.480 | A | 0.494 | A | 0.014 | NO |
| | 25th St | PM | 0.494 | A | 0.498 | A | 0.004 | NO |
| | | WK | 0.743 | C | 0.746 | C | 0.003 | NO |
| 9 | Via Cabrillo Marina & | AM | 0.259 | A | 0.282 | A | 0.023 | NO |
| | 22nd St | PM | 0.188 | A | 0.192 | A | 0.004 | NO |
| | | WK | 0.310 | A | 0.315 | A | 0.005 | NO |
| 11 | Harbor Blvd & | AM | 0.604 | B | 0.651 | B | 0.047 | NO |
| | Swinford St/SR-47 EB Ramps | PM | 0.541 | A | 0.584 | A | 0.043 | NO |
| | | WK | 0.751 | C | 0.760 | C | 0.009 | NO |
| 12 | Harbor Blvd & | AM | 0.346 | A | 0.356 | A | 0.010 | NO |
| | O'Farrell St | PM | 0.431 | A | 0.460 | A | 0.029 | NO |
| | | WK | 0.499 | A | 0.511 | A | 0.012 | NO |
| 13 | Harbor Blvd & | AM | 0.534 | A | 0.573 | A | 0.039 | NO |
| | 1st St | PM | 0.544 | A | 0.554 | A | 0.010 | NO |
| | | WK | 0.657 | B | 0.670 | B | 0.013 | NO |
| 15 | Harbor Blvd & | AM | 0.356 | A | 0.388 | A | 0.032 | NO |
| | 5th St | PM | 0.571 | A | 0.581 | A | 0.010 | NO |
| | | WK | 0.518 | A | 0.531 | A | 0.013 | NO |
| 16 | Harbor Blvd & | AM | 0.373 | A | 0.405 | A | 0.032 | NO |
| | 6th St | PM | 0.499 | A | 0.509 | A | 0.010 | NO |
| | | WK | 0.699 | B | 0.712 | C | 0.013 | NO |
| 17A | Harbor Blvd & | AM | 0.378 | A | 0.432 | A | 0.054 | NO |
| | 7th St | PM | 0.533 | A | 0.555 | A | 0.022 | NO |
| | | WK | 0.802 | D | 0.819 | D | 0.017 | NO |
| 17B | Harbor Blvd & | AM | 0.526 | A | 0.609 | B | 0.083 | NO |
| | Sampson Way | PM | 0.647 | B | 0.665 | B | 0.018 | NO |
| | | WK | 0.871 | D | 0.885 | D | 0.014 | NO |
| 18 | Miner St & | AM | 0.557 | A | 0.613 | B | 0.056 | NO |
| | 22nd St | PM | 0.457 | A | 0.523 | A | 0.066 | NO |
| | | WK | 0.723 | C | 0.732 | C | 0.009 | NO |

Source: Fehr & Peers, 2011

Notes: Intersections analyzed using LADOT CMA methodology and significance criteria.

[1] - Significant Impact analysis was not conducted for the three unsignalized intersections: Intersections #10 - Harbor Blvd & SR-47 Ramp; Intersection #14 - Harbor Blvd & 3rd St; and Intersection #19 - Signal St & 22nd St. These intersections were analyzed using Highway Capacity Manual (2000) methodology. Results of the LOS analysis are provided in the appendix.

***Future (Year 2016) plus Project (Phase 1) Traffic Conditions***

The resulting 2016 cumulative plus project peak hour traffic volumes, illustrated in Figure 12, were analyzed to determine the projected future operating conditions with the addition of the proposed project traffic. The results of the cumulative plus project analysis are presented in Table 6. As indicated in the table, the intersection of Summerland Avenue & Gaffey Street would operate at LOS E or worse during one or more analyzed peak hours.

***Project Intersection Impacts Year 2016***

To determine whether significant impacts would occur at the study intersections, the 2016 plus project operating conditions were compared to the 2016 base operating conditions. As shown in Table 6, using the City of Los Angeles criteria for determination of significant impacts, the proposed project would not result in any significant impacts with the addition of project traffic.

***Future (Year 2024) plus Project Traffic Conditions***

The resulting future (year 2024) plus project peak hour traffic volumes, illustrated in Figure 13, were analyzed to project future operating conditions with the addition of the proposed project traffic. As shown in Table 7. As indicated in the table, the following two intersections are projected to operate at LOS E or worse during one or more peak hours:

- Summerland Avenue & Gaffey Street (weekday PM only)
- 1st Street & Gaffey Street (both weekday AM and PM peak hours)

***Project Intersection Impacts Year 2024***

To determine whether significant impacts would occur at the study intersections, the future plus project operating conditions were compared to the future base operating conditions. As shown in Table 7, using the City of Los Angeles criteria for determination of significant impacts, the project would not result in a significant impact at any of the analyzed intersections.

***Future (Year 2042) plus Project Traffic Conditions***

The resulting future (Year 2042) plus project peak hour traffic volumes, illustrated in Figure 14, were analyzed to project future operating conditions with the addition of the proposed project traffic. As shown in Table 8, the following two intersections operate at LOS E or worse during one or more peak hours:

- Summerland Avenue & Gaffey Street (weekday PM only)
- 1st Street & Gaffey Street (both weekday AM and PM and weekend midday peak hours)

***Project Intersection Impacts Year 2042***

To determine whether significant impacts would occur at the study intersections, the cumulative plus project operating conditions were compared to the cumulative base operating conditions. As shown in Table 8, using the City of Los Angeles criteria for determination of significant impacts, there are no significant impacts under this scenario.

# IV. CONGESTION MANAGEMENT PROGRAM ANALYSIS

This chapter presents the regional transportation system impact analysis conducted in accordance with the procedures outlined in 2010 Congestion Management Program for Los Angeles County (Metro, October 2010). The CMP requires that when an environmental impact report is prepared for a project, traffic impact analyses be conducted for select regional facilities based on the quantity of project traffic expected to use these facilities.

## REGIONAL TRAFFIC IMPACT ANALYSIS

The CMP guidelines require that the first issue to be addressed is the determination of the geographic scope of the study area. The criteria for determining the study area for CMP arterial monitoring intersections and for freeway monitoring locations are:

- All CMP arterial monitoring intersections where the proposed project will add 50 or more trips during either the AM or PM peak hours of adjacent street traffic.

- All CMP mainline freeway monitoring locations where the proposed project will add 150 or more trips, in either direction, during either the AM or PM peak hours.

The CMP traffic impact analysis guidelines establish that a significant project impact occurs when the following threshold is exceeded:

- The proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C 0.02), causing LOS F (V/C > 1.00).

- If the facility is already at LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C 0.02).

### *Arterial Monitoring Station Analysis*

The CMP arterial monitoring stations nearest to the project study area include:

- Gaffey Street & 9th Street (study intersection #6)
- Western Avenue & 9th Street

This project would add fewer than 50 vehicle trips through these arterial monitoring stations, so no further analysis of CMP arterial intersections is required and CMP arterial intersection impacts are considered to be less than significant.

### *Freeway Mainline Monitoring Station Analysis*

This section presents an analysis of potential project impacts on the regional transportation system. This analysis was conducted in accordance with the transportation impact analysis procedures outlined in the CMP. The nearest CMP mainline freeway monitoring location nearest to the project site is: I-110 south of C Street. According to the incremental project trip generation estimates developed in Chapter III and the project only traffic volumes illustrated in Figures 5 and 6, the proposed project is not expected to add sufficient new traffic to exceed the freeway analysis criteria at these locations.

Since incremental project-related traffic in any direction during either peak hour is projected to be less than the minimum criteria of 150 vph, no further CMP freeway analysis is required and CMP freeway impacts are considered to be less than significant.

## REGIONAL TRANSIT IMPACT ANALYSIS

Potential increases in transit person trips generated by the proposed project were estimated as follows. Section B.8.4 of the CMP provides a methodology for estimating the number of transit trips expected to result from a proposed project based on the projected number of vehicle trips. The CMP requires that the transit impact analysis include local services within ¼ mile of the project and express bus and rail routes within two miles of the project. Potential increases in transit person trips generated by the proposed project were evaluated based on the CMP methodology. This methodology assumes an Average Vehicle Ridership (AVR) factor of 1.4 to estimate the number of person trips to and from the project and then provides guidance regarding the percent of person trips assigned to public transit depending on the type of use (commercial/other; residential) and its proximity to transit services.

There are no local buses and there is one fixed-route transit line (Waterfront Red Car) within ¼ mile of the project area, and four fixed-route express bus lines (Metro 450, Metro 550, DOT Commuter Express 142 and MAX 3X) within two miles of the project area. Assuming an average bus seating capacity of 30 or 40 seats, the total number of seats during peak hours is about 660.

The proposed project generates the highest number of trips during the weekday AM peak hour. By multiplying the AM peak hour trips by an AVR of 1.4 it is estimated that the proposed project could generate a total of 143 person trips in Phase 1 and 538 person trips in Phase 2.

Since the project area does not qualify as a CMP transit center, a CMP multi-modal transportation center, or a CMP transit corridor under Existing (Year 2011) conditions, a factor of 3.5% was applied to person trips generated to estimate transit trips (based on CMP guidelines). The project would therefore generate five transit trips (less than one transit trip per vehicle) under Phase 1 and 19 transit trips (less than two transit trips per vehicle) under Phase 2 during the AM peak hour.

The CMP does not have a threshold for determining the significance of impacts on the transit system, however, at these levels (one to two trips per transit vehicle in the peak hour), project-related impacts on the regional transit system would not be considered significant.

# V. PARKING

A parking analysis was conducted for the proposed project. A total of 619 parking spaces would be available to satisfy the parking demand generated by the proposed project.

## PARKING SUPPLY

The project proposes to provide parking in three locations:

- 15 spaces of surface parking at Berth 56
- 195 spaces of diagonal parking along Signal Street near Berths 57-60
- 409 spaces at the existing surface parking lot at Sampson Way & 22nd Street

## PARKING ANALYSIS

Los Angeles Municipal Code (LAMC) Chapter 1, Article 2, Section 12.21.A.4 identifies off-street parking requirements for new development. The LAMC parking requirements for the project land uses were compiled and are presented in Table 9. As shown in this table, the project requires 613 on-site spaces per LAMC requirements.

The project proposes a total of 619 on-site parking spaces. Thus, the proposed supply is sufficient per LAMC requirements.

**TABLE 9**
**CITY DOCK #1 - PARKING REQUIREMENTS**

| Land Use Type | Total LU | Unit | Municipal Code [a] | | | | Spaces Required |
|---|---|---|---|---|---|---|---|
| | | | Land Use Category [b] | Spaces | Per | Unit | |
| *Phase 1* | | | | | | | |
| R&D | 37.083 | KSF | Commercial or Business Office [c] | 1 | 0.5 | ksf | 74 |
| Warehousing | 13.02 | KSF | Warehouse or Storage [d] | 1 | 0.5 | ksf (first 10ksf) | 20 |
| | | | | 1 | 5 | ksf (after first 10ksf) | 1 |
| Auditorium | 150 | Seats | Trade Schools [e] | 1 | 5 | seats | 30 |
| Classroom | 120 | Seats | Trade Schools | 1 | 5 | seats | 24 |
| Museum | 1.574 | KSF | Other Business or Commercial [f] | 1 | 0.5 | ksf | 3 |
| ***Subtotal - Spaces Required Phase 1*** | | | | | | | ***152*** |
| *Phase 2* | | | | | | | |
| R&D | 230 | KSF | Commercial or Business Office | 1 | 0.5 | ksf | 460 |
| Café | 0.280 | KSF | Small Restaurant, Café or Coffee Shop [g] | 1 | 0.2 | ksf | 1 |
| ***Subtotal - Spaces Required Phase 2*** | | | | | | | ***461*** |
| **Total Parking Spaces Required** | | | | | | | **613** |

Footnotes:
[a] Los Angeles Municipal Code Chapter 1, Article 2, Section 12.21.A.4
[b] Los Angeles Municipal Code Chapter 1, Article 2, Section12.21.A.4
[c] Los Angeles Municipal Code Chapter 1, Article 2, Section 12.21.A.4.c
[d] Los Angeles Municipal Code Chapter 1, Article 2, Section 12.21.A.4.c.1
[e] Los Angeles Municipal Code Chapter 1, Article 2, Section 12.21.A.4.c.7
[f] Los Angeles Municipal Code Chapter 1, Article 2, Section 12.21.A.4.c
[g] Los Angeles Municipal Code Chapter 1, Article 2, Section 12.21.A.4.c.4

# VI. SUMMARY AND CONCLUSIONS

This study was undertaken to analyze the potential for traffic impacts resulting from the proposed development of City Dock No. 1 in the Port of Los Angeles (Port) in Los Angeles, California. The key findings and conclusions of the study are summarized below:

- The proposed project involves the development of a marine research center in the Port of Los Angeles. Project elements would include the relocation of SCMI from its existing location on Terminal Island to Berths 56 and 57, adaptive reuse of the transit sheds at Berths 57 to 60 to accommodate research, teaching and meeting spaces, the establishment of a marine science business park/incubator space, and research and development facilities at Berths 70 to 71.

- Detailed intersection capacity and operation analyses were conducted at 16 signalized intersections in the vicinity of the project site for weekday morning (between 7:00 and 10:00 AM), evening (between 3:00 and 6:00 PM) and Saturday midday peak hours (between 11:00 AM and 2:00 PM). 15 of these signalized study intersections currently operating at an acceptable LOS (LOS D or better). The intersection of 1st Street & Gaffey Street currently operates at LOS E during the weekday morning and evening peak hours.

- Project trip generation estimates were developed using trip generation rates and equations from *Trip Generation, 8th Edition* and supplemented by the San Diego Land Development Code Trip Generation Manual. Under Phase 1 (Year 2016) conditions, the project will generate approximately 1,046 daily weekday trips, including 102 trips during the AM peak hour and 96 trips during the PM peak hour, and 518 daily weekend trips, including 53 during the weekend peak hour.

- By Year 2024, when the project is fully built out, it will generate approximately 2,935 daily weekday trips, including 384 AM peak hour trips and 343 PM peak hour trips, and 997 daily weekend trips, including 112 during the weekend peak hour.

- The project trip assignments for Phase 1 and Phase 2 (Project Buildout) were added to existing weekday morning and evening and Saturday midday peak hour traffic to calculate existing plus project traffic volumes.

- Three future scenarios: Year 2016 (Phase 1); Year 2024 (Phase 2), and Year 2042 (cumulative) were analyzed in the traffic study. Future base projections were developed using the Port Area Travel Demand Model. Specific related project proposed in the vicinity of the project were added on top of the model projection to develop future base line traffic projections. The project traffic volumes were added to the above future base scenarios to calculate future plus project traffic projections.

- Existing plus project, future base and future plus project projections were analyzes using CMA methodology to determine operation conditions at the analyzed intersections.

- Existing plus project LOS results were compared to existing traffic volumes to determine project's incremental impact. Using City of Los Angeles' significant impact criteria, it is determined that there are no significant impacts with the addition of project traffic.

- Future base LOS results were compared to future plus project LOS results to determine project related incremental impact at the analyzed intersections. Using the significant impact criteria, it is determined that the project will not result in any significant impacts at study intersections.

- The project would not result in a significant impact at any CMP roadway and transit facilities.

- Overall, the Project will provide sufficient parking per Los Angeles Municipal Code off-street parking requirements.

## REFERENCES

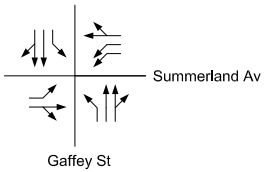
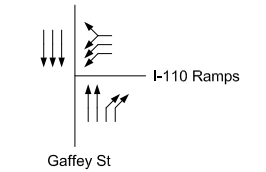
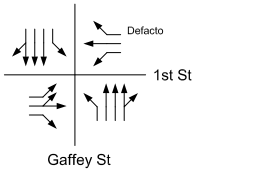
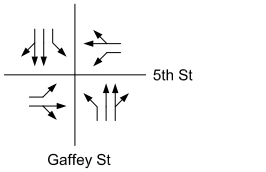
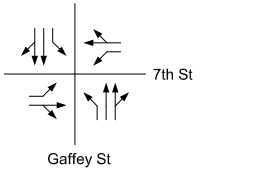
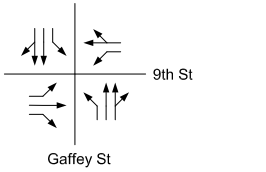
*2009 Traffic Volumes on California State Highways,* California Department of Transportation, http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/index.htm, accessed October 2010.

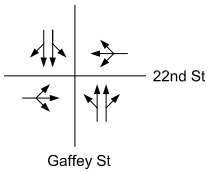
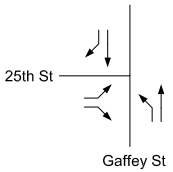
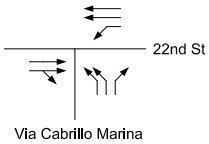
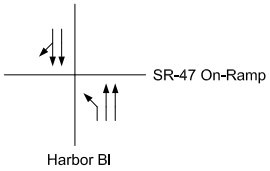
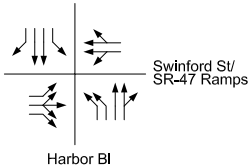
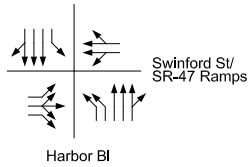
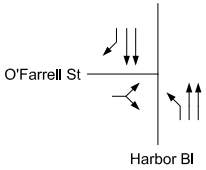
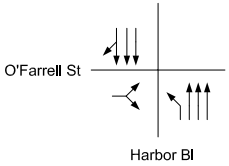
*Congestion Management Program for Los Angeles County*, Los Angeles County Metropolitan Transportation Authority, October 2010.

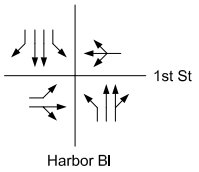
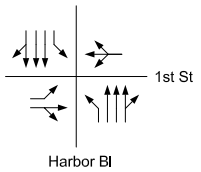
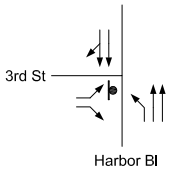
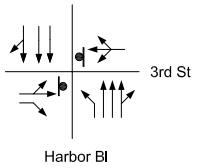
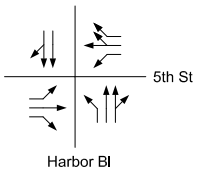
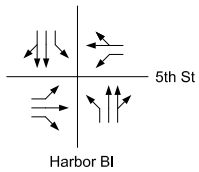
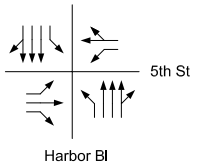
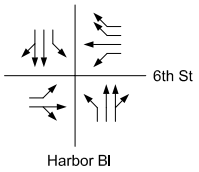
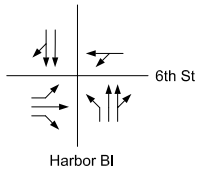
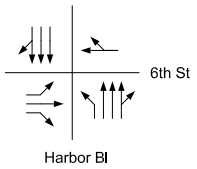
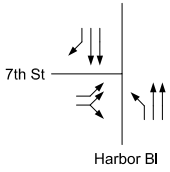
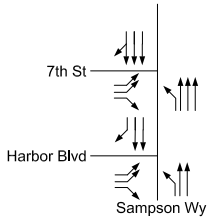
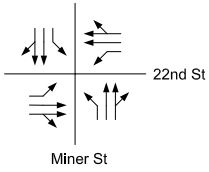
*Traffic Study Policies and Procedures*, Los Angeles Department of Transportation, August, 2011.

*Transportation Research Circular No. 212, Interim Materials on Highway Capacity*, Transportation Research Board, 1980.

# APPENDIX A:
# INTERSECTION LANE CONFIGURATIONS

| | EXISTING CONDITIONS | 2016 CONDITIONS | 2024 CONDITIONS | 2042 CONDITIONS |
|---|---|---|---|---|
| 1. Gaffey St & Summerland Av |  | Same As Existing Conditions | Same As Existing Conditions | Same As Existing Conditions |
| 2. Gaffey St & I-110 Ramps |  | Same As Existing Conditions | Same As Existing Conditions | Same As Existing Conditions |
| 3. Gaffey St & 1st St |  | Same As Existing Conditions | Same As Existing Conditions | Same As Existing Conditions |
| 4. Gaffey St & 5th St |  | Same As Existing Conditions | Same As Existing Conditions | Same As Existing Conditions |
| 5. Gaffey St & 7th St |  | Same As Existing Conditions | Same As Existing Conditions | Same As Existing Conditions |
| 6. Gaffey St & 9th St |  | Same As Existing Conditions | Same As Existing Conditions | Same As Existing Conditions |

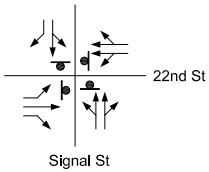
| | EXISTING CONDITIONS | 2016 CONDITIONS | 2024 CONDITIONS | 2042 CONDITIONS |
|---|---|---|---|---|
| 7. Gaffey St & 22nd St |  | Same As Existing Conditions | Same As Existing Conditions | Same As Existing Conditions |
| 8. Gaffey St & 25th St |  | Same As Existing Conditions | Same As Existing Conditions | Same As Existing Conditions |
| 9. Via Cabrillo Marina & 22nd St |  | Same As Existing Conditions | Same As Existing Conditions | Same As Existing Conditions |
| 10. Harbor Bl & SR-47 On-Ramp |  | Same As Existing Conditions | Same As Existing Conditions | Same As Existing Conditions |
| 11. Harbor Bl & Swinford St/SR-47 Ramps |  | Same As Existing Conditions |  | Same As 2024 Conditions |
| 12. Harbor Bl & O'Farrell St |  | Same As Existing Conditions |  | Same As 2024 Conditions |

| | EXISTING CONDITIONS | 2016 CONDITIONS | 2024 CONDITIONS | 2042 CONDITIONS |
|---|---|---|---|---|
| 13. Harbor Bl & 1st St |  | Same As Existing Conditions |  | Same As 2024 Conditions |
| 14. Harbor Bl & 3rd St |  | Same As Existing Conditions |  | Same As 2024 Conditions |
| 15. Harbor Bl & 5th St |  |  |  | Same As 2024 Conditions |
| 16. Harbor Bl & 6th St |  |  |  | Same As 2024 Conditions |
| 17. Harbor Bl & 7th St |  |  | Same As 2016 Conditions | Same As 2016 Conditions |
| 18. Miner St & 22nd St |  | Same As Existing Conditions | Same As Existing Conditions | Same As Existing Conditions |

FEHR & PEERS

# INTERSECTION LANE CONFIGURATIONS

**APPENDIX A**

| | EXISTING CONDITIONS | 2016 CONDITIONS | 2024 CONDITIONS | 2042 CONDITIONS |
|---|---|---|---|---|
| 19. Signal St & 22nd St |   | Same As Existing Conditions | Same As Existing Conditions | Same As Existing Conditions |

# APPENDIX B:
# TRAFFIC COUNTS

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_001 **Day:** WEDNESDAY

**City:** City of San Pedro **Date:** 04/27/2011

**AM**

| **NS/EW Streets:** | Gaffey St | | | Gaffey St | | | Summerland Ave | | | Summerland Ave | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 2 | 0.5 | 0.5 | |
| 7:00 AM | 21 | 62 | 1 | 2 | 39 | 17 | 81 | 0 | 6 | 90 | 29 | 50 | 398 |
| 7:15 AM | 13 | 82 | 4 | 1 | 40 | 12 | 103 | 0 | 6 | 62 | 27 | 75 | 425 |
| 7:30 AM | 24 | 85 | 2 | 2 | 71 | 31 | 126 | 0 | 14 | 113 | 31 | 68 | 567 |
| 7:45 AM | 25 | 94 | 2 | 1 | 65 | 35 | 117 | 0 | 14 | 119 | 46 | 70 | 588 |
| 8:00 AM | 31 | 96 | 4 | 5 | 84 | 44 | 84 | 3 | 8 | 78 | 38 | 67 | 542 |
| 8:15 AM | 32 | 94 | 7 | 3 | 67 | 36 | 94 | 2 | 18 | 81 | 31 | 45 | 510 |
| 8:30 AM | 25 | 108 | 7 | 2 | 74 | 35 | 78 | 0 | 11 | 67 | 22 | 46 | 475 |
| 8:45 AM | 24 | 54 | 1 | 2 | 77 | 19 | 75 | 0 | 10 | 70 | 32 | 56 | 420 |
| 9:00 AM | 21 | 80 | 3 | 2 | 46 | 27 | 50 | 1 | 11 | 68 | 17 | 40 | 366 |
| 9:15 AM | 22 | 83 | 3 | 1 | 81 | 24 | 31 | 0 | 18 | 85 | 33 | 41 | 422 |
| 9:30 AM | 17 | 103 | 4 | 1 | 76 | 30 | 42 | 0 | 11 | 62 | 22 | 38 | 406 |
| 9:45 AM | 25 | 72 | 5 | 2 | 82 | 24 | 51 | 0 | 7 | 61 | 24 | 34 | 387 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 280 | 1013 | 43 | 24 | 802 | 334 | 932 | 6 | 134 | 956 | 352 | 630 | 5506 |
| **APPROACH %'s :** | 20.96% | 75.82% | 3.22% | 2.07% | 69.14% | 28.79% | 86.94% | 0.56% | 12.50% | 49.33% | 18.16% | 32.51% | |

| **PEAK HR START TIME :** | 730 AM | | | | | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PEAK HR VOL :** | 112 | 369 | 15 | 11 | 287 | 146 | 421 | 5 | 54 | 391 | 146 | 250 | 2207 |
| **PEAK HR FACTOR :** | | 0.932 | | | 0.835 | | | 0.857 | | | 0.837 | | 0.938 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_001 **Day:** WEDNESDAY

**City:** City of San Pedro **Date:** 04/27/2011

**PM**

| **NS/EW Streets:** | Gaffey St | | | Gaffey St | | | Summerland Ave | | | Summerland Ave | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 2 | 0.5 | 0.5 | |
| 3:00 PM | 37 | 103 | 7 | 1 | 145 | 51 | 49 | 2 | 11 | 84 | 35 | 43 | 568 |
| 3:15 PM | 37 | 99 | 3 | 2 | 126 | 45 | 46 | 1 | 10 | 93 | 35 | 59 | 556 |
| 3:30 PM | 39 | 115 | 4 | 7 | 132 | 52 | 49 | 2 | 14 | 93 | 46 | 51 | 604 |
| 3:45 PM | 43 | 92 | 4 | 3 | 111 | 57 | 42 | 2 | 12 | 91 | 24 | 57 | 538 |
| 4:00 PM | 30 | 83 | 8 | 3 | 134 | 53 | 51 | 2 | 15 | 105 | 51 | 54 | 589 |
| 4:15 PM | 28 | 88 | 5 | 4 | 139 | 48 | 49 | 0 | 11 | 130 | 60 | 54 | 616 |
| 4:30 PM | 29 | 89 | 7 | 5 | 130 | 65 | 55 | 0 | 11 | 139 | 72 | 68 | 670 |
| 4:45 PM | 34 | 93 | 5 | 5 | 130 | 66 | 70 | 0 | 15 | 155 | 67 | 68 | 708 |
| 5:00 PM | 34 | 106 | 12 | 2 | 118 | 78 | 47 | 0 | 10 | 152 | 74 | 105 | 738 |
| 5:15 PM | 28 | 105 | 10 | 5 | 149 | 58 | 37 | 2 | 14 | 75 | 47 | 42 | 572 |
| 5:30 PM | 24 | 74 | 7 | 4 | 136 | 62 | 40 | 2 | 13 | 147 | 74 | 73 | 656 |
| 5:45 PM | 37 | 90 | 5 | 4 | 144 | 51 | 44 | 1 | 12 | 125 | 64 | 53 | 630 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 400 | 1137 | 77 | 45 | 1594 | 686 | 579 | 14 | 148 | 1389 | 649 | 727 | 7445 |
| **APPROACH %'s :** | 24.78% | 70.45% | 4.77% | 1.94% | 68.56% | 29.51% | 78.14% | 1.89% | 19.97% | 50.24% | 23.47% | 26.29% | |

| **PEAK HR START TIME :** | 415 PM | | | | | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PEAK HR VOL :** | 125 | 376 | 29 | 16 | 517 | 257 | 221 | 0 | 47 | 576 | 273 | 295 | 2732 |
| **PEAK HR FACTOR :** | | 0.872 | | | 0.983 | | | 0.788 | | | 0.864 | | 0.925 |

**CONTROL :** Signalized

# ITM Peak Hour Summary

Prepared by:

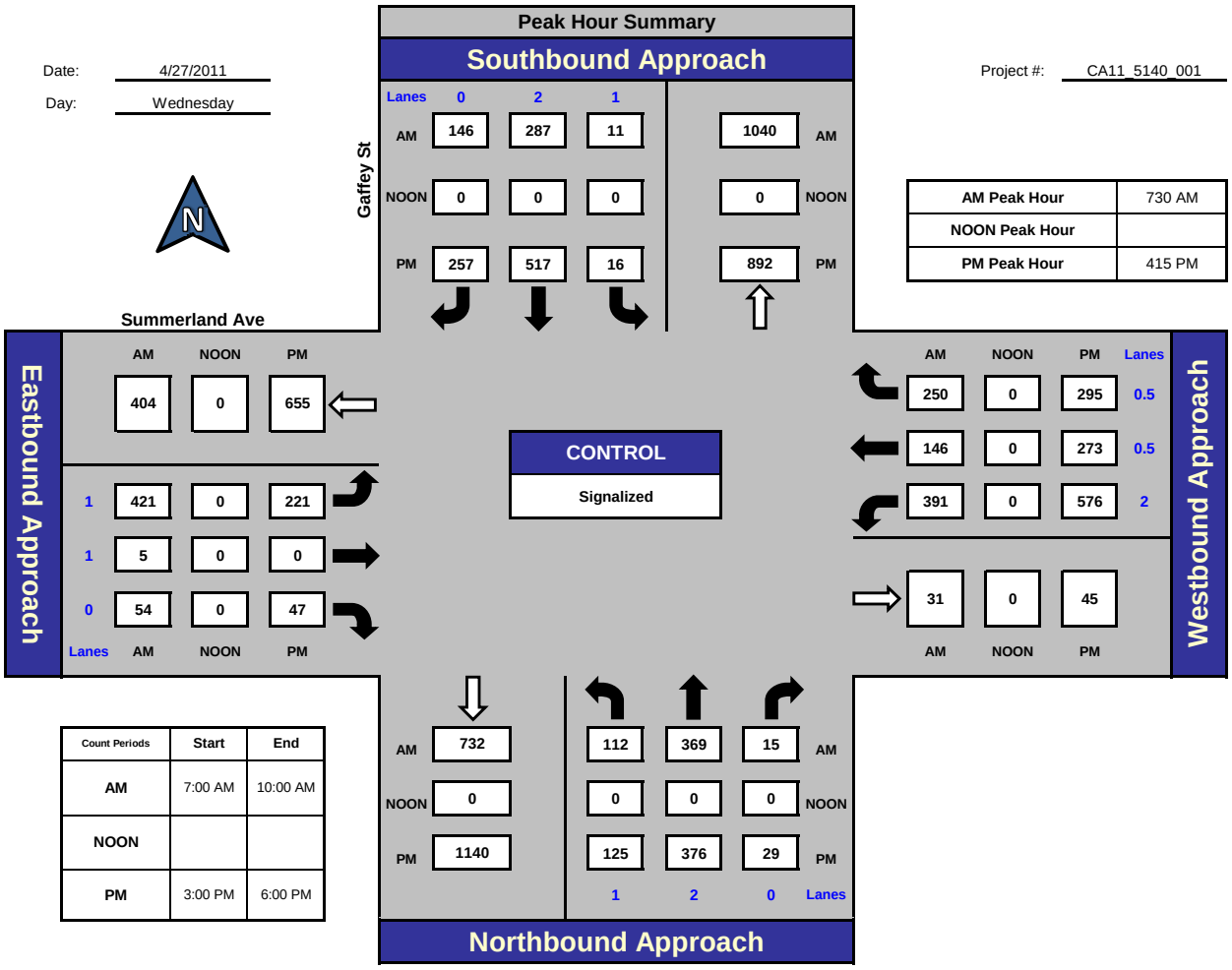
National Data & Surveying Services

## *Gaffey St and Summerland Ave , City of San Pedro*

Date: 4/27/2011

Day: Wednesday

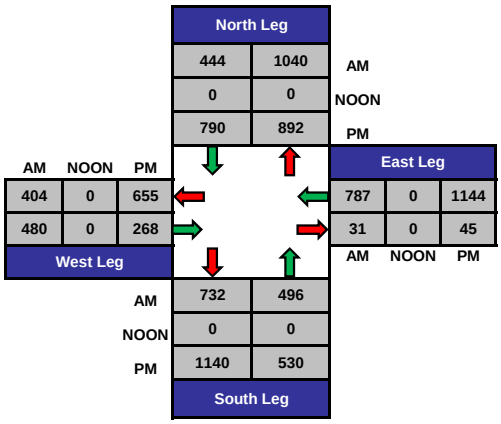
Project #: CA11_5140_001



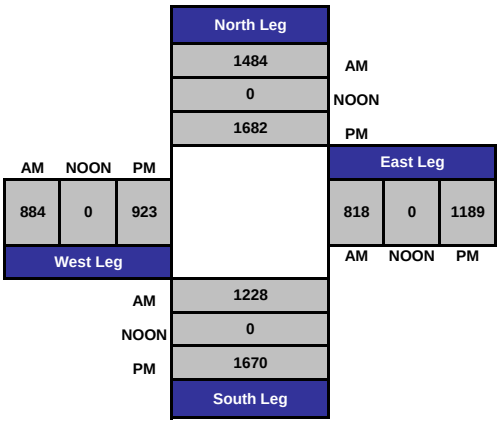

| AM Peak Hour | 730 AM |
|---|---|
| NOON Peak Hour | |
| PM Peak Hour | 415 PM |

| Count Periods | Start | End |
|---|---|---|
| AM | 7:00 AM | 10:00 AM |
| NOON | | |
| PM | 3:00 PM | 6:00 PM |

## Total Ins & Outs




## Total Volume Per Leg



# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_001 **Day:** SATURDAY

**City:** City of San Pedro **Date:** 04/30/2011

**NOON**

| **NS/EW Streets:** | Gaffey St | | | Gaffey St | | | Summerland Ave | | | Summerland Ave | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 2 | 0.5 | 0.5 | |
| 11:00 AM | 36 | 130 | 4 | 6 | 131 | 33 | 44 | 0 | 16 | 80 | 32 | 32 | 544 |
| 11:15 AM | 40 | 145 | 7 | 5 | 100 | 27 | 61 | 1 | 12 | 74 | 34 | 48 | 554 |
| 11:30 AM | 26 | 102 | 4 | 5 | 120 | 39 | 46 | 1 | 19 | 113 | 37 | 47 | 559 |
| 11:45 AM | 29 | 134 | 7 | 0 | 131 | 33 | 40 | 0 | 13 | 117 | 50 | 60 | 614 |
| 12:00 PM | 37 | 136 | 8 | 3 | 125 | 48 | 41 | 0 | 24 | 103 | 35 | 34 | 594 |
| 12:15 PM | 35 | 126 | 3 | 3 | 139 | 37 | 49 | 2 | 13 | 81 | 26 | 47 | 561 |
| 12:30 PM | 37 | 110 | 10 | 7 | 133 | 29 | 50 | 0 | 12 | 77 | 33 | 37 | 535 |
| 12:45 PM | 32 | 121 | 5 | 0 | 126 | 38 | 47 | 4 | 14 | 85 | 32 | 38 | 542 |
| 1:00 PM | 33 | 128 | 16 | 2 | 114 | 35 | 55 | 1 | 19 | 118 | 31 | 42 | 594 |
| 1:15 PM | 35 | 130 | 2 | 6 | 141 | 32 | 48 | 0 | 26 | 101 | 36 | 37 | 594 |
| 1:30 PM | 34 | 128 | 18 | 5 | 107 | 24 | 38 | 2 | 13 | 100 | 35 | 33 | 537 |
| 1:45 PM | 31 | 103 | 5 | 4 | 128 | 37 | 45 | 0 | 13 | 89 | 35 | 35 | 525 |
| 2:00 PM | 38 | 135 | 6 | 2 | 122 | 49 | 36 | 2 | 13 | 91 | 35 | 33 | 562 |
| 2:15 PM | 20 | 136 | 5 | 4 | 129 | 50 | 48 | 1 | 19 | 80 | 37 | 30 | 559 |
| 2:30 PM | 38 | 104 | 6 | 2 | 124 | 31 | 46 | 0 | 16 | 108 | 40 | 40 | 555 |
| 2:45 PM | 44 | 107 | 8 | 4 | 125 | 41 | 28 | 0 | 15 | 88 | 32 | 31 | 523 |
| 3:00 PM | 39 | 106 | 6 | 5 | 105 | 49 | 33 | 2 | 16 | 108 | 33 | 42 | 544 |
| 3:15 PM | 35 | 97 | 10 | 0 | 135 | 40 | 31 | 0 | 18 | 88 | 40 | 42 | 536 |
| 3:30 PM | 35 | 96 | 6 | 0 | 117 | 39 | 34 | 0 | 9 | 106 | 34 | 42 | 518 |
| 3:45 PM | 54 | 87 | 6 | 1 | 120 | 32 | 30 | 1 | 23 | 87 | 47 | 35 | 523 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 708 | 2361 | 142 | 64 | 2472 | 743 | 850 | 17 | 323 | 1894 | 714 | 785 | 11073 |
| **APPROACH %'s :** | 22.05% | 73.53% | 4.42% | 1.95% | 75.39% | 22.66% | 71.43% | 1.43% | 27.14% | 55.82% | 21.04% | 23.14% | |

| **PEAK HR START TIME :** | 1130 AM | | | | | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PEAK HR VOL :** | 127 | 498 | 22 | 11 | 515 | 157 | 176 | 3 | 69 | 414 | 148 | 188 | 2328 |
| **PEAK HR FACTOR :** | | 0.894 | | | 0.954 | | | 0.939 | | | 0.826 | | 0.948 |

**CONTROL :** Signalized

# ITM Peak Hour Summary

Prepared by:

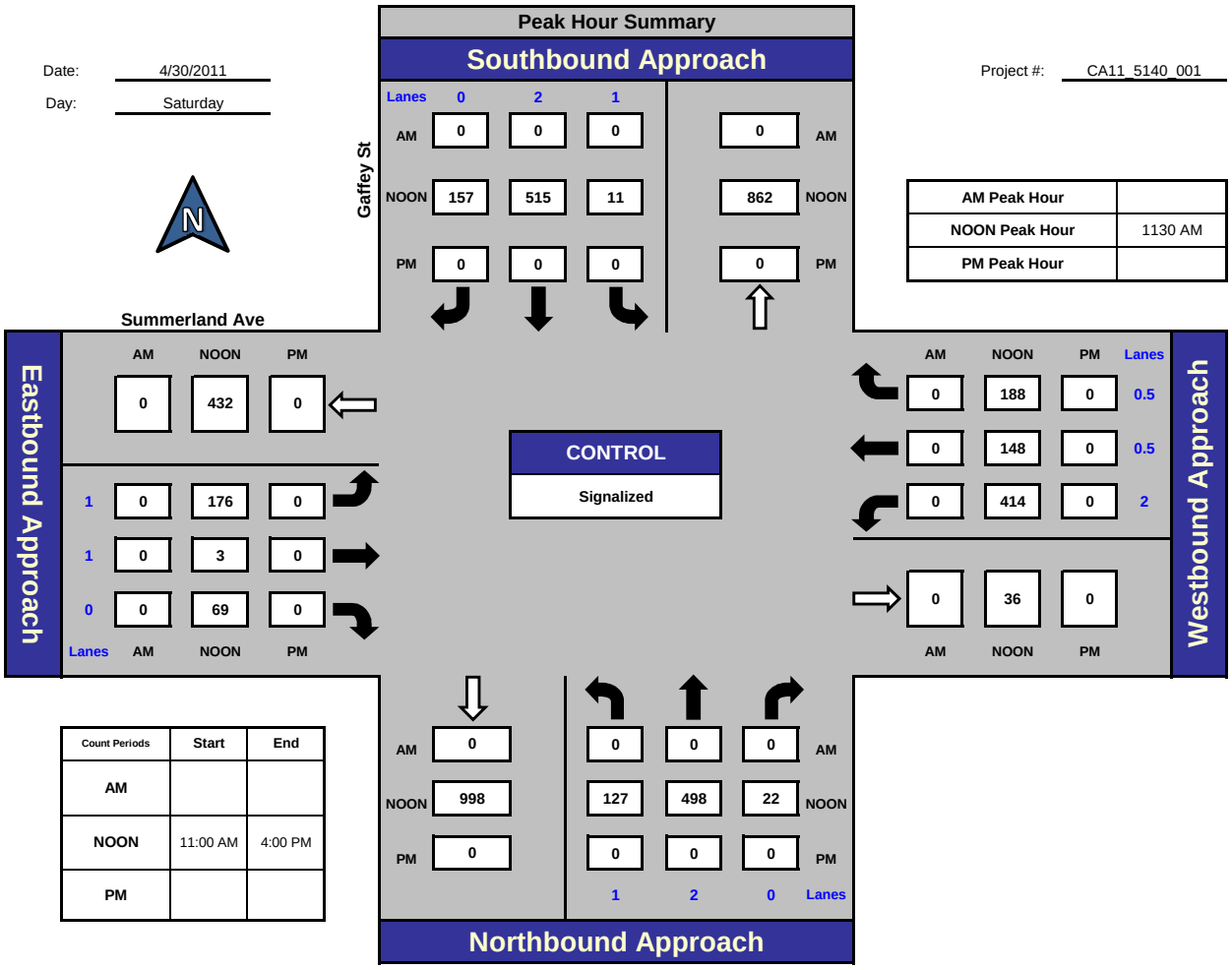
National Data & Surveying Services

## *Gaffey St and Summerland Ave ,*

Date: 4/30/2011

Day: Saturday

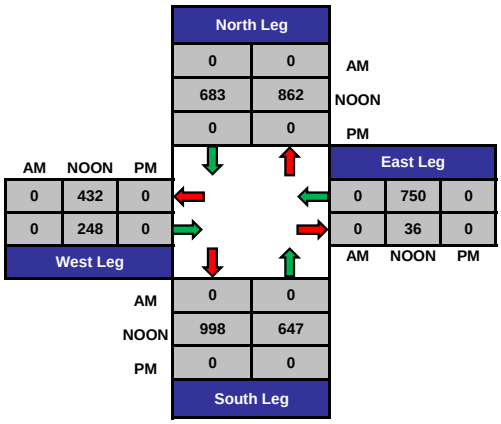
Project #: CA11_5140_001



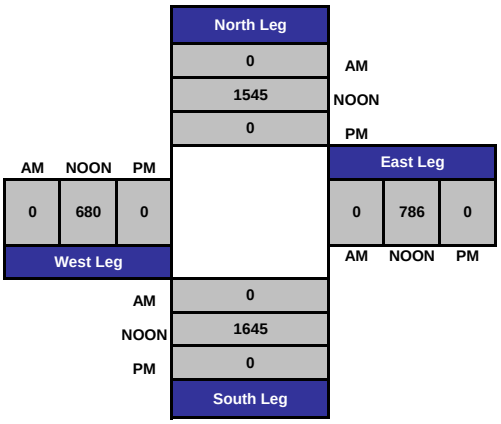

| AM Peak Hour | |
|---|---|
| NOON Peak Hour | 1130 AM |
| PM Peak Hour | |

| Count Periods | Start | End |
|---|---|---|
| AM | | |
| NOON | 11:00 AM | 4:00 PM |
| PM | | |

## Total Ins & Outs




## Total Volume Per Leg



# WILTEC

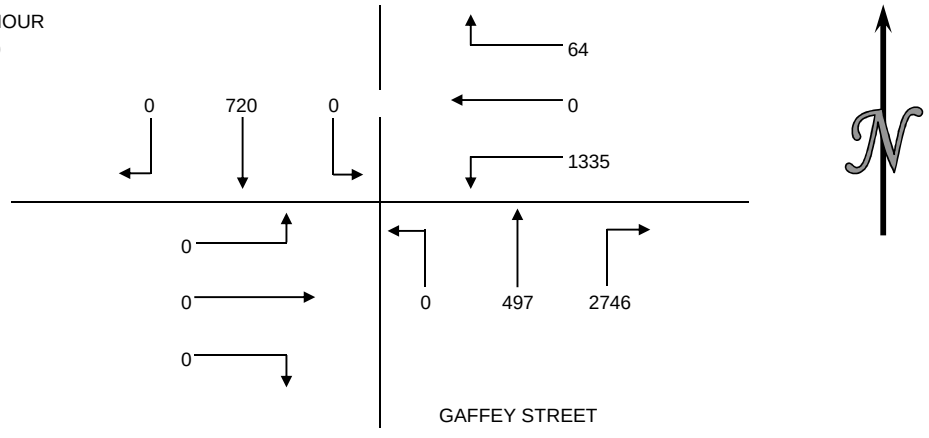
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: WEDNESDAY, APRIL 27, 2011
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S GAFFEY STREET
E/W I-110 ON/OFF RAMP

| 15 MIN COUNTS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| PERIOD | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 700-715 | 0 | 143 | 0 | 18 | 0 | 202 | 693 | 79 | 0 | 0 | 0 | 0 | 1135 |
| 715-730 | 0 | 112 | 0 | 9 | 0 | 270 | 710 | 87 | 0 | 0 | 0 | 0 | 1188 |
| 730-745 | 0 | 160 | 0 | 15 | 0 | 323 | 765 | 121 | 0 | 0 | 0 | 0 | 1384 |
| 745-800 | 0 | 197 | 0 | 14 | 0 | 346 | 689 | 112 | 0 | 0 | 0 | 0 | 1358 |
| 800-815 | 0 | 211 | 0 | 18 | 0 | 368 | 690 | 132 | 0 | 0 | 0 | 0 | 1419 |
| 815-830 | 0 | 152 | 0 | 17 | 0 | 298 | 602 | 132 | 0 | 0 | 0 | 0 | 1201 |
| 830-845 | 0 | 129 | 0 | 17 | 0 | 260 | 554 | 119 | 0 | 0 | 0 | 0 | 1079 |
| 845-900 | 0 | 163 | 0 | 12 | 0 | 278 | 532 | 89 | 0 | 0 | 0 | 0 | 1074 |
| 900-915 | 0 | 124 | 0 | 21 | 0 | 263 | 595 | 87 | 0 | 0 | 0 | 0 | 1090 |
| 915-930 | 0 | 155 | 0 | 22 | 0 | 221 | 543 | 94 | 0 | 0 | 0 | 0 | 1035 |
| 930-945 | 0 | 162 | 0 | 14 | 0 | 246 | 526 | 121 | 0 | 0 | 0 | 0 | 1069 |
| 945-1000 | 0 | 127 | 0 | 10 | 0 | 211 | 431 | 104 | 0 | 0 | 0 | 0 | 883 |
| HOUR TOTALS | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| TIME | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 700-800 | 0 | 612 | 0 | 56 | 0 | 1141 | 2857 | 399 | 0 | 0 | 0 | 0 | 5065 |
| 715-815 | 0 | 680 | 0 | 56 | 0 | 1307 | 2854 | 452 | 0 | 0 | 0 | 0 | 5349 |
| 730-830 | 0 | 720 | 0 | 64 | 0 | 1335 | 2746 | 497 | 0 | 0 | 0 | 0 | 5362 |
| 745-845 | 0 | 689 | 0 | 66 | 0 | 1272 | 2535 | 495 | 0 | 0 | 0 | 0 | 5057 |
| 800-900 | 0 | 655 | 0 | 64 | 0 | 1204 | 2378 | 472 | 0 | 0 | 0 | 0 | 4773 |
| 815-815 | 0 | 568 | 0 | 67 | 0 | 1099 | 2283 | 427 | 0 | 0 | 0 | 0 | 4444 |
| 830-930 | 0 | 571 | 0 | 72 | 0 | 1022 | 2224 | 389 | 0 | 0 | 0 | 0 | 4278 |
| 845-945 | 0 | 604 | 0 | 69 | 0 | 1008 | 2196 | 391 | 0 | 0 | 0 | 0 | 4268 |
| 900-1000 | 0 | 568 | 0 | 67 | 0 | 941 | 2095 | 406 | 0 | 0 | 0 | 0 | 4077 |

A.M. PEAK HOUR
730-830



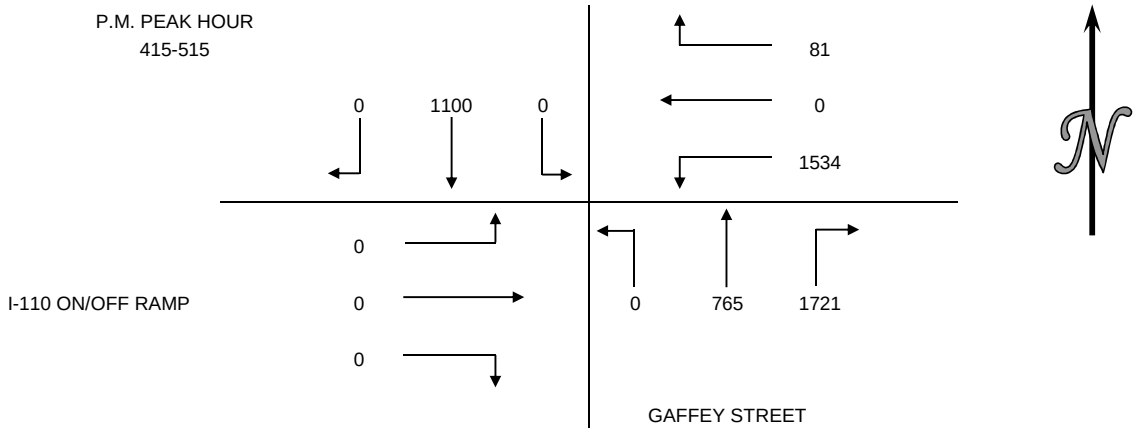
# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: WEDNESDAY, APRIL 27, 2011
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S GAFFEY STREET
E/W I-110 ON/OFF RAMP

| 15 MIN COUNTS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| PERIOD | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 300-315 | 0 | 255 | 0 | 30 | 0 | 332 | 531 | 160 | 0 | 0 | 0 | 0 | 1308 |
| 315-330 | 0 | 214 | 0 | 19 | 0 | 329 | 478 | 180 | 0 | 0 | 0 | 0 | 1220 |
| 330-345 | 0 | 231 | 0 | 25 | 0 | 380 | 478 | 228 | 0 | 0 | 0 | 0 | 1342 |
| 345-400 | 0 | 221 | 0 | 25 | 0 | 369 | 454 | 190 | 0 | 0 | 0 | 0 | 1259 |
| 400-415 | 0 | 243 | 0 | 29 | 0 | 350 | 460 | 146 | 0 | 0 | 0 | 0 | 1228 |
| 415-430 | 0 | 247 | 0 | 17 | 0 | 366 | 416 | 204 | 0 | 0 | 0 | 0 | 1250 |
| 430-445 | 0 | 306 | 0 | 19 | 0 | 403 | 404 | 233 | 0 | 0 | 0 | 0 | 1365 |
| 445-500 | 0 | 259 | 0 | 23 | 0 | 351 | 445 | 187 | 0 | 0 | 0 | 0 | 1265 |
| 500-515 | 0 | 288 | 0 | 22 | 0 | 414 | 456 | 141 | 0 | 0 | 0 | 0 | 1321 |
| 515-530 | 0 | 240 | 0 | 14 | 0 | 368 | 490 | 129 | 0 | 0 | 0 | 0 | 1241 |
| 530-545 | 0 | 206 | 0 | 12 | 0 | 363 | 486 | 118 | 0 | 0 | 0 | 0 | 1185 |
| 545-600 | 0 | 228 | 0 | 9 | 0 | 305 | 397 | 102 | 0 | 0 | 0 | 0 | 1041 |
| HOUR TOTALS | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| TIME | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 300-400 | 0 | 921 | 0 | 99 | 0 | 1410 | 1941 | 758 | 0 | 0 | 0 | 0 | 5129 |
| 315-415 | 0 | 909 | 0 | 98 | 0 | 1428 | 1870 | 744 | 0 | 0 | 0 | 0 | 5049 |
| 330-430 | 0 | 942 | 0 | 96 | 0 | 1465 | 1808 | 768 | 0 | 0 | 0 | 0 | 5079 |
| 345-445 | 0 | 1017 | 0 | 90 | 0 | 1488 | 1734 | 773 | 0 | 0 | 0 | 0 | 5102 |
| 400-500 | 0 | 1055 | 0 | 88 | 0 | 1470 | 1725 | 770 | 0 | 0 | 0 | 0 | 5108 |
| 415-515 | 0 | 1100 | 0 | 81 | 0 | 1534 | 1721 | 765 | 0 | 0 | 0 | 0 | 5201 |
| 430-530 | 0 | 1093 | 0 | 78 | 0 | 1536 | 1795 | 690 | 0 | 0 | 0 | 0 | 5192 |
| 445-545 | 0 | 993 | 0 | 71 | 0 | 1496 | 1877 | 575 | 0 | 0 | 0 | 0 | 5012 |
| 500-600 | 0 | 962 | 0 | 57 | 0 | 1450 | 1829 | 490 | 0 | 0 | 0 | 0 | 4788 |



# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: SATURDAY APRIL 30, 2011
PERIOD: 11:00 AM TO 4:00 PM
INTERSECTION: N/S GAFFEY STREET
E/W I-110 ON/OFF RAMP

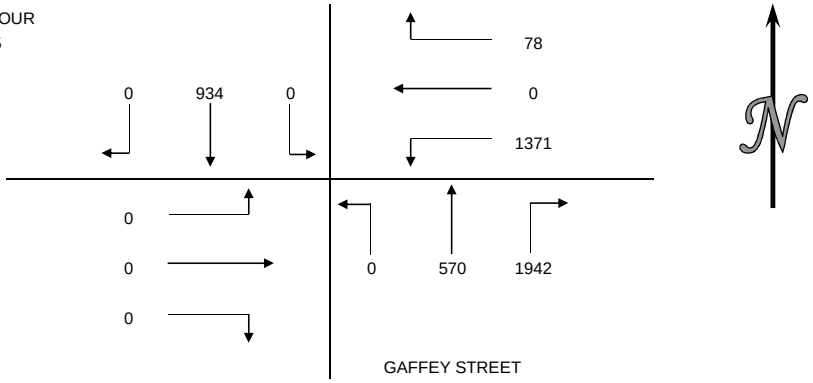
15 MIN COUNTS

| PERIOD | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1100-1115 | 0 | 174 | 0 | 37 | 0 | 275 | 363 | 176 | 0 | 0 | 0 | 0 | 1025 |
| 1115-1130 | 0 | 188 | 0 | 40 | 0 | 333 | 402 | 139 | 0 | 0 | 0 | 0 | 1102 |
| 1130-1145 | 0 | 195 | 0 | 38 | 0 | 285 | 449 | 151 | 0 | 0 | 0 | 0 | 1118 |
| 1145-1200 | 0 | 235 | 0 | 10 | 0 | 296 | 472 | 152 | 0 | 0 | 0 | 0 | 1165 |
| 1200-1215 | 0 | 250 | 0 | 24 | 0 | 358 | 427 | 163 | 0 | 0 | 0 | 0 | 1222 |
| 1215-1230 | 0 | 210 | 0 | 15 | 0 | 305 | 491 | 128 | 0 | 0 | 0 | 0 | 1149 |
| 1230-1245 | 0 | 220 | 0 | 21 | 0 | 341 | 513 | 150 | 0 | 0 | 0 | 0 | 1245 |
| 1245-100 | 0 | 248 | 0 | 17 | 0 | 341 | 459 | 145 | 0 | 0 | 0 | 0 | 1210 |
| 100-115 | 0 | 256 | 0 | 25 | 0 | 384 | 479 | 147 | 0 | 0 | 0 | 0 | 1291 |
| 115-130 | 0 | 221 | 0 | 9 | 0 | 350 | 403 | 133 | 0 | 0 | 0 | 0 | 1116 |
| 130-145 | 0 | 225 | 0 | 24 | 0 | 393 | 418 | 151 | 0 | 0 | 0 | 0 | 1211 |
| 145-200 | 0 | 213 | 0 | 36 | 0 | 385 | 401 | 143 | 0 | 0 | 0 | 0 | 1178 |
| 200-215 | 0 | 237 | 0 | 22 | 0 | 366 | 410 | 121 | 0 | 0 | 0 | 0 | 1156 |
| 215-230 | 0 | 218 | 0 | 15 | 0 | 347 | 467 | 141 | 0 | 0 | 0 | 0 | 1188 |
| 230-245 | 0 | 251 | 0 | 19 | 0 | 354 | 454 | 127 | 0 | 0 | 0 | 0 | 1205 |
| 245-300 | 0 | 240 | 0 | 32 | 0 | 366 | 419 | 118 | 0 | 0 | 0 | 0 | 1175 |
| 3000-315 | 0 | 225 | 0 | 29 | 0 | 319 | 449 | 113 | 0 | 0 | 0 | 0 | 1135 |
| 315-330 | 0 | 221 | 0 | 23 | 0 | 356 | 456 | 127 | 0 | 0 | 0 | 0 | 1183 |
| 330-345 | 0 | 212 | 0 | 23 | 0 | 381 | 425 | 132 | 0 | 0 | 0 | 0 | 1173 |
| 345-400 | 0 | 227 | 0 | 16 | 0 | 366 | 479 | 144 | 0 | 0 | 0 | 0 | 0 |

HOUR TOTALS

| TIME | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1100-1200 | 0 | 792 | 0 | 125 | 0 | 1189 | 1686 | 618 | 0 | 0 | 0 | 0 | 4410 |
| 1115-1215 | 0 | 868 | 0 | 112 | 0 | 1272 | 1750 | 605 | 0 | 0 | 0 | 0 | 4607 |
| 1130-1230 | 0 | 890 | 0 | 87 | 0 | 1244 | 1839 | 594 | 0 | 0 | 0 | 0 | 4654 |
| 1145-1245 | 0 | 915 | 0 | 70 | 0 | 1300 | 1903 | 593 | 0 | 0 | 0 | 0 | 4781 |
| 1200-100 | 0 | 928 | 0 | 77 | 0 | 1345 | 1890 | 586 | 0 | 0 | 0 | 0 | 4826 |
| 1215-115 | 0 | 934 | 0 | 78 | 0 | 1371 | 1942 | 570 | 0 | 0 | 0 | 0 | 4895 |
| 1230-130 | 0 | 945 | 0 | 72 | 0 | 1416 | 1854 | 575 | 0 | 0 | 0 | 0 | 4862 |
| 1245-145 | 0 | 950 | 0 | 75 | 0 | 1468 | 1759 | 576 | 0 | 0 | 0 | 0 | 4828 |
| 100-200 | 0 | 915 | 0 | 94 | 0 | 1512 | 1701 | 574 | 0 | 0 | 0 | 0 | 4796 |
| 115-215 | 0 | 896 | 0 | 91 | 0 | 1494 | 1632 | 548 | 0 | 0 | 0 | 0 | 4661 |
| 130-230 | 0 | 893 | 0 | 97 | 0 | 1491 | 1696 | 556 | 0 | 0 | 0 | 0 | 4733 |
| 145-245 | 0 | 919 | 0 | 92 | 0 | 1452 | 1732 | 532 | 0 | 0 | 0 | 0 | 4727 |
| 200-300 | 0 | 946 | 0 | 88 | 0 | 1433 | 1750 | 507 | 0 | 0 | 0 | 0 | 4724 |
| 215-315 | 0 | 934 | 0 | 95 | 0 | 1386 | 1789 | 499 | 0 | 0 | 0 | 0 | 4703 |
| 230-330 | 0 | 937 | 0 | 103 | 0 | 1395 | 1778 | 485 | 0 | 0 | 0 | 0 | 4698 |
| 245-345 | 0 | 898 | 0 | 107 | 0 | 1422 | 1749 | 490 | 0 | 0 | 0 | 0 | 4666 |
| 300-400 | 0 | 885 | 0 | 91 | 0 | 1422 | 1809 | 516 | 0 | 0 | 0 | 0 | 4723 |

P.M. PEAK HOUR
1215-115



# WILTEC

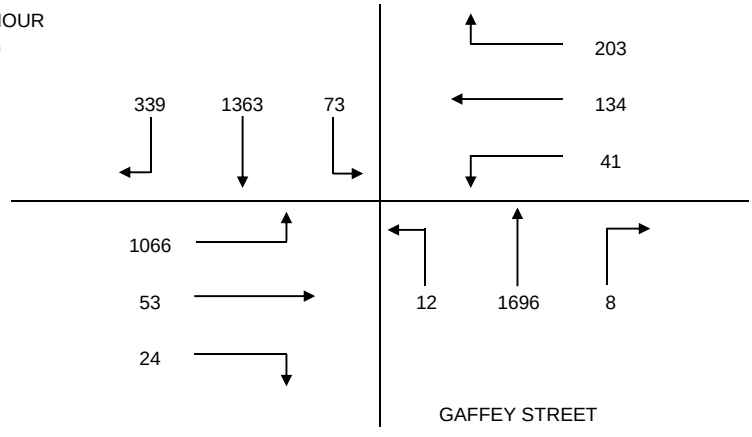
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: WEDNESDAY, APRIL 27, 2011
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S GAFFEY STREET
E/W 1ST STREET

| 15 MIN COUNTS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| PERIOD | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 700-715 | 72 | 223 | 14 | 50 | 20 | 13 | 2 | 429 | 0 | 2 | 9 | 222 | 1056 |
| 715-730 | 64 | 270 | 12 | 39 | 20 | 10 | 1 | 405 | 3 | 2 | 6 | 280 | 1112 |
| 730-745 | 74 | 359 | 23 | 56 | 41 | 8 | 2 | 434 | 1 | 5 | 8 | 247 | 1258 |
| 745-800 | 83 | 367 | 15 | 60 | 41 | 12 | 3 | 442 | 4 | 5 | 13 | 293 | 1338 |
| 800-815 | 84 | 320 | 17 | 52 | 37 | 13 | 1 | 438 | 2 | 8 | 18 | 246 | 1236 |
| 815-830 | 98 | 317 | 18 | 35 | 15 | 8 | 2 | 382 | 5 | 6 | 14 | 280 | 1180 |
| 830-845 | 52 | 309 | 15 | 42 | 39 | 5 | 2 | 377 | 7 | 4 | 18 | 225 | 1095 |
| 845-900 | 82 | 344 | 20 | 35 | 39 | 6 | 2 | 309 | 2 | 12 | 24 | 238 | 1113 |
| 900-915 | 72 | 262 | 19 | 49 | 39 | 10 | 4 | 373 | 7 | 11 | 18 | 247 | 1111 |
| 915-930 | 54 | 293 | 20 | 29 | 21 | 5 | 5 | 312 | 6 | 11 | 10 | 199 | 965 |
| 930-945 | 65 | 241 | 18 | 22 | 21 | 9 | 3 | 316 | 8 | 14 | 11 | 153 | 881 |
| 945-1000 | 35 | 296 | 17 | 35 | 30 | 5 | 2 | 277 | 9 | 16 | 19 | 157 | 898 |
| HOUR TOTALS | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| TIME | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 700-800 | 293 | 1219 | 64 | 205 | 122 | 43 | 8 | 1710 | 8 | 14 | 36 | 1042 | 4764 |
| 715-815 | 305 | 1316 | 67 | 207 | 139 | 43 | 7 | 1719 | 10 | 20 | 45 | 1066 | 4944 |
| 730-830 | 339 | 1363 | 73 | 203 | 134 | 41 | 8 | 1696 | 12 | 24 | 53 | 1066 | 5012 |
| 745-845 | 317 | 1313 | 65 | 189 | 132 | 38 | 8 | 1639 | 18 | 23 | 63 | 1044 | 4849 |
| 800-900 | 316 | 1290 | 70 | 164 | 130 | 32 | 7 | 1506 | 16 | 30 | 74 | 989 | 4624 |
| 815-815 | 304 | 1232 | 72 | 161 | 132 | 29 | 10 | 1441 | 21 | 33 | 74 | 990 | 4499 |
| 830-930 | 260 | 1208 | 74 | 155 | 138 | 26 | 13 | 1371 | 22 | 38 | 70 | 909 | 4284 |
| 845-945 | 273 | 1140 | 77 | 135 | 120 | 30 | 14 | 1310 | 23 | 48 | 63 | 837 | 4070 |
| 900-1000 | 226 | 1092 | 74 | 135 | 111 | 29 | 14 | 1278 | 30 | 52 | 58 | 756 | 3855 |

A.M. PEAK HOUR
730-830



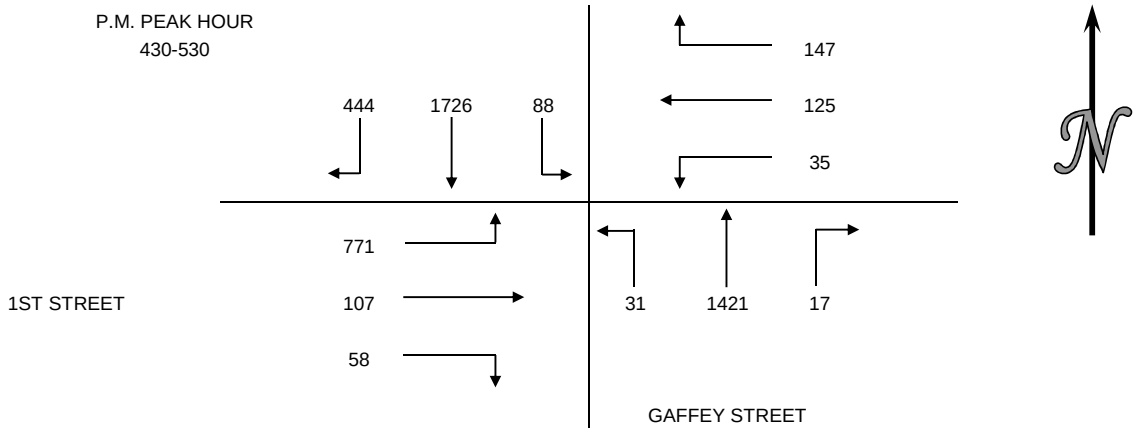
# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: WEDNESDAY, APRIL 27, 2011
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S GAFFEY STREET
E/W 1ST STREET

| 15 MIN COUNTS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| PERIOD | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 300-315 | 86 | 412 | 26 | 40 | 31 | 9 | 4 | 395 | 7 | 13 | 24 | 203 | 1250 |
| 315-330 | 96 | 443 | 27 | 39 | 48 | 14 | 6 | 406 | 8 | 7 | 24 | 178 | 1296 |
| 330-345 | 92 | 385 | 27 | 25 | 33 | 14 | 2 | 362 | 8 | 13 | 33 | 170 | 1164 |
| 345-400 | 101 | 398 | 21 | 31 | 37 | 7 | 4 | 384 | 16 | 10 | 24 | 152 | 1185 |
| 400-415 | 113 | 411 | 26 | 40 | 32 | 12 | 5 | 374 | 5 | 18 | 43 | 202 | 1281 |
| 415-430 | 96 | 451 | 22 | 25 | 35 | 8 | 5 | 348 | 5 | 14 | 26 | 174 | 1209 |
| 430-445 | 122 | 399 | 25 | 35 | 37 | 6 | 1 | 376 | 7 | 13 | 31 | 159 | 1211 |
| 445-500 | 107 | 422 | 22 | 33 | 30 | 8 | 5 | 364 | 7 | 15 | 20 | 183 | 1216 |
| 500-515 | 110 | 454 | 15 | 44 | 26 | 14 | 7 | 332 | 8 | 16 | 29 | 223 | 1278 |
| 515-530 | 105 | 451 | 26 | 35 | 32 | 7 | 4 | 349 | 9 | 14 | 27 | 206 | 1265 |
| 530-545 | 82 | 414 | 17 | 36 | 30 | 10 | 6 | 370 | 10 | 15 | 26 | 145 | 1161 |
| 545-600 | 106 | 400 | 19 | 30 | 32 | 11 | 2 | 309 | 2 | 10 | 28 | 162 | 1111 |
| HOUR TOTALS | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| TIME | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 300-400 | 375 | 1638 | 101 | 135 | 149 | 44 | 16 | 1547 | 39 | 43 | 105 | 703 | 4895 |
| 315-415 | 402 | 1637 | 101 | 135 | 150 | 47 | 17 | 1526 | 37 | 48 | 124 | 702 | 4926 |
| 330-430 | 402 | 1645 | 96 | 121 | 137 | 41 | 16 | 1468 | 34 | 55 | 126 | 698 | 4839 |
| 345-445 | 432 | 1659 | 94 | 131 | 141 | 33 | 15 | 1482 | 33 | 55 | 124 | 687 | 4886 |
| 400-500 | 438 | 1683 | 95 | 133 | 134 | 34 | 16 | 1462 | 24 | 60 | 120 | 718 | 4917 |
| 415-515 | 435 | 1726 | 84 | 137 | 128 | 36 | 18 | 1420 | 27 | 58 | 106 | 739 | 4914 |
| 430-530 | 444 | 1726 | 88 | 147 | 125 | 35 | 17 | 1421 | 31 | 58 | 107 | 771 | 4970 |
| 445-545 | 404 | 1741 | 80 | 148 | 118 | 39 | 22 | 1415 | 34 | 60 | 102 | 757 | 4920 |
| 500-600 | 403 | 1719 | 77 | 145 | 120 | 42 | 19 | 1360 | 29 | 55 | 110 | 736 | 4815 |



# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: SATURDAY APRIL 30, 2011
PERIOD: 11:00 AM TO 4:00 PM
INTERSECTION: N/S GAFFEY STREET
E/W 1ST STREET

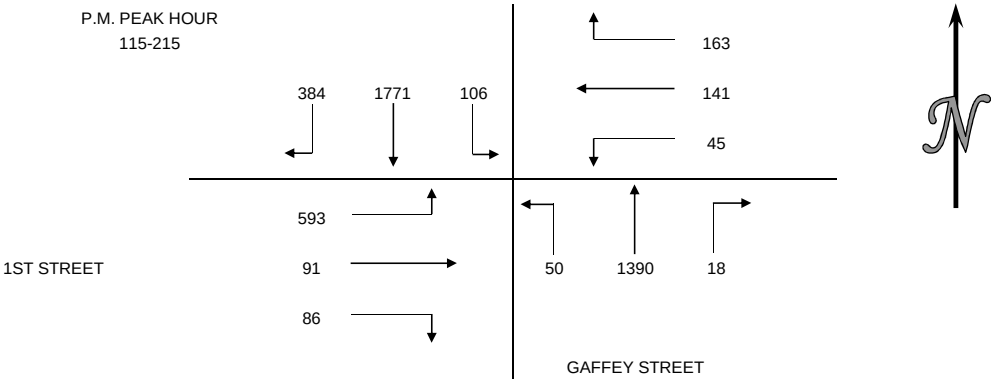
15 MIN COUNTS

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERIOD | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 1100-1115 | 65 | 326 | 23 | 48 | 48 | 9 | 7 | 356 | 14 | 23 | 14 | 146 | 1079 |
| 1115-1130 | 72 | 341 | 23 | 30 | 24 | 9 | 5 | 334 | 9 | 10 | 16 | 143 | 1016 |
| 1130-1145 | 84 | 321 | 27 | 50 | 42 | 12 | 6 | 414 | 9 | 16 | 28 | 159 | 1168 |
| 1145-1200 | 69 | 417 | 20 | 44 | 29 | 15 | 6 | 379 | 12 | 19 | 21 | 146 | 1177 |
| 1200-1215 | 69 | 431 | 26 | 53 | 44 | 15 | 6 | 405 | 13 | 19 | 33 | 161 | 1275 |
| 1215-1230 | 78 | 388 | 26 | 25 | 33 | 11 | 8 | 362 | 6 | 27 | 16 | 135 | 1115 |
| 1230-1245 | 107 | 355 | 19 | 55 | 43 | 9 | 5 | 432 | 8 | 14 | 27 | 136 | 1210 |
| 1245-100 | 83 | 449 | 26 | 32 | 24 | 8 | 4 | 377 | 7 | 15 | 22 | 156 | 1203 |
| 100-115 | 79 | 416 | 38 | 40 | 24 | 7 | 2 | 353 | 8 | 25 | 19 | 145 | 1156 |
| 115-130 | 87 | 456 | 28 | 32 | 26 | 10 | 6 | 343 | 10 | 22 | 19 | 123 | 1162 |
| 130-145 | 121 | 460 | 32 | 45 | 41 | 7 | 5 | 363 | 11 | 23 | 26 | 164 | 1298 |
| 145-200 | 92 | 395 | 18 | 32 | 34 | 11 | 2 | 319 | 13 | 18 | 11 | 142 | 1087 |
| 200-215 | 84 | 460 | 28 | 54 | 40 | 17 | 5 | 365 | 16 | 23 | 35 | 164 | 1291 |
| 215-230 | 79 | 380 | 23 | 29 | 37 | 8 | 5 | 339 | 6 | 20 | 19 | 143 | 1088 |
| 230-245 | 115 | 390 | 29 | 38 | 44 | 8 | 3 | 379 | 14 | 14 | 22 | 141 | 1197 |
| 245-300 | 97 | 429 | 29 | 35 | 34 | 11 | 6 | 349 | 6 | 16 | 28 | 135 | 1175 |
| 3000-315 | 87 | 410 | 25 | 62 | 33 | 12 | 2 | 399 | 15 | 17 | 32 | 123 | 1217 |
| 315-330 | 80 | 399 | 29 | 52 | 21 | 8 | 6 | 310 | 11 | 11 | 14 | 115 | 1056 |
| 330-345 | 87 | 382 | 24 | 39 | 30 | 8 | 3 | 388 | 9 | 17 | 13 | 104 | 1104 |
| 345-400 | 113 | 435 | 38 | 40 | 26 | 13 | 4 | 379 | 9 | 8 | 19 | 143 | 0 |

HOUR TOTALS

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TIME | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 1100-1200 | 290 | 1405 | 93 | 172 | 143 | 45 | 24 | 1483 | 44 | 68 | 79 | 594 | 4440 |
| 1115-1215 | 294 | 1510 | 96 | 177 | 139 | 51 | 23 | 1532 | 43 | 64 | 98 | 609 | 4636 |
| 1130-1230 | 300 | 1557 | 99 | 172 | 148 | 53 | 26 | 1560 | 40 | 81 | 98 | 601 | 4735 |
| 1145-1245 | 323 | 1591 | 91 | 177 | 149 | 50 | 25 | 1578 | 39 | 79 | 97 | 578 | 4777 |
| 1200-100 | 337 | 1623 | 97 | 165 | 144 | 43 | 23 | 1576 | 34 | 75 | 98 | 588 | 4803 |
| 1215-115 | 347 | 1608 | 109 | 152 | 124 | 35 | 19 | 1524 | 29 | 81 | 84 | 572 | 4684 |
| 1230-130 | 356 | 1676 | 111 | 159 | 117 | 34 | 17 | 1505 | 33 | 76 | 87 | 560 | 4731 |
| 1245-145 | 370 | 1781 | 124 | 149 | 115 | 32 | 17 | 1436 | 36 | 85 | 86 | 588 | 4819 |
| 100-200 | 379 | 1727 | 116 | 149 | 125 | 35 | 15 | 1378 | 42 | 88 | 75 | 574 | 4703 |
| 115-215 | 384 | 1771 | 106 | 163 | 141 | 45 | 18 | 1390 | 50 | 86 | 91 | 593 | 4838 |
| 130-230 | 376 | 1695 | 101 | 160 | 152 | 43 | 17 | 1386 | 46 | 84 | 91 | 613 | 4764 |
| 145-245 | 370 | 1625 | 98 | 153 | 155 | 44 | 15 | 1402 | 49 | 75 | 87 | 590 | 4663 |
| 200-300 | 375 | 1659 | 109 | 156 | 155 | 44 | 19 | 1432 | 42 | 73 | 104 | 583 | 4751 |
| 215-315 | 378 | 1609 | 106 | 164 | 148 | 39 | 16 | 1466 | 41 | 67 | 101 | 542 | 4677 |
| 230-330 | 379 | 1628 | 112 | 187 | 132 | 39 | 17 | 1437 | 46 | 58 | 96 | 514 | 4645 |
| 245-345 | 351 | 1620 | 107 | 188 | 118 | 39 | 17 | 1446 | 41 | 61 | 87 | 477 | 4552 |
| 300-400 | 367 | 1626 | 116 | 193 | 110 | 41 | 15 | 1476 | 44 | 53 | 78 | 485 | 4604 |

P.M. PEAK HOUR
115-215



# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_002 **Day:** WEDNESDAY

**City:** City of San Pedro **Date:** 04/27/2011

**AM**

| **NS/EW Streets:** | Gaffey St | | | Gaffey St | | | 5th St | | | 5th St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | |
| 7:00 AM | 1 | 287 | 12 | 16 | 219 | 6 | 46 | 11 | 6 | 10 | 21 | 13 | 648 |
| 7:15 AM | 3 | 356 | 15 | 15 | 240 | 10 | 43 | 13 | 2 | 12 | 17 | 15 | 741 |
| 7:30 AM | 5 | 398 | 26 | 19 | 317 | 8 | 66 | 31 | 8 | 25 | 20 | 17 | 940 |
| 7:45 AM | 7 | 350 | 7 | 14 | 333 | 23 | 41 | 53 | 7 | 17 | 25 | 19 | 896 |
| 8:00 AM | 2 | 365 | 9 | 12 | 311 | 12 | 40 | 33 | 4 | 15 | 33 | 13 | 849 |
| 8:15 AM | 4 | 354 | 14 | 19 | 288 | 14 | 25 | 17 | 2 | 8 | 26 | 10 | 781 |
| 8:30 AM | 5 | 296 | 10 | 16 | 242 | 11 | 21 | 16 | 9 | 5 | 13 | 12 | 656 |
| 8:45 AM | 4 | 309 | 4 | 13 | 279 | 9 | 17 | 15 | 1 | 11 | 17 | 16 | 695 |
| 9:00 AM | 3 | 305 | 9 | 10 | 304 | 17 | 16 | 16 | 3 | 4 | 24 | 9 | 720 |
| 9:15 AM | 4 | 325 | 8 | 9 | 252 | 5 | 15 | 18 | 3 | 5 | 20 | 11 | 675 |
| 9:30 AM | 2 | 278 | 4 | 12 | 248 | 12 | 16 | 26 | 4 | 7 | 18 | 15 | 642 |
| 9:45 AM | 1 | 257 | 8 | 18 | 298 | 10 | 16 | 8 | 3 | 6 | 10 | 18 | 653 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 41 | 3880 | 126 | 173 | 3331 | 137 | 362 | 257 | 52 | 125 | 244 | 168 | 8896 |
| **APPROACH %'s :** | 1.01% | 95.87% | 3.11% | 4.75% | 91.49% | 3.76% | 53.95% | 38.30% | 7.75% | 23.28% | 45.44% | 31.28% | |
| **PEAK HR START TIME :** | 730 AM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 18 | 1467 | 56 | 64 | 1249 | 57 | 172 | 134 | 21 | 65 | 104 | 59 | 3466 |
| **PEAK HR FACTOR :** | | 0.898 | | | 0.926 | | | 0.779 | | | 0.919 | | 0.922 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_002 **Day:** WEDNESDAY

**City:** City of San Pedro **Date:** 04/27/2011

**PM**

| **NS/EW Streets:** | Gaffey St | | | Gaffey St | | | 5th St | | | 5th St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | |
| 3:00 PM | 5 | 302 | 7 | 24 | 292 | 18 | 31 | 24 | 5 | 17 | 24 | 18 | 767 |
| 3:15 PM | 4 | 365 | 5 | 19 | 326 | 12 | 30 | 28 | 7 | 14 | 22 | 20 | 852 |
| 3:30 PM | 7 | 352 | 8 | 15 | 356 | 16 | 28 | 24 | 2 | 12 | 25 | 21 | 866 |
| 3:45 PM | 4 | 297 | 11 | 20 | 331 | 30 | 26 | 25 | 3 | 13 | 24 | 19 | 803 |
| 4:00 PM | 8 | 349 | 5 | 16 | 326 | 15 | 28 | 28 | 6 | 10 | 22 | 15 | 828 |
| 4:15 PM | 5 | 382 | 2 | 16 | 315 | 26 | 30 | 21 | 2 | 5 | 18 | 20 | 842 |
| 4:30 PM | 1 | 372 | 12 | 16 | 322 | 17 | 26 | 23 | 3 | 14 | 25 | 16 | 847 |
| 4:45 PM | 4 | 301 | 3 | 6 | 329 | 28 | 30 | 24 | 5 | 9 | 23 | 12 | 774 |
| 5:00 PM | 3 | 304 | 3 | 12 | 341 | 28 | 37 | 21 | 3 | 14 | 31 | 19 | 816 |
| 5:15 PM | 4 | 265 | 3 | 27 | 291 | 52 | 31 | 30 | 5 | 12 | 28 | 10 | 758 |
| 5:30 PM | 5 | 346 | 10 | 22 | 328 | 24 | 33 | 24 | 3 | 11 | 34 | 18 | 858 |
| 5:45 PM | 6 | 291 | 7 | 15 | 351 | 27 | 24 | 25 | 4 | 6 | 23 | 11 | 790 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 56 | 3926 | 76 | 208 | 3908 | 293 | 354 | 297 | 48 | 137 | 299 | 199 | 9801 |
| **APPROACH %'s :** | 1.38% | 96.75% | 1.87% | 4.72% | 88.64% | 6.65% | 50.64% | 42.49% | 6.87% | 21.57% | 47.09% | 31.34% | |
| **PEAK HR START TIME :** | 315 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 23 | 1363 | 29 | 70 | 1339 | 73 | 112 | 105 | 18 | 49 | 93 | 75 | 3349 |
| **PEAK HR FACTOR :** | | 0.946 | | | 0.957 | | | 0.904 | | | 0.935 | | 0.967 |

**CONTROL :** Signalized

# ITM Peak Hour Summary

Prepared by:

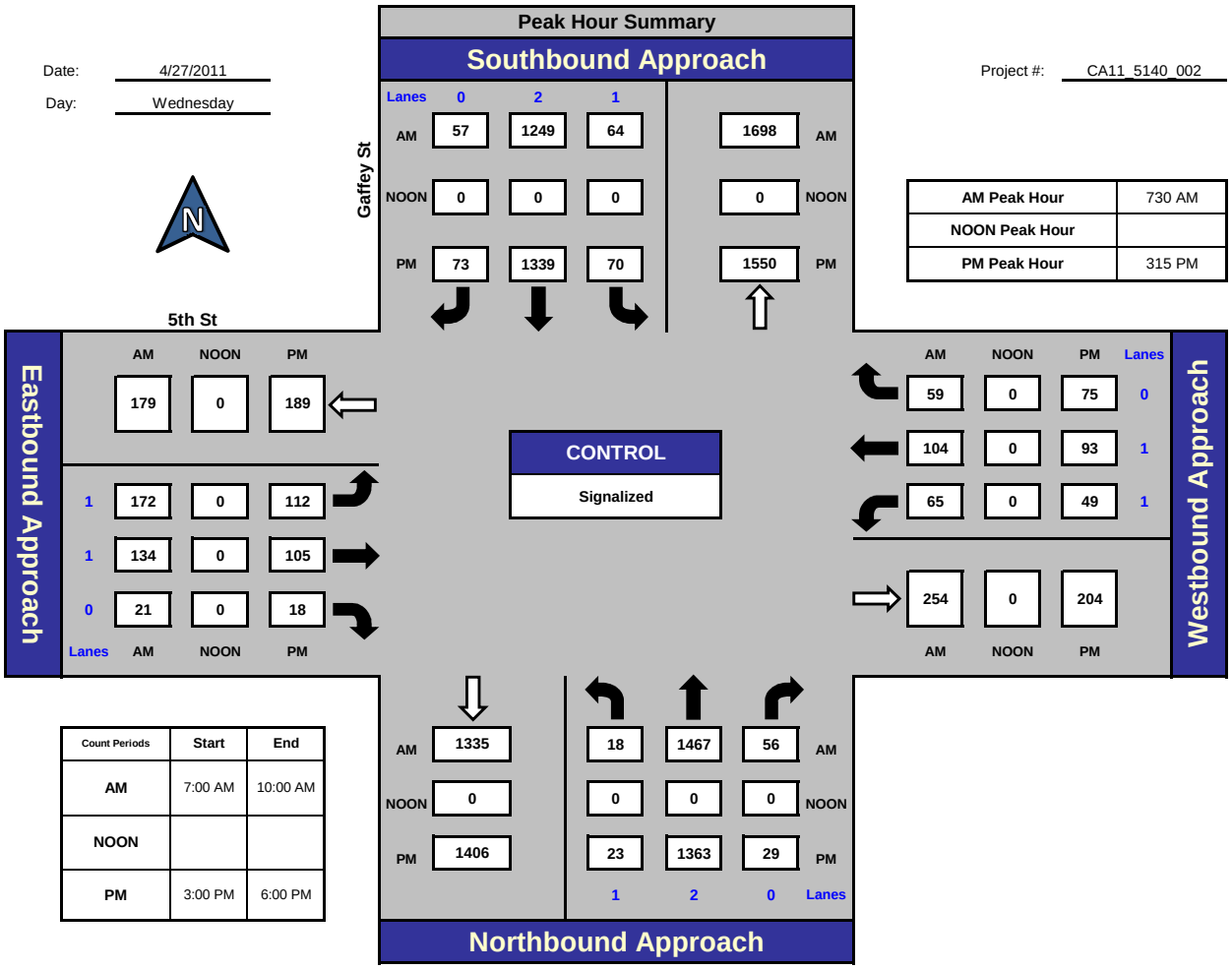
National Data & Surveying Services

## *Gaffey St and 5th St , City of San Pedro*

Date: 4/27/2011

Day: Wednesday

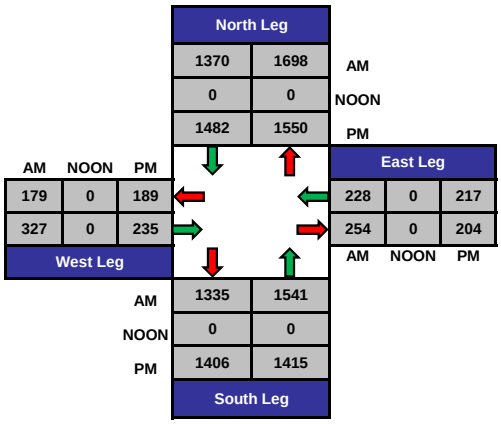
Project #: CA11_5140_002



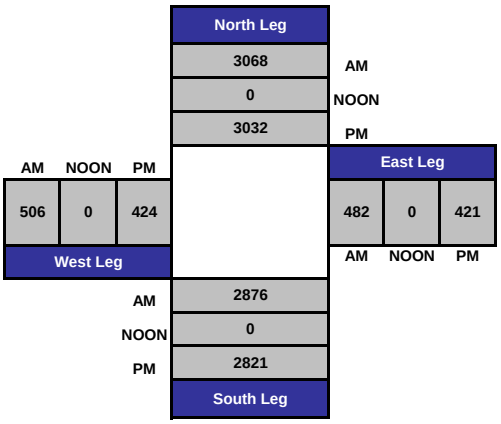

| AM Peak Hour | 730 AM |
|---|---|
| NOON Peak Hour | |
| PM Peak Hour | 315 PM |

| Count Periods | Start | End |
|---|---|---|
| AM | 7:00 AM | 10:00 AM |
| NOON | | |
| PM | 3:00 PM | 6:00 PM |

### Total Ins & Outs




### Total Volume Per Leg



# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_002 **Day:** SATURDAY

**City:** City of San Pedro **Date:** 04/30/2011

**NOON**

| **NS/EW Streets:** | Gaffey St | | | Gaffey St | | | 5th St | | | 5th St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | |
| 11:00 AM | 6 | 298 | 12 | 24 | 286 | 18 | 22 | 17 | 3 | 10 | 24 | 19 | 739 |
| 11:15 AM | 4 | 337 | 9 | 23 | 339 | 8 | 15 | 14 | 4 | 13 | 16 | 8 | 790 |
| 11:30 AM | 3 | 313 | 12 | 24 | 341 | 14 | 24 | 15 | 1 | 19 | 16 | 14 | 796 |
| 11:45 AM | 7 | 344 | 11 | 23 | 354 | 15 | 19 | 19 | 4 | 12 | 21 | 16 | 845 |
| 12:00 PM | 5 | 338 | 5 | 28 | 321 | 13 | 34 | 16 | 8 | 10 | 22 | 18 | 818 |
| 12:15 PM | 5 | 314 | 8 | 36 | 323 | 16 | 27 | 11 | 3 | 5 | 17 | 18 | 783 |
| 12:30 PM | 4 | 374 | 10 | 33 | 349 | 8 | 23 | 16 | 4 | 8 | 18 | 15 | 862 |
| 12:45 PM | 6 | 376 | 10 | 22 | 363 | 37 | 35 | 24 | 9 | 6 | 15 | 24 | 927 |
| 1:00 PM | 4 | 350 | 7 | 23 | 359 | 17 | 17 | 24 | 4 | 7 | 17 | 18 | 847 |
| 1:15 PM | 6 | 393 | 5 | 28 | 385 | 12 | 28 | 24 | 4 | 12 | 26 | 9 | 932 |
| 1:30 PM | 12 | 336 | 12 | 31 | 366 | 13 | 24 | 28 | 3 | 8 | 23 | 18 | 874 |
| 1:45 PM | 12 | 344 | 6 | 20 | 337 | 24 | 18 | 13 | 6 | 5 | 15 | 15 | 815 |
| 2:00 PM | 8 | 338 | 5 | 24 | 381 | 12 | 25 | 21 | 2 | 11 | 27 | 18 | 872 |
| 2:15 PM | 11 | 339 | 15 | 26 | 329 | 12 | 16 | 11 | 2 | 13 | 11 | 15 | 800 |
| 2:30 PM | 14 | 373 | 15 | 21 | 349 | 13 | 24 | 20 | 4 | 10 | 25 | 26 | 894 |
| 2:45 PM | 9 | 337 | 2 | 27 | 359 | 14 | 32 | 20 | 7 | 11 | 15 | 16 | 849 |
| 3:00 PM | 11 | 312 | 10 | 20 | 327 | 10 | 28 | 22 | 10 | 10 | 24 | 10 | 794 |
| 3:15 PM | 3 | 381 | 11 | 15 | 328 | 13 | 24 | 17 | 3 | 5 | 17 | 14 | 831 |
| 3:30 PM | 11 | 339 | 8 | 25 | 358 | 19 | 19 | 16 | 2 | 19 | 24 | 13 | 853 |
| 3:45 PM | 3 | 353 | 15 | 16 | 353 | 19 | 32 | 17 | 2 | 10 | 13 | 11 | 844 |

| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TOTAL VOLUMES :** | 144 | 6889 | 188 | 489 | 6907 | 307 | 486 | 365 | 85 | 204 | 386 | 315 | 16765 |
| **APPROACH %'s :** | 1.99% | 95.40% | 2.60% | 6.35% | 89.67% | 3.99% | 51.92% | 39.00% | 9.08% | 22.54% | 42.65% | 34.81% | |

| **PEAK HR START TIME :** | 1245 PM | | | | | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PEAK HR VOL :** | 28 | 1455 | 34 | 104 | 1473 | 79 | 104 | 100 | 20 | 33 | 81 | 69 | 3580 |
| **PEAK HR FACTOR :** | | 0.939 | | | 0.974 | | | 0.824 | | | 0.934 | | 0.960 |

**CONTROL :** Signalized

# ITM Peak Hour Summary

Prepared by:

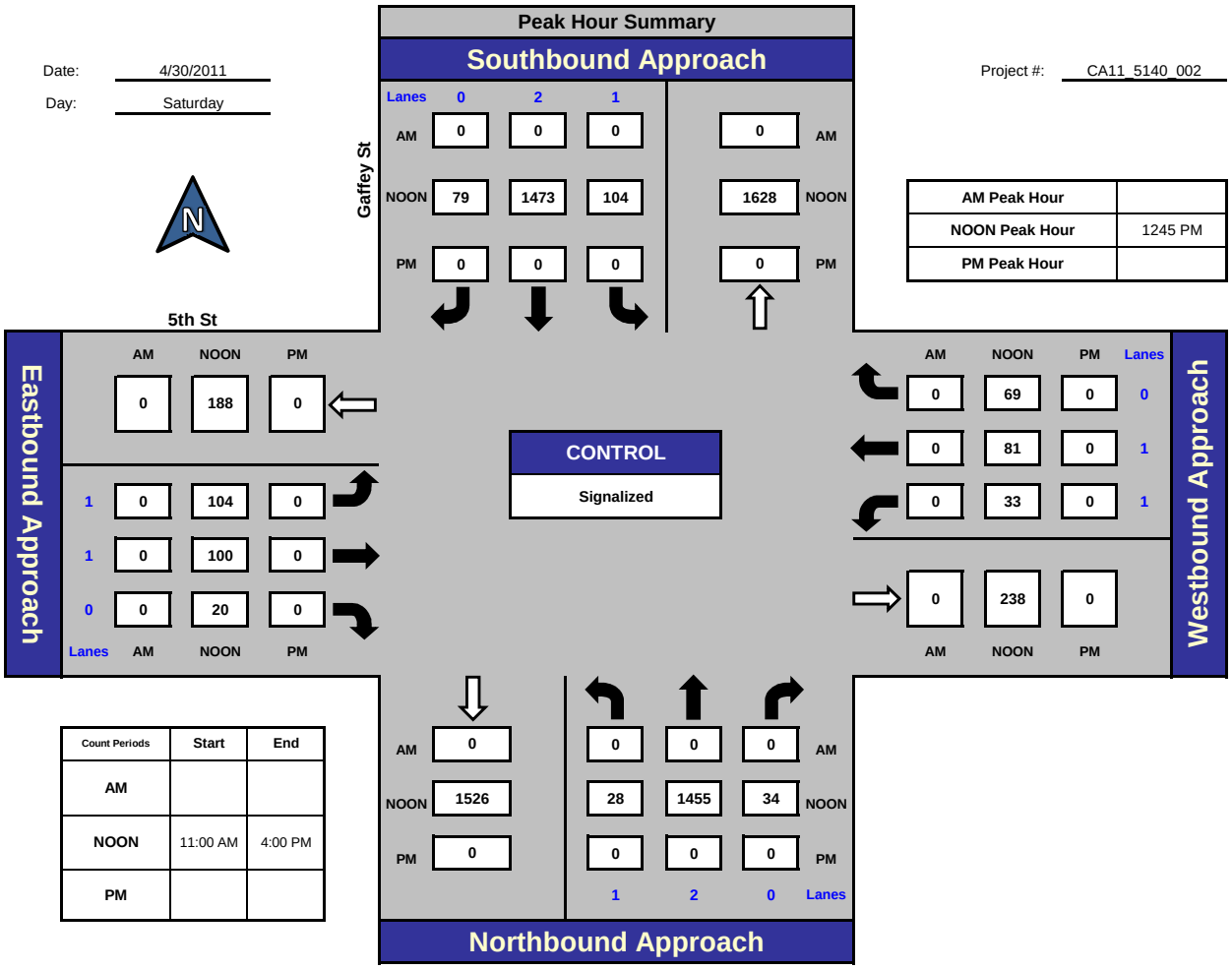
National Data & Surveying Services

## *Gaffey St and 5th St ,*

Date: 4/30/2011

Day: Saturday

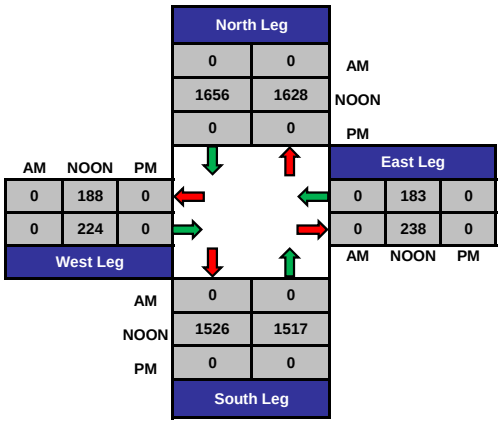
Project #: CA11_5140_002



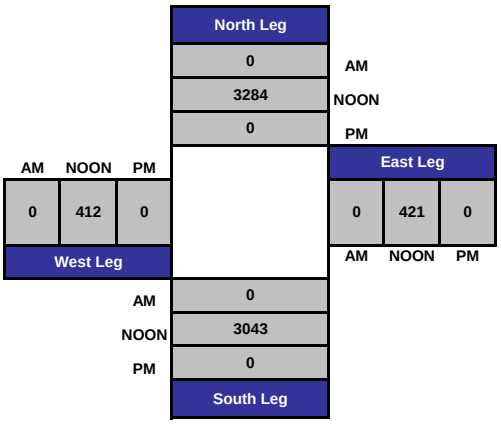

| AM Peak Hour | |
|---|---|
| NOON Peak Hour | 1245 PM |
| PM Peak Hour | |

| Count Periods | Start | End |
|---|---|---|
| AM | | |
| NOON | 11:00 AM | 4:00 PM |
| PM | | |

## Total Ins & Outs




## Total Volume Per Leg



# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_003 **Day:** WEDNESDAY

**City:** City of San Pedro **Date:** 04/27/2011

**AM**

| **NS/EW Streets:** | Gaffey St | | | Gaffey St | | | 7th St | | | 7th St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | |
| 7:00 AM | 3 | 333 | 1 | 7 | 171 | 16 | 35 | 9 | 2 | 5 | 4 | 8 | 594 |
| 7:15 AM | 2 | 334 | 7 | 7 | 209 | 22 | 39 | 17 | 3 | 8 | 16 | 8 | 672 |
| 7:30 AM | 3 | 358 | 7 | 7 | 293 | 27 | 48 | 31 | 6 | 25 | 21 | 18 | 844 |
| 7:45 AM | 7 | 330 | 5 | 13 | 268 | 30 | 53 | 38 | 7 | 27 | 41 | 14 | 833 |
| 8:00 AM | 9 | 333 | 6 | 12 | 253 | 42 | 46 | 41 | 6 | 22 | 25 | 10 | 805 |
| 8:15 AM | 0 | 302 | 7 | 20 | 244 | 23 | 50 | 48 | 7 | 12 | 28 | 10 | 751 |
| 8:30 AM | 5 | 285 | 9 | 18 | 188 | 18 | 39 | 40 | 11 | 10 | 15 | 10 | 648 |
| 8:45 AM | 3 | 275 | 13 | 17 | 237 | 22 | 37 | 26 | 9 | 10 | 26 | 8 | 683 |
| 9:00 AM | 5 | 274 | 11 | 17 | 235 | 27 | 32 | 29 | 9 | 7 | 13 | 10 | 669 |
| 9:15 AM | 4 | 286 | 9 | 19 | 209 | 24 | 37 | 17 | 9 | 6 | 17 | 16 | 653 |
| 9:30 AM | 9 | 263 | 3 | 16 | 216 | 21 | 30 | 22 | 10 | 10 | 22 | 18 | 640 |
| 9:45 AM | 10 | 212 | 7 | 15 | 245 | 25 | 25 | 26 | 8 | 9 | 19 | 14 | 615 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 60 | 3585 | 85 | 168 | 2768 | 297 | 471 | 344 | 87 | 151 | 247 | 144 | 8407 |
| **APPROACH %'s :** | 1.61% | 96.11% | 2.28% | 5.20% | 85.62% | 9.19% | 52.22% | 38.14% | 9.65% | 27.86% | 45.57% | 26.57% | |
| **PEAK HR START TIME :** | 730 AM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 19 | 1323 | 25 | 52 | 1058 | 122 | 197 | 158 | 26 | 86 | 115 | 52 | 3233 |
| **PEAK HR FACTOR :** | | 0.929 | | | 0.942 | | | 0.907 | | | 0.771 | | 0.958 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_003 **Day:** WEDNESDAY

**City:** City of San Pedro **Date:** 04/27/2011

**PM**

| **NS/EW Streets:** | Gaffey St | | | Gaffey St | | | 7th St | | | 7th St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | |
| 3:00 PM | 6 | 266 | 13 | 12 | 263 | 18 | 44 | 41 | 8 | 17 | 38 | 11 | 737 |
| 3:15 PM | 2 | 302 | 9 | 19 | 287 | 20 | 49 | 46 | 5 | 9 | 34 | 11 | 793 |
| 3:30 PM | 9 | 313 | 13 | 16 | 319 | 22 | 36 | 33 | 8 | 12 | 41 | 21 | 843 |
| 3:45 PM | 6 | 227 | 11 | 21 | 287 | 21 | 39 | 36 | 7 | 19 | 40 | 21 | 735 |
| 4:00 PM | 7 | 316 | 7 | 16 | 283 | 32 | 35 | 28 | 7 | 20 | 22 | 19 | 792 |
| 4:15 PM | 3 | 301 | 11 | 25 | 264 | 21 | 46 | 41 | 9 | 12 | 25 | 12 | 770 |
| 4:30 PM | 4 | 303 | 8 | 19 | 292 | 21 | 41 | 31 | 1 | 9 | 19 | 16 | 764 |
| 4:45 PM | 10 | 261 | 10 | 9 | 290 | 19 | 38 | 31 | 10 | 21 | 34 | 13 | 746 |
| 5:00 PM | 8 | 256 | 5 | 20 | 290 | 20 | 44 | 34 | 9 | 13 | 39 | 17 | 755 |
| 5:15 PM | 4 | 246 | 7 | 6 | 267 | 4 | 31 | 41 | 20 | 17 | 55 | 14 | 712 |
| 5:30 PM | 9 | 287 | 8 | 12 | 296 | 18 | 42 | 43 | 14 | 10 | 31 | 18 | 788 |
| 5:45 PM | 7 | 251 | 7 | 18 | 305 | 23 | 36 | 40 | 14 | 28 | 43 | 9 | 781 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 75 | 3329 | 109 | 193 | 3443 | 239 | 481 | 445 | 112 | 187 | 421 | 182 | 9216 |
| **APPROACH %'s :** | 2.13% | 94.76% | 3.10% | 4.98% | 88.85% | 6.17% | 46.34% | 42.87% | 10.79% | 23.67% | 53.29% | 23.04% | |

| **PEAK HR START TIME :** | 315 PM | | | | | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PEAK HR VOL :** | 24 | 1158 | 40 | 72 | 1176 | 95 | 159 | 143 | 27 | 60 | 137 | 72 | 3163 |
| **PEAK HR FACTOR :** | | 0.912 | | | 0.940 | | | 0.823 | | | 0.841 | | 0.938 |

**CONTROL :** Signalized

# ITM Peak Hour Summary

Prepared by:

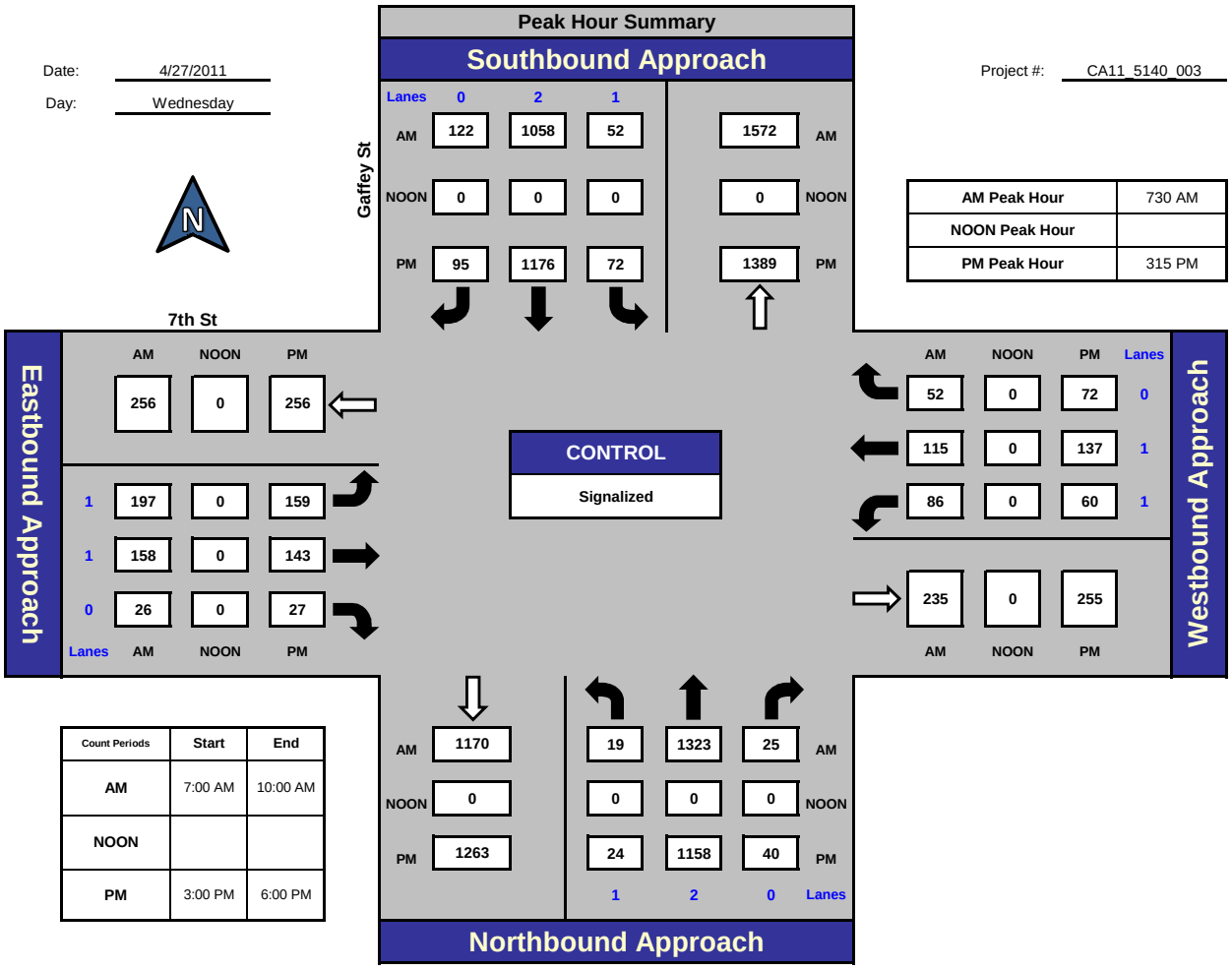
National Data & Surveying Services

## *Gaffey St and 7th St , City of San Pedro*

Date: 4/27/2011

Day: Wednesday

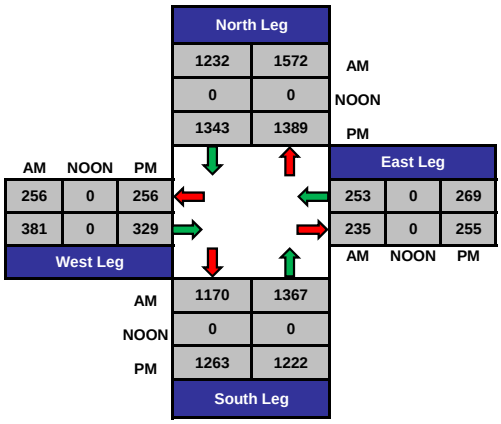
Project #: CA11_5140_003



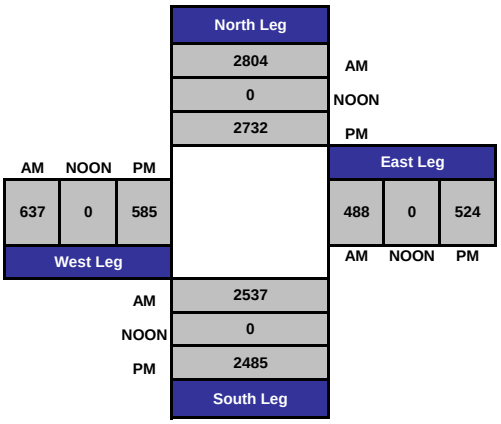

| AM Peak Hour | 730 AM |
|---|---|
| NOON Peak Hour | |
| PM Peak Hour | 315 PM |

| Count Periods | Start | End |
|---|---|---|
| AM | 7:00 AM | 10:00 AM |
| NOON | | |
| PM | 3:00 PM | 6:00 PM |

## Total Ins & Outs




## Total Volume Per Leg



# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_003 **Day:** SATURDAY

**City:** City of San Pedro **Date:** 04/30/2011

**NOON**

| **NS/EW Streets:** | Gaffey St | | | Gaffey St | | | 7th St | | | 7th St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | |
| 11:00 AM | 12 | 314 | 10 | 20 | 285 | 18 | 36 | 35 | 11 | 21 | 31 | 29 | 822 |
| 11:15 AM | 7 | 331 | 8 | 20 | 289 | 13 | 34 | 26 | 10 | 8 | 27 | 18 | 791 |
| 11:30 AM | 12 | 335 | 15 | 19 | 284 | 19 | 28 | 23 | 12 | 17 | 33 | 18 | 815 |
| 11:45 AM | 6 | 324 | 10 | 29 | 308 | 23 | 31 | 33 | 14 | 19 | 32 | 23 | 852 |
| 12:00 PM | 5 | 282 | 4 | 19 | 299 | 9 | 33 | 33 | 15 | 13 | 28 | 22 | 762 |
| 12:15 PM | 6 | 295 | 11 | 29 | 294 | 18 | 34 | 27 | 11 | 8 | 23 | 15 | 771 |
| 12:30 PM | 5 | 347 | 5 | 29 | 301 | 17 | 40 | 28 | 12 | 13 | 23 | 16 | 836 |
| 12:45 PM | 7 | 325 | 8 | 28 | 311 | 16 | 31 | 28 | 15 | 19 | 19 | 18 | 825 |
| 1:00 PM | 7 | 335 | 11 | 27 | 341 | 21 | 36 | 35 | 17 | 14 | 24 | 10 | 878 |
| 1:15 PM | 10 | 336 | 12 | 29 | 337 | 14 | 26 | 22 | 8 | 14 | 18 | 19 | 845 |
| 1:30 PM | 9 | 290 | 11 | 25 | 321 | 14 | 39 | 24 | 13 | 12 | 22 | 19 | 799 |
| 1:45 PM | 9 | 302 | 8 | 23 | 316 | 23 | 20 | 33 | 6 | 17 | 15 | 17 | 789 |
| 2:00 PM | 5 | 291 | 7 | 31 | 327 | 13 | 22 | 24 | 10 | 13 | 36 | 22 | 801 |
| 2:15 PM | 8 | 285 | 12 | 32 | 316 | 13 | 33 | 35 | 7 | 19 | 30 | 29 | 819 |
| 2:30 PM | 7 | 321 | 15 | 25 | 297 | 15 | 34 | 19 | 7 | 16 | 22 | 23 | 801 |
| 2:45 PM | 10 | 284 | 10 | 24 | 321 | 13 | 25 | 23 | 12 | 15 | 22 | 18 | 777 |
| 3:00 PM | 4 | 254 | 9 | 31 | 289 | 19 | 34 | 25 | 11 | 13 | 18 | 26 | 733 |
| 3:15 PM | 4 | 336 | 11 | 24 | 314 | 9 | 32 | 14 | 10 | 13 | 18 | 14 | 799 |
| 3:30 PM | 1 | 302 | 5 | 21 | 339 | 10 | 31 | 12 | 8 | 12 | 19 | 12 | 772 |
| 3:45 PM | 9 | 315 | 8 | 28 | 316 | 20 | 27 | 32 | 7 | 9 | 26 | 9 | 806 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 143 | 6204 | 190 | 513 | 6205 | 317 | 626 | 531 | 216 | 285 | 486 | 377 | 16093 |
| **APPROACH %'s :** | 2.19% | 94.91% | 2.91% | 7.29% | 88.20% | 4.51% | 45.59% | 38.67% | 15.73% | 24.83% | 42.33% | 32.84% | |
| **PEAK HR START TIME :** | 1230 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 29 | 1343 | 36 | 113 | 1290 | 68 | 133 | 113 | 52 | 60 | 84 | 63 | 3384 |
| **PEAK HR FACTOR :** | | 0.983 | | | 0.945 | | | 0.847 | | | 0.924 | | 0.964 |

**CONTROL :** Signalized

# ITM Peak Hour Summary

Prepared by:

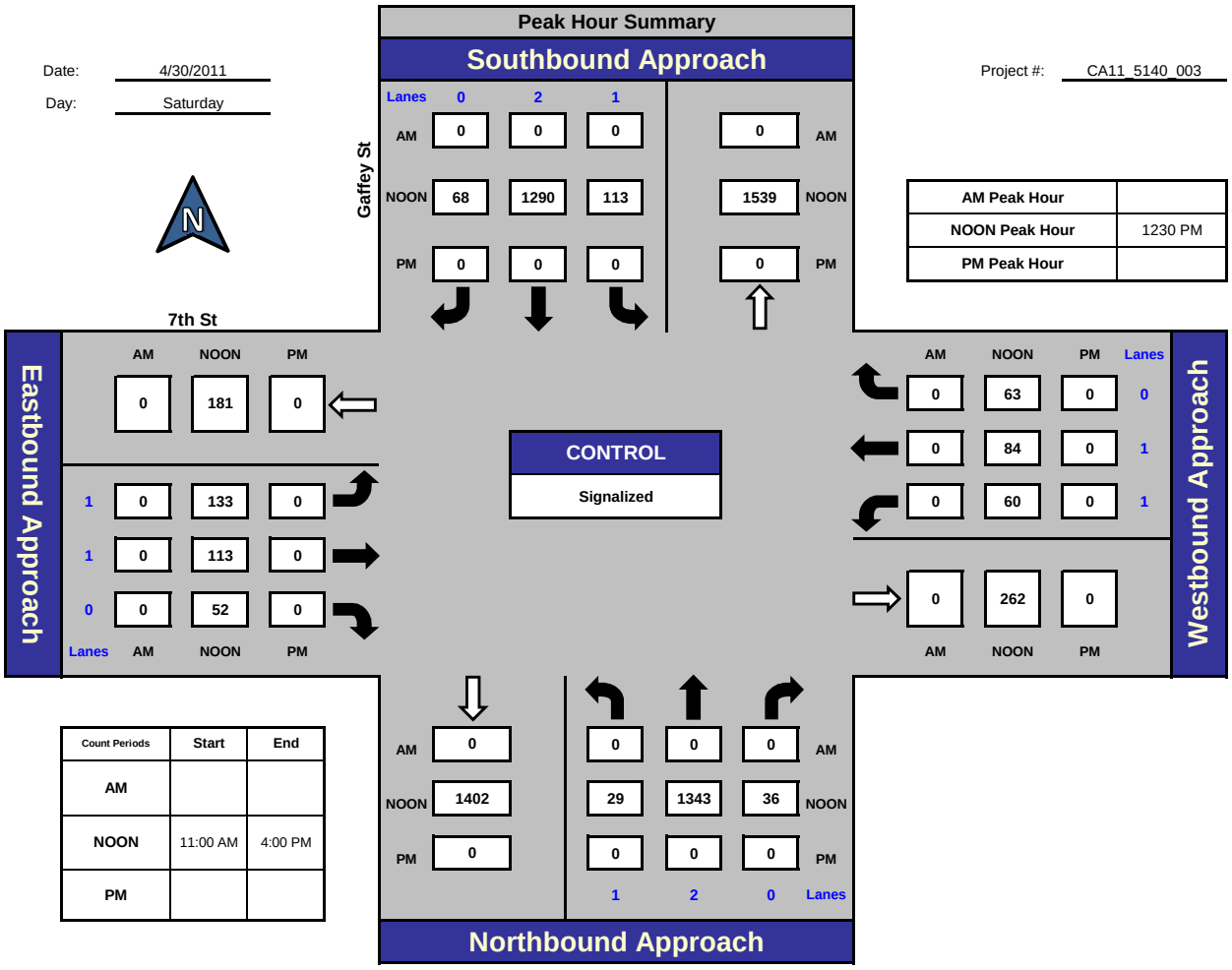
National Data & Surveying Services

## *Gaffey St and 7th St ,*

Date: 4/30/2011

Day: Saturday

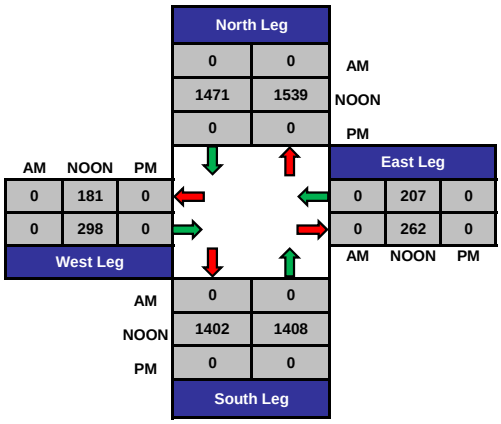
Project #: CA11_5140_003



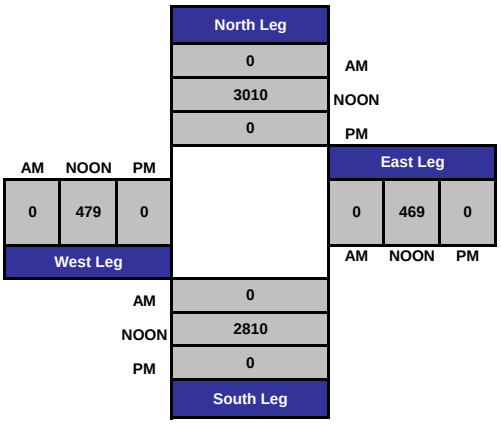

| AM Peak Hour | |
|---|---|
| NOON Peak Hour | 1230 PM |
| PM Peak Hour | |

| Count Periods | Start | End |
|---|---|---|
| AM | | |
| NOON | 11:00 AM | 4:00 PM |
| PM | | |

## Total Ins & Outs




## Total Volume Per Leg



# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_004 **Day:** WEDNESDAY

**City:** City of San Pedro **Date:** 04/27/2011

**AM**

| **NS/EW Streets:** | Gaffey St | | | Gaffey St | | | 9th St | | | 9th St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | |
| 7:00 AM | 11 | 305 | 2 | 10 | 139 | 22 | 77 | 20 | 6 | 6 | 16 | 6 | 620 |
| 7:15 AM | 9 | 273 | 2 | 3 | 186 | 17 | 60 | 41 | 4 | 15 | 26 | 6 | 642 |
| 7:30 AM | 12 | 297 | 3 | 12 | 250 | 35 | 67 | 63 | 4 | 16 | 63 | 8 | 830 |
| 7:45 AM | 21 | 301 | 3 | 10 | 215 | 39 | 54 | 87 | 10 | 19 | 86 | 4 | 849 |
| 8:00 AM | 13 | 290 | 4 | 10 | 220 | 19 | 55 | 80 | 15 | 8 | 57 | 13 | 784 |
| 8:15 AM | 16 | 248 | 7 | 12 | 209 | 19 | 54 | 46 | 14 | 9 | 35 | 8 | 677 |
| 8:30 AM | 10 | 259 | 4 | 13 | 166 | 14 | 36 | 38 | 10 | 5 | 29 | 12 | 596 |
| 8:45 AM | 12 | 230 | 9 | 13 | 200 | 29 | 53 | 51 | 10 | 11 | 31 | 14 | 663 |
| 9:00 AM | 10 | 231 | 6 | 15 | 203 | 22 | 56 | 36 | 5 | 10 | 32 | 11 | 637 |
| 9:15 AM | 14 | 237 | 7 | 18 | 169 | 24 | 45 | 39 | 7 | 11 | 38 | 11 | 620 |
| 9:30 AM | 11 | 221 | 6 | 21 | 172 | 21 | 27 | 41 | 7 | 8 | 32 | 19 | 586 |
| 9:45 AM | 11 | 193 | 6 | 17 | 206 | 29 | 38 | 35 | 9 | 6 | 29 | 12 | 591 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 150 | 3085 | 59 | 154 | 2335 | 290 | 622 | 577 | 101 | 124 | 474 | 124 | 8095 |
| **APPROACH %'s :** | 4.55% | 93.66% | 1.79% | 5.54% | 84.02% | 10.44% | 47.85% | 44.38% | 7.77% | 17.17% | 65.65% | 17.17% | |
| **PEAK HR START TIME :** | 730 AM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 62 | 1136 | 17 | 44 | 894 | 112 | 230 | 276 | 43 | 52 | 241 | 33 | 3140 |
| **PEAK HR FACTOR :** | | 0.935 | | | 0.884 | | | 0.909 | | | 0.748 | | 0.925 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_004 **Day:** WEDNESDAY

**City:** City of San Pedro **Date:** 04/27/2011

**PM**

| **NS/EW Streets:** | Gaffey St | | | Gaffey St | | | 9th St | | | 9th St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | |
| 3:00 PM | 18 | 268 | 17 | 16 | 259 | 26 | 40 | 57 | 12 | 12 | 57 | 18 | 800 |
| 3:15 PM | 13 | 241 | 8 | 18 | 253 | 26 | 54 | 64 | 12 | 14 | 53 | 21 | 777 |
| 3:30 PM | 12 | 258 | 8 | 18 | 269 | 20 | 40 | 52 | 19 | 25 | 31 | 14 | 766 |
| 3:45 PM | 15 | 222 | 10 | 20 | 254 | 29 | 34 | 50 | 8 | 12 | 59 | 20 | 733 |
| 4:00 PM | 12 | 245 | 8 | 17 | 259 | 25 | 39 | 53 | 20 | 11 | 47 | 32 | 768 |
| 4:15 PM | 14 | 267 | 7 | 20 | 234 | 21 | 47 | 52 | 19 | 11 | 45 | 18 | 755 |
| 4:30 PM | 10 | 248 | 8 | 16 | 264 | 34 | 46 | 46 | 10 | 13 | 48 | 19 | 762 |
| 4:45 PM | 11 | 207 | 13 | 11 | 271 | 36 | 38 | 53 | 21 | 16 | 65 | 20 | 762 |
| 5:00 PM | 9 | 247 | 7 | 14 | 239 | 37 | 36 | 46 | 21 | 22 | 59 | 17 | 754 |
| 5:15 PM | 21 | 223 | 12 | 10 | 172 | 9 | 37 | 74 | 21 | 22 | 52 | 17 | 670 |
| 5:30 PM | 12 | 237 | 8 | 22 | 279 | 33 | 52 | 70 | 12 | 13 | 54 | 19 | 811 |
| 5:45 PM | 11 | 227 | 9 | 10 | 291 | 29 | 35 | 59 | 20 | 12 | 46 | 10 | 759 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 158 | 2890 | 115 | 192 | 3044 | 325 | 498 | 676 | 195 | 183 | 616 | 225 | 9117 |
| **APPROACH %'s :** | 5.00% | 91.37% | 3.64% | 5.39% | 85.48% | 9.13% | 36.38% | 49.38% | 14.24% | 17.87% | 60.16% | 21.97% | |

| **PEAK HR START TIME :** | 300 PM | | | | | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PEAK HR VOL :** | 58 | 989 | 43 | 72 | 1035 | 101 | 168 | 223 | 51 | 63 | 200 | 73 | 3076 |
| **PEAK HR FACTOR :** | | 0.899 | | | 0.984 | | | 0.850 | | | 0.923 | | 0.961 |

**CONTROL :** Signalized

# ITM Peak Hour Summary

Prepared by:

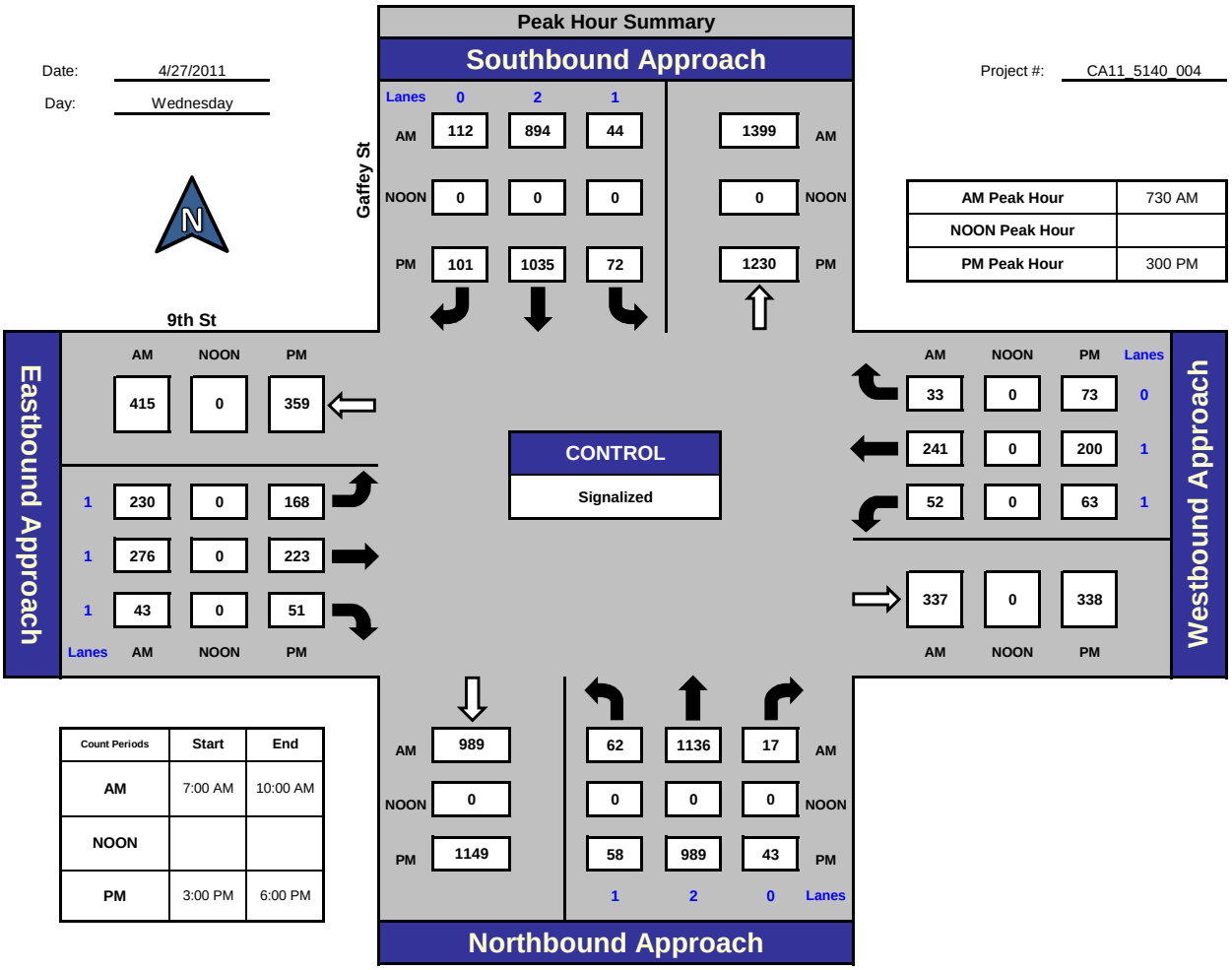
National Data & Surveying Services

## *Gaffey St and 9th St , City of San Pedro*

Date: 4/27/2011

Day: Wednesday

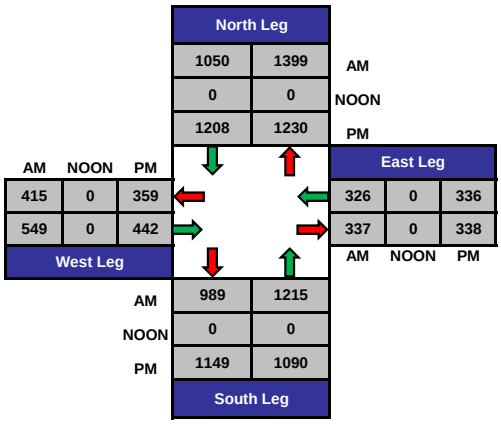
Project #: CA11_5140_004



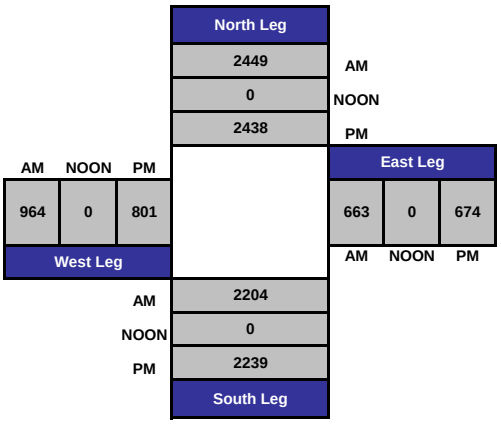

| AM Peak Hour | 730 AM |
|---|---|
| NOON Peak Hour | |
| PM Peak Hour | 300 PM |

| Count Periods | Start | End |
|---|---|---|
| AM | 7:00 AM | 10:00 AM |
| NOON | | |
| PM | 3:00 PM | 6:00 PM |

## Total Ins & Outs




## Total Volume Per Leg



# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_004 **Day:** SATURDAY

**City:** City of San Pedro **Date:** 04/30/2011

**NOON**

| **NS/EW Streets:** | Gaffey St | | | Gaffey St | | | 9th St | | | 9th St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | |
| 11:00 AM | 10 | 255 | 8 | 23 | 262 | 28 | 50 | 45 | 14 | 6 | 54 | 31 | 786 |
| 11:15 AM | 8 | 276 | 10 | 14 | 261 | 27 | 46 | 37 | 21 | 5 | 46 | 25 | 776 |
| 11:30 AM | 14 | 289 | 5 | 19 | 240 | 26 | 50 | 41 | 19 | 9 | 40 | 21 | 773 |
| 11:45 AM | 17 | 266 | 12 | 17 | 262 | 29 | 42 | 37 | 18 | 9 | 48 | 22 | 779 |
| 12:00 PM | 18 | 258 | 14 | 19 | 273 | 24 | 30 | 43 | 18 | 6 | 42 | 23 | 768 |
| 12:15 PM | 15 | 267 | 9 | 16 | 265 | 20 | 43 | 41 | 19 | 5 | 40 | 21 | 761 |
| 12:30 PM | 11 | 273 | 11 | 12 | 271 | 26 | 41 | 43 | 16 | 10 | 43 | 26 | 783 |
| 12:45 PM | 16 | 281 | 7 | 15 | 269 | 21 | 48 | 45 | 11 | 13 | 41 | 22 | 789 |
| 1:00 PM | 13 | 298 | 3 | 19 | 289 | 23 | 42 | 47 | 14 | 17 | 49 | 20 | 834 |
| 1:15 PM | 12 | 290 | 12 | 18 | 297 | 18 | 41 | 43 | 12 | 11 | 44 | 24 | 822 |
| 1:30 PM | 13 | 264 | 8 | 13 | 277 | 25 | 36 | 44 | 11 | 8 | 29 | 20 | 748 |
| 1:45 PM | 9 | 232 | 10 | 18 | 301 | 24 | 40 | 44 | 9 | 17 | 46 | 19 | 769 |
| 2:00 PM | 15 | 267 | 10 | 12 | 306 | 26 | 32 | 39 | 19 | 14 | 42 | 16 | 798 |
| 2:15 PM | 15 | 274 | 11 | 15 | 290 | 20 | 34 | 38 | 10 | 18 | 38 | 18 | 781 |
| 2:30 PM | 10 | 286 | 9 | 17 | 262 | 30 | 49 | 44 | 19 | 11 | 37 | 20 | 794 |
| 2:45 PM | 7 | 245 | 7 | 16 | 292 | 32 | 37 | 36 | 15 | 9 | 44 | 18 | 758 |
| 3:00 PM | 12 | 227 | 5 | 21 | 250 | 26 | 41 | 38 | 16 | 10 | 30 | 17 | 693 |
| 3:15 PM | 12 | 272 | 11 | 14 | 285 | 26 | 45 | 34 | 14 | 16 | 33 | 17 | 779 |
| 3:30 PM | 8 | 255 | 2 | 16 | 279 | 35 | 36 | 40 | 13 | 14 | 30 | 16 | 744 |
| 3:45 PM | 7 | 273 | 5 | 15 | 282 | 32 | 33 | 45 | 7 | 16 | 37 | 22 | 774 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 242 | 5348 | 169 | 329 | 5513 | 518 | 816 | 824 | 295 | 224 | 813 | 418 | 15509 |
| **APPROACH %'s :** | 4.20% | 92.86% | 2.93% | 5.17% | 86.68% | 8.14% | 42.17% | 42.58% | 15.25% | 15.40% | 55.88% | 28.73% | |
| **PEAK HR START TIME :** | 1230 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 52 | 1142 | 33 | 64 | 1126 | 88 | 172 | 178 | 53 | 51 | 177 | 92 | 3228 |
| **PEAK HR FACTOR :** | | 0.977 | | | 0.959 | | | 0.969 | | | 0.930 | | 0.968 |

**CONTROL :** Signalized

# ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

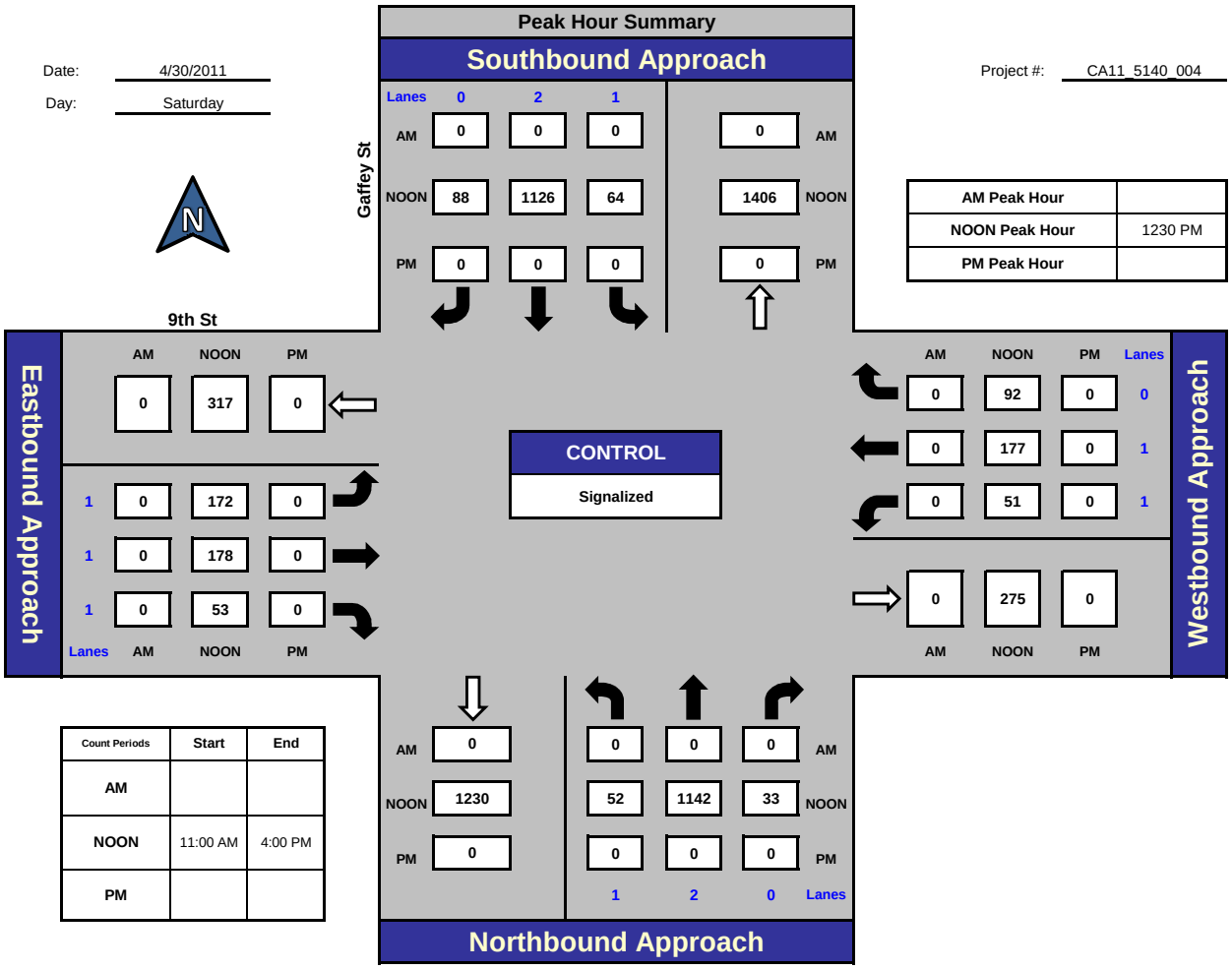
## *Gaffey St and 9th St ,*

Date: 4/30/2011

Day: Saturday

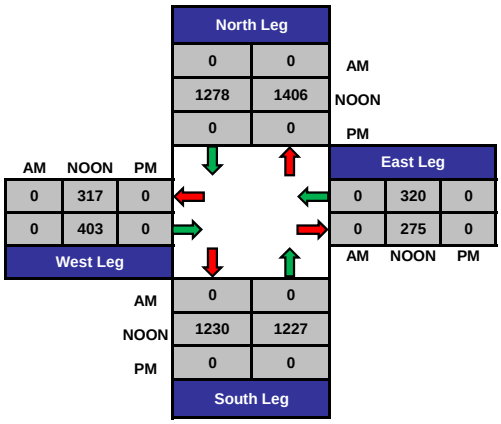
Project #: CA11_5140_004

| AM Peak Hour | |
|---|---|
| NOON Peak Hour | 1230 PM |
| PM Peak Hour | |

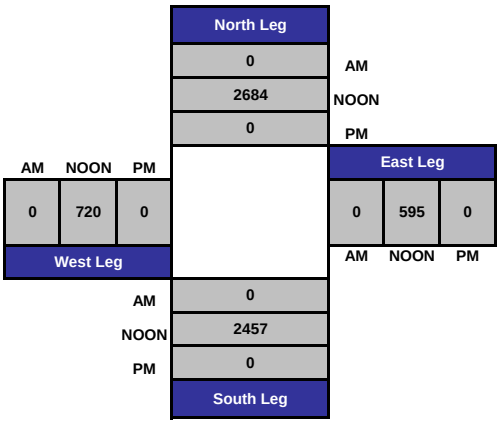



| Count Periods | Start | End |
|---|---|---|
| AM | | |
| NOON | 11:00 AM | 4:00 PM |
| PM | | |

### Total Ins & Outs




### Total Volume Per Leg



# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_005 **Day:** WEDNESDAY

**City:** City of San Pedro **Date:** 04/27/2011

**AM**

| **NS/EW Streets:** | Gaffey St | | | Gaffey St | | | 22nd St | | | 22nd St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | |
| 7:00 AM | 0 | 132 | 16 | 14 | 60 | 2 | 0 | 5 | 0 | 13 | 3 | 6 | 251 |
| 7:15 AM | 0 | 143 | 26 | 11 | 61 | 1 | 2 | 6 | 0 | 9 | 1 | 14 | 274 |
| 7:30 AM | 1 | 160 | 28 | 25 | 87 | 5 | 2 | 13 | 0 | 16 | 5 | 21 | 363 |
| 7:45 AM | 2 | 141 | 44 | 29 | 111 | 5 | 7 | 10 | 0 | 18 | 16 | 17 | 400 |
| 8:00 AM | 2 | 144 | 28 | 15 | 106 | 9 | 3 | 15 | 1 | 22 | 20 | 16 | 381 |
| 8:15 AM | 0 | 121 | 19 | 19 | 87 | 2 | 4 | 14 | 0 | 22 | 7 | 13 | 308 |
| 8:30 AM | 0 | 122 | 17 | 13 | 74 | 4 | 2 | 5 | 0 | 15 | 4 | 12 | 268 |
| 8:45 AM | 0 | 103 | 23 | 13 | 91 | 1 | 2 | 6 | 2 | 10 | 2 | 16 | 269 |
| 9:00 AM | 0 | 95 | 12 | 28 | 64 | 2 | 4 | 4 | 2 | 15 | 6 | 22 | 254 |
| 9:15 AM | 1 | 109 | 17 | 14 | 86 | 3 | 0 | 1 | 1 | 9 | 0 | 15 | 256 |
| 9:30 AM | 1 | 104 | 12 | 25 | 65 | 2 | 5 | 4 | 1 | 23 | 2 | 20 | 264 |
| 9:45 AM | 0 | 103 | 9 | 10 | 90 | 2 | 4 | 4 | 2 | 14 | 7 | 14 | 259 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 7 | 1477 | 251 | 216 | 982 | 38 | 35 | 87 | 9 | 186 | 73 | 186 | 3547 |
| **APPROACH %'s :** | 0.40% | 85.13% | 14.47% | 17.48% | 79.45% | 3.07% | 26.72% | 66.41% | 6.87% | 41.80% | 16.40% | 41.80% | |
| **PEAK HR START TIME :** | 730 AM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 5 | 566 | 119 | 88 | 391 | 21 | 16 | 52 | 1 | 78 | 48 | 67 | 1452 |
| **PEAK HR FACTOR :** | | 0.913 | | | 0.862 | | | 0.908 | | | 0.832 | | 0.908 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_005 **Day:** WEDNESDAY

**City:** City of San Pedro **Date:** 04/27/2011

**PM**

| **NS/EW Streets:** | Gaffey St | | | Gaffey St | | | 22nd St | | | 22nd St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | |
| 3:00 PM | 1 | 133 | 13 | 21 | 110 | 6 | 3 | 4 | 1 | 26 | 11 | 13 | 342 |
| 3:15 PM | 3 | 147 | 14 | 15 | 109 | 7 | 2 | 6 | 0 | 23 | 7 | 13 | 346 |
| 3:30 PM | 0 | 120 | 18 | 20 | 103 | 4 | 1 | 6 | 1 | 17 | 6 | 14 | 310 |
| 3:45 PM | 1 | 138 | 18 | 19 | 110 | 3 | 1 | 4 | 1 | 23 | 7 | 17 | 342 |
| 4:00 PM | 2 | 140 | 20 | 17 | 133 | 4 | 6 | 7 | 1 | 25 | 4 | 12 | 371 |
| 4:15 PM | 0 | 126 | 15 | 20 | 123 | 5 | 5 | 4 | 0 | 28 | 4 | 12 | 342 |
| 4:30 PM | 0 | 148 | 21 | 21 | 127 | 4 | 5 | 2 | 1 | 28 | 6 | 13 | 376 |
| 4:45 PM | 0 | 118 | 21 | 21 | 125 | 5 | 1 | 6 | 0 | 31 | 6 | 16 | 350 |
| 5:00 PM | 1 | 100 | 15 | 23 | 122 | 3 | 1 | 8 | 0 | 47 | 8 | 17 | 345 |
| 5:15 PM | 0 | 126 | 14 | 25 | 138 | 3 | 4 | 4 | 0 | 38 | 5 | 17 | 374 |
| 5:30 PM | 2 | 114 | 16 | 32 | 135 | 3 | 2 | 9 | 0 | 30 | 8 | 23 | 374 |
| 5:45 PM | 1 | 105 | 12 | 21 | 151 | 0 | 3 | 8 | 1 | 40 | 12 | 12 | 366 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 11 | 1515 | 197 | 255 | 1486 | 47 | 34 | 68 | 6 | 356 | 84 | 179 | 4238 |
| **APPROACH %'s :** | 0.64% | 87.93% | 11.43% | 14.26% | 83.11% | 2.63% | 31.48% | 62.96% | 5.56% | 57.51% | 13.57% | 28.92% | |
| **PEAK HR START TIME :** | 500 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 4 | 445 | 57 | 101 | 546 | 9 | 10 | 29 | 1 | 155 | 33 | 69 | 1459 |
| **PEAK HR FACTOR :** | | 0.904 | | | 0.953 | | | 0.833 | | | 0.892 | | 0.975 |

**CONTROL :** Signalized

# ITM Peak Hour Summary

Prepared by:

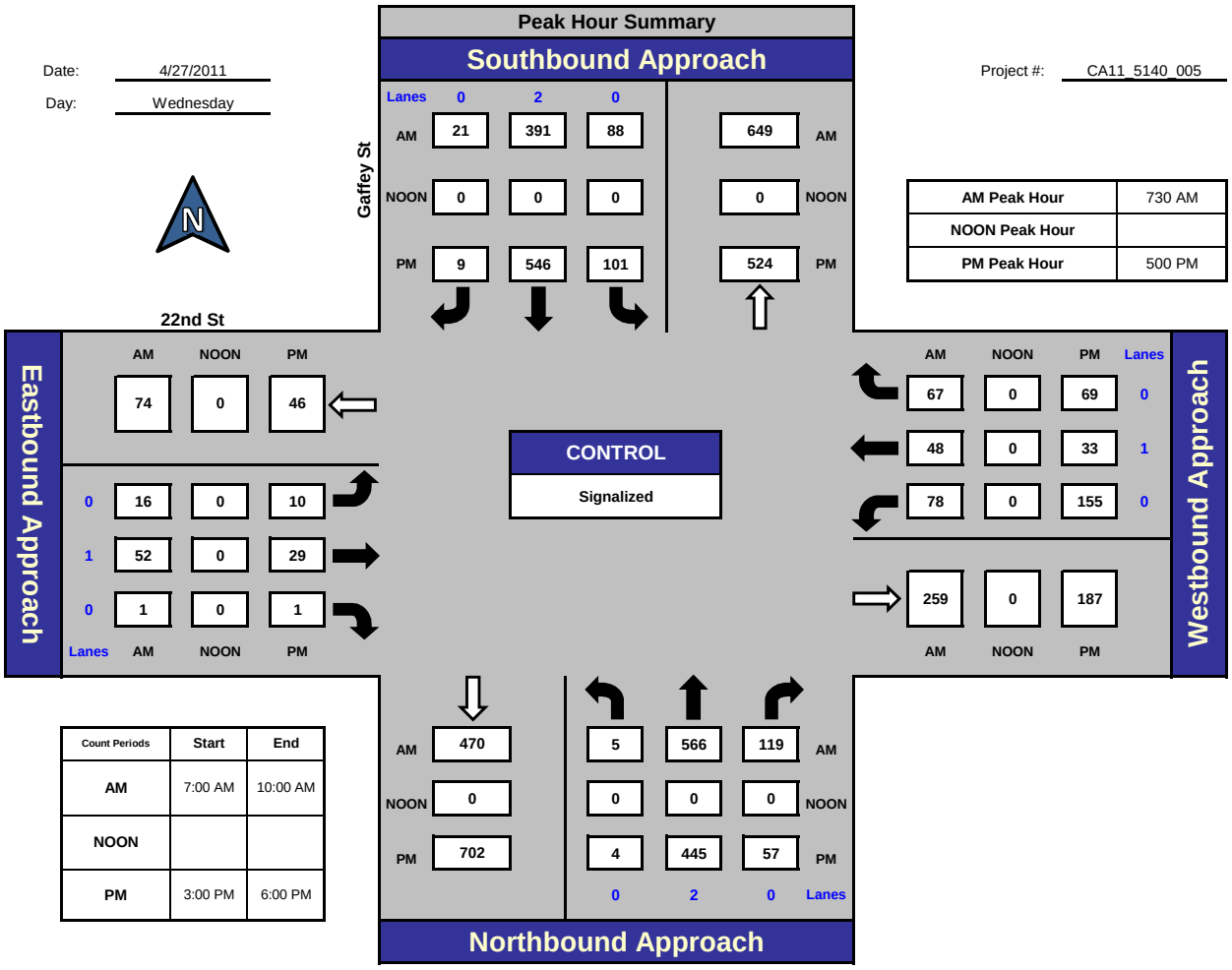
National Data & Surveying Services

## *Gaffey St and 22nd St , City of San Pedro*

Date: 4/27/2011

Day: Wednesday

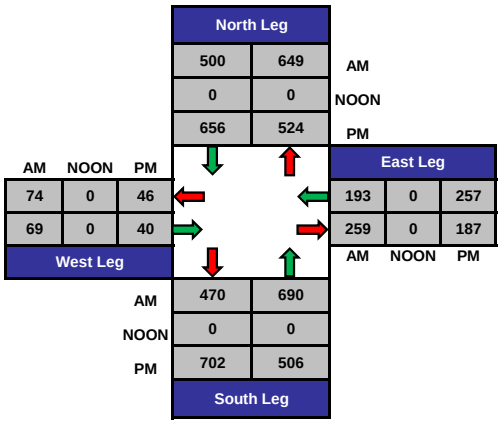
Project #: CA11_5140_005



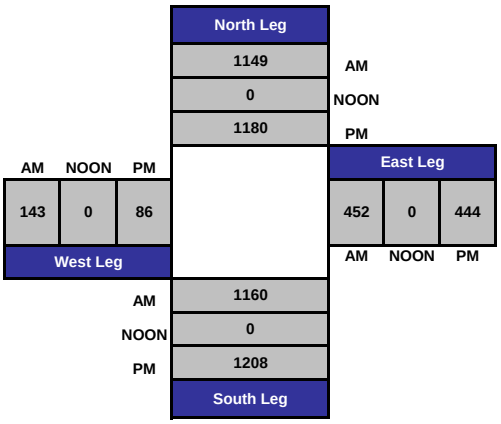

| AM Peak Hour | 730 AM |
|---|---|
| NOON Peak Hour | |
| PM Peak Hour | 500 PM |

| Count Periods | Start | End |
|---|---|---|
| AM | 7:00 AM | 10:00 AM |
| NOON | | |
| PM | 3:00 PM | 6:00 PM |

### Total Ins & Outs




### Total Volume Per Leg



# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_005 **Day:** SATURDAY

**City:** City of San Pedro **Date:** 04/30/2011

**NOON**

| **NS/EW Streets:** | Gaffey St | | | Gaffey St | | | 22nd St | | | 22nd St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | |
| 11:00 AM | 0 | 121 | 17 | 33 | 133 | 2 | 3 | 1 | 0 | 9 | 4 | 15 | 338 |
| 11:15 AM | 0 | 115 | 16 | 40 | 148 | 6 | 8 | 3 | 0 | 19 | 0 | 21 | 376 |
| 11:30 AM | 0 | 135 | 15 | 32 | 130 | 4 | 3 | 3 | 1 | 27 | 5 | 17 | 372 |
| 11:45 AM | 0 | 136 | 14 | 16 | 142 | 3 | 6 | 3 | 0 | 13 | 3 | 20 | 356 |
| 12:00 PM | 0 | 135 | 15 | 34 | 164 | 1 | 2 | 8 | 0 | 25 | 2 | 20 | 406 |
| 12:15 PM | 1 | 138 | 11 | 32 | 138 | 10 | 9 | 7 | 0 | 14 | 4 | 13 | 377 |
| 12:30 PM | 0 | 163 | 16 | 28 | 121 | 3 | 4 | 8 | 0 | 21 | 6 | 28 | 398 |
| 12:45 PM | 1 | 134 | 18 | 26 | 159 | 3 | 10 | 5 | 2 | 12 | 4 | 12 | 386 |
| 1:00 PM | 0 | 143 | 22 | 28 | 134 | 2 | 3 | 2 | 1 | 33 | 6 | 18 | 392 |
| 1:15 PM | 1 | 160 | 19 | 25 | 142 | 3 | 4 | 4 | 1 | 22 | 6 | 14 | 401 |
| 1:30 PM | 0 | 150 | 26 | 35 | 156 | 5 | 3 | 8 | 2 | 25 | 7 | 16 | 433 |
| 1:45 PM | 4 | 101 | 29 | 27 | 149 | 2 | 3 | 3 | 1 | 24 | 7 | 14 | 364 |
| 2:00 PM | 1 | 122 | 26 | 36 | 157 | 2 | 3 | 3 | 0 | 22 | 6 | 17 | 395 |
| 2:15 PM | 1 | 136 | 25 | 30 | 153 | 4 | 5 | 9 | 0 | 31 | 7 | 24 | 425 |
| 2:30 PM | 0 | 145 | 13 | 18 | 160 | 6 | 0 | 6 | 1 | 33 | 1 | 19 | 402 |
| 2:45 PM | 1 | 133 | 6 | 34 | 153 | 3 | 4 | 8 | 2 | 19 | 7 | 14 | 384 |
| 3:00 PM | 1 | 116 | 15 | 23 | 148 | 5 | 1 | 8 | 0 | 22 | 6 | 16 | 361 |
| 3:15 PM | 0 | 135 | 15 | 23 | 144 | 5 | 3 | 3 | 0 | 24 | 0 | 24 | 376 |
| 3:30 PM | 0 | 162 | 12 | 19 | 139 | 6 | 6 | 2 | 0 | 25 | 10 | 17 | 398 |
| 3:45 PM | 1 | 146 | 15 | 29 | 143 | 3 | 4 | 5 | 0 | 23 | 5 | 12 | 386 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 12 | 2726 | 345 | 568 | 2913 | 78 | 84 | 99 | 11 | 443 | 96 | 351 | 7726 |
| **APPROACH %'s :** | 0.39% | 88.42% | 11.19% | 15.96% | 81.85% | 2.19% | 43.30% | 51.03% | 5.67% | 49.78% | 10.79% | 39.44% | |
| **PEAK HR START TIME :** | 130 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 6 | 509 | 106 | 128 | 615 | 13 | 14 | 23 | 3 | 102 | 27 | 71 | 1617 |
| **PEAK HR FACTOR :** | | 0.882 | | | 0.964 | | | 0.714 | | | 0.806 | | 0.934 |

**CONTROL :** Signalized

# ITM Peak Hour Summary

Prepared by:

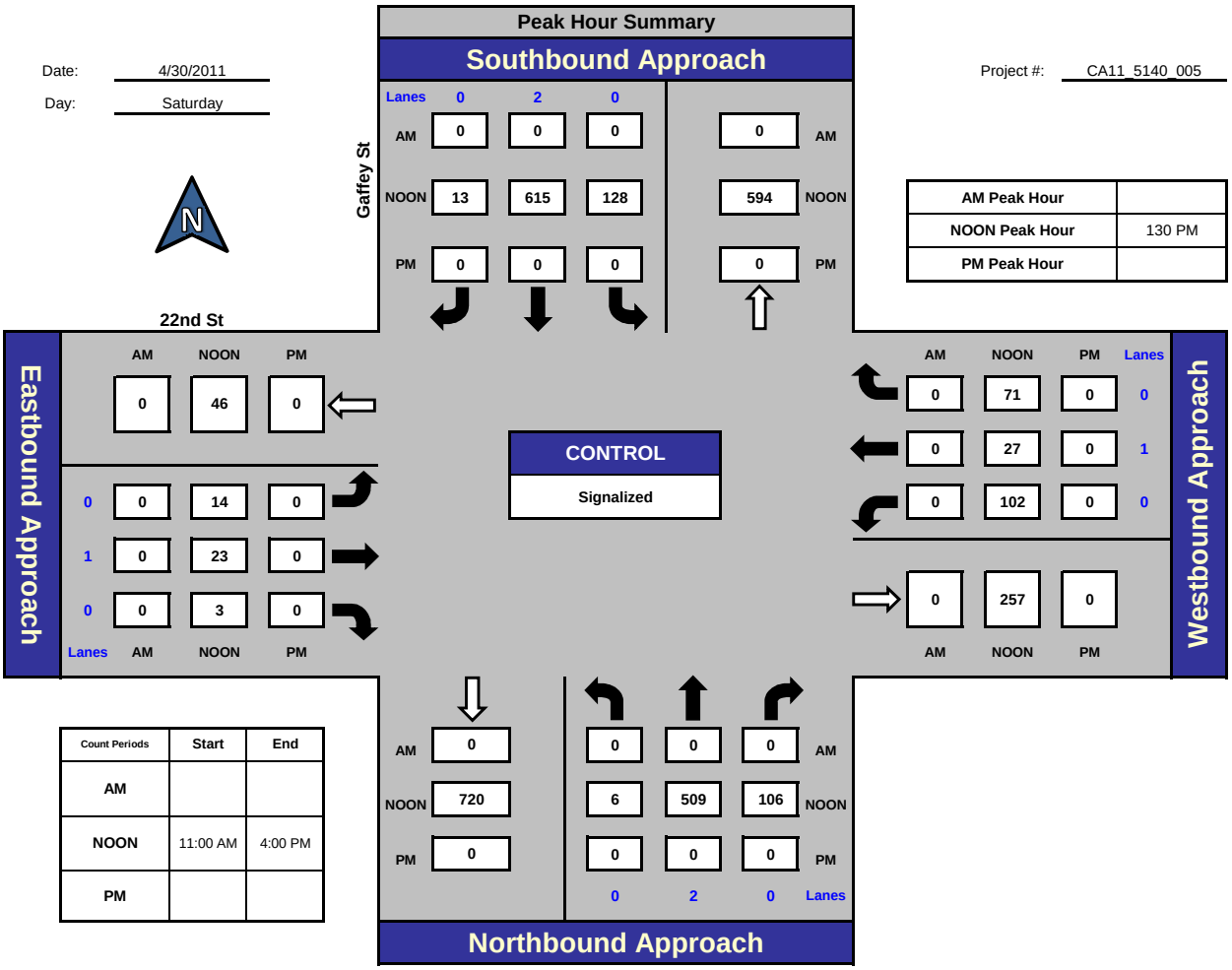
National Data & Surveying Services

## *Gaffey St and 22nd St ,*

Date: 4/30/2011

Day: Saturday

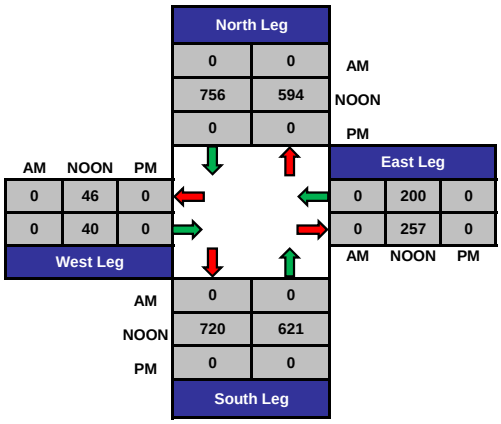
Project #: CA11_5140_005



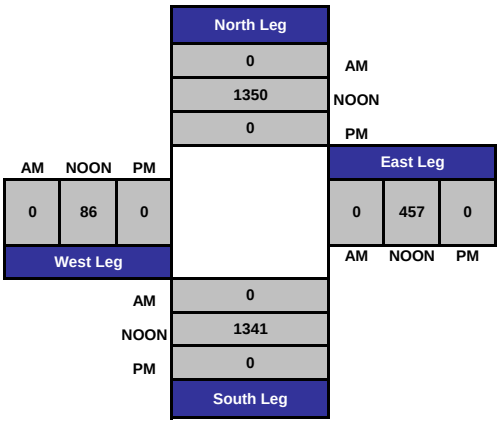

| AM Peak Hour | |
|---|---|
| NOON Peak Hour | 130 PM |
| PM Peak Hour | |

| Count Periods | Start | End |
|---|---|---|
| AM | | |
| NOON | 11:00 AM | 4:00 PM |
| PM | | |

## Total Ins & Outs




## Total Volume Per Leg



# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_006 **Day:** WEDNESDAY

**City:** City of San Pedro **Date:** 04/27/2011

**AM**

| **NS/EW Streets:** | Gaffey St (and Hamilton Dr if possible) | | | Gaffey St (and Hamilton Dr if possible) | | | 25th St | | | 25th St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | |
| 7:00 AM | 13 | 47 | | 2 | 34 | 33 | 92 | 1 | 5 | 0 | 0 | 5 | 232 |
| 7:15 AM | 18 | 58 | | 6 | 29 | 33 | 93 | 0 | 4 | 0 | 1 | 6 | 248 |
| 7:30 AM | 29 | 79 | | 10 | 37 | 64 | 85 | 1 | 8 | 0 | 1 | 12 | 326 |
| 7:45 AM | 32 | 61 | | 10 | 43 | 64 | 110 | 1 | 25 | 0 | 2 | 17 | 365 |
| 8:00 AM | 42 | 61 | | 9 | 56 | 55 | 90 | 2 | 23 | 0 | 3 | 10 | 351 |
| 8:15 AM | 13 | 53 | | 6 | 38 | 67 | 78 | 2 | 20 | 0 | 1 | 5 | 283 |
| 8:30 AM | 12 | 50 | | 4 | 34 | 47 | 71 | 0 | 8 | 0 | 2 | 10 | 238 |
| 8:45 AM | 22 | 43 | | 3 | 45 | 55 | 71 | 1 | 12 | 0 | 4 | 10 | 266 |
| 9:00 AM | 8 | 45 | | 4 | 32 | 42 | 58 | 1 | 16 | 0 | 3 | 6 | 215 |
| 9:15 AM | 8 | 44 | | 4 | 35 | 46 | 68 | 1 | 7 | 1 | 1 | 6 | 221 |
| 9:30 AM | 14 | 50 | | 3 | 31 | 47 | 53 | 2 | 7 | 0 | 1 | 11 | 219 |
| 9:45 AM | 11 | 50 | | 2 | 46 | 53 | 50 | 1 | 11 | 0 | 2 | 11 | 237 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 222 | 641 | 0 | 63 | 460 | 606 | 919 | 13 | 146 | 1 | 21 | 109 | 3201 |
| **APPROACH %'s :** | 25.72% | 74.28% | 0.00% | 5.58% | 40.74% | 53.68% | 85.25% | 1.21% | 13.54% | 0.76% | 16.03% | 83.21% | |

| **PEAK HR START TIME :** | 730 AM | | | | | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PEAK HR VOL :** | 116 | 254 | 0 | 35 | 174 | 250 | 363 | 6 | 76 | 0 | 7 | 44 | 1325 |
| **PEAK HR FACTOR :** | | 0.856 | | | 0.956 | | | 0.818 | | | 0.671 | | 0.908 |

**CONTROL :** Signalized; 1-Way Stop (WB)

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_006 **Day:** WEDNESDAY

**City:** City of San Pedro **Date:** 04/27/2011

**PM**

| **NS/EW Streets:** | Gaffey St (and Hamilton Dr if possible) | | | Gaffey St (and Hamilton Dr if possible) | | | 25th St | | | 25th St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | |
| 3:00 PM | 11 | 82 | 1 | 8 | 51 | 71 | 67 | 1 | 21 | 1 | 0 | 4 | 318 |
| 3:15 PM | 15 | 98 | 0 | 9 | 48 | 66 | 59 | 0 | 20 | 0 | 1 | 6 | 322 |
| 3:30 PM | 20 | 66 | 1 | 4 | 36 | 68 | 56 | 2 | 20 | 0 | 0 | 4 | 277 |
| 3:45 PM | 16 | 53 | 0 | 6 | 48 | 58 | 94 | 3 | 16 | 0 | 1 | 5 | 300 |
| 4:00 PM | 11 | 78 | 0 | 8 | 49 | 87 | 79 | 2 | 15 | 0 | 0 | 6 | 335 |
| 4:15 PM | 15 | 45 | 1 | 7 | 40 | 82 | 90 | 2 | 21 | 0 | 0 | 8 | 311 |
| 4:30 PM | 13 | 57 | 1 | 11 | 66 | 69 | 92 | 3 | 22 | 0 | 0 | 4 | 338 |
| 4:45 PM | 10 | 47 | 0 | 4 | 59 | 79 | 81 | 0 | 24 | 1 | 2 | 7 | 314 |
| 5:00 PM | 22 | 47 | 0 | 3 | 54 | 94 | 63 | 1 | 30 | 1 | 4 | 11 | 330 |
| 5:15 PM | 22 | 51 | 1 | 7 | 56 | 93 | 68 | 0 | 22 | 0 | 2 | 10 | 332 |
| 5:30 PM | 13 | 50 | 0 | 7 | 63 | 86 | 76 | 5 | 22 | 0 | 1 | 8 | 331 |
| 5:45 PM | 14 | 44 | 1 | 6 | 74 | 95 | 63 | 0 | 13 | 1 | 1 | 8 | 320 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 182 | 718 | 6 | 80 | 644 | 948 | 888 | 19 | 246 | 4 | 12 | 81 | 3828 |
| **APPROACH %'s :** | 20.09% | 79.25% | 0.66% | 4.78% | 38.52% | 56.70% | 77.02% | 1.65% | 21.34% | 4.12% | 12.37% | 83.51% | |

| **PEAK HR START TIME :** | 430 PM | | | | | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PEAK HR VOL :** | 67 | 202 | 2 | 25 | 235 | 335 | 304 | 4 | 98 | 2 | 8 | 32 | 1314 |
| **PEAK HR FACTOR :** | | 0.916 | | | 0.954 | | | 0.868 | | | 0.656 | | 0.972 |

**CONTROL :** Signalized; 1-Way Stop (WB)

# ITM Peak Hour Summary

Prepared by:

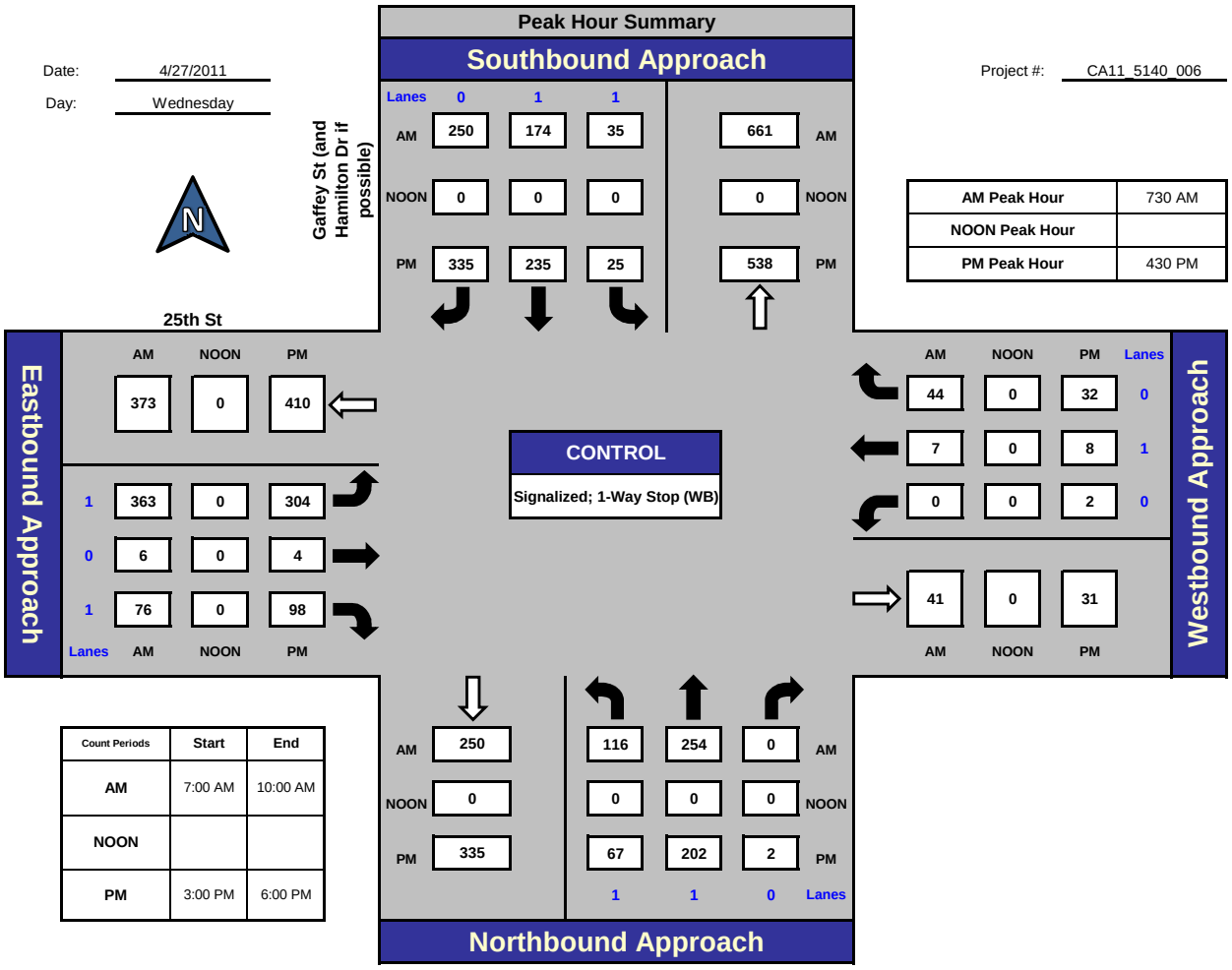
National Data & Surveying Services

***Gaffey St (and Hamilton Dr if possible) and 25th St , City of San Pedro***

Date: 4/27/2011

Day: Wednesday

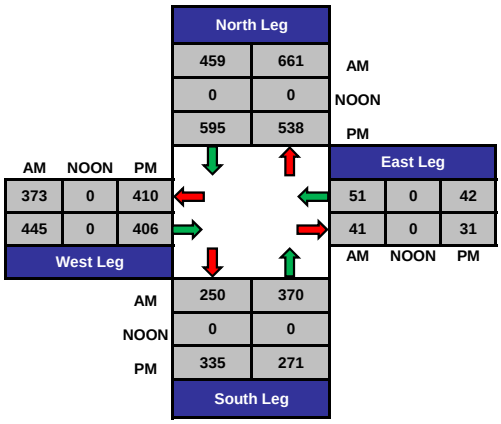
Project #: CA11_5140_006



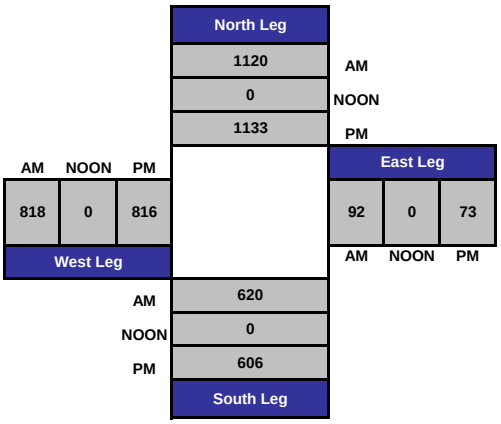

| Count Periods | Start | End |
|---|---|---|
| AM | 7:00 AM | 10:00 AM |
| NOON | | |
| PM | 3:00 PM | 6:00 PM |

| | |
|---|---|
| AM Peak Hour | 730 AM |
| NOON Peak Hour | |
| PM Peak Hour | 430 PM |

## Total Ins & Outs




## Total Volume Per Leg



# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_006 **Day:** SATURDAY

**City:** City of San Pedro **Date:** 04/30/2011

**NOON**

| **NS/EW Streets:** | Gaffey St (and Hamilton Dr if possible) | | | Gaffey St (and Hamilton Dr if possible) | | | 25th St | | | 25th St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | |
| 11:00 AM | 24 | 59 | 0 | 5 | 76 | 72 | 69 | 1 | 19 | 0 | 2 | 6 | 333 |
| 11:15 AM | 31 | 64 | 1 | 6 | 84 | 97 | 74 | 3 | 16 | 0 | 2 | 5 | 383 |
| 11:30 AM | 27 | 60 | 0 | 4 | 71 | 102 | 66 | 0 | 15 | 0 | 1 | 5 | 351 |
| 11:45 AM | 25 | 60 | 2 | 7 | 90 | 69 | 83 | 2 | 23 | 0 | 1 | 0 | 362 |
| 12:00 PM | 20 | 64 | 0 | 8 | 103 | 81 | 80 | 1 | 19 | 0 | 0 | 5 | 381 |
| 12:15 PM | 35 | 86 | 0 | 5 | 77 | 83 | 76 | 1 | 21 | 1 | 2 | 8 | 395 |
| 12:30 PM | 12 | 52 | 0 | 9 | 61 | 90 | 104 | 0 | 34 | 0 | 1 | 9 | 372 |
| 12:45 PM | 16 | 74 | 2 | 6 | 92 | 86 | 69 | 0 | 19 | 0 | 1 | 6 | 371 |
| 1:00 PM | 24 | 53 | 1 | 9 | 71 | 92 | 82 | 0 | 28 | 0 | 1 | 4 | 365 |
| 1:15 PM | 20 | 59 | 0 | 6 | 89 | 83 | 92 | 0 | 13 | 0 | 1 | 7 | 370 |
| 1:30 PM | 22 | 68 | 0 | 7 | 91 | 96 | 82 | 0 | 16 | 0 | 3 | 10 | 395 |
| 1:45 PM | 26 | 42 | 0 | 6 | 84 | 99 | 76 | 2 | 25 | 0 | 3 | 10 | 373 |
| 2:00 PM | 26 | 62 | 1 | 7 | 98 | 90 | 86 | 1 | 27 | 0 | 1 | 9 | 408 |
| 2:15 PM | 13 | 56 | 0 | 6 | 78 | 111 | 86 | 1 | 33 | 0 | 1 | 5 | 390 |
| 2:30 PM | 16 | 61 | 0 | 6 | 110 | 91 | 105 | 0 | 17 | 0 | 1 | 11 | 418 |
| 2:45 PM | 12 | 59 | 0 | 12 | 88 | 80 | 89 | 0 | 22 | 0 | 2 | 10 | 374 |
| 3:00 PM | 14 | 72 | 0 | 10 | 86 | 83 | 70 | 0 | 11 | 0 | 1 | 2 | 349 |
| 3:15 PM | 15 | 84 | 0 | 12 | 87 | 86 | 80 | 1 | 18 | 0 | 1 | 6 | 390 |
| 3:30 PM | 27 | 83 | 3 | 16 | 93 | 68 | 111 | 1 | 28 | 0 | 0 | 6 | 436 |
| 3:45 PM | 21 | 71 | 0 | 6 | 89 | 78 | 91 | 1 | 27 | 0 | 1 | 13 | 398 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 426 | 1289 | 10 | 153 | 1718 | 1737 | 1671 | 15 | 431 | 1 | 26 | 137 | 7614 |
| **APPROACH %'s :** | 24.70% | 74.72% | 0.58% | 4.24% | 47.62% | 48.14% | 78.93% | 0.71% | 20.36% | 0.61% | 15.85% | 83.54% | |

| **PEAK HR START TIME :** | 200 PM | | | | | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PEAK HR VOL :** | 67 | 238 | 1 | 31 | 374 | 372 | 366 | 2 | 99 | 0 | 5 | 35 | 1590 |
| **PEAK HR FACTOR :** | | 0.860 | | | 0.938 | | | 0.957 | | | 0.833 | | 0.951 |

**CONTROL :** Signalized; 1-Way Stop (WB)

# ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

***Gaffey St (and Hamilton Dr if possible) and 25th St ,***

Date: 4/30/2011

Day: Saturday

Project #: CA11_5140_006

| | |
|---|---|
| AM Peak Hour | |
| NOON Peak Hour | 200 PM |
| PM Peak Hour | |

**Peak Hour Summary**

**Southbound Approach**

| Lanes | 0 | 1 | 1 | | |
|---|---|---|---|---|---|
| AM | 0 | 0 | 0 | 0 | AM |
| NOON | 372 | 374 | 31 | 639 | NOON |
| PM | 0 | 0 | 0 | 0 | PM |

Gaffey St (and Hamilton Dr if possible)

25th St

**Eastbound Approach**

| Lanes | AM | NOON | PM |
|---|---|---|---|
| | 0 | 444 | 0 |
| 1 | 0 | 366 | 0 |
| 0 | 0 | 2 | 0 |
| 1 | 0 | 99 | 0 |
| Lanes | AM | NOON | PM |

**Westbound Approach**

| Lanes | AM | NOON | PM |
|---|---|---|---|
| 0 | 0 | 35 | 0 |
| 1 | 0 | 5 | 0 |
| 0 | 0 | 0 | 0 |
| | 0 | 34 | 0 |
| | AM | NOON | PM |

**CONTROL**

Signalized; 1-Way Stop (WB)

| Count Periods | Start | End |
|---|---|---|
| AM | | |
| NOON | 11:00 AM | 4:00 PM |
| PM | | |

**Northbound Approach**

| | | | | |
|---|---|---|---|---|
| AM | 0 | 0 | 0 | AM |
| NOON | 473 | 67 | 238 | 1 NOON |
| PM | 0 | 0 | 0 | 0 PM |
| | | 1 | 1 | 0 Lanes |

## Total Ins & Outs

| | North Leg | | |
|---|---|---|---|
| | 0 | 0 | AM |
| | 777 | 639 | NOON |
| | 0 | 0 | PM |

| West Leg | | | | East Leg | | |
|---|---|---|---|---|---|---|
| AM | NOON | PM | | AM | NOON | PM |
| 0 | 444 | 0 | | 0 | 40 | 0 |
| 0 | 467 | 0 | | 0 | 34 | 0 |

| | South Leg | |
|---|---|---|
| AM | 0 | 0 |
| NOON | 473 | 306 |
| PM | 0 | 0 |

## Total Volume Per Leg

| | North Leg | |
|---|---|---|
| | 0 | AM |
| | 1416 | NOON |
| | 0 | PM |

| West Leg | | | East Leg | | |
|---|---|---|---|---|---|
| AM | NOON | PM | AM | NOON | PM |
| 0 | 911 | 0 | 0 | 74 | 0 |

| | South Leg |
|---|---|
| AM | 0 |
| NOON | 779 |
| PM | 0 |

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_007 **Day:** WEDNESDAY

**City:** City of San Pedro **Date:** 04/27/2011

**AM**

| **NS/EW Streets:** | Via Cabrillo Marina | | | Via Cabrillo Marina | | | 22nd St | | | 22nd St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 2 | 0 | 1 | 2 | 0 | |
| 7:00 AM | 6 | | 4 | | | | | 44 | 9 | 13 | 7 | | 83 |
| 7:15 AM | 8 | | 5 | | | | | 77 | 14 | 14 | 16 | | 134 |
| 7:30 AM | 13 | | 8 | | | | | 120 | 17 | 15 | 25 | | 198 |
| 7:45 AM | 6 | | 5 | | | | | 108 | 36 | 19 | 28 | | 202 |
| 8:00 AM | 8 | | 4 | | | | | 89 | 27 | 22 | 25 | | 175 |
| 8:15 AM | 12 | | 10 | | | | | 56 | 31 | 17 | 24 | | 150 |
| 8:30 AM | 17 | | 14 | | | | | 52 | 30 | 18 | 13 | | 144 |
| 8:45 AM | 22 | | 4 | | | | | 48 | 19 | 23 | 34 | | 150 |
| 9:00 AM | 15 | | 4 | | | | | 40 | 9 | 16 | 26 | | 110 |
| 9:15 AM | 22 | | 15 | | | | | 38 | 19 | 17 | 22 | | 133 |
| 9:30 AM | 16 | | 14 | | | | | 39 | 16 | 11 | 24 | | 120 |
| 9:45 AM | 6 | | 12 | | | | | 34 | 17 | 12 | 26 | | 107 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 151 | 0 | 99 | 0 | 0 | 0 | 0 | 745 | 244 | 197 | 270 | 0 | 1706 |
| **APPROACH %'s :** | 60.40% | 0.00% | 39.60% | #DIV/0! | #DIV/0! | #DIV/0! | 0.00% | 75.33% | 24.67% | 42.18% | 57.82% | 0.00% | |

| **PEAK HR START TIME :** | 730 AM | | | | | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PEAK HR VOL :** | 39 | 0 | 27 | 0 | 0 | 0 | 0 | 373 | 111 | 73 | 102 | 0 | 725 |
| **PEAK HR FACTOR :** | | 0.750 | | | 0.000 | | | 0.840 | | | 0.931 | | 0.897 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_007 **Day:** WEDNESDAY

**City:** City of San Pedro **Date:** 04/27/2011

**PM**

| **NS/EW Streets:** | Via Cabrillo Marina | | | Via Cabrillo Marina | | | 22nd St | | | 22nd St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 2 | 0 | 1 | 2 | 0 | |
| 3:00 PM | 11 | | 13 | | | | | 35 | 19 | 12 | 53 | | 143 |
| 3:15 PM | 19 | | 13 | | | | | 37 | 12 | 14 | 55 | | 150 |
| 3:30 PM | 19 | | 19 | | | | | 31 | 13 | 19 | 55 | | 156 |
| 3:45 PM | 16 | | 20 | | | | | 45 | 14 | 13 | 72 | | 180 |
| 4:00 PM | 14 | | 17 | | | | | 35 | 12 | 13 | 46 | | 137 |
| 4:15 PM | 22 | | 30 | | | | | 33 | 21 | 11 | 45 | | 162 |
| 4:30 PM | 17 | | 19 | | | | | 65 | 17 | 17 | 59 | | 194 |
| 4:45 PM | 23 | | 15 | | | | | 51 | 17 | 12 | 66 | | 184 |
| 5:00 PM | 43 | | 50 | | | | | 41 | 23 | 19 | 70 | | 246 |
| 5:15 PM | 19 | | 21 | | | | | 46 | 13 | 16 | 95 | | 210 |
| 5:30 PM | 16 | | 20 | | | | | 48 | 8 | 14 | 80 | | 186 |
| 5:45 PM | 12 | | 14 | | | | | 35 | 14 | 18 | 69 | | 162 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 231 | 0 | 251 | 0 | 0 | 0 | 0 | 502 | 183 | 178 | 765 | 0 | 2110 |
| **APPROACH %'s :** | 47.93% | 0.00% | 52.07% | #DIV/0! | #DIV/0! | #DIV/0! | 0.00% | 73.28% | 26.72% | 18.88% | 81.12% | 0.00% | |

| **PEAK HR START TIME :** | 430 PM | | | | | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PEAK HR VOL :** | 102 | 0 | 105 | 0 | 0 | 0 | 0 | 203 | 70 | 64 | 290 | 0 | 834 |
| **PEAK HR FACTOR :** | | 0.556 | | | 0.000 | | | 0.832 | | | 0.797 | | 0.848 |

**CONTROL :** Signalized

# ITM Peak Hour Summary

Prepared by:

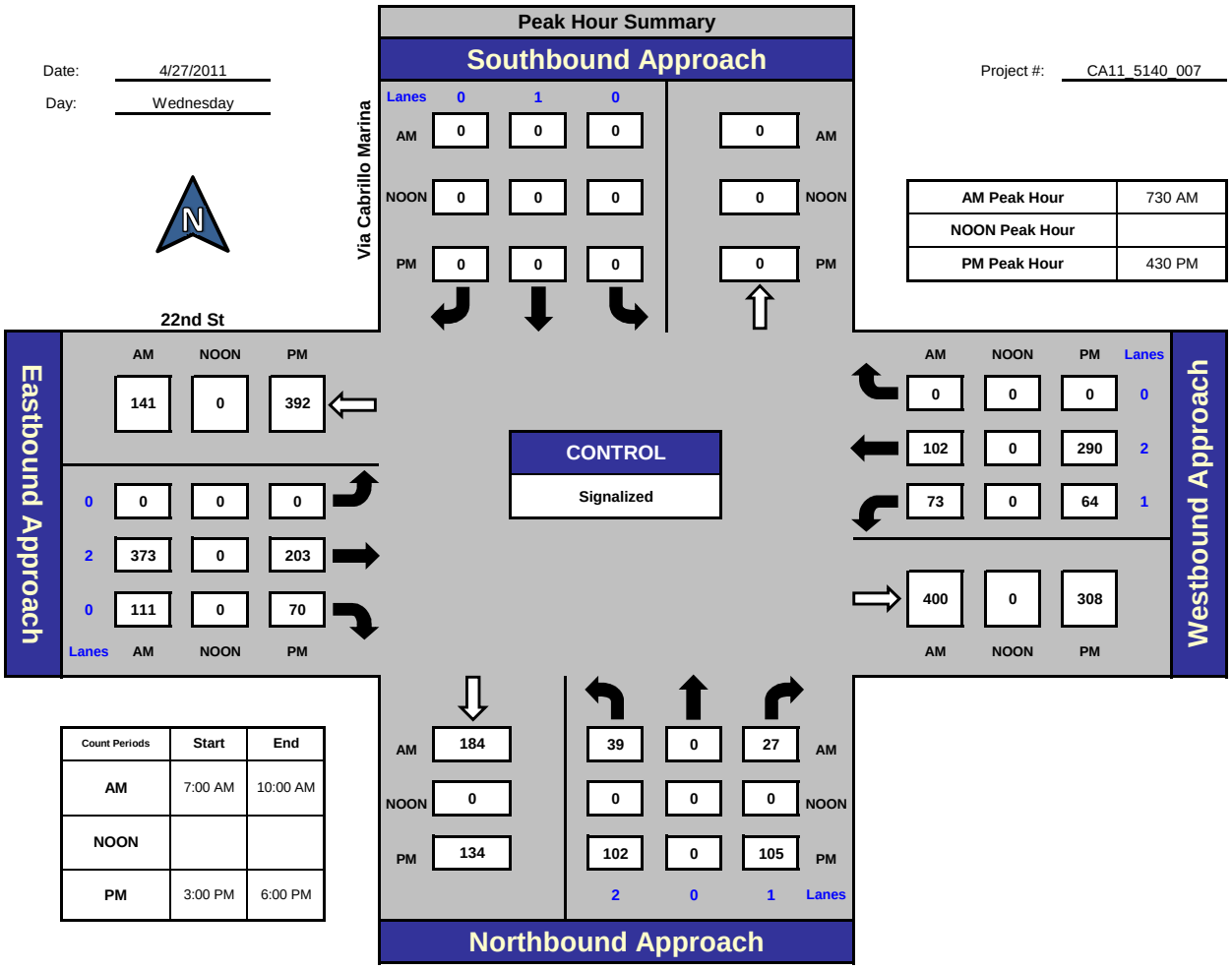
National Data & Surveying Services

## *Via Cabrillo Marina and 22nd St , City of San Pedro*

Date: 4/27/2011

Day: Wednesday

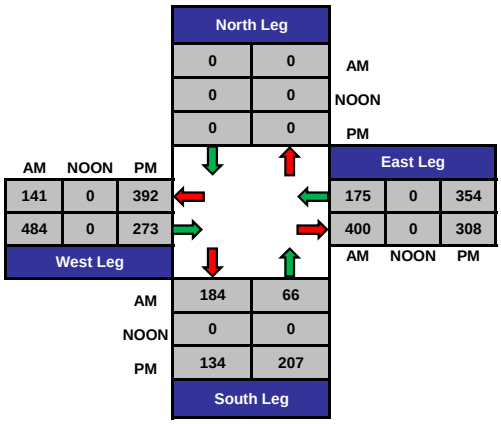
Project #: CA11_5140_007



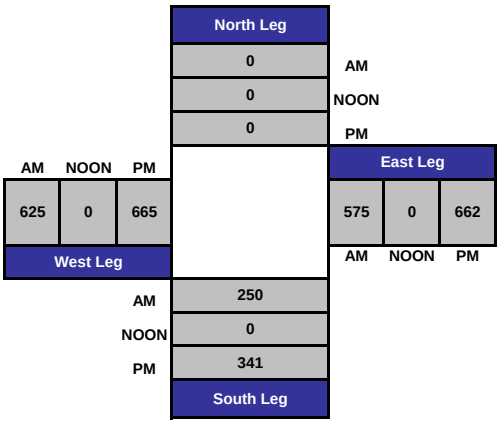

| AM Peak Hour | 730 AM |
|---|---|
| NOON Peak Hour | |
| PM Peak Hour | 430 PM |

| Count Periods | Start | End |
|---|---|---|
| AM | 7:00 AM | 10:00 AM |
| NOON | | |
| PM | 3:00 PM | 6:00 PM |

### Total Ins & Outs




### Total Volume Per Leg



# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_007 **Day:** SATURDAY

**City:** City of San Pedro **Date:** 04/30/2011

**NOON**

| **NS/EW Streets:** | Via Cabrillo Marina | | | Via Cabrillo Marina | | | 22nd St | | | 22nd St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 2 | 0 | 1 | 2 | 0 | |
| 11:00 AM | 22 | | 28 | | | | | 46 | 35 | 24 | 40 | | 195 |
| 11:15 AM | 23 | | 12 | | | | | 58 | 20 | 16 | 46 | | 175 |
| 11:30 AM | 29 | | 14 | | | | | 62 | 31 | 17 | 42 | | 195 |
| 11:45 AM | 40 | | 17 | | | | | 47 | 33 | 26 | 37 | | 200 |
| 12:00 PM | 36 | | 21 | | | | | 51 | 29 | 21 | 29 | | 187 |
| 12:15 PM | 42 | | 23 | | | | | 59 | 26 | 21 | 33 | | 204 |
| 12:30 PM | 18 | | 26 | | | | | 55 | 34 | 22 | 37 | | 192 |
| 12:45 PM | 36 | | 19 | | | | | 51 | 22 | 18 | 53 | | 199 |
| 1:00 PM | 27 | | 14 | | | | | 51 | 27 | 24 | 58 | | 201 |
| 1:15 PM | 28 | | 15 | | | | | 45 | 23 | 11 | 29 | | 151 |
| 1:30 PM | 30 | | 21 | | | | | 36 | 29 | 28 | 48 | | 192 |
| 1:45 PM | 26 | | 20 | | | | | 36 | 24 | 18 | 56 | | 180 |
| 2:00 PM | 27 | | 24 | | | | | 38 | 24 | 21 | 58 | | 192 |
| 2:15 PM | 28 | | 21 | | | | | 37 | 15 | 27 | 50 | | 178 |
| 2:30 PM | 19 | | 20 | | | | | 53 | 16 | 14 | 54 | | 176 |
| 2:45 PM | 24 | | 17 | | | | | 51 | 16 | 32 | 48 | | 188 |
| 3:00 PM | 20 | | 22 | | | | | 41 | 23 | 16 | 54 | | 176 |
| 3:15 PM | 36 | | 17 | | | | | 37 | 27 | 21 | 51 | | 189 |
| 3:30 PM | 26 | | 27 | | | | | 48 | 32 | 23 | 54 | | 210 |
| 3:45 PM | 15 | | 9 | | | | | 58 | 22 | 23 | 53 | | 180 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 552 | 0 | 387 | 0 | 0 | 0 | 0 | 960 | 508 | 423 | 930 | 0 | 3760 |
| **APPROACH %'s :** | 58.79% | 0.00% | 41.21% | #DIV/0! | #DIV/0! | #DIV/0! | 0.00% | 65.40% | 34.60% | 31.26% | 68.74% | 0.00% | |

| **PEAK HR START TIME :** | 1215 PM | | | | | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PEAK HR VOL :** | 123 | 0 | 82 | 0 | 0 | 0 | 0 | 216 | 109 | 85 | 181 | 0 | 796 |
| **PEAK HR FACTOR :** | | 0.788 | | | 0.000 | | | 0.913 | | | 0.811 | | 0.975 |

**CONTROL :** Signalized

# ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

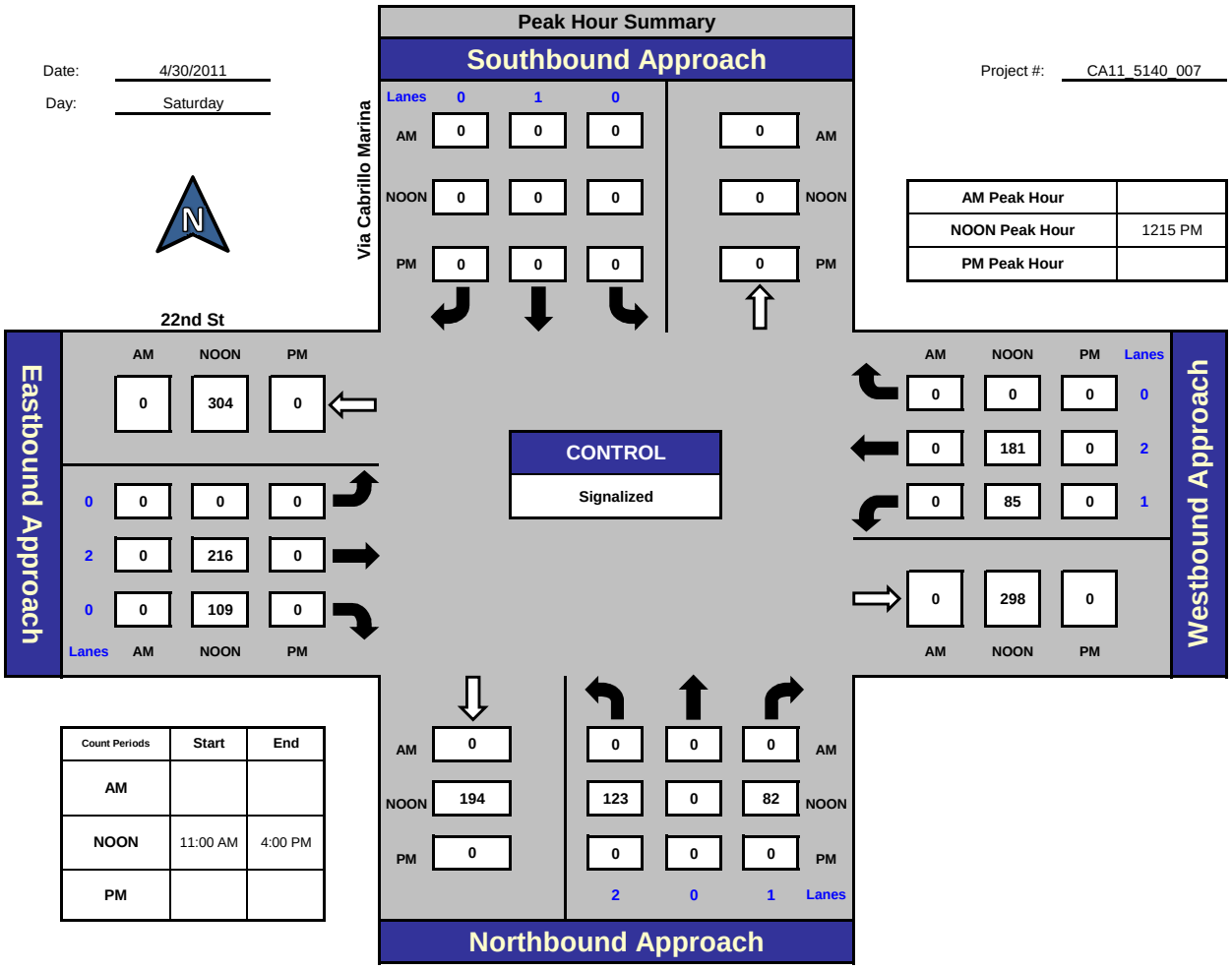
## *Via Cabrillo Marina and 22nd St ,*

Date: 4/30/2011

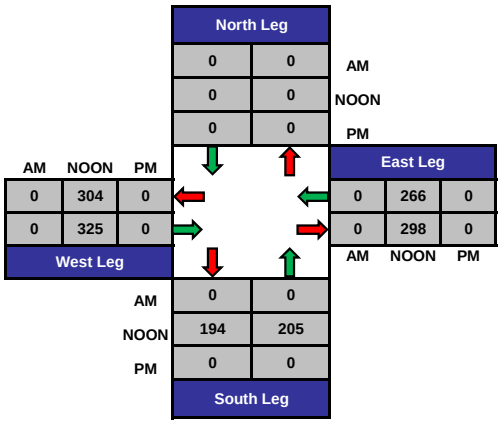
Day: Saturday

Project #: CA11_5140_007

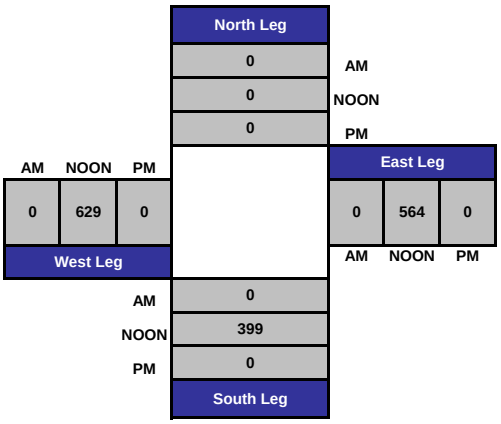
| AM Peak Hour | |
|---|---|
| NOON Peak Hour | 1215 PM |
| PM Peak Hour | |




## Total Ins & Outs




## Total Volume Per Leg



# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: WEDNESDAY, APRIL 27, 2011
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S FRONT STREET
E/W SR 47 WB ON RAMP

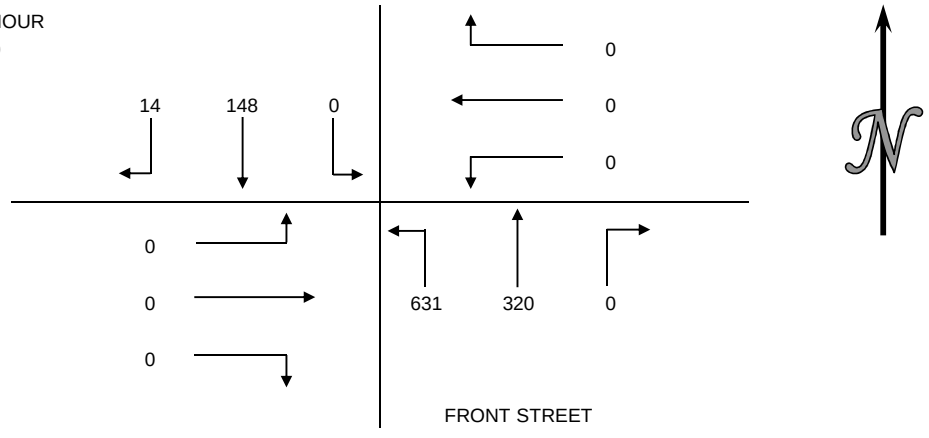
15 MIN COUNTS

| PERIOD | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 700-715 | 3 | 25 | 0 | 0 | 0 | 0 | 0 | 54 | 118 | 0 | 0 | 0 | 200 |
| 715-730 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 66 | 142 | 0 | 0 | 0 | 228 |
| 730-745 | 3 | 38 | 0 | 0 | 0 | 0 | 0 | 98 | 173 | 0 | 0 | 0 | 312 |
| 745-800 | 3 | 33 | 0 | 0 | 0 | 0 | 0 | 87 | 159 | 0 | 0 | 0 | 282 |
| 800-815 | 3 | 37 | 0 | 0 | 0 | 0 | 0 | 78 | 167 | 0 | 0 | 0 | 285 |
| 815-830 | 5 | 40 | 0 | 0 | 0 | 0 | 0 | 57 | 132 | 0 | 0 | 0 | 234 |
| 830-845 | 4 | 49 | 0 | 0 | 0 | 0 | 0 | 63 | 129 | 0 | 0 | 0 | 245 |
| 845-900 | 3 | 60 | 0 | 0 | 0 | 0 | 0 | 65 | 129 | 0 | 0 | 0 | 257 |
| 900-915 | 2 | 31 | 0 | 0 | 0 | 0 | 0 | 49 | 109 | 0 | 0 | 0 | 191 |
| 915-930 | 5 | 39 | 0 | 0 | 0 | 0 | 0 | 83 | 142 | 0 | 0 | 0 | 269 |
| 930-945 | 2 | 43 | 0 | 0 | 0 | 0 | 0 | 88 | 148 | 0 | 0 | 0 | 281 |
| 945-1000 | 4 | 33 | 0 | 0 | 0 | 0 | 0 | 76 | 119 | 0 | 0 | 0 | 232 |

HOUR TOTALS

| TIME | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 700-800 | 9 | 116 | 0 | 0 | 0 | 0 | 0 | 305 | 592 | 0 | 0 | 0 | 1022 |
| 715-815 | 9 | 128 | 0 | 0 | 0 | 0 | 0 | 329 | 641 | 0 | 0 | 0 | 1107 |
| 730-830 | 14 | 148 | 0 | 0 | 0 | 0 | 0 | 320 | 631 | 0 | 0 | 0 | 1113 |
| 745-845 | 15 | 159 | 0 | 0 | 0 | 0 | 0 | 285 | 587 | 0 | 0 | 0 | 1046 |
| 800-900 | 15 | 186 | 0 | 0 | 0 | 0 | 0 | 263 | 557 | 0 | 0 | 0 | 1021 |
| 815-815 | 14 | 180 | 0 | 0 | 0 | 0 | 0 | 234 | 499 | 0 | 0 | 0 | 927 |
| 830-930 | 14 | 179 | 0 | 0 | 0 | 0 | 0 | 260 | 509 | 0 | 0 | 0 | 962 |
| 845-945 | 12 | 173 | 0 | 0 | 0 | 0 | 0 | 285 | 528 | 0 | 0 | 0 | 998 |
| 900-1000 | 13 | 146 | 0 | 0 | 0 | 0 | 0 | 296 | 518 | 0 | 0 | 0 | 973 |

A.M. PEAK HOUR
730-830




PHF: 312 0.891827

# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: WEDNESDAY, APRIL 27, 2011
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S FRONT STREET
E/W SR 47 WB ON RAMP

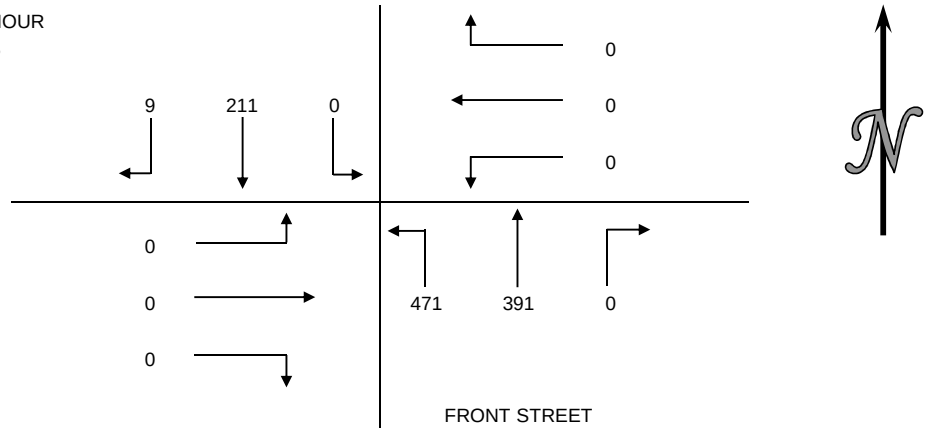
15 MIN COUNTS

| PERIOD | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 300-315 | 13 | 45 | 0 | 0 | 0 | 0 | 0 | 74 | 118 | 0 | 0 | 0 | 250 |
| 315-330 | 1 | 49 | 0 | 0 | 0 | 0 | 0 | 86 | 125 | 0 | 0 | 0 | 261 |
| 330-345 | 6 | 53 | 0 | 0 | 0 | 0 | 0 | 100 | 125 | 0 | 0 | 0 | 284 |
| 345-400 | 4 | 61 | 0 | 0 | 0 | 0 | 0 | 84 | 106 | 0 | 0 | 0 | 255 |
| 400-415 | 5 | 55 | 0 | 0 | 0 | 0 | 0 | 96 | 121 | 0 | 0 | 0 | 277 |
| 415-430 | 2 | 52 | 0 | 0 | 0 | 0 | 0 | 83 | 109 | 0 | 0 | 0 | 246 |
| 430-445 | 1 | 55 | 0 | 0 | 0 | 0 | 0 | 92 | 112 | 0 | 0 | 0 | 260 |
| 445-500 | 3 | 54 | 0 | 0 | 0 | 0 | 0 | 105 | 115 | 0 | 0 | 0 | 277 |
| 500-515 | 3 | 50 | 0 | 0 | 0 | 0 | 0 | 111 | 135 | 0 | 0 | 0 | 299 |
| 515-530 | 3 | 42 | 0 | 0 | 0 | 0 | 0 | 96 | 101 | 0 | 0 | 0 | 242 |
| 530-545 | 2 | 37 | 0 | 0 | 0 | 0 | 0 | 86 | 95 | 0 | 0 | 0 | 220 |
| 545-600 | 2 | 36 | 0 | 0 | 0 | 0 | 0 | 70 | 92 | 0 | 0 | 0 | 200 |

HOUR TOTALS

| TIME | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 300-400 | 24 | 208 | 0 | 0 | 0 | 0 | 0 | 344 | 474 | 0 | 0 | 0 | 1050 |
| 315-415 | 16 | 218 | 0 | 0 | 0 | 0 | 0 | 366 | 477 | 0 | 0 | 0 | 1077 |
| 330-430 | 17 | 221 | 0 | 0 | 0 | 0 | 0 | 363 | 461 | 0 | 0 | 0 | 1062 |
| 345-445 | 12 | 223 | 0 | 0 | 0 | 0 | 0 | 355 | 448 | 0 | 0 | 0 | 1038 |
| 400-500 | 11 | 216 | 0 | 0 | 0 | 0 | 0 | 376 | 457 | 0 | 0 | 0 | 1060 |
| 415-515 | 9 | 211 | 0 | 0 | 0 | 0 | 0 | 391 | 471 | 0 | 0 | 0 | 1082 |
| 430-530 | 10 | 201 | 0 | 0 | 0 | 0 | 0 | 404 | 463 | 0 | 0 | 0 | 1078 |
| 445-545 | 11 | 183 | 0 | 0 | 0 | 0 | 0 | 398 | 446 | 0 | 0 | 0 | 1038 |
| 500-600 | 10 | 165 | 0 | 0 | 0 | 0 | 0 | 363 | 423 | 0 | 0 | 0 | 961 |

P.M. PEAK HOUR
415-515




PHF 1082 0.904682
299

# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: SATURDAY APRIL 30, 2011
PERIOD: 11:00 AM TO 4:00 PM
INTERSECTION: N/S FRONT STREET
E/W SR-47 ON RAMP

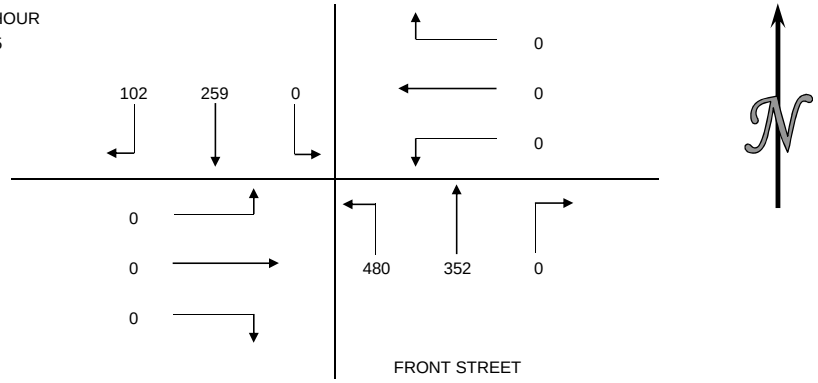
15 MIN COUNTS

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERIOD | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 1100-1115 | 10 | 70 | 0 | 0 | 0 | 0 | 0 | 75 | 141 | 0 | 0 | 0 | 296 |
| 1115-1130 | 13 | 61 | 0 | 0 | 0 | 0 | 0 | 69 | 113 | 0 | 0 | 0 | 256 |
| 1130-1145 | 12 | 72 | 0 | 0 | 0 | 0 | 0 | 61 | 132 | 0 | 0 | 0 | 277 |
| 1145-1200 | 43 | 76 | 0 | 0 | 0 | 0 | 0 | 73 | 129 | 0 | 0 | 0 | 321 |
| 1200-1215 | 20 | 64 | 0 | 0 | 0 | 0 | 0 | 83 | 122 | 0 | 0 | 0 | 289 |
| 1215-1230 | 14 | 47 | 0 | 0 | 0 | 0 | 0 | 69 | 110 | 0 | 0 | 0 | 240 |
| 1230-1245 | 14 | 64 | 0 | 0 | 0 | 0 | 0 | 84 | 140 | 0 | 0 | 0 | 302 |
| 1245-100 | 11 | 49 | 0 | 0 | 0 | 0 | 0 | 81 | 114 | 0 | 0 | 0 | 255 |
| 100-115 | 5 | 55 | 0 | 0 | 0 | 0 | 0 | 74 | 118 | 0 | 0 | 0 | 252 |
| 115-130 | 22 | 79 | 0 | 0 | 0 | 0 | 0 | 95 | 110 | 0 | 0 | 0 | 306 |
| 130-145 | 32 | 63 | 0 | 0 | 0 | 0 | 0 | 82 | 107 | 0 | 0 | 0 | 284 |
| 145-200 | 20 | 57 | 0 | 0 | 0 | 0 | 0 | 84 | 139 | 0 | 0 | 0 | 300 |
| 200-215 | 28 | 60 | 0 | 0 | 0 | 0 | 0 | 91 | 124 | 0 | 0 | 0 | 303 |
| 215-230 | 18 | 55 | 0 | 0 | 0 | 0 | 0 | 59 | 163 | 0 | 0 | 0 | 295 |
| 230-245 | 11 | 40 | 0 | 0 | 0 | 0 | 0 | 58 | 125 | 0 | 0 | 0 | 234 |
| 245-300 | 10 | 36 | 0 | 0 | 0 | 0 | 0 | 74 | 119 | 0 | 0 | 0 | 239 |
| 3000-315 | 23 | 44 | 0 | 0 | 0 | 0 | 0 | 61 | 124 | 0 | 0 | 0 | 252 |
| 315-330 | 10 | 36 | 0 | 0 | 0 | 0 | 0 | 58 | 112 | 0 | 0 | 0 | 216 |
| 330-345 | 9 | 50 | 0 | 0 | 0 | 0 | 0 | 54 | 107 | 0 | 0 | 0 | 220 |
| 345-400 | 7 | 47 | 0 | 0 | 0 | 0 | 0 | 47 | 116 | 0 | 0 | 0 | 0 |

HOUR TOTALS

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TIME | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 1100-1200 | 78 | 279 | 0 | 0 | 0 | 0 | 0 | 278 | 515 | 0 | 0 | 0 | 1150 |
| 1115-1215 | 88 | 273 | 0 | 0 | 0 | 0 | 0 | 286 | 496 | 0 | 0 | 0 | 1143 |
| 1130-1230 | 89 | 259 | 0 | 0 | 0 | 0 | 0 | 286 | 493 | 0 | 0 | 0 | 1127 |
| 1145-1245 | 91 | 251 | 0 | 0 | 0 | 0 | 0 | 309 | 501 | 0 | 0 | 0 | 1152 |
| 1200-100 | 59 | 224 | 0 | 0 | 0 | 0 | 0 | 317 | 486 | 0 | 0 | 0 | 1086 |
| 1215-115 | 44 | 215 | 0 | 0 | 0 | 0 | 0 | 308 | 482 | 0 | 0 | 0 | 1049 |
| 1230-130 | 52 | 247 | 0 | 0 | 0 | 0 | 0 | 334 | 482 | 0 | 0 | 0 | 1115 |
| 1245-145 | 70 | 246 | 0 | 0 | 0 | 0 | 0 | 332 | 449 | 0 | 0 | 0 | 1097 |
| 100-200 | 79 | 254 | 0 | 0 | 0 | 0 | 0 | 335 | 474 | 0 | 0 | 0 | 1142 |
| 115-215 | 102 | 259 | 0 | 0 | 0 | 0 | 0 | 352 | 480 | 0 | 0 | 0 | 1193 |
| 130-230 | 98 | 235 | 0 | 0 | 0 | 0 | 0 | 316 | 533 | 0 | 0 | 0 | 1182 |
| 145-245 | 77 | 212 | 0 | 0 | 0 | 0 | 0 | 292 | 551 | 0 | 0 | 0 | 1132 |
| 200-300 | 67 | 191 | 0 | 0 | 0 | 0 | 0 | 282 | 531 | 0 | 0 | 0 | 1071 |
| 215-315 | 62 | 175 | 0 | 0 | 0 | 0 | 0 | 252 | 531 | 0 | 0 | 0 | 1020 |
| 230-330 | 54 | 156 | 0 | 0 | 0 | 0 | 0 | 251 | 480 | 0 | 0 | 0 | 941 |
| 245-345 | 52 | 166 | 0 | 0 | 0 | 0 | 0 | 247 | 462 | 0 | 0 | 0 | 927 |
| 300-400 | 49 | 177 | 0 | 0 | 0 | 0 | 0 | 220 | 459 | 0 | 0 | 0 | 905 |

P.M. PEAK HOUR
115-215



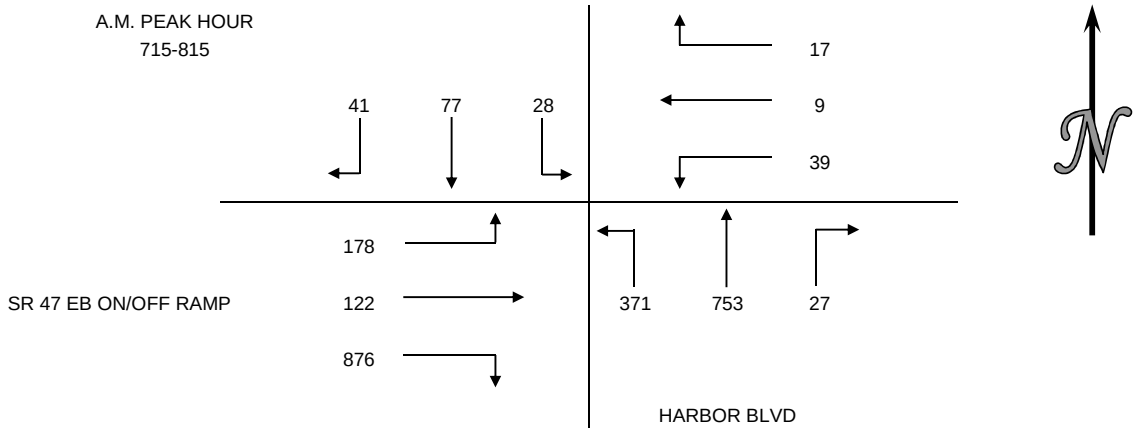
# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: WEDNESDAY, APRIL 27, 2011
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S HARBOR BLVD
E/W SR 47 EB ON/OFF RAMP

| 15 MIN COUNTS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| PERIOD | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 700-715 | 8 | 17 | 15 | 1 | 2 | 31 | 8 | 152 | 95 | 161 | 24 | 26 | 540 |
| 715-730 | 4 | 15 | 7 | 0 | 2 | 13 | 5 | 173 | 84 | 204 | 32 | 37 | 576 |
| 730-745 | 10 | 21 | 4 | 1 | 1 | 7 | 7 | 204 | 106 | 219 | 33 | 50 | 663 |
| 745-800 | 11 | 23 | 7 | 5 | 3 | 11 | 8 | 199 | 94 | 235 | 24 | 49 | 669 |
| 800-815 | 16 | 18 | 10 | 11 | 3 | 8 | 7 | 177 | 87 | 218 | 33 | 42 | 630 |
| 815-830 | 16 | 22 | 10 | 14 | 8 | 9 | 15 | 136 | 75 | 196 | 37 | 38 | 576 |
| 830-845 | 24 | 15 | 2 | 19 | 12 | 18 | 11 | 124 | 84 | 179 | 51 | 42 | 581 |
| 845-900 | 23 | 29 | 8 | 23 | 20 | 17 | 8 | 123 | 54 | 193 | 39 | 52 | 589 |
| 900-915 | 17 | 23 | 6 | 24 | 14 | 17 | 14 | 108 | 59 | 193 | 47 | 44 | 566 |
| 915-930 | 11 | 18 | 6 | 39 | 24 | 16 | 10 | 128 | 45 | 182 | 47 | 70 | 596 |
| 930-945 | 9 | 17 | 12 | 40 | 19 | 12 | 15 | 112 | 51 | 161 | 53 | 50 | 551 |
| 945-1000 | 20 | 15 | 7 | 36 | 37 | 25 | 14 | 91 | 47 | 151 | 39 | 51 | 533 |
| HOUR TOTALS | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| TIME | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 700-800 | 33 | 76 | 33 | 7 | 8 | 62 | 28 | 728 | 379 | 819 | 113 | 162 | 2448 |
| 715-815 | 41 | 77 | 28 | 17 | 9 | 39 | 27 | 753 | 371 | 876 | 122 | 178 | 2538 |
| 730-830 | 53 | 84 | 31 | 31 | 15 | 35 | 37 | 716 | 362 | 868 | 127 | 179 | 2538 |
| 745-845 | 67 | 78 | 29 | 49 | 26 | 46 | 41 | 636 | 340 | 828 | 145 | 171 | 2456 |
| 800-900 | 79 | 84 | 30 | 67 | 43 | 52 | 41 | 560 | 300 | 786 | 160 | 174 | 2376 |
| 815-815 | 80 | 89 | 26 | 80 | 54 | 61 | 48 | 491 | 272 | 761 | 174 | 176 | 2312 |
| 830-930 | 75 | 85 | 22 | 105 | 70 | 68 | 43 | 483 | 242 | 747 | 184 | 208 | 2332 |
| 845-945 | 60 | 87 | 32 | 126 | 77 | 62 | 47 | 471 | 209 | 729 | 186 | 216 | 2302 |
| 900-1000 | 57 | 73 | 31 | 139 | 94 | 70 | 53 | 439 | 202 | 687 | 186 | 215 | 2246 |



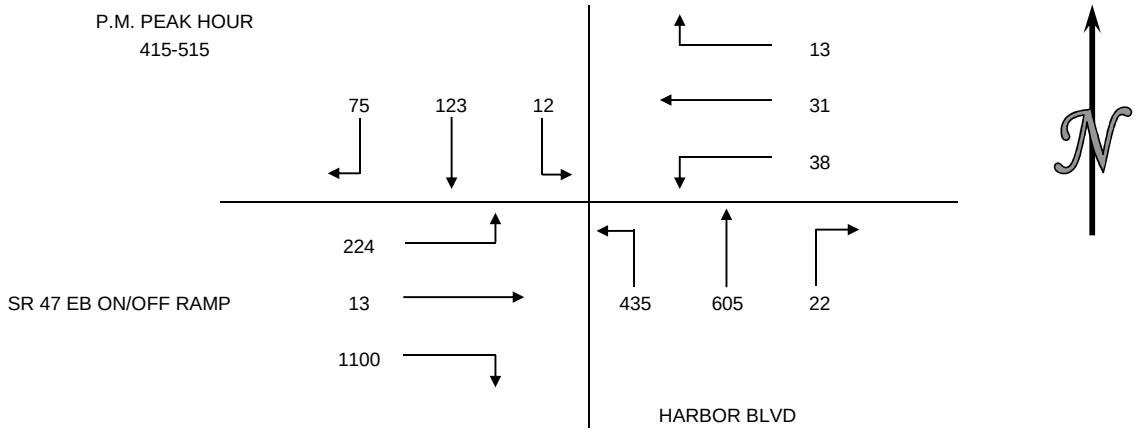
# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: WEDNESDAY, APRIL 27, 2011
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S HARBOR BLVD
E/W SR 47 EB ON/OFF RAMP

| 15 MIN COUNTS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| PERIOD | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 300-315 | 33 | 23 | 7 | 18 | 28 | 29 | 11 | 138 | 75 | 205 | 14 | 37 | 618 |
| 315-330 | 22 | 18 | 3 | 9 | 13 | 16 | 14 | 142 | 109 | 196 | 10 | 45 | 597 |
| 330-345 | 24 | 18 | 7 | 13 | 11 | 15 | 12 | 178 | 97 | 220 | 10 | 53 | 658 |
| 345-400 | 31 | 21 | 4 | 9 | 6 | 16 | 10 | 145 | 89 | 271 | 4 | 49 | 655 |
| 400-415 | 26 | 25 | 3 | 3 | 17 | 8 | 11 | 160 | 114 | 242 | 4 | 42 | 655 |
| 415-430 | 19 | 26 | 2 | 5 | 12 | 11 | 5 | 129 | 91 | 285 | 4 | 49 | 638 |
| 430-445 | 22 | 27 | 4 | 0 | 3 | 6 | 6 | 139 | 119 | 248 | 4 | 53 | 631 |
| 445-500 | 17 | 38 | 2 | 6 | 8 | 8 | 5 | 156 | 116 | 269 | 3 | 64 | 692 |
| 500-515 | 17 | 32 | 4 | 2 | 8 | 13 | 6 | 181 | 109 | 298 | 2 | 58 | 730 |
| 515-530 | 6 | 23 | 4 | 4 | 9 | 3 | 7 | 138 | 109 | 256 | 4 | 42 | 605 |
| 530-545 | 17 | 18 | 5 | 0 | 8 | 9 | 3 | 151 | 95 | 275 | 2 | 48 | 631 |
| 545-600 | 6 | 24 | 4 | 1 | 14 | 8 | 4 | 104 | 72 | 244 | 2 | 50 | 533 |
| HOUR TOTALS | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| TIME | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 300-400 | 110 | 80 | 21 | 49 | 58 | 76 | 47 | 603 | 370 | 892 | 38 | 184 | 2528 |
| 315-415 | 103 | 82 | 17 | 34 | 47 | 55 | 47 | 625 | 409 | 929 | 28 | 189 | 2565 |
| 330-430 | 100 | 90 | 16 | 30 | 46 | 50 | 38 | 612 | 391 | 1018 | 22 | 193 | 2606 |
| 345-445 | 98 | 99 | 13 | 17 | 38 | 41 | 32 | 573 | 413 | 1046 | 16 | 193 | 2579 |
| 400-500 | 84 | 116 | 11 | 14 | 40 | 33 | 27 | 584 | 440 | 1044 | 15 | 208 | 2616 |
| 415-515 | 75 | 123 | 12 | 13 | 31 | 38 | 22 | 605 | 435 | 1100 | 13 | 224 | 2691 |
| 430-530 | 62 | 120 | 14 | 12 | 28 | 30 | 24 | 614 | 453 | 1071 | 13 | 217 | 2658 |
| 445-545 | 57 | 111 | 15 | 12 | 33 | 33 | 21 | 626 | 429 | 1098 | 11 | 212 | 2658 |
| 500-600 | 46 | 97 | 17 | 7 | 39 | 33 | 20 | 574 | 385 | 1073 | 10 | 198 | 2499 |



# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

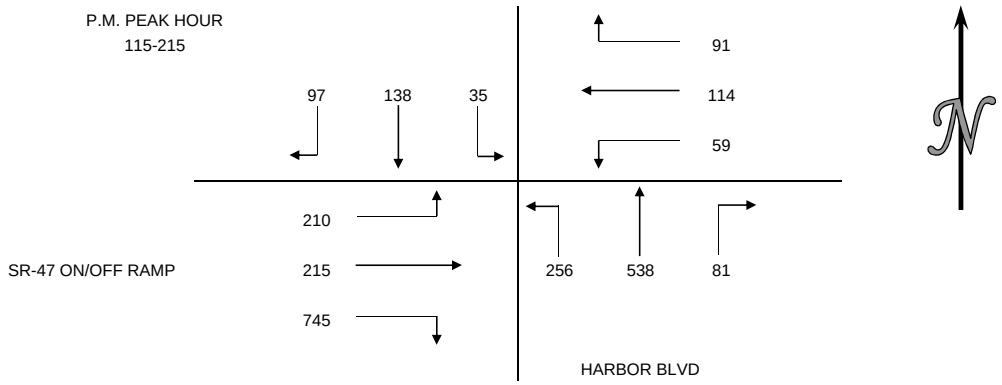
CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: SATURDAY APRIL 30, 2011
PERIOD: 11:00 AM TO 4:00 PM
INTERSECTION: N/S HARBOR BLVD
E/W SR-47 ON/OFF RAMP

15 MIN COUNTS

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERIOD | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 1100-1115 | 20 | 47 | 17 | 62 | 61 | 15 | 16 | 87 | 49 | 116 | 70 | 58 | 618 |
| 1115-1130 | 8 | 32 | 10 | 42 | 45 | 24 | 17 | 118 | 76 | 143 | 88 | 47 | 650 |
| 1130-1145 | 13 | 40 | 16 | 55 | 30 | 23 | 8 | 94 | 64 | 151 | 83 | 59 | 636 |
| 1145-1200 | 17 | 62 | 11 | 27 | 24 | 28 | 28 | 111 | 51 | 177 | 85 | 36 | 657 |
| 1200-1215 | 18 | 32 | 18 | 34 | 27 | 15 | 19 | 99 | 55 | 150 | 85 | 53 | 605 |
| 1215-1230 | 11 | 26 | 15 | 26 | 27 | 20 | 20 | 116 | 58 | 142 | 89 | 53 | 603 |
| 1230-1245 | 12 | 27 | 7 | 33 | 19 | 10 | 31 | 108 | 70 | 158 | 93 | 61 | 629 |
| 1245-100 | 20 | 34 | 11 | 28 | 21 | 21 | 6 | 129 | 72 | 177 | 86 | 50 | 655 |
| 100-115 | 15 | 32 | 11 | 23 | 23 | 17 | 17 | 103 | 70 | 134 | 94 | 58 | 597 |
| 115-130 | 29 | 34 | 11 | 18 | 36 | 17 | 27 | 136 | 58 | 179 | 58 | 54 | 657 |
| 130-145 | 24 | 33 | 10 | 24 | 26 | 12 | 35 | 111 | 62 | 188 | 78 | 52 | 655 |
| 145-200 | 19 | 37 | 10 | 33 | 31 | 17 | 9 | 141 | 58 | 169 | 53 | 51 | 628 |
| 200-215 | 25 | 34 | 4 | 16 | 21 | 13 | 10 | 150 | 78 | 209 | 26 | 53 | 639 |
| 215-230 | 21 | 44 | 4 | 20 | 9 | 15 | 7 | 148 | 63 | 205 | 31 | 42 | 609 |
| 230-245 | 16 | 22 | 7 | 14 | 19 | 14 | 11 | 141 | 81 | 217 | 18 | 41 | 601 |
| 245-300 | 12 | 18 | 2 | 12 | 11 | 23 | 17 | 138 | 82 | 203 | 17 | 39 | 574 |
| 3000-315 | 16 | 25 | 6 | 18 | 11 | 13 | 16 | 130 | 72 | 217 | 12 | 28 | 564 |
| 315-330 | 10 | 21 | 4 | 8 | 15 | 17 | 9 | 127 | 72 | 185 | 10 | 35 | 513 |
| 330-345 | 12 | 35 | 6 | 11 | 15 | 12 | 15 | 123 | 71 | 229 | 7 | 28 | 564 |
| 345-400 | 7 | 42 | 4 | 10 | 15 | 16 | 8 | 142 | 72 | 200 | 6 | 24 | 546 |

HOUR TOTALS

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TIME | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 1100-1200 | 58 | 181 | 54 | 186 | 160 | 90 | 69 | 410 | 240 | 587 | 326 | 200 | 2561 |
| 1115-1215 | 56 | 166 | 55 | 158 | 126 | 90 | 72 | 422 | 246 | 621 | 341 | 195 | 2548 |
| 1130-1230 | 59 | 160 | 60 | 142 | 108 | 86 | 75 | 420 | 228 | 620 | 342 | 201 | 2501 |
| 1145-1245 | 58 | 147 | 51 | 120 | 97 | 73 | 98 | 434 | 234 | 627 | 352 | 203 | 2494 |
| 1200-100 | 61 | 119 | 51 | 121 | 94 | 66 | 76 | 452 | 255 | 627 | 353 | 217 | 2492 |
| 1215-115 | 58 | 119 | 44 | 110 | 90 | 68 | 74 | 456 | 270 | 611 | 362 | 222 | 2484 |
| 1230-130 | 76 | 127 | 40 | 102 | 99 | 65 | 81 | 476 | 270 | 648 | 331 | 223 | 2538 |
| 1245-145 | 88 | 133 | 43 | 93 | 106 | 67 | 85 | 479 | 262 | 678 | 316 | 214 | 2564 |
| 100-200 | 87 | 136 | 42 | 98 | 116 | 63 | 88 | 491 | 248 | 670 | 283 | 215 | 2537 |
| 115-215 | 97 | 138 | 35 | 91 | 114 | 59 | 81 | 538 | 256 | 745 | 215 | 210 | 2579 |
| 130-230 | 89 | 148 | 28 | 93 | 87 | 57 | 61 | 550 | 261 | 771 | 188 | 198 | 2531 |
| 145-245 | 81 | 137 | 25 | 83 | 80 | 59 | 37 | 580 | 280 | 800 | 128 | 187 | 2477 |
| 200-300 | 74 | 118 | 17 | 62 | 60 | 65 | 45 | 577 | 304 | 834 | 92 | 175 | 2423 |
| 215-315 | 65 | 109 | 19 | 64 | 50 | 65 | 51 | 557 | 298 | 842 | 78 | 150 | 2348 |
| 230-330 | 54 | 86 | 19 | 52 | 56 | 67 | 53 | 536 | 307 | 822 | 57 | 143 | 2252 |
| 245-345 | 50 | 99 | 18 | 49 | 52 | 65 | 57 | 518 | 297 | 834 | 46 | 130 | 2215 |
| 300-400 | 45 | 123 | 20 | 47 | 56 | 58 | 48 | 522 | 287 | 831 | 35 | 115 | 2187 |



# WILTEC

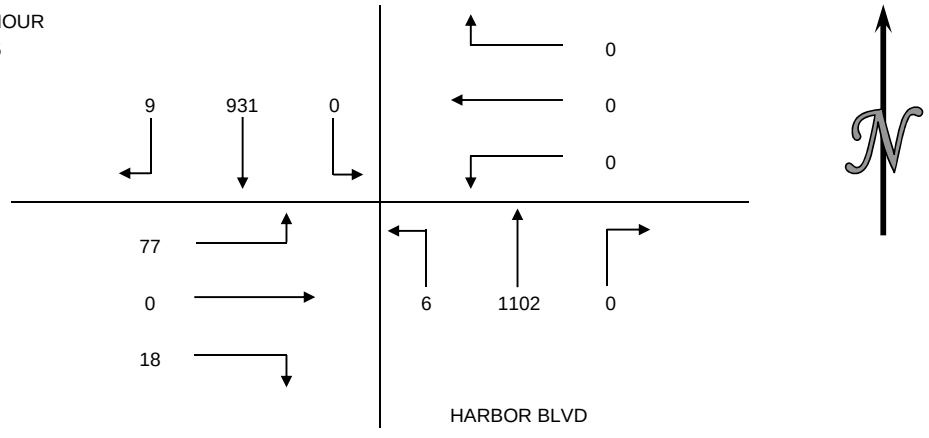
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: WEDNESDAY, APRIL 27, 2011
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S HARBOR BLVD
E/W OFARRELL STREET

| 15 MIN COUNTS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| PERIOD | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 700-715 | 2 | 201 | 0 | 0 | 0 | 0 | 0 | 212 | 0 | 1 | 0 | 26 | 442 |
| 715-730 | 2 | 219 | 0 | 0 | 0 | 0 | 0 | 258 | 1 | 1 | 0 | 10 | 491 |
| 730-745 | 2 | 237 | 0 | 0 | 0 | 0 | 0 | 314 | 0 | 4 | 0 | 29 | 586 |
| 745-800 | 1 | 265 | 0 | 0 | 0 | 0 | 0 | 281 | 2 | 10 | 0 | 15 | 574 |
| 800-815 | 4 | 210 | 0 | 0 | 0 | 0 | 0 | 249 | 3 | 3 | 0 | 23 | 492 |
| 815-830 | 2 | 231 | 0 | 0 | 0 | 0 | 0 | 214 | 2 | 4 | 0 | 14 | 467 |
| 830-845 | 5 | 199 | 0 | 0 | 0 | 0 | 0 | 194 | 0 | 4 | 0 | 19 | 421 |
| 845-900 | 3 | 188 | 0 | 0 | 0 | 0 | 0 | 171 | 6 | 4 | 0 | 13 | 385 |
| 900-915 | 1 | 201 | 0 | 0 | 0 | 0 | 0 | 146 | 1 | 5 | 0 | 20 | 374 |
| 915-930 | 3 | 242 | 0 | 0 | 0 | 0 | 0 | 163 | 3 | 4 | 0 | 9 | 424 |
| 930-945 | 1 | 182 | 0 | 0 | 0 | 0 | 0 | 152 | 6 | 2 | 0 | 18 | 361 |
| 945-1000 | 3 | 172 | 0 | 0 | 0 | 0 | 0 | 156 | 1 | 4 | 0 | 8 | 344 |
| HOUR TOTALS | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| TIME | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 700-800 | 7 | 922 | 0 | 0 | 0 | 0 | 0 | 1065 | 3 | 16 | 0 | 80 | 2093 |
| 715-815 | 9 | 931 | 0 | 0 | 0 | 0 | 0 | 1102 | 6 | 18 | 0 | 77 | 2143 |
| 730-830 | 9 | 943 | 0 | 0 | 0 | 0 | 0 | 1058 | 7 | 21 | 0 | 81 | 2119 |
| 745-845 | 12 | 905 | 0 | 0 | 0 | 0 | 0 | 938 | 7 | 21 | 0 | 71 | 1954 |
| 800-900 | 14 | 828 | 0 | 0 | 0 | 0 | 0 | 828 | 11 | 15 | 0 | 69 | 1765 |
| 815-815 | 11 | 819 | 0 | 0 | 0 | 0 | 0 | 725 | 9 | 17 | 0 | 66 | 1647 |
| 830-930 | 12 | 830 | 0 | 0 | 0 | 0 | 0 | 674 | 10 | 17 | 0 | 61 | 1604 |
| 845-945 | 8 | 813 | 0 | 0 | 0 | 0 | 0 | 632 | 16 | 15 | 0 | 60 | 1544 |
| 900-1000 | 8 | 797 | 0 | 0 | 0 | 0 | 0 | 617 | 11 | 15 | 0 | 55 | 1503 |

A.M. PEAK HOUR
715-815



# WILTEC

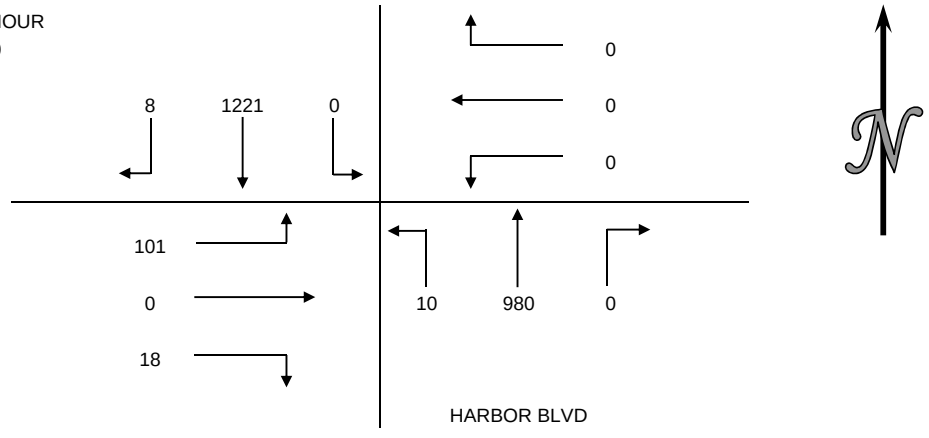
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: WEDNESDAY, APRIL 27, 2011
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S HARBOR BLVD
E/W OFARRELL STREET

| 15 MIN COUNTS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| PERIOD | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 300-315 | 2 | 249 | 0 | 0 | 0 | 0 | 0 | 221 | 6 | 3 | 0 | 13 | 494 |
| 315-330 | 3 | 284 | 0 | 0 | 0 | 0 | 0 | 220 | 1 | 1 | 0 | 17 | 526 |
| 330-345 | 4 | 254 | 0 | 0 | 0 | 0 | 0 | 227 | 3 | 7 | 0 | 32 | 527 |
| 345-400 | 3 | 239 | 0 | 0 | 0 | 0 | 0 | 231 | 2 | 8 | 0 | 32 | 515 |
| 400-415 | 8 | 258 | 0 | 0 | 0 | 0 | 0 | 263 | 3 | 4 | 0 | 21 | 557 |
| 415-430 | 4 | 281 | 0 | 0 | 0 | 0 | 0 | 215 | 2 | 7 | 0 | 18 | 527 |
| 430-445 | 1 | 328 | 0 | 0 | 0 | 0 | 0 | 255 | 0 | 3 | 0 | 28 | 615 |
| 445-500 | 2 | 282 | 0 | 0 | 0 | 0 | 0 | 217 | 4 | 6 | 0 | 14 | 525 |
| 500-515 | 5 | 331 | 0 | 0 | 0 | 0 | 0 | 251 | 4 | 5 | 0 | 32 | 628 |
| 515-530 | 0 | 280 | 0 | 0 | 0 | 0 | 0 | 257 | 2 | 4 | 0 | 27 | 570 |
| 530-545 | 3 | 315 | 0 | 0 | 0 | 0 | 0 | 228 | 2 | 11 | 0 | 21 | 580 |
| 545-600 | 1 | 240 | 0 | 0 | 0 | 0 | 0 | 174 | 4 | 4 | 0 | 10 | 433 |
| HOUR TOTALS | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| TIME | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 300-400 | 12 | 1026 | 0 | 0 | 0 | 0 | 0 | 899 | 12 | 19 | 0 | 94 | 2062 |
| 315-415 | 18 | 1035 | 0 | 0 | 0 | 0 | 0 | 941 | 9 | 20 | 0 | 102 | 2125 |
| 330-430 | 19 | 1032 | 0 | 0 | 0 | 0 | 0 | 936 | 10 | 26 | 0 | 103 | 2126 |
| 345-445 | 16 | 1106 | 0 | 0 | 0 | 0 | 0 | 964 | 7 | 22 | 0 | 99 | 2214 |
| 400-500 | 15 | 1149 | 0 | 0 | 0 | 0 | 0 | 950 | 9 | 20 | 0 | 81 | 2224 |
| 415-515 | 12 | 1222 | 0 | 0 | 0 | 0 | 0 | 938 | 10 | 21 | 0 | 92 | 2295 |
| 430-530 | 8 | 1221 | 0 | 0 | 0 | 0 | 0 | 980 | 10 | 18 | 0 | 101 | 2338 |
| 445-545 | 10 | 1208 | 0 | 0 | 0 | 0 | 0 | 953 | 12 | 26 | 0 | 94 | 2303 |
| 500-600 | 9 | 1166 | 0 | 0 | 0 | 0 | 0 | 910 | 12 | 24 | 0 | 90 | 2211 |

P.M. PEAK HOUR
430-530



# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: SATURDAY APRIL 30, 2011
PERIOD: 11:00 AM TO 4:00 PM
INTERSECTION: N/S HARBOR BLVD
E/W OFARRELL STREET

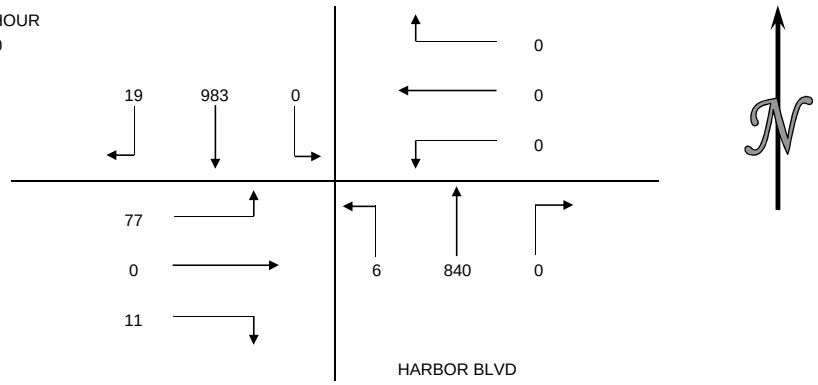
15 MIN COUNTS

| PERIOD | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1100-1115 | 2 | 188 | 0 | 0 | 0 | 0 | 0 | 141 | 4 | 6 | 0 | 14 | 355 |
| 1115-1130 | 4 | 196 | 0 | 0 | 0 | 0 | 0 | 174 | 2 | 1 | 0 | 21 | 398 |
| 1130-1145 | 7 | 212 | 0 | 0 | 0 | 0 | 0 | 155 | 1 | 1 | 0 | 26 | 402 |
| 1145-1200 | 5 | 229 | 0 | 0 | 0 | 0 | 0 | 172 | 3 | 4 | 0 | 21 | 434 |
| 1200-1215 | 1 | 184 | 0 | 0 | 0 | 0 | 0 | 150 | 1 | 3 | 0 | 10 | 349 |
| 1215-1230 | 5 | 186 | 0 | 0 | 0 | 0 | 0 | 172 | 2 | 1 | 0 | 24 | 390 |
| 1230-1245 | 1 | 210 | 0 | 0 | 0 | 0 | 0 | 200 | 0 | 2 | 0 | 12 | 425 |
| 1245-100 | 6 | 224 | 0 | 0 | 0 | 0 | 0 | 199 | 1 | 2 | 0 | 16 | 448 |
| 100-115 | 2 | 194 | 0 | 0 | 0 | 0 | 0 | 182 | 0 | 5 | 0 | 18 | 401 |
| 115-130 | 5 | 248 | 0 | 0 | 0 | 0 | 0 | 201 | 0 | 3 | 0 | 15 | 472 |
| 130-145 | 1 | 226 | 0 | 0 | 0 | 0 | 0 | 194 | 2 | 7 | 0 | 22 | 452 |
| 145-200 | 3 | 201 | 0 | 0 | 0 | 0 | 0 | 178 | 0 | 3 | 0 | 9 | 394 |
| 200-215 | 6 | 246 | 0 | 0 | 0 | 0 | 0 | 215 | 1 | 4 | 0 | 16 | 488 |
| 215-230 | 8 | 260 | 0 | 0 | 0 | 0 | 0 | 195 | 1 | 1 | 0 | 31 | 496 |
| 230-245 | 2 | 245 | 0 | 0 | 0 | 0 | 0 | 208 | 2 | 2 | 0 | 12 | 471 |
| 245-300 | 3 | 232 | 0 | 0 | 0 | 0 | 0 | 222 | 2 | 4 | 0 | 18 | 481 |
| 3000-315 | 3 | 244 | 0 | 0 | 0 | 0 | 0 | 202 | 4 | 5 | 0 | 19 | 477 |
| 315-330 | 2 | 215 | 0 | 0 | 0 | 0 | 0 | 202 | 1 | 5 | 0 | 14 | 439 |
| 330-345 | 2 | 260 | 0 | 0 | 0 | 0 | 0 | 188 | 1 | 1 | 0 | 13 | 465 |
| 345-400 | 1 | 235 | 0 | 0 | 0 | 0 | 0 | 207 | 2 | 6 | 0 | 11 | 0 |

HOUR TOTALS

| TIME | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1100-1200 | 18 | 825 | 0 | 0 | 0 | 0 | 0 | 642 | 10 | 12 | 0 | 82 | 1589 |
| 1115-1215 | 17 | 821 | 0 | 0 | 0 | 0 | 0 | 651 | 7 | 9 | 0 | 78 | 1583 |
| 1130-1230 | 18 | 811 | 0 | 0 | 0 | 0 | 0 | 649 | 7 | 9 | 0 | 81 | 1575 |
| 1145-1245 | 12 | 809 | 0 | 0 | 0 | 0 | 0 | 694 | 6 | 10 | 0 | 67 | 1598 |
| 1200-100 | 13 | 804 | 0 | 0 | 0 | 0 | 0 | 721 | 4 | 8 | 0 | 62 | 1612 |
| 1215-115 | 14 | 814 | 0 | 0 | 0 | 0 | 0 | 753 | 3 | 10 | 0 | 70 | 1664 |
| 1230-130 | 14 | 876 | 0 | 0 | 0 | 0 | 0 | 782 | 1 | 12 | 0 | 61 | 1746 |
| 1245-145 | 14 | 892 | 0 | 0 | 0 | 0 | 0 | 776 | 3 | 17 | 0 | 71 | 1773 |
| 100-200 | 11 | 869 | 0 | 0 | 0 | 0 | 0 | 755 | 2 | 18 | 0 | 64 | 1719 |
| 115-215 | 15 | 921 | 0 | 0 | 0 | 0 | 0 | 788 | 3 | 17 | 0 | 62 | 1806 |
| 130-230 | 18 | 933 | 0 | 0 | 0 | 0 | 0 | 782 | 4 | 15 | 0 | 78 | 1830 |
| 145-245 | 19 | 952 | 0 | 0 | 0 | 0 | 0 | 796 | 4 | 10 | 0 | 68 | 1849 |
| 200-300 | 19 | 983 | 0 | 0 | 0 | 0 | 0 | 840 | 6 | 11 | 0 | 77 | 1936 |
| 215-315 | 16 | 981 | 0 | 0 | 0 | 0 | 0 | 827 | 9 | 12 | 0 | 80 | 1925 |
| 230-330 | 10 | 936 | 0 | 0 | 0 | 0 | 0 | 834 | 9 | 16 | 0 | 63 | 1868 |
| 245-345 | 10 | 951 | 0 | 0 | 0 | 0 | 0 | 814 | 8 | 15 | 0 | 64 | 1862 |
| 300-400 | 8 | 954 | 0 | 0 | 0 | 0 | 0 | 799 | 8 | 17 | 0 | 57 | 1843 |

P.M. PEAK HOUR
200-300



# WILTEC

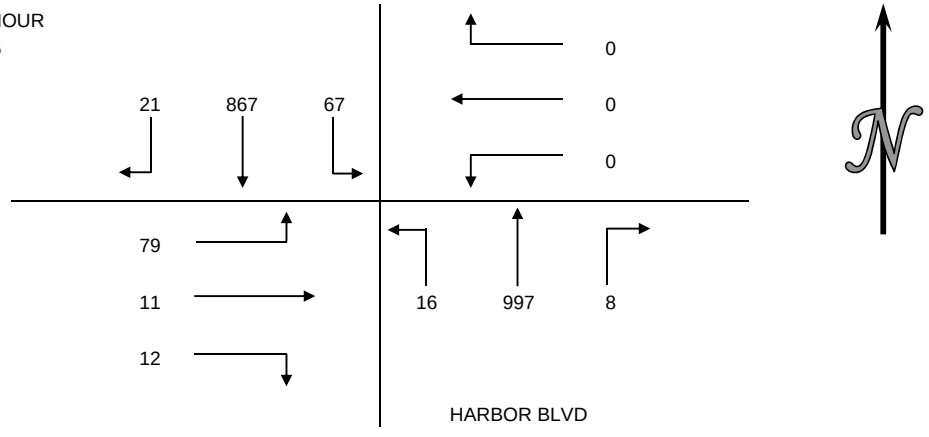
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: WEDNESDAY, APRIL 27, 2011
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S HARBOR BLVD
E/W 1ST STREET

| 15 MIN COUNTS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| PERIOD | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 700-715 | 4 | 164 | 48 | 0 | 0 | 0 | 1 | 198 | 3 | 3 | 0 | 11 | 432 |
| 715-730 | 2 | 211 | 20 | 0 | 0 | 0 | 0 | 207 | 1 | 0 | 2 | 11 | 454 |
| 730-745 | 6 | 189 | 12 | 0 | 0 | 0 | 1 | 294 | 1 | 2 | 2 | 21 | 528 |
| 745-800 | 6 | 260 | 19 | 0 | 0 | 0 | 2 | 267 | 5 | 7 | 6 | 23 | 595 |
| 800-815 | 7 | 207 | 16 | 0 | 0 | 0 | 5 | 229 | 9 | 3 | 1 | 24 | 501 |
| 815-830 | 4 | 175 | 18 | 0 | 0 | 0 | 4 | 191 | 7 | 0 | 1 | 21 | 421 |
| 830-845 | 12 | 140 | 21 | 0 | 0 | 0 | 1 | 149 | 11 | 4 | 2 | 12 | 352 |
| 845-900 | 13 | 199 | 23 | 0 | 0 | 0 | 2 | 152 | 7 | 3 | 3 | 14 | 416 |
| 900-915 | 10 | 187 | 30 | 0 | 0 | 0 | 3 | 138 | 8 | 2 | 0 | 15 | 393 |
| 915-930 | 12 | 157 | 28 | 0 | 0 | 0 | 2 | 157 | 10 | 0 | 5 | 9 | 380 |
| 930-945 | 14 | 169 | 24 | 0 | 0 | 0 | 3 | 145 | 13 | 2 | 1 | 10 | 381 |
| 945-1000 | 7 | 144 | 33 | 0 | 0 | 0 | 1 | 152 | 6 | 4 | 0 | 11 | 358 |
| HOUR TOTALS | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| TIME | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 700-800 | 18 | 824 | 99 | 0 | 0 | 0 | 4 | 966 | 10 | 12 | 10 | 66 | 2009 |
| 715-815 | 21 | 867 | 67 | 0 | 0 | 0 | 8 | 997 | 16 | 12 | 11 | 79 | 2078 |
| 730-830 | 23 | 831 | 65 | 0 | 0 | 0 | 12 | 981 | 22 | 12 | 10 | 89 | 2045 |
| 745-845 | 29 | 782 | 74 | 0 | 0 | 0 | 12 | 836 | 32 | 14 | 10 | 80 | 1869 |
| 800-900 | 36 | 721 | 78 | 0 | 0 | 0 | 12 | 721 | 34 | 10 | 7 | 71 | 1690 |
| 815-815 | 39 | 701 | 92 | 0 | 0 | 0 | 10 | 630 | 33 | 9 | 6 | 62 | 1582 |
| 830-930 | 47 | 683 | 102 | 0 | 0 | 0 | 8 | 596 | 36 | 9 | 10 | 50 | 1541 |
| 845-945 | 49 | 712 | 105 | 0 | 0 | 0 | 10 | 592 | 38 | 7 | 9 | 48 | 1570 |
| 900-1000 | 43 | 657 | 115 | 0 | 0 | 0 | 9 | 592 | 37 | 8 | 6 | 45 | 1512 |

A.M. PEAK HOUR
715-815



# WILTEC

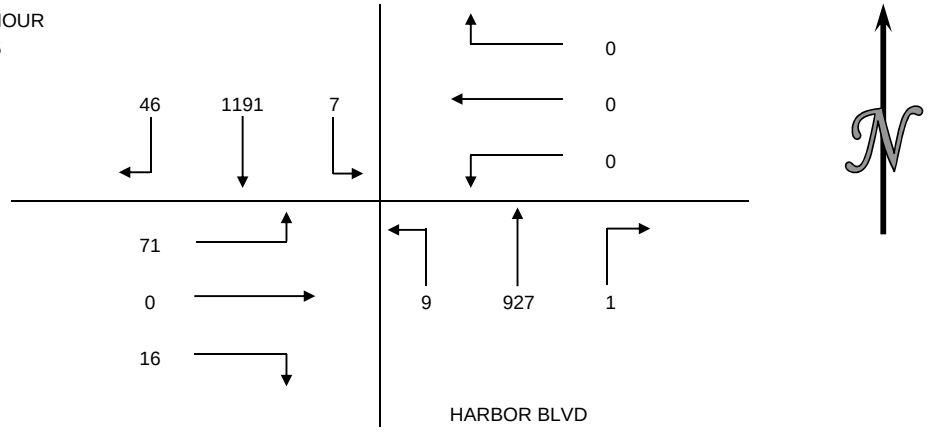
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: WEDNESDAY, APRIL 27, 2011
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S HARBOR BLVD
E/W 1ST STREET

| 15 MIN COUNTS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| PERIOD | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 300-315 | 10 | 249 | 2 | 0 | 0 | 0 | 0 | 219 | 4 | 7 | 0 | 11 | 502 |
| 315-330 | 16 | 201 | 3 | 0 | 0 | 0 | 2 | 208 | 4 | 5 | 0 | 11 | 450 |
| 330-345 | 8 | 228 | 1 | 0 | 0 | 0 | 0 | 215 | 3 | 6 | 0 | 17 | 478 |
| 345-400 | 16 | 281 | 1 | 0 | 0 | 0 | 0 | 203 | 2 | 4 | 0 | 17 | 524 |
| 400-415 | 8 | 290 | 3 | 0 | 0 | 0 | 0 | 235 | 3 | 6 | 0 | 19 | 564 |
| 415-430 | 10 | 266 | 0 | 0 | 0 | 0 | 0 | 195 | 3 | 7 | 0 | 22 | 503 |
| 430-445 | 4 | 274 | 1 | 0 | 0 | 0 | 0 | 222 | 3 | 5 | 0 | 15 | 524 |
| 445-500 | 15 | 295 | 2 | 0 | 0 | 0 | 1 | 248 | 2 | 6 | 0 | 23 | 592 |
| 500-515 | 15 | 320 | 1 | 0 | 0 | 0 | 0 | 240 | 3 | 4 | 0 | 20 | 603 |
| 515-530 | 10 | 262 | 3 | 0 | 0 | 0 | 0 | 227 | 1 | 4 | 0 | 18 | 525 |
| 530-545 | 6 | 314 | 1 | 0 | 0 | 0 | 0 | 212 | 3 | 2 | 0 | 10 | 548 |
| 545-600 | 13 | 265 | 0 | 0 | 0 | 0 | 0 | 176 | 4 | 5 | 0 | 17 | 480 |
| HOUR TOTALS | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| TIME | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 300-400 | 50 | 959 | 7 | 0 | 0 | 0 | 2 | 845 | 13 | 22 | 0 | 56 | 1954 |
| 315-415 | 48 | 1000 | 8 | 0 | 0 | 0 | 2 | 861 | 12 | 21 | 0 | 64 | 2016 |
| 330-430 | 42 | 1065 | 5 | 0 | 0 | 0 | 0 | 848 | 11 | 23 | 0 | 75 | 2069 |
| 345-445 | 38 | 1111 | 5 | 0 | 0 | 0 | 0 | 855 | 11 | 22 | 0 | 73 | 2115 |
| 400-500 | 37 | 1125 | 6 | 0 | 0 | 0 | 1 | 900 | 11 | 24 | 0 | 79 | 2183 |
| 415-515 | 44 | 1155 | 4 | 0 | 0 | 0 | 1 | 905 | 11 | 22 | 0 | 80 | 2222 |
| 430-530 | 44 | 1151 | 7 | 0 | 0 | 0 | 1 | 937 | 9 | 19 | 0 | 76 | 2244 |
| 445-545 | 46 | 1191 | 7 | 0 | 0 | 0 | 1 | 927 | 9 | 16 | 0 | 71 | 2268 |
| 500-600 | 44 | 1161 | 5 | 0 | 0 | 0 | 0 | 855 | 11 | 15 | 0 | 65 | 2156 |

P.M. PEAK HOUR
445-545



# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

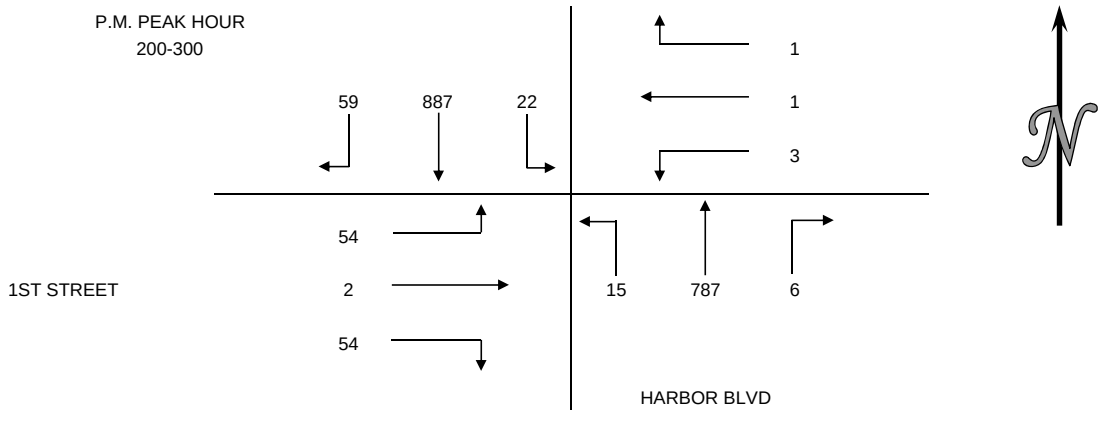
CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: SATURDAY APRIL 30, 2011
PERIOD: 11:00 AM TO 4:00 PM
INTERSECTION: N/S HARBOR BLVD
E/W 1ST STREET

15 MIN COUNTS

| PERIOD | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1100-1115 | 8 | 150 | 18 | 0 | 1 | 0 | 14 | 137 | 8 | 6 | 5 | 9 | 356 |
| 1115-1130 | 6 | 173 | 15 | 0 | 1 | 0 | 9 | 163 | 2 | 10 | 3 | 14 | 396 |
| 1130-1145 | 20 | 182 | 11 | 0 | 0 | 0 | 5 | 158 | 6 | 5 | 6 | 5 | 398 |
| 1145-1200 | 22 | 217 | 5 | 1 | 0 | 2 | 7 | 140 | 3 | 1 | 1 | 15 | 414 |
| 1200-1215 | 8 | 187 | 15 | 0 | 1 | 0 | 12 | 136 | 1 | 15 | 4 | 16 | 395 |
| 1215-1230 | 10 | 157 | 4 | 0 | 0 | 0 | 4 | 154 | 3 | 11 | 6 | 13 | 362 |
| 1230-1245 | 6 | 198 | 12 | 0 | 1 | 1 | 8 | 194 | 2 | 5 | 3 | 10 | 440 |
| 1245-100 | 12 | 192 | 9 | 0 | 0 | 0 | 5 | 173 | 2 | 6 | 3 | 12 | 414 |
| 100-115 | 4 | 186 | 10 | 0 | 0 | 0 | 3 | 179 | 2 | 9 | 4 | 20 | 417 |
| 115-130 | 8 | 219 | 6 | 0 | 0 | 1 | 2 | 167 | 5 | 10 | 2 | 10 | 430 |
| 130-145 | 11 | 220 | 2 | 1 | 0 | 0 | 3 | 172 | 6 | 15 | 1 | 16 | 447 |
| 145-200 | 8 | 197 | 7 | 0 | 0 | 0 | 1 | 192 | 5 | 8 | 2 | 13 | 433 |
| 200-215 | 17 | 242 | 7 | 0 | 0 | 3 | 4 | 218 | 6 | 11 | 1 | 8 | 517 |
| 215-230 | 20 | 221 | 6 | 0 | 0 | 0 | 0 | 178 | 3 | 16 | 1 | 12 | 457 |
| 230-245 | 9 | 214 | 4 | 1 | 1 | 0 | 2 | 206 | 3 | 14 | 0 | 18 | 472 |
| 245-300 | 13 | 210 | 5 | 0 | 0 | 0 | 0 | 185 | 3 | 13 | 0 | 16 | 445 |
| 3000-315 | 13 | 241 | 1 | 0 | 0 | 0 | 0 | 206 | 6 | 8 | 2 | 11 | 488 |
| 315-330 | 10 | 192 | 3 | 1 | 0 | 0 | 0 | 183 | 4 | 17 | 1 | 15 | 426 |
| 330-345 | 16 | 225 | 3 | 0 | 0 | 0 | 0 | 166 | 3 | 8 | 0 | 13 | 434 |
| 345-400 | 10 | 238 | 2 | 0 | 0 | 0 | 1 | 214 | 3 | 16 | 0 | 11 | 0 |

HOUR TOTALS

| TIME | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1100-1200 | 56 | 722 | 49 | 1 | 2 | 2 | 35 | 598 | 19 | 22 | 15 | 43 | 1564 |
| 1115-1215 | 56 | 759 | 46 | 1 | 2 | 2 | 33 | 597 | 12 | 31 | 14 | 50 | 1603 |
| 1130-1230 | 60 | 743 | 35 | 1 | 1 | 2 | 28 | 588 | 13 | 32 | 17 | 49 | 1569 |
| 1145-1245 | 46 | 759 | 36 | 1 | 2 | 3 | 31 | 624 | 9 | 32 | 14 | 54 | 1611 |
| 1200-100 | 36 | 734 | 40 | 0 | 2 | 1 | 29 | 657 | 8 | 37 | 16 | 51 | 1611 |
| 1215-115 | 32 | 733 | 35 | 0 | 1 | 1 | 20 | 700 | 9 | 31 | 16 | 55 | 1633 |
| 1230-130 | 30 | 795 | 37 | 0 | 1 | 2 | 18 | 713 | 11 | 30 | 12 | 52 | 1701 |
| 1245-145 | 35 | 817 | 27 | 1 | 0 | 1 | 13 | 691 | 15 | 40 | 10 | 58 | 1708 |
| 100-200 | 31 | 822 | 25 | 1 | 0 | 1 | 9 | 710 | 18 | 42 | 9 | 59 | 1727 |
| 115-215 | 44 | 878 | 22 | 1 | 0 | 4 | 10 | 749 | 22 | 44 | 6 | 47 | 1827 |
| 130-230 | 56 | 880 | 22 | 1 | 0 | 3 | 8 | 760 | 20 | 50 | 5 | 49 | 1854 |
| 145-245 | 54 | 874 | 24 | 1 | 1 | 3 | 7 | 794 | 17 | 49 | 4 | 51 | 1879 |
| 200-300 | 59 | 887 | 22 | 1 | 1 | 3 | 6 | 787 | 15 | 54 | 2 | 54 | 1891 |
| 215-315 | 55 | 886 | 16 | 1 | 1 | 0 | 2 | 775 | 15 | 51 | 3 | 57 | 1862 |
| 230-330 | 45 | 857 | 13 | 2 | 1 | 0 | 2 | 780 | 16 | 52 | 3 | 60 | 1831 |
| 245-345 | 52 | 868 | 12 | 1 | 0 | 0 | 0 | 740 | 16 | 46 | 3 | 55 | 1793 |
| 300-400 | 49 | 896 | 9 | 1 | 0 | 0 | 1 | 769 | 16 | 49 | 3 | 50 | 1843 |



# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: WEDNESDAY, APRIL 27, 2011
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S HARBOR BLVD
E/W 3RD STREET

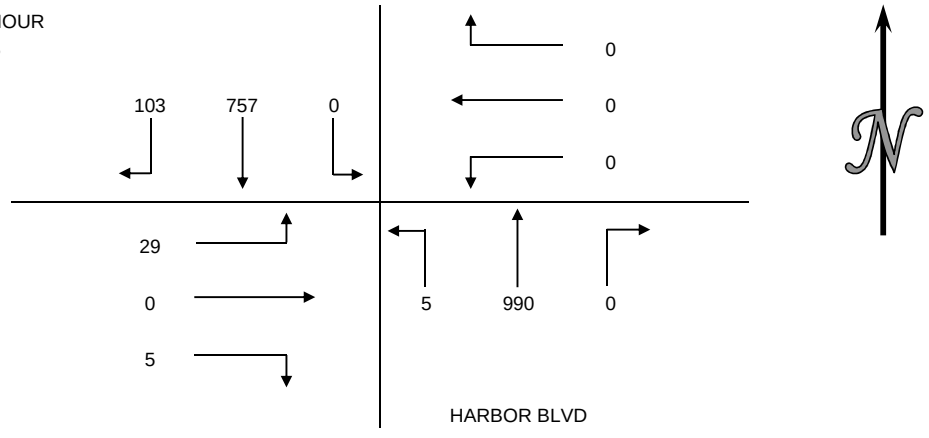
15 MIN COUNTS

| PERIOD | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 700-715 | 28 | 124 | 0 | 0 | 0 | 0 | 0 | 201 | 0 | 1 | 0 | 4 | 358 |
| 715-730 | 28 | 157 | 0 | 0 | 0 | 0 | 0 | 246 | 2 | 2 | 0 | 10 | 445 |
| 730-745 | 32 | 186 | 0 | 0 | 0 | 0 | 0 | 260 | 0 | 2 | 0 | 7 | 487 |
| 745-800 | 20 | 229 | 0 | 0 | 0 | 0 | 0 | 251 | 3 | 1 | 0 | 11 | 515 |
| 800-815 | 23 | 185 | 0 | 0 | 0 | 0 | 0 | 233 | 0 | 0 | 0 | 1 | 442 |
| 815-830 | 17 | 168 | 0 | 0 | 0 | 0 | 0 | 192 | 0 | 1 | 0 | 5 | 383 |
| 830-845 | 10 | 136 | 0 | 0 | 0 | 0 | 0 | 172 | 1 | 2 | 0 | 2 | 323 |
| 845-900 | 12 | 184 | 0 | 0 | 0 | 0 | 0 | 149 | 1 | 2 | 0 | 6 | 354 |
| 900-915 | 10 | 179 | 0 | 0 | 0 | 0 | 0 | 134 | 0 | 2 | 0 | 1 | 326 |
| 915-930 | 4 | 168 | 0 | 0 | 0 | 0 | 0 | 166 | 0 | 1 | 0 | 4 | 343 |
| 930-945 | 10 | 141 | 0 | 0 | 0 | 0 | 0 | 152 | 0 | 1 | 0 | 8 | 312 |
| 945-1000 | 13 | 128 | 0 | 0 | 0 | 0 | 0 | 147 | 0 | 9 | 0 | 5 | 302 |

HOUR TOTALS

| TIME | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 700-800 | 108 | 696 | 0 | 0 | 0 | 0 | 0 | 958 | 5 | 6 | 0 | 32 | 1805 |
| 715-815 | 103 | 757 | 0 | 0 | 0 | 0 | 0 | 990 | 5 | 5 | 0 | 29 | 1889 |
| 730-830 | 92 | 768 | 0 | 0 | 0 | 0 | 0 | 936 | 3 | 4 | 0 | 24 | 1827 |
| 745-845 | 70 | 718 | 0 | 0 | 0 | 0 | 0 | 848 | 4 | 4 | 0 | 19 | 1663 |
| 800-900 | 62 | 673 | 0 | 0 | 0 | 0 | 0 | 746 | 2 | 5 | 0 | 14 | 1502 |
| 815-815 | 49 | 667 | 0 | 0 | 0 | 0 | 0 | 647 | 2 | 7 | 0 | 14 | 1386 |
| 830-930 | 36 | 667 | 0 | 0 | 0 | 0 | 0 | 621 | 2 | 7 | 0 | 13 | 1346 |
| 845-945 | 36 | 672 | 0 | 0 | 0 | 0 | 0 | 601 | 1 | 6 | 0 | 19 | 1335 |
| 900-1000 | 37 | 616 | 0 | 0 | 0 | 0 | 0 | 599 | 0 | 13 | 0 | 18 | 1283 |

A.M. PEAK HOUR
715-815



# WILTEC

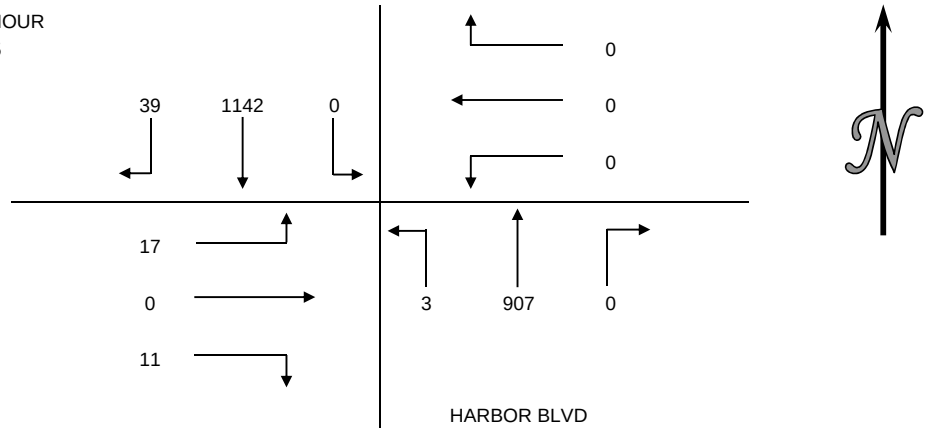
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: WEDNESDAY, APRIL 27, 2011
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S HARBOR BLVD
E/W 3RD STREET

| 15 MIN COUNTS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| PERIOD | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 300-315 | 14 | 245 | 0 | 0 | 0 | 0 | 0 | 212 | 2 | 3 | 0 | 7 | 483 |
| 315-330 | 9 | 213 | 0 | 0 | 0 | 0 | 0 | 212 | 3 | 0 | 0 | 12 | 449 |
| 330-345 | 12 | 241 | 0 | 0 | 0 | 0 | 0 | 224 | 4 | 1 | 0 | 7 | 489 |
| 345-400 | 15 | 249 | 0 | 0 | 0 | 0 | 0 | 193 | 2 | 2 | 0 | 5 | 466 |
| 400-415 | 7 | 256 | 0 | 0 | 0 | 0 | 0 | 239 | 1 | 3 | 0 | 5 | 511 |
| 415-430 | 10 | 288 | 0 | 0 | 0 | 0 | 0 | 210 | 0 | 1 | 0 | 3 | 512 |
| 430-445 | 11 | 258 | 0 | 0 | 0 | 0 | 0 | 237 | 1 | 1 | 0 | 5 | 513 |
| 445-500 | 6 | 276 | 0 | 0 | 0 | 0 | 0 | 209 | 2 | 2 | 0 | 1 | 496 |
| 500-515 | 12 | 320 | 0 | 0 | 0 | 0 | 0 | 251 | 0 | 7 | 0 | 8 | 598 |
| 515-530 | 11 | 273 | 0 | 0 | 0 | 0 | 0 | 205 | 1 | 3 | 0 | 10 | 503 |
| 530-545 | 13 | 255 | 0 | 0 | 0 | 0 | 0 | 215 | 6 | 1 | 0 | 11 | 501 |
| 545-600 | 16 | 263 | 0 | 0 | 0 | 0 | 0 | 185 | 1 | 1 | 0 | 4 | 470 |
| HOUR TOTALS | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| TIME | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 300-400 | 50 | 948 | 0 | 0 | 0 | 0 | 0 | 841 | 11 | 6 | 0 | 31 | 1887 |
| 315-415 | 43 | 959 | 0 | 0 | 0 | 0 | 0 | 868 | 10 | 6 | 0 | 29 | 1915 |
| 330-430 | 44 | 1034 | 0 | 0 | 0 | 0 | 0 | 866 | 7 | 7 | 0 | 20 | 1978 |
| 345-445 | 43 | 1051 | 0 | 0 | 0 | 0 | 0 | 879 | 4 | 7 | 0 | 18 | 2002 |
| 400-500 | 34 | 1078 | 0 | 0 | 0 | 0 | 0 | 895 | 4 | 7 | 0 | 14 | 2032 |
| 415-515 | 39 | 1142 | 0 | 0 | 0 | 0 | 0 | 907 | 3 | 11 | 0 | 17 | 2119 |
| 430-530 | 40 | 1127 | 0 | 0 | 0 | 0 | 0 | 902 | 4 | 13 | 0 | 24 | 2110 |
| 445-545 | 42 | 1124 | 0 | 0 | 0 | 0 | 0 | 880 | 9 | 13 | 0 | 30 | 2098 |
| 500-600 | 52 | 1111 | 0 | 0 | 0 | 0 | 0 | 856 | 8 | 12 | 0 | 33 | 2072 |

P.M. PEAK HOUR
415-515



# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: SATURDAY APRIL 30, 2011
PERIOD: 11:00 AM TO 4:00 PM
INTERSECTION: N/S HARBOR BLVD
E/W 3RD STREET

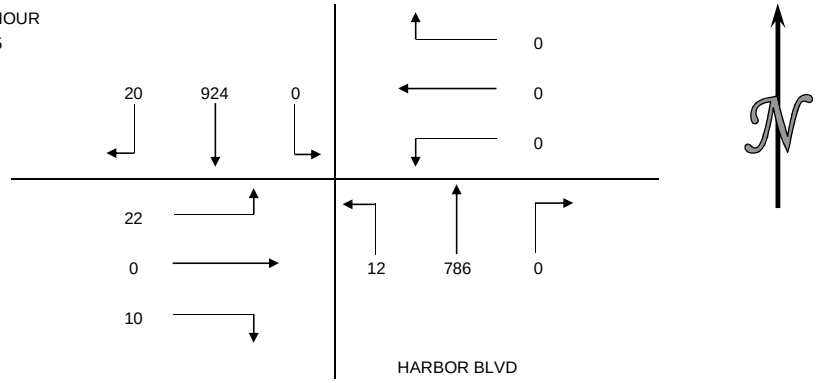
15 MIN COUNTS

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERIOD | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 1100-1115 | 4 | 175 | 0 | 0 | 0 | 0 | 0 | 162 | 2 | 2 | 0 | 2 | 347 |
| 1115-1130 | 4 | 186 | 0 | 0 | 0 | 0 | 0 | 177 | 0 | 2 | 0 | 5 | 374 |
| 1130-1145 | 4 | 180 | 0 | 0 | 0 | 0 | 0 | 164 | 4 | 2 | 0 | 3 | 357 |
| 1145-1200 | 2 | 217 | 0 | 0 | 0 | 0 | 0 | 140 | 0 | 4 | 0 | 3 | 366 |
| 1200-1215 | 5 | 175 | 0 | 0 | 0 | 0 | 0 | 136 | 4 | 2 | 0 | 7 | 329 |
| 1215-1230 | 9 | 165 | 0 | 0 | 0 | 0 | 0 | 122 | 3 | 2 | 0 | 5 | 306 |
| 1230-1245 | 4 | 211 | 0 | 0 | 0 | 0 | 0 | 212 | 3 | 0 | 0 | 6 | 436 |
| 1245-100 | 6 | 202 | 0 | 0 | 0 | 0 | 0 | 181 | 0 | 3 | 0 | 4 | 396 |
| 100-115 | 3 | 202 | 0 | 0 | 0 | 0 | 0 | 192 | 0 | 1 | 0 | 2 | 400 |
| 115-130 | 8 | 224 | 0 | 0 | 0 | 0 | 0 | 139 | 11 | 1 | 0 | 4 | 387 |
| 130-145 | 6 | 203 | 0 | 0 | 0 | 0 | 0 | 189 | 0 | 0 | 0 | 5 | 403 |
| 145-200 | 6 | 232 | 0 | 0 | 0 | 0 | 0 | 194 | 5 | 2 | 0 | 4 | 443 |
| 200-215 | 3 | 231 | 0 | 0 | 0 | 0 | 0 | 175 | 1 | 4 | 0 | 2 | 416 |
| 215-230 | 3 | 204 | 0 | 0 | 0 | 0 | 0 | 182 | 5 | 2 | 0 | 7 | 403 |
| 230-245 | 8 | 257 | 0 | 0 | 0 | 0 | 0 | 235 | 1 | 2 | 0 | 9 | 512 |
| 245-300 | 6 | 233 | 0 | 0 | 0 | 0 | 0 | 185 | 1 | 4 | 0 | 6 | 435 |
| 3000-315 | 8 | 261 | 0 | 0 | 0 | 0 | 0 | 224 | 1 | 3 | 0 | 3 | 500 |
| 315-330 | 6 | 229 | 0 | 0 | 0 | 0 | 0 | 189 | 2 | 2 | 0 | 3 | 431 |
| 330-345 | 8 | 244 | 0 | 0 | 0 | 0 | 0 | 170 | 2 | 4 | 0 | 6 | 434 |
| 345-400 | 6 | 200 | 0 | 0 | 0 | 0 | 0 | 168 | 3 | 1 | 0 | 9 | 0 |

HOUR TOTALS

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TIME | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 1100-1200 | 14 | 758 | 0 | 0 | 0 | 0 | 0 | 643 | 6 | 10 | 0 | 13 | 1444 |
| 1115-1215 | 15 | 758 | 0 | 0 | 0 | 0 | 0 | 617 | 8 | 10 | 0 | 18 | 1426 |
| 1130-1230 | 20 | 737 | 0 | 0 | 0 | 0 | 0 | 562 | 11 | 10 | 0 | 18 | 1358 |
| 1145-1245 | 20 | 768 | 0 | 0 | 0 | 0 | 0 | 610 | 10 | 8 | 0 | 21 | 1437 |
| 1200-100 | 24 | 753 | 0 | 0 | 0 | 0 | 0 | 651 | 10 | 7 | 0 | 22 | 1467 |
| 1215-115 | 22 | 780 | 0 | 0 | 0 | 0 | 0 | 707 | 6 | 6 | 0 | 17 | 1538 |
| 1230-130 | 21 | 839 | 0 | 0 | 0 | 0 | 0 | 724 | 14 | 5 | 0 | 16 | 1619 |
| 1245-145 | 23 | 831 | 0 | 0 | 0 | 0 | 0 | 701 | 11 | 5 | 0 | 15 | 1586 |
| 100-200 | 23 | 861 | 0 | 0 | 0 | 0 | 0 | 714 | 16 | 4 | 0 | 15 | 1633 |
| 115-215 | 23 | 890 | 0 | 0 | 0 | 0 | 0 | 697 | 17 | 7 | 0 | 15 | 1649 |
| 130-230 | 18 | 870 | 0 | 0 | 0 | 0 | 0 | 740 | 11 | 8 | 0 | 18 | 1665 |
| 145-245 | 20 | 924 | 0 | 0 | 0 | 0 | 0 | 786 | 12 | 10 | 0 | 22 | 1774 |
| 200-300 | 20 | 925 | 0 | 0 | 0 | 0 | 0 | 777 | 8 | 12 | 0 | 24 | 1766 |
| 215-315 | 25 | 955 | 0 | 0 | 0 | 0 | 0 | 826 | 8 | 11 | 0 | 25 | 1850 |
| 230-330 | 28 | 980 | 0 | 0 | 0 | 0 | 0 | 833 | 5 | 11 | 0 | 21 | 1878 |
| 245-345 | 28 | 967 | 0 | 0 | 0 | 0 | 0 | 768 | 6 | 13 | 0 | 18 | 1800 |
| 300-400 | 28 | 934 | 0 | 0 | 0 | 0 | 0 | 751 | 8 | 10 | 0 | 21 | 1752 |

P.M. PEAK HOUR
145-245



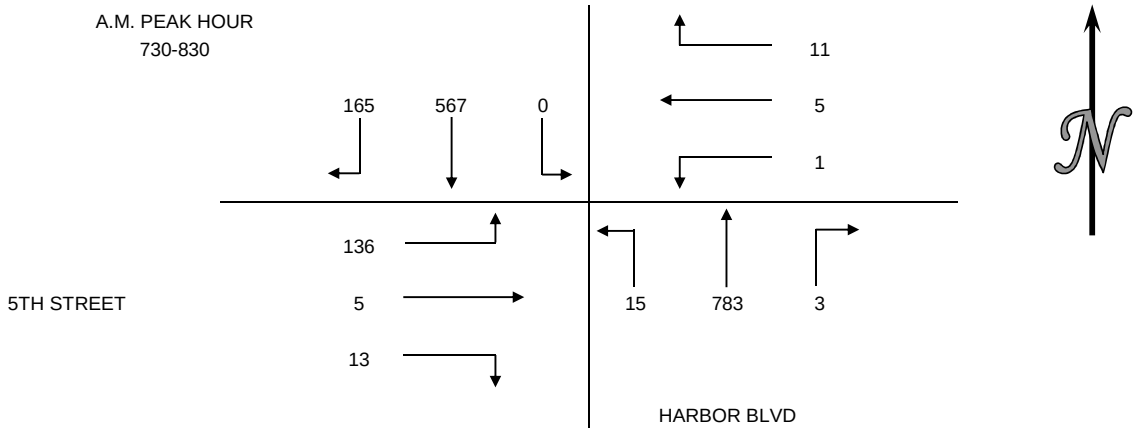
# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: WEDNESDAY, APRIL 27, 2011
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S HARBOR BLVD
E/W 5TH STREET

| 15 MIN COUNTS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| PERIOD | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 700-715 | 24 | 123 | 0 | 2 | 2 | 0 | 1 | 193 | 6 | 3 | 1 | 27 | 382 |
| 715-730 | 31 | 152 | 0 | 5 | 2 | 0 | 0 | 209 | 3 | 2 | 1 | 33 | 438 |
| 730-745 | 39 | 164 | 0 | 1 | 0 | 1 | 1 | 233 | 2 | 1 | 1 | 36 | 479 |
| 745-800 | 36 | 130 | 0 | 2 | 0 | 0 | 0 | 192 | 2 | 2 | 1 | 27 | 392 |
| 800-815 | 35 | 128 | 0 | 2 | 0 | 0 | 1 | 173 | 3 | 5 | 1 | 29 | 377 |
| 815-830 | 55 | 145 | 0 | 6 | 5 | 0 | 1 | 185 | 8 | 5 | 2 | 44 | 456 |
| 830-845 | 34 | 117 | 0 | 8 | 1 | 0 | 2 | 135 | 0 | 5 | 0 | 25 | 327 |
| 845-900 | 34 | 131 | 1 | 4 | 1 | 0 | 0 | 122 | 0 | 2 | 1 | 21 | 317 |
| 900-915 | 30 | 133 | 2 | 6 | 1 | 1 | 0 | 112 | 3 | 4 | 1 | 25 | 318 |
| 915-930 | 23 | 127 | 0 | 4 | 1 | 3 | 0 | 130 | 2 | 3 | 1 | 28 | 322 |
| 930-945 | 29 | 130 | 0 | 7 | 0 | 1 | 1 | 114 | 4 | 4 | 4 | 28 | 322 |
| 945-1000 | 25 | 117 | 0 | 10 | 1 | 0 | 1 | 115 | 1 | 6 | 4 | 23 | 303 |
| HOUR TOTALS | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| TIME | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 700-800 | 130 | 569 | 0 | 10 | 4 | 1 | 2 | 827 | 13 | 8 | 4 | 123 | 1691 |
| 715-815 | 141 | 574 | 0 | 10 | 2 | 1 | 2 | 807 | 10 | 10 | 4 | 125 | 1686 |
| 730-830 | 165 | 567 | 0 | 11 | 5 | 1 | 3 | 783 | 15 | 13 | 5 | 136 | 1704 |
| 745-845 | 160 | 520 | 0 | 18 | 6 | 0 | 4 | 685 | 13 | 17 | 4 | 125 | 1552 |
| 800-900 | 158 | 521 | 1 | 20 | 7 | 0 | 4 | 615 | 11 | 17 | 4 | 119 | 1477 |
| 815-815 | 153 | 526 | 3 | 24 | 8 | 1 | 3 | 554 | 11 | 16 | 4 | 115 | 1418 |
| 830-930 | 121 | 508 | 3 | 22 | 4 | 4 | 2 | 499 | 5 | 14 | 3 | 99 | 1284 |
| 845-945 | 116 | 521 | 3 | 21 | 3 | 5 | 1 | 478 | 9 | 13 | 7 | 102 | 1279 |
| 900-1000 | 107 | 507 | 2 | 27 | 3 | 5 | 2 | 471 | 10 | 17 | 10 | 104 | 1265 |



# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: WEDNESDAY, APRIL 27, 2011
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S HARBOR BLVD
E/W 5TH STREET

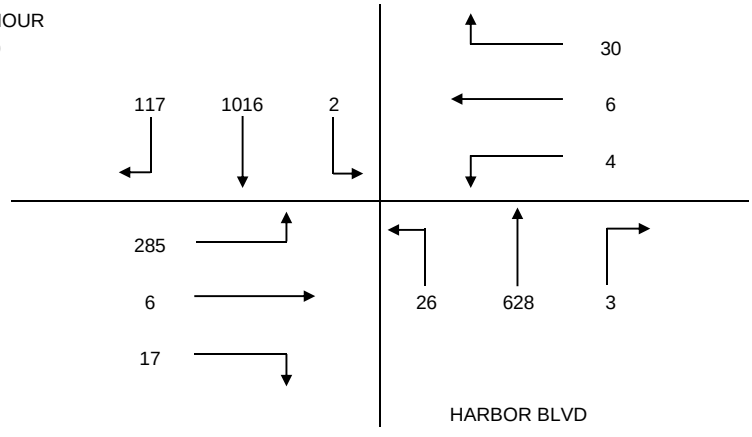
15 MIN COUNTS

| PERIOD | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 300-315 | 32 | 224 | 0 | 6 | 1 | 3 | 1 | 182 | 4 | 3 | 1 | 36 | 493 |
| 315-330 | 22 | 177 | 2 | 7 | 1 | 2 | 2 | 180 | 5 | 5 | 3 | 41 | 447 |
| 330-345 | 33 | 196 | 1 | 11 | 1 | 0 | 0 | 161 | 1 | 6 | 0 | 33 | 443 |
| 345-400 | 21 | 236 | 0 | 18 | 2 | 0 | 0 | 145 | 7 | 6 | 2 | 58 | 495 |
| 400-415 | 27 | 213 | 0 | 10 | 1 | 0 | 0 | 199 | 6 | 3 | 1 | 48 | 508 |
| 415-430 | 15 | 262 | 0 | 8 | 2 | 0 | 1 | 143 | 1 | 2 | 1 | 35 | 470 |
| 430-445 | 28 | 229 | 0 | 10 | 2 | 0 | 1 | 171 | 5 | 3 | 4 | 70 | 523 |
| 445-500 | 26 | 269 | 0 | 7 | 1 | 0 | 0 | 154 | 3 | 2 | 2 | 61 | 525 |
| 500-515 | 31 | 278 | 1 | 6 | 3 | 4 | 2 | 164 | 3 | 6 | 0 | 83 | 581 |
| 515-530 | 32 | 240 | 1 | 7 | 0 | 0 | 0 | 139 | 15 | 6 | 0 | 71 | 511 |
| 530-545 | 17 | 265 | 0 | 5 | 0 | 0 | 0 | 144 | 3 | 6 | 3 | 66 | 509 |
| 545-600 | 21 | 234 | 3 | 6 | 2 | 0 | 3 | 112 | 8 | 7 | 5 | 50 | 451 |

HOUR TOTALS

| TIME | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 300-400 | 108 | 833 | 3 | 42 | 5 | 5 | 3 | 668 | 17 | 20 | 6 | 168 | 1878 |
| 315-415 | 103 | 822 | 3 | 46 | 5 | 2 | 2 | 685 | 19 | 20 | 6 | 180 | 1893 |
| 330-430 | 96 | 907 | 1 | 47 | 6 | 0 | 1 | 648 | 15 | 17 | 4 | 174 | 1916 |
| 345-445 | 91 | 940 | 0 | 46 | 7 | 0 | 2 | 658 | 19 | 14 | 8 | 211 | 1996 |
| 400-500 | 96 | 973 | 0 | 35 | 6 | 0 | 2 | 667 | 15 | 10 | 8 | 214 | 2026 |
| 415-515 | 100 | 1038 | 1 | 31 | 8 | 4 | 4 | 632 | 12 | 13 | 7 | 249 | 2099 |
| 430-530 | 117 | 1016 | 2 | 30 | 6 | 4 | 3 | 628 | 26 | 17 | 6 | 285 | 2140 |
| 445-545 | 106 | 1052 | 2 | 25 | 4 | 4 | 2 | 601 | 24 | 20 | 5 | 281 | 2126 |
| 500-600 | 101 | 1017 | 5 | 24 | 5 | 4 | 5 | 559 | 29 | 25 | 8 | 270 | 2052 |

P.M. PEAK HOUR
430-530



# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: SATURDAY APRIL 30, 2011
PERIOD: 11:00 AM TO 4:00 PM
INTERSECTION: N/S HARBOR BLVD
E/W 5TH STREET

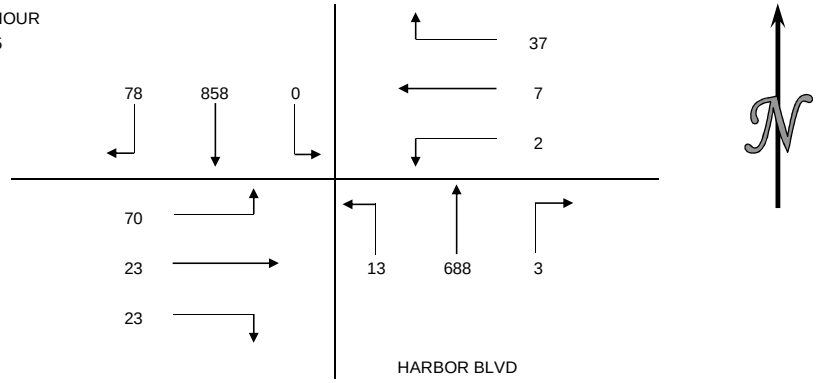
15 MIN COUNTS

| PERIOD | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1100-1115 | 14 | 165 | 1 | 3 | 0 | 1 | 0 | 139 | 4 | 3 | 1 | 21 | 352 |
| 1115-1130 | 21 | 165 | 0 | 3 | 1 | 1 | 3 | 146 | 1 | 1 | 2 | 21 | 365 |
| 1130-1145 | 16 | 178 | 1 | 8 | 0 | 0 | 1 | 126 | 6 | 5 | 0 | 21 | 362 |
| 1145-1200 | 15 | 209 | 0 | 5 | 0 | 0 | 0 | 114 | 4 | 6 | 5 | 26 | 384 |
| 1200-1215 | 6 | 167 | 0 | 5 | 2 | 2 | 1 | 109 | 3 | 5 | 2 | 13 | 315 |
| 1215-1230 | 13 | 186 | 1 | 3 | 1 | 2 | 0 | 131 | 4 | 6 | 2 | 17 | 366 |
| 1230-1245 | 8 | 195 | 0 | 4 | 3 | 0 | 0 | 155 | 1 | 9 | 3 | 37 | 415 |
| 1245-100 | 10 | 189 | 1 | 12 | 2 | 2 | 1 | 148 | 5 | 5 | 5 | 30 | 410 |
| 100-115 | 8 | 186 | 0 | 7 | 0 | 3 | 1 | 136 | 6 | 9 | 0 | 24 | 380 |
| 115-130 | 12 | 231 | 1 | 7 | 1 | 0 | 0 | 148 | 15 | 11 | 1 | 17 | 444 |
| 130-145 | 10 | 215 | 1 | 11 | 2 | 0 | 0 | 143 | 4 | 7 | 4 | 17 | 414 |
| 145-200 | 14 | 210 | 0 | 8 | 1 | 1 | 1 | 177 | 1 | 8 | 9 | 20 | 450 |
| 200-215 | 20 | 220 | 0 | 8 | 2 | 0 | 1 | 170 | 4 | 2 | 3 | 18 | 448 |
| 215-230 | 18 | 219 | 0 | 13 | 3 | 1 | 0 | 162 | 4 | 6 | 7 | 14 | 447 |
| 230-245 | 26 | 209 | 0 | 8 | 1 | 0 | 1 | 179 | 4 | 7 | 4 | 18 | 457 |
| 245-300 | 19 | 218 | 0 | 8 | 2 | 0 | 0 | 160 | 4 | 8 | 4 | 17 | 440 |
| 3000-315 | 22 | 235 | 0 | 11 | 2 | 0 | 0 | 179 | 9 | 9 | 3 | 22 | 492 |
| 315-330 | 20 | 211 | 0 | 13 | 0 | 1 | 1 | 132 | 5 | 14 | 5 | 19 | 421 |
| 330-345 | 25 | 194 | 0 | 8 | 1 | 1 | 0 | 141 | 3 | 6 | 2 | 18 | 399 |
| 345-400 | 16 | 235 | 1 | 6 | 1 | 0 | 1 | 171 | 4 | 5 | 3 | 23 | 0 |

HOUR TOTALS

| TIME | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1100-1200 | 66 | 717 | 2 | 19 | 1 | 2 | 4 | 525 | 15 | 15 | 8 | 89 | 1463 |
| 1115-1215 | 58 | 719 | 1 | 21 | 3 | 3 | 5 | 495 | 14 | 17 | 9 | 81 | 1426 |
| 1130-1230 | 50 | 740 | 2 | 21 | 3 | 4 | 2 | 480 | 17 | 22 | 9 | 77 | 1427 |
| 1145-1245 | 42 | 757 | 1 | 17 | 6 | 4 | 1 | 509 | 12 | 26 | 12 | 93 | 1480 |
| 1200-100 | 37 | 737 | 2 | 24 | 8 | 6 | 2 | 543 | 13 | 25 | 12 | 97 | 1506 |
| 1215-115 | 39 | 756 | 2 | 26 | 6 | 7 | 2 | 570 | 16 | 29 | 10 | 108 | 1571 |
| 1230-130 | 38 | 801 | 2 | 30 | 6 | 5 | 2 | 587 | 27 | 34 | 9 | 108 | 1649 |
| 1245-145 | 40 | 821 | 3 | 37 | 5 | 5 | 2 | 575 | 30 | 32 | 10 | 88 | 1648 |
| 100-200 | 44 | 842 | 2 | 33 | 4 | 4 | 2 | 604 | 26 | 35 | 14 | 78 | 1688 |
| 115-215 | 56 | 876 | 2 | 34 | 6 | 1 | 2 | 638 | 24 | 28 | 17 | 72 | 1756 |
| 130-230 | 62 | 864 | 1 | 40 | 8 | 2 | 2 | 652 | 13 | 23 | 23 | 69 | 1759 |
| 145-245 | 78 | 858 | 0 | 37 | 7 | 2 | 3 | 688 | 13 | 23 | 23 | 70 | 1802 |
| 200-300 | 83 | 866 | 0 | 37 | 8 | 1 | 2 | 671 | 16 | 23 | 18 | 67 | 1792 |
| 215-315 | 85 | 881 | 0 | 40 | 8 | 1 | 1 | 680 | 21 | 30 | 18 | 71 | 1836 |
| 230-330 | 87 | 873 | 0 | 40 | 5 | 1 | 2 | 650 | 22 | 38 | 16 | 76 | 1810 |
| 245-345 | 86 | 858 | 0 | 40 | 5 | 2 | 1 | 612 | 21 | 37 | 14 | 76 | 1752 |
| 300-400 | 83 | 875 | 1 | 38 | 4 | 2 | 2 | 623 | 21 | 34 | 13 | 82 | 1778 |

P.M. PEAK HOUR
145-245



# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: WEDNESDAY, APRIL 27, 2011
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S HARBOR BLVD
E/W 6TH STREET

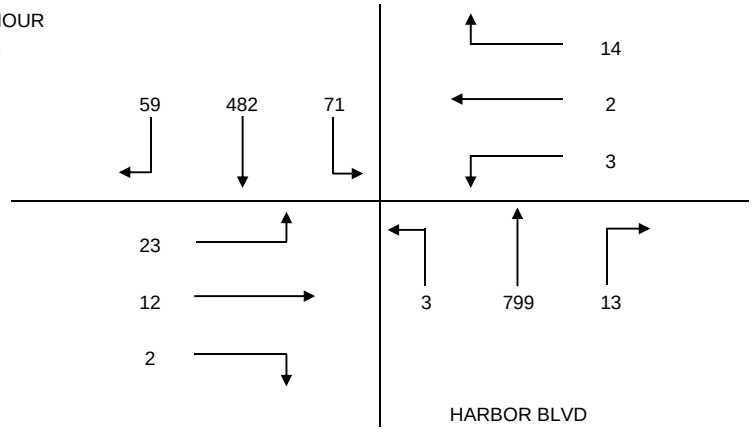
15 MIN COUNTS

| PERIOD | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 700-715 | 12 | 85 | 10 | 5 | 3 | 1 | 0 | 179 | 1 | 0 | 5 | 4 | 305 |
| 715-730 | 10 | 112 | 10 | 2 | 1 | 0 | 6 | 182 | 0 | 0 | 1 | 4 | 328 |
| 730-745 | 21 | 120 | 19 | 6 | 0 | 2 | 2 | 229 | 1 | 1 | 1 | 6 | 408 |
| 745-800 | 17 | 135 | 20 | 3 | 0 | 1 | 4 | 215 | 2 | 0 | 6 | 5 | 408 |
| 800-815 | 11 | 115 | 22 | 3 | 1 | 0 | 1 | 173 | 0 | 1 | 4 | 8 | 339 |
| 815-830 | 12 | 103 | 14 | 6 | 4 | 0 | 7 | 162 | 3 | 0 | 4 | 8 | 323 |
| 830-845 | 7 | 97 | 18 | 7 | 5 | 6 | 6 | 125 | 0 | 2 | 6 | 13 | 292 |
| 845-900 | 12 | 102 | 22 | 8 | 5 | 2 | 12 | 121 | 0 | 2 | 3 | 5 | 294 |
| 900-915 | 16 | 97 | 26 | 8 | 8 | 3 | 8 | 111 | 1 | 6 | 7 | 8 | 299 |
| 915-930 | 19 | 98 | 25 | 10 | 2 | 2 | 3 | 106 | 3 | 1 | 6 | 12 | 287 |
| 930-945 | 9 | 98 | 29 | 11 | 8 | 4 | 3 | 102 | 3 | 2 | 5 | 14 | 288 |
| 945-1000 | 10 | 96 | 17 | 6 | 2 | 0 | 7 | 90 | 3 | 1 | 7 | 5 | 244 |

HOUR TOTALS

| TIME | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 700-800 | 60 | 452 | 59 | 16 | 4 | 4 | 12 | 805 | 4 | 1 | 13 | 19 | 1449 |
| 715-815 | 59 | 482 | 71 | 14 | 2 | 3 | 13 | 799 | 3 | 2 | 12 | 23 | 1483 |
| 730-830 | 61 | 473 | 75 | 18 | 5 | 3 | 14 | 779 | 6 | 2 | 15 | 27 | 1478 |
| 745-845 | 47 | 450 | 74 | 19 | 10 | 7 | 18 | 675 | 5 | 3 | 20 | 34 | 1362 |
| 800-900 | 42 | 417 | 76 | 24 | 15 | 8 | 26 | 581 | 3 | 5 | 17 | 34 | 1248 |
| 815-815 | 47 | 399 | 80 | 29 | 22 | 11 | 33 | 519 | 4 | 10 | 20 | 34 | 1208 |
| 830-930 | 54 | 394 | 91 | 33 | 20 | 13 | 29 | 463 | 4 | 11 | 22 | 38 | 1172 |
| 845-945 | 56 | 395 | 102 | 37 | 23 | 11 | 26 | 440 | 7 | 11 | 21 | 39 | 1168 |
| 900-1000 | 54 | 389 | 97 | 35 | 20 | 9 | 21 | 409 | 10 | 10 | 25 | 39 | 1118 |

A.M. PEAK HOUR
715-815



# WILTEC

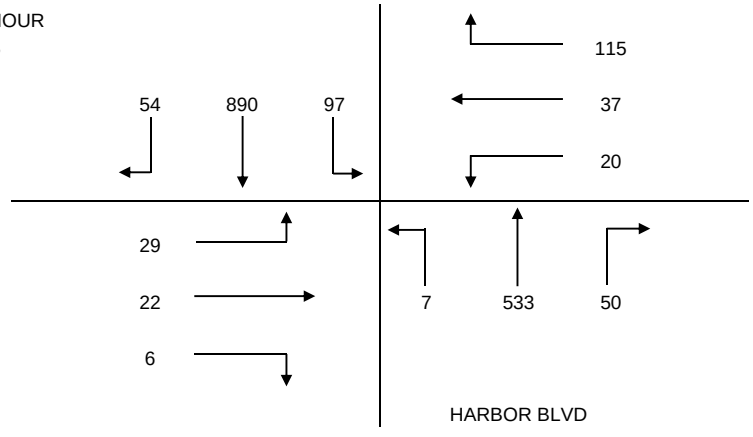
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: WEDENSDAY, APRIL 27, 2011
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S HARBOR BLVD
E/W 6TH STREET

| 15 MIN COUNTS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| PERIOD | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 300-315 | 16 | 177 | 40 | 30 | 23 | 2 | 10 | 137 | 1 | 0 | 6 | 8 | 450 |
| 315-330 | 12 | 130 | 32 | 25 | 13 | 2 | 9 | 124 | 0 | 0 | 4 | 13 | 364 |
| 330-345 | 22 | 153 | 29 | 24 | 10 | 4 | 8 | 128 | 2 | 4 | 6 | 14 | 404 |
| 345-400 | 14 | 178 | 30 | 39 | 7 | 8 | 12 | 131 | 1 | 5 | 11 | 9 | 445 |
| 400-415 | 7 | 194 | 29 | 41 | 20 | 18 | 24 | 142 | 3 | 2 | 4 | 5 | 489 |
| 415-430 | 24 | 217 | 22 | 25 | 12 | 5 | 13 | 135 | 0 | 2 | 6 | 5 | 466 |
| 430-445 | 10 | 214 | 26 | 28 | 8 | 5 | 7 | 131 | 5 | 1 | 5 | 10 | 450 |
| 445-500 | 7 | 204 | 26 | 26 | 6 | 3 | 19 | 136 | 1 | 1 | 4 | 5 | 438 |
| 500-515 | 13 | 255 | 23 | 36 | 11 | 7 | 11 | 131 | 1 | 2 | 7 | 9 | 506 |
| 515-530 | 13 | 207 | 23 | 30 | 6 | 5 | 5 | 111 | 1 | 0 | 10 | 5 | 416 |
| 530-545 | 10 | 213 | 31 | 23 | 4 | 6 | 10 | 119 | 1 | 0 | 2 | 4 | 423 |
| 545-600 | 16 | 200 | 17 | 17 | 7 | 6 | 14 | 98 | 4 | 1 | 11 | 3 | 394 |
| HOUR TOTALS | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| TIME | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 300-400 | 64 | 638 | 131 | 118 | 53 | 16 | 39 | 520 | 4 | 9 | 27 | 44 | 1663 |
| 315-415 | 55 | 655 | 120 | 129 | 50 | 32 | 53 | 525 | 6 | 11 | 25 | 41 | 1702 |
| 330-430 | 67 | 742 | 110 | 129 | 49 | 35 | 57 | 536 | 6 | 13 | 27 | 33 | 1804 |
| 345-445 | 55 | 803 | 107 | 133 | 47 | 36 | 56 | 539 | 9 | 10 | 26 | 29 | 1850 |
| 400-500 | 48 | 829 | 103 | 120 | 46 | 31 | 63 | 544 | 9 | 6 | 19 | 25 | 1843 |
| 415-515 | 54 | 890 | 97 | 115 | 37 | 20 | 50 | 533 | 7 | 6 | 22 | 29 | 1860 |
| 430-530 | 43 | 880 | 98 | 120 | 31 | 20 | 42 | 509 | 8 | 4 | 26 | 29 | 1810 |
| 445-545 | 43 | 879 | 103 | 115 | 27 | 21 | 45 | 497 | 4 | 3 | 23 | 23 | 1783 |
| 500-600 | 52 | 875 | 94 | 106 | 28 | 24 | 40 | 459 | 7 | 3 | 30 | 21 | 1739 |

P.M. PEAK HOUR
415-515



# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: SATURDAY APRIL 30, 2011
PERIOD: 11:00 AM TO 4:00 PM
INTERSECTION: N/S HARBOR BLVD
E/W 6TH STREET

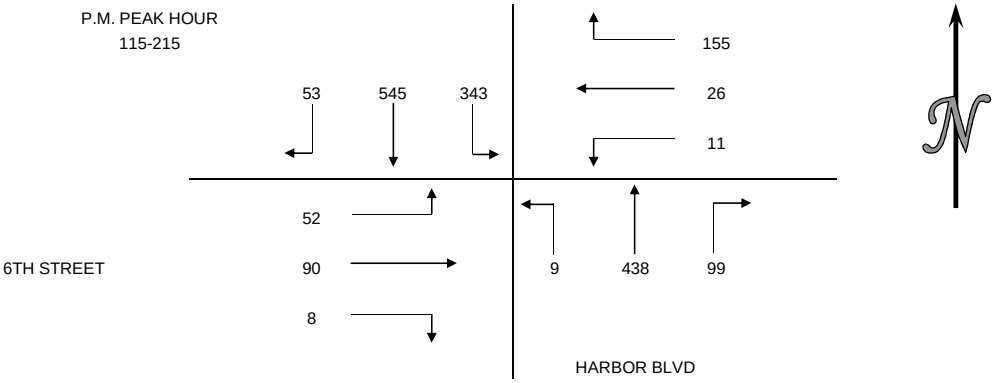
15 MIN COUNTS

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERIOD | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 1100-1115 | 17 | 100 | 31 | 17 | 8 | 5 | 15 | 107 | 0 | 2 | 14 | 5 | 321 |
| 1115-1130 | 22 | 130 | 42 | 15 | 3 | 2 | 17 | 105 | 0 | 1 | 16 | 11 | 364 |
| 1130-1145 | 23 | 114 | 38 | 21 | 5 | 0 | 20 | 119 | 0 | 0 | 10 | 10 | 360 |
| 1145-1200 | 20 | 146 | 51 | 22 | 1 | 1 | 12 | 93 | 0 | 1 | 15 | 9 | 371 |
| 1200-1215 | 13 | 108 | 52 | 21 | 0 | 1 | 20 | 83 | 9 | 0 | 18 | 13 | 338 |
| 1215-1230 | 11 | 115 | 46 | 27 | 7 | 3 | 34 | 93 | 3 | 0 | 13 | 5 | 357 |
| 1230-1245 | 16 | 136 | 54 | 21 | 3 | 5 | 25 | 121 | 0 | 2 | 22 | 11 | 416 |
| 1245-100 | 13 | 112 | 71 | 25 | 14 | 2 | 31 | 106 | 2 | 4 | 24 | 14 | 418 |
| 100-115 | 7 | 107 | 88 | 35 | 6 | 6 | 22 | 112 | 3 | 1 | 23 | 9 | 419 |
| 115-130 | 11 | 145 | 85 | 31 | 2 | 0 | 20 | 96 | 0 | 1 | 27 | 14 | 432 |
| 130-145 | 17 | 147 | 75 | 36 | 12 | 1 | 27 | 115 | 4 | 3 | 28 | 14 | 479 |
| 145-200 | 13 | 115 | 88 | 44 | 2 | 3 | 21 | 113 | 3 | 2 | 19 | 10 | 433 |
| 200-215 | 12 | 138 | 95 | 44 | 10 | 7 | 31 | 114 | 2 | 2 | 16 | 14 | 485 |
| 215-230 | 11 | 134 | 66 | 33 | 8 | 3 | 17 | 96 | 1 | 1 | 23 | 8 | 401 |
| 230-245 | 9 | 128 | 66 | 43 | 14 | 2 | 27 | 143 | 1 | 2 | 16 | 9 | 460 |
| 245-300 | 10 | 127 | 86 | 30 | 2 | 3 | 32 | 121 | 1 | 3 | 23 | 12 | 450 |
| 3000-315 | 17 | 137 | 80 | 52 | 21 | 2 | 25 | 129 | 2 | 4 | 17 | 9 | 495 |
| 315-330 | 12 | 119 | 86 | 43 | 14 | 2 | 27 | 101 | 3 | 1 | 26 | 10 | 444 |
| 330-345 | 12 | 140 | 70 | 25 | 7 | 3 | 27 | 113 | 3 | 1 | 23 | 8 | 432 |
| 345-400 | 11 | 144 | 77 | 30 | 7 | 3 | 28 | 123 | 1 | 0 | 19 | 7 | 0 |

HOUR TOTALS

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TIME | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 1100-1200 | 82 | 490 | 162 | 75 | 17 | 8 | 64 | 424 | 0 | 4 | 55 | 35 | 1416 |
| 1115-1215 | 78 | 498 | 183 | 79 | 9 | 4 | 69 | 400 | 9 | 2 | 59 | 43 | 1433 |
| 1130-1230 | 67 | 483 | 187 | 91 | 13 | 5 | 86 | 388 | 12 | 1 | 56 | 37 | 1426 |
| 1145-1245 | 60 | 505 | 203 | 91 | 11 | 10 | 91 | 390 | 12 | 3 | 68 | 38 | 1482 |
| 1200-100 | 53 | 471 | 223 | 94 | 24 | 11 | 110 | 403 | 14 | 6 | 77 | 43 | 1529 |
| 1215-115 | 47 | 470 | 259 | 108 | 30 | 16 | 112 | 432 | 8 | 7 | 82 | 39 | 1610 |
| 1230-130 | 47 | 500 | 298 | 112 | 25 | 13 | 98 | 435 | 5 | 8 | 96 | 48 | 1685 |
| 1245-145 | 48 | 511 | 319 | 127 | 34 | 9 | 100 | 429 | 9 | 9 | 102 | 51 | 1748 |
| 100-200 | 48 | 514 | 336 | 146 | 22 | 10 | 90 | 436 | 10 | 7 | 97 | 47 | 1763 |
| 115-215 | 53 | 545 | 343 | 155 | 26 | 11 | 99 | 438 | 9 | 8 | 90 | 52 | 1829 |
| 130-230 | 53 | 534 | 324 | 157 | 32 | 14 | 96 | 438 | 10 | 8 | 86 | 46 | 1798 |
| 145-245 | 45 | 515 | 315 | 164 | 34 | 15 | 96 | 466 | 7 | 7 | 74 | 41 | 1779 |
| 200-300 | 42 | 527 | 313 | 150 | 34 | 15 | 107 | 474 | 5 | 8 | 78 | 43 | 1796 |
| 215-315 | 47 | 526 | 298 | 158 | 45 | 10 | 101 | 489 | 5 | 10 | 79 | 38 | 1806 |
| 230-330 | 48 | 511 | 318 | 168 | 51 | 9 | 111 | 494 | 7 | 10 | 82 | 40 | 1849 |
| 245-345 | 51 | 523 | 322 | 150 | 44 | 10 | 111 | 464 | 9 | 9 | 89 | 39 | 1821 |
| 300-400 | 52 | 540 | 313 | 150 | 49 | 10 | 107 | 466 | 9 | 6 | 85 | 34 | 1821 |

P.M. PEAK HOUR
115-215



# WILTEC

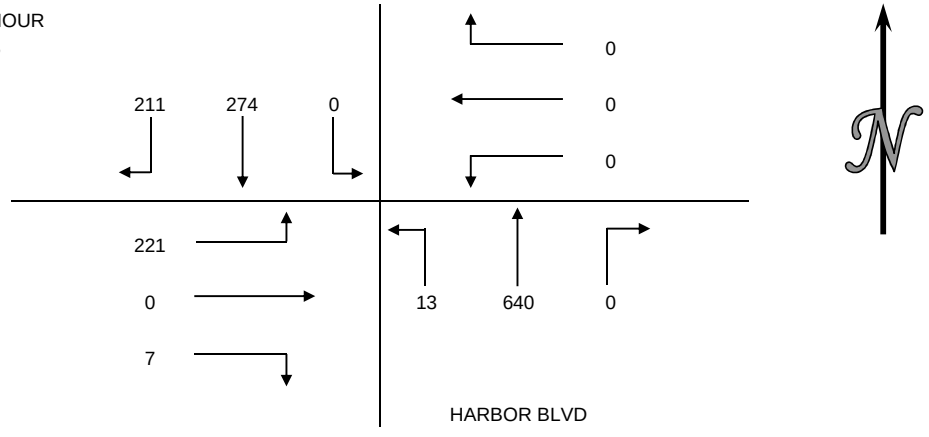
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: WEDNESDAY, APRIL 27, 2011
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S HARBOR BLVD
E/W 7TH STREET

| 15 MIN COUNTS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| PERIOD | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 700-715 | 40 | 40 | 0 | 0 | 0 | 0 | 0 | 129 | 1 | 1 | 0 | 42 | 253 |
| 715-730 | 61 | 54 | 0 | 0 | 0 | 0 | 0 | 151 | 1 | 2 | 0 | 41 | 310 |
| 730-745 | 44 | 64 | 0 | 0 | 0 | 0 | 0 | 193 | 5 | 3 | 0 | 59 | 368 |
| 745-800 | 53 | 94 | 0 | 0 | 0 | 0 | 0 | 161 | 2 | 2 | 0 | 65 | 377 |
| 800-815 | 53 | 62 | 0 | 0 | 0 | 0 | 0 | 135 | 5 | 0 | 0 | 56 | 311 |
| 815-830 | 44 | 62 | 0 | 0 | 0 | 0 | 0 | 104 | 3 | 1 | 0 | 46 | 260 |
| 830-845 | 45 | 57 | 0 | 0 | 0 | 0 | 0 | 89 | 4 | 6 | 0 | 36 | 237 |
| 845-900 | 47 | 74 | 0 | 0 | 0 | 0 | 0 | 80 | 7 | 2 | 0 | 49 | 259 |
| 900-915 | 43 | 57 | 0 | 0 | 0 | 0 | 0 | 78 | 5 | 4 | 0 | 37 | 224 |
| 915-930 | 41 | 58 | 0 | 0 | 0 | 0 | 0 | 81 | 3 | 1 | 0 | 39 | 223 |
| 930-945 | 41 | 60 | 0 | 0 | 0 | 0 | 0 | 61 | 2 | 10 | 0 | 37 | 211 |
| 945-1000 | 27 | 70 | 0 | 0 | 0 | 0 | 0 | 64 | 2 | 2 | 0 | 44 | 209 |
| HOUR TOTALS | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| TIME | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 700-800 | 198 | 252 | 0 | 0 | 0 | 0 | 0 | 634 | 9 | 8 | 0 | 207 | 1308 |
| 715-815 | 211 | 274 | 0 | 0 | 0 | 0 | 0 | 640 | 13 | 7 | 0 | 221 | 1366 |
| 730-830 | 194 | 282 | 0 | 0 | 0 | 0 | 0 | 593 | 15 | 6 | 0 | 226 | 1316 |
| 745-845 | 195 | 275 | 0 | 0 | 0 | 0 | 0 | 489 | 14 | 9 | 0 | 203 | 1185 |
| 800-900 | 189 | 255 | 0 | 0 | 0 | 0 | 0 | 408 | 19 | 9 | 0 | 187 | 1067 |
| 815-815 | 179 | 250 | 0 | 0 | 0 | 0 | 0 | 351 | 19 | 13 | 0 | 168 | 980 |
| 830-930 | 176 | 246 | 0 | 0 | 0 | 0 | 0 | 328 | 19 | 13 | 0 | 161 | 943 |
| 845-945 | 172 | 249 | 0 | 0 | 0 | 0 | 0 | 300 | 17 | 17 | 0 | 162 | 917 |
| 900-1000 | 152 | 245 | 0 | 0 | 0 | 0 | 0 | 284 | 12 | 17 | 0 | 157 | 867 |

A.M. PEAK HOUR
715-815



# WILTEC

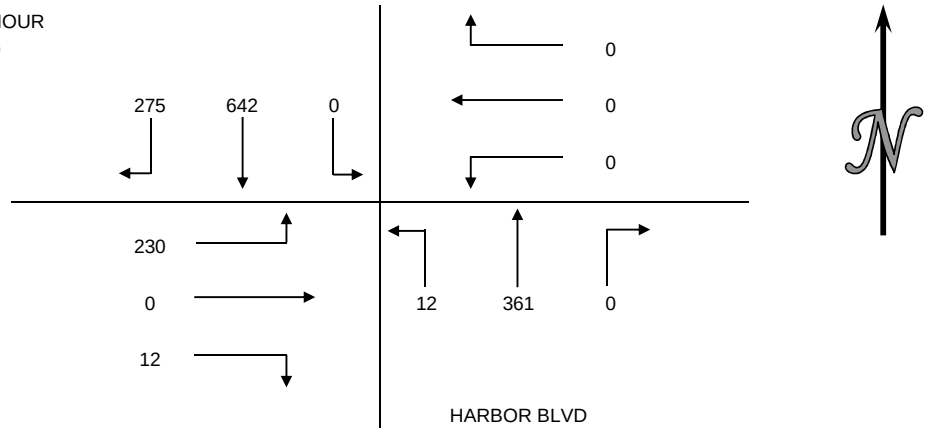
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: WEDNESDAY, APRIL 27, 2011
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S HARBOR BLVD
E/W 7TH STREET

| 15 MIN COUNTS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| PERIOD | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 300-315 | 66 | 102 | 0 | 0 | 0 | 0 | 0 | 104 | 4 | 3 | 0 | 55 | 334 |
| 315-330 | 43 | 87 | 0 | 0 | 0 | 0 | 0 | 87 | 6 | 4 | 0 | 54 | 281 |
| 330-345 | 51 | 103 | 0 | 0 | 0 | 0 | 0 | 65 | 0 | 4 | 0 | 50 | 273 |
| 345-400 | 64 | 128 | 0 | 0 | 0 | 0 | 0 | 82 | 3 | 5 | 0 | 40 | 322 |
| 400-415 | 62 | 139 | 0 | 0 | 0 | 0 | 0 | 92 | 6 | 6 | 0 | 69 | 374 |
| 415-430 | 60 | 156 | 0 | 0 | 0 | 0 | 0 | 86 | 5 | 4 | 0 | 48 | 359 |
| 430-445 | 64 | 139 | 0 | 0 | 0 | 0 | 0 | 104 | 2 | 2 | 0 | 51 | 362 |
| 445-500 | 84 | 167 | 0 | 0 | 0 | 0 | 0 | 89 | 2 | 1 | 0 | 68 | 411 |
| 500-515 | 65 | 179 | 0 | 0 | 0 | 0 | 0 | 83 | 3 | 3 | 0 | 59 | 392 |
| 515-530 | 62 | 157 | 0 | 0 | 0 | 0 | 0 | 85 | 5 | 6 | 0 | 52 | 367 |
| 530-545 | 70 | 157 | 0 | 0 | 0 | 0 | 0 | 67 | 3 | 4 | 0 | 49 | 350 |
| 545-600 | 63 | 149 | 0 | 0 | 0 | 0 | 0 | 75 | 2 | 3 | 0 | 41 | 333 |
| HOUR TOTALS | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| TIME | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 300-400 | 224 | 420 | 0 | 0 | 0 | 0 | 0 | 338 | 13 | 16 | 0 | 199 | 1210 |
| 315-415 | 220 | 457 | 0 | 0 | 0 | 0 | 0 | 326 | 15 | 19 | 0 | 213 | 1250 |
| 330-430 | 237 | 526 | 0 | 0 | 0 | 0 | 0 | 325 | 14 | 19 | 0 | 207 | 1328 |
| 345-445 | 250 | 562 | 0 | 0 | 0 | 0 | 0 | 364 | 16 | 17 | 0 | 208 | 1417 |
| 400-500 | 270 | 601 | 0 | 0 | 0 | 0 | 0 | 371 | 15 | 13 | 0 | 236 | 1506 |
| 415-515 | 273 | 641 | 0 | 0 | 0 | 0 | 0 | 362 | 12 | 10 | 0 | 226 | 1524 |
| 430-530 | 275 | 642 | 0 | 0 | 0 | 0 | 0 | 361 | 12 | 12 | 0 | 230 | 1532 |
| 445-545 | 281 | 660 | 0 | 0 | 0 | 0 | 0 | 324 | 13 | 14 | 0 | 228 | 1520 |
| 500-600 | 260 | 642 | 0 | 0 | 0 | 0 | 0 | 310 | 13 | 16 | 0 | 201 | 1442 |

P.M. PEAK HOUR
430-530



# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: SAN PEDRO TRAFFIC COUNTS
DATE: SATURDAY APRIL 30, 2011
PERIOD: 11:00 AM TO 4:00 PM
INTERSECTION: N/S HARBOR BLVD
E/W 7TH STREET

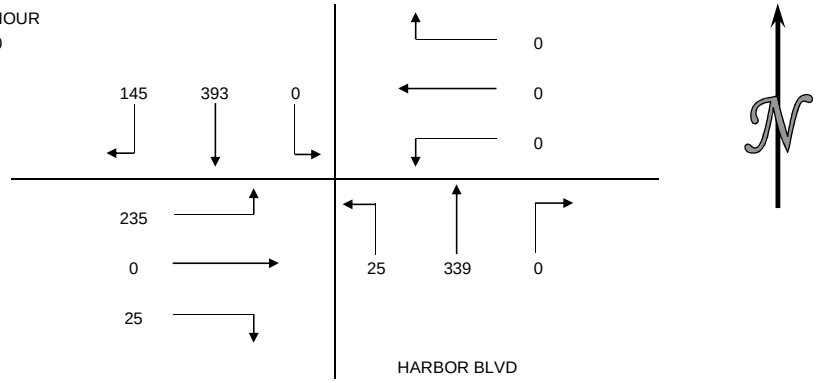
15 MIN COUNTS

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERIOD | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 1100-1115 | 31 | 74 | 0 | 0 | 0 | 0 | 0 | 66 | 3 | 1 | 0 | 32 | 207 |
| 1115-1130 | 35 | 90 | 0 | 0 | 0 | 0 | 0 | 79 | 8 | 7 | 0 | 41 | 260 |
| 1130-1145 | 41 | 86 | 0 | 0 | 0 | 0 | 0 | 92 | 6 | 6 | 0 | 47 | 278 |
| 1145-1200 | 39 | 96 | 0 | 0 | 0 | 0 | 0 | 79 | 3 | 7 | 0 | 50 | 274 |
| 1200-1215 | 25 | 75 | 0 | 0 | 0 | 0 | 0 | 66 | 2 | 6 | 0 | 41 | 215 |
| 1215-1230 | 30 | 82 | 0 | 0 | 0 | 0 | 0 | 77 | 5 | 4 | 0 | 56 | 254 |
| 1230-1245 | 30 | 104 | 0 | 0 | 0 | 0 | 0 | 97 | 9 | 9 | 0 | 35 | 284 |
| 1245-100 | 41 | 95 | 0 | 0 | 0 | 0 | 0 | 94 | 6 | 10 | 0 | 53 | 299 |
| 100-115 | 24 | 89 | 0 | 0 | 0 | 0 | 0 | 85 | 0 | 5 | 0 | 47 | 250 |
| 115-130 | 46 | 100 | 0 | 0 | 0 | 0 | 0 | 82 | 6 | 8 | 0 | 41 | 283 |
| 130-145 | 45 | 94 | 0 | 0 | 0 | 0 | 0 | 86 | 6 | 9 | 0 | 57 | 297 |
| 145-200 | 36 | 89 | 0 | 0 | 0 | 0 | 0 | 84 | 3 | 1 | 0 | 53 | 266 |
| 200-215 | 42 | 94 | 0 | 0 | 0 | 0 | 0 | 69 | 4 | 7 | 0 | 83 | 299 |
| 215-230 | 29 | 101 | 0 | 0 | 0 | 0 | 0 | 83 | 4 | 3 | 0 | 53 | 273 |
| 230-245 | 29 | 100 | 0 | 0 | 0 | 0 | 0 | 96 | 8 | 6 | 0 | 48 | 287 |
| 245-300 | 45 | 98 | 0 | 0 | 0 | 0 | 0 | 91 | 9 | 9 | 0 | 51 | 303 |
| 3000-315 | 30 | 100 | 0 | 0 | 0 | 0 | 0 | 92 | 7 | 7 | 0 | 61 | 297 |
| 315-330 | 38 | 102 | 0 | 0 | 0 | 0 | 0 | 72 | 2 | 5 | 0 | 42 | 261 |
| 330-345 | 39 | 101 | 0 | 0 | 0 | 0 | 0 | 92 | 11 | 8 | 0 | 89 | 340 |
| 345-400 | 40 | 92 | 0 | 0 | 0 | 0 | 0 | 103 | 11 | 8 | 0 | 51 | 0 |

HOUR TOTALS

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TIME | SBRT | SBTH | SBLT | WBRT | WBTH | WBLT | NBRT | NBTH | NBLT | EBRT | EBTH | EBLT | TOTAL |
| 1100-1200 | 146 | 346 | 0 | 0 | 0 | 0 | 0 | 316 | 20 | 21 | 0 | 170 | 1019 |
| 1115-1215 | 140 | 347 | 0 | 0 | 0 | 0 | 0 | 316 | 19 | 26 | 0 | 179 | 1027 |
| 1130-1230 | 135 | 339 | 0 | 0 | 0 | 0 | 0 | 314 | 16 | 23 | 0 | 194 | 1021 |
| 1145-1245 | 124 | 357 | 0 | 0 | 0 | 0 | 0 | 319 | 19 | 26 | 0 | 182 | 1027 |
| 1200-100 | 126 | 356 | 0 | 0 | 0 | 0 | 0 | 334 | 22 | 29 | 0 | 185 | 1052 |
| 1215-115 | 125 | 370 | 0 | 0 | 0 | 0 | 0 | 353 | 20 | 28 | 0 | 191 | 1087 |
| 1230-130 | 141 | 388 | 0 | 0 | 0 | 0 | 0 | 358 | 21 | 32 | 0 | 176 | 1116 |
| 1245-145 | 156 | 378 | 0 | 0 | 0 | 0 | 0 | 347 | 18 | 32 | 0 | 198 | 1129 |
| 100-200 | 151 | 372 | 0 | 0 | 0 | 0 | 0 | 337 | 15 | 23 | 0 | 198 | 1096 |
| 115-215 | 169 | 377 | 0 | 0 | 0 | 0 | 0 | 321 | 19 | 25 | 0 | 234 | 1145 |
| 130-230 | 152 | 378 | 0 | 0 | 0 | 0 | 0 | 322 | 17 | 20 | 0 | 246 | 1135 |
| 145-245 | 136 | 384 | 0 | 0 | 0 | 0 | 0 | 332 | 19 | 17 | 0 | 237 | 1125 |
| 200-300 | 145 | 393 | 0 | 0 | 0 | 0 | 0 | 339 | 25 | 25 | 0 | 235 | 1162 |
| 215-315 | 133 | 399 | 0 | 0 | 0 | 0 | 0 | 362 | 28 | 25 | 0 | 213 | 1160 |
| 230-330 | 142 | 400 | 0 | 0 | 0 | 0 | 0 | 351 | 26 | 27 | 0 | 202 | 1148 |
| 245-345 | 152 | 401 | 0 | 0 | 0 | 0 | 0 | 347 | 29 | 29 | 0 | 243 | 1201 |
| 300-400 | 147 | 395 | 0 | 0 | 0 | 0 | 0 | 359 | 31 | 28 | 0 | 243 | 1203 |

P.M. PEAK HOUR
200-300



# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_009 **Day:** WEDNESDAY

**City:** City of San Pedro **Date:** 04/27/2011

**AM**

| **NS/EW Streets:** | Signal St | | | Signal St | | | 22nd St | | | 22nd St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 0 | 2 | 0 | 0 | 2 | 0 | 1 | 1 | 1 | 0 | 2 | 0 | |
| 7:00 AM | 1 | 1 | 0 | 1 | 1 | 3 | 2 | 8 | 4 | 0 | 3 | 0 | 24 |
| 7:15 AM | 2 | 0 | 0 | 1 | 0 | 3 | 2 | 4 | 3 | 1 | 3 | 0 | 19 |
| 7:30 AM | 3 | 1 | 0 | 0 | 1 | 2 | 3 | 5 | 5 | 0 | 0 | 0 | 20 |
| 7:45 AM | 2 | 1 | 0 | 0 | 1 | 8 | 5 | 8 | 11 | 0 | 3 | 0 | 39 |
| 8:00 AM | 4 | 0 | 0 | 2 | 1 | 5 | 16 | 4 | 2 | 0 | 2 | 0 | 36 |
| 8:15 AM | 3 | 0 | 0 | 2 | 3 | 4 | 6 | 2 | 3 | 0 | 1 | 0 | 24 |
| 8:30 AM | 7 | 1 | 0 | 0 | 0 | 9 | 10 | 9 | 3 | 0 | 2 | 0 | 41 |
| 8:45 AM | 1 | 0 | 0 | 0 | 1 | 12 | 6 | 7 | 5 | 0 | 4 | 0 | 36 |
| 9:00 AM | 5 | 1 | 2 | 1 | 3 | 4 | 7 | 3 | 4 | 0 | 4 | 1 | 35 |
| 9:15 AM | 3 | 4 | 1 | 3 | 1 | 16 | 10 | 7 | 4 | 0 | 2 | 0 | 51 |
| 9:30 AM | 2 | 0 | 0 | 2 | 1 | 4 | 9 | 2 | 5 | 0 | 1 | 0 | 26 |
| 9:45 AM | 2 | 4 | 0 | 2 | 1 | 5 | 8 | 2 | 0 | 0 | 1 | 1 | 26 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 35 | 13 | 3 | 14 | 14 | 75 | 84 | 61 | 49 | 1 | 26 | 2 | 377 |
| **APPROACH %'s :** | 68.63% | 25.49% | 5.88% | 13.59% | 13.59% | 72.82% | 43.30% | 31.44% | 25.26% | 3.45% | 89.66% | 6.90% | |

| **PEAK HR START TIME :** | 830 AM | | | | | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PEAK HR VOL :** | 16 | 6 | 3 | 4 | 5 | 41 | 33 | 26 | 16 | 0 | 12 | 1 | 163 |
| **PEAK HR FACTOR :** | | 0.781 | | | 0.625 | | | 0.852 | | | 0.650 | | 0.799 |

**CONTROL :** 4-Way Stop

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_009 **Day:** WEDNESDAY

**City:** City of San Pedro **Date:** 04/27/2011

**PM**

| **NS/EW Streets:** | Signal St | | | Signal St | | | 22nd St | | | 22nd St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 0 | 2 | 0 | 0 | 2 | 0 | 1 | 1 | 1 | 0 | 2 | 0 | |
| 3:00 PM | 11 | 4 | 1 | 1 | 0 | 7 | 6 | 3 | 5 | 1 | 5 | 1 | 45 |
| 3:15 PM | 9 | 3 | 0 | 2 | 2 | 8 | 8 | 3 | 0 | 0 | 2 | 0 | 37 |
| 3:30 PM | 6 | 3 | 0 | 0 | 2 | 4 | 11 | 1 | 3 | 0 | 1 | 1 | 32 |
| 3:45 PM | 6 | 2 | 0 | 0 | 2 | 9 | 9 | 2 | 1 | 0 | 1 | 0 | 32 |
| 4:00 PM | 3 | 2 | 1 | 0 | 2 | 7 | 8 | 3 | 7 | 0 | 2 | 0 | 35 |
| 4:15 PM | 5 | 3 | 1 | 0 | 1 | 6 | 10 | 3 | 4 | 0 | 3 | 0 | 36 |
| 4:30 PM | 7 | 2 | 1 | 0 | 0 | 11 | 11 | 4 | 4 | 0 | 4 | 2 | 46 |
| 4:45 PM | 8 | 2 | 0 | 1 | 2 | 9 | 16 | 0 | 0 | 1 | 1 | 0 | 40 |
| 5:00 PM | 2 | 4 | 0 | 0 | 0 | 6 | 10 | 0 | 3 | 0 | 0 | 0 | 25 |
| 5:15 PM | 5 | 1 | 0 | 0 | 2 | 11 | 10 | 0 | 3 | 0 | 0 | 1 | 33 |
| 5:30 PM | 2 | 2 | 0 | 0 | 1 | 8 | 10 | 0 | 4 | 0 | 0 | 0 | 27 |
| 5:45 PM | 3 | 2 | 2 | 0 | 2 | 10 | 12 | 1 | 1 | 0 | 1 | 1 | 35 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 67 | 30 | 6 | 4 | 16 | 96 | 121 | 20 | 35 | 2 | 20 | 6 | 423 |
| **APPROACH %'s :** | 65.05% | 29.13% | 5.83% | 3.45% | 13.79% | 82.76% | 68.75% | 11.36% | 19.89% | 7.14% | 71.43% | 21.43% | |
| **PEAK HR START TIME :** | 400 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 23 | 9 | 3 | 1 | 5 | 33 | 45 | 10 | 15 | 1 | 10 | 2 | 157 |
| **PEAK HR FACTOR :** | | 0.875 | | | 0.813 | | | 0.921 | | | 0.542 | | 0.853 |

**CONTROL :** 4-Way Stop

# ITM Peak Hour Summary

Prepared by:

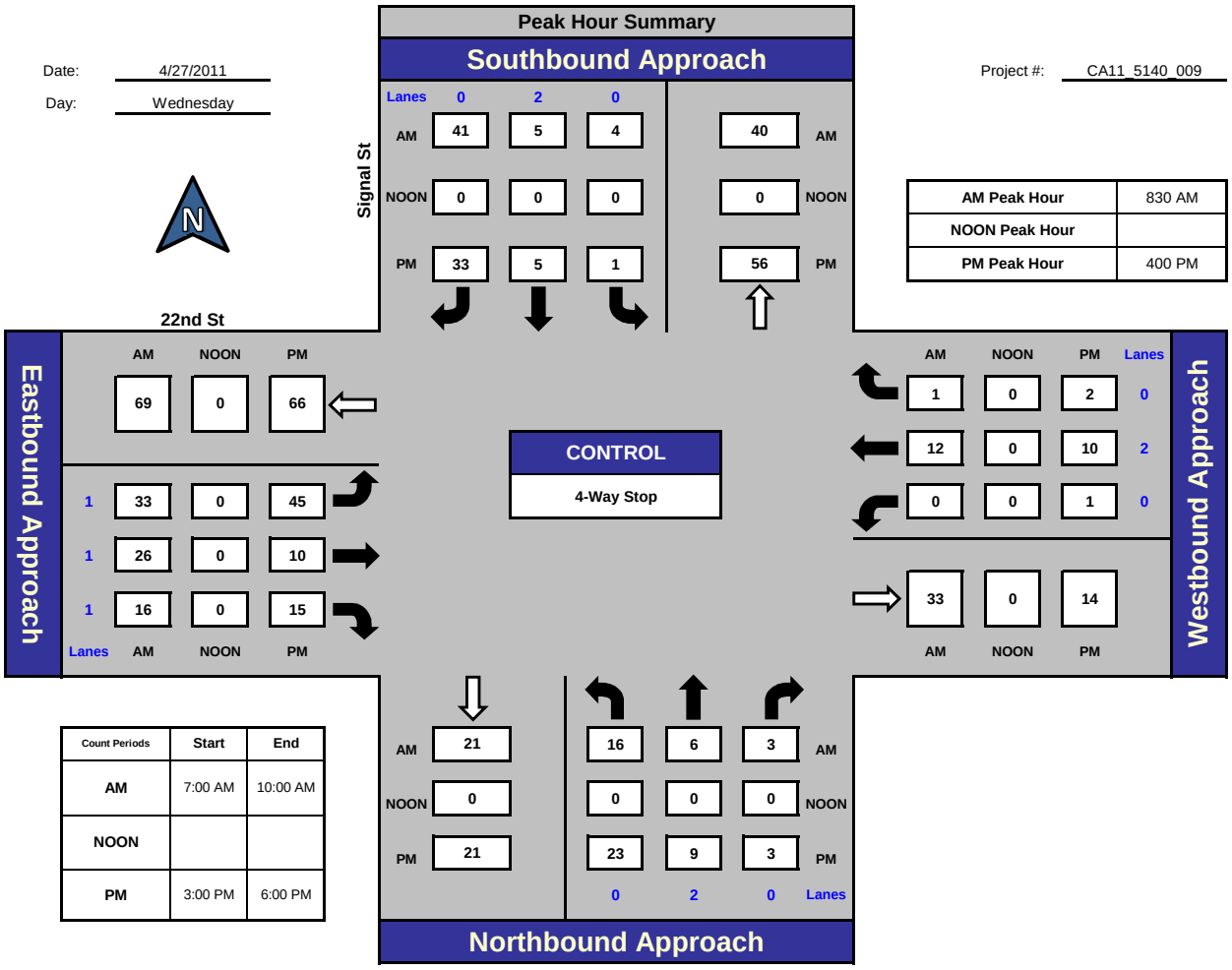
National Data & Surveying Services

## *Signal St and 22nd St , City of San Pedro*

Date: 4/27/2011

Day: Wednesday

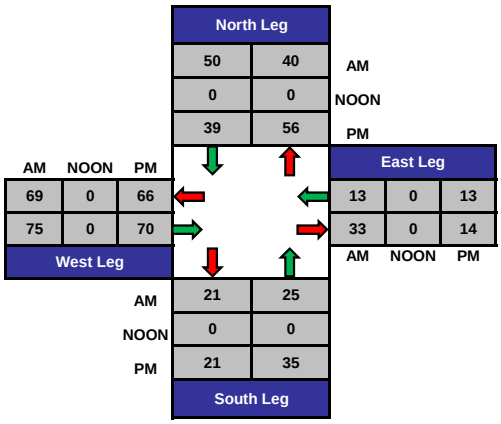
Project #: CA11_5140_009



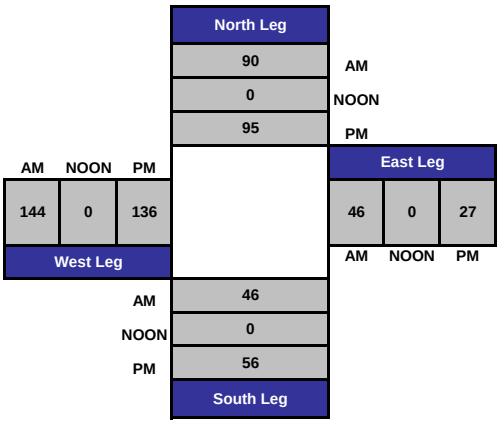

| AM Peak Hour | 830 AM |
|---|---|
| NOON Peak Hour | |
| PM Peak Hour | 400 PM |

| Count Periods | Start | End |
|---|---|---|
| AM | 7:00 AM | 10:00 AM |
| NOON | | |
| PM | 3:00 PM | 6:00 PM |

### Total Ins & Outs




### Total Volume Per Leg



# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA11_5140_009 **Day:** SATURDAY

**City:** City of San Pedro **Date:** 04/30/2011

**NOON**

| **NS/EW Streets:** | Signal St | | | Signal St | | | 22nd St | | | 22nd St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 0 | 2 | 0 | 0 | 2 | 0 | 1 | 1 | 1 | 0 | 2 | 0 | |
| 11:00 AM | 1 | 3 | 1 | 0 | 0 | 11 | 5 | 4 | 2 | | 2 | 0 | 29 |
| 11:15 AM | 1 | 1 | 0 | 0 | 1 | 6 | 5 | 5 | 3 | | 1 | 0 | 23 |
| 11:30 AM | 2 | 2 | 0 | 0 | 0 | 4 | 4 | 1 | 3 | | 0 | 0 | 16 |
| 11:45 AM | 1 | 2 | 0 | 0 | 1 | 4 | 15 | 6 | 4 | | 0 | 3 | 36 |
| 12:00 PM | 2 | 2 | 2 | 0 | 0 | 7 | 11 | 3 | 3 | | 1 | 1 | 32 |
| 12:15 PM | 2 | 2 | 0 | 1 | 1 | 5 | 11 | 4 | 2 | | 3 | 1 | 32 |
| 12:30 PM | 4 | 1 | 2 | 0 | 1 | 9 | 15 | 4 | 3 | | 1 | 0 | 40 |
| 12:45 PM | 6 | 3 | 0 | 2 | 1 | 8 | 16 | 0 | 4 | | 2 | 0 | 42 |
| 1:00 PM | 4 | 1 | 0 | 1 | 0 | 8 | 9 | 1 | 4 | | 1 | 0 | 29 |
| 1:15 PM | 2 | 0 | 1 | 1 | 1 | 7 | 13 | 0 | 4 | | 1 | 0 | 30 |
| 1:30 PM | 4 | 1 | 0 | 2 | 3 | 2 | 12 | 2 | 1 | | 1 | 0 | 28 |
| 1:45 PM | 3 | 4 | 2 | 0 | 0 | 16 | 18 | 2 | 4 | | 3 | 1 | 53 |
| 2:00 PM | 1 | 3 | 1 | 1 | 1 | 6 | 7 | 2 | 4 | | 1 | 1 | 28 |
| 2:15 PM | 2 | 3 | 1 | 0 | 3 | 7 | 9 | 5 | 6 | | 1 | 0 | 37 |
| 2:30 PM | 3 | 5 | 0 | 0 | 2 | 8 | 12 | 1 | 2 | | 2 | 0 | 35 |
| 2:45 PM | 3 | 0 | 2 | 0 | 5 | 10 | 13 | 2 | 2 | | 4 | 1 | 42 |
| 3:00 PM | 8 | 2 | 3 | 0 | 1 | 5 | 8 | 2 | 8 | | 1 | 0 | 38 |
| 3:15 PM | 7 | 1 | 0 | 0 | 4 | 14 | 10 | 2 | 3 | | 0 | 1 | 42 |
| 3:30 PM | 7 | 2 | 1 | 0 | 4 | 6 | 10 | 1 | 3 | | 0 | 1 | 35 |
| 3:45 PM | 4 | 2 | 0 | 0 | 1 | 8 | 7 | 1 | 1 | | 2 | 0 | 26 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 67 | 40 | 16 | 8 | 30 | 151 | 210 | 48 | 66 | 0 | 27 | 10 | 673 |
| **APPROACH %'s :** | 54.47% | 32.52% | 13.01% | 4.23% | 15.87% | 79.89% | 64.81% | 14.81% | 20.37% | 0.00% | 72.97% | 27.03% | |

| **PEAK HR START TIME :** | 245 PM | | | | | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PEAK HR VOL :** | 25 | 5 | 6 | 0 | 14 | 35 | 41 | 7 | 16 | 0 | 5 | 3 | 157 |
| **PEAK HR FACTOR :** | | 0.692 | | | 0.681 | | | 0.889 | | | 0.400 | | 0.935 |

**CONTROL :** 4-Way Stop

# ITM Peak Hour Summary

Prepared by:

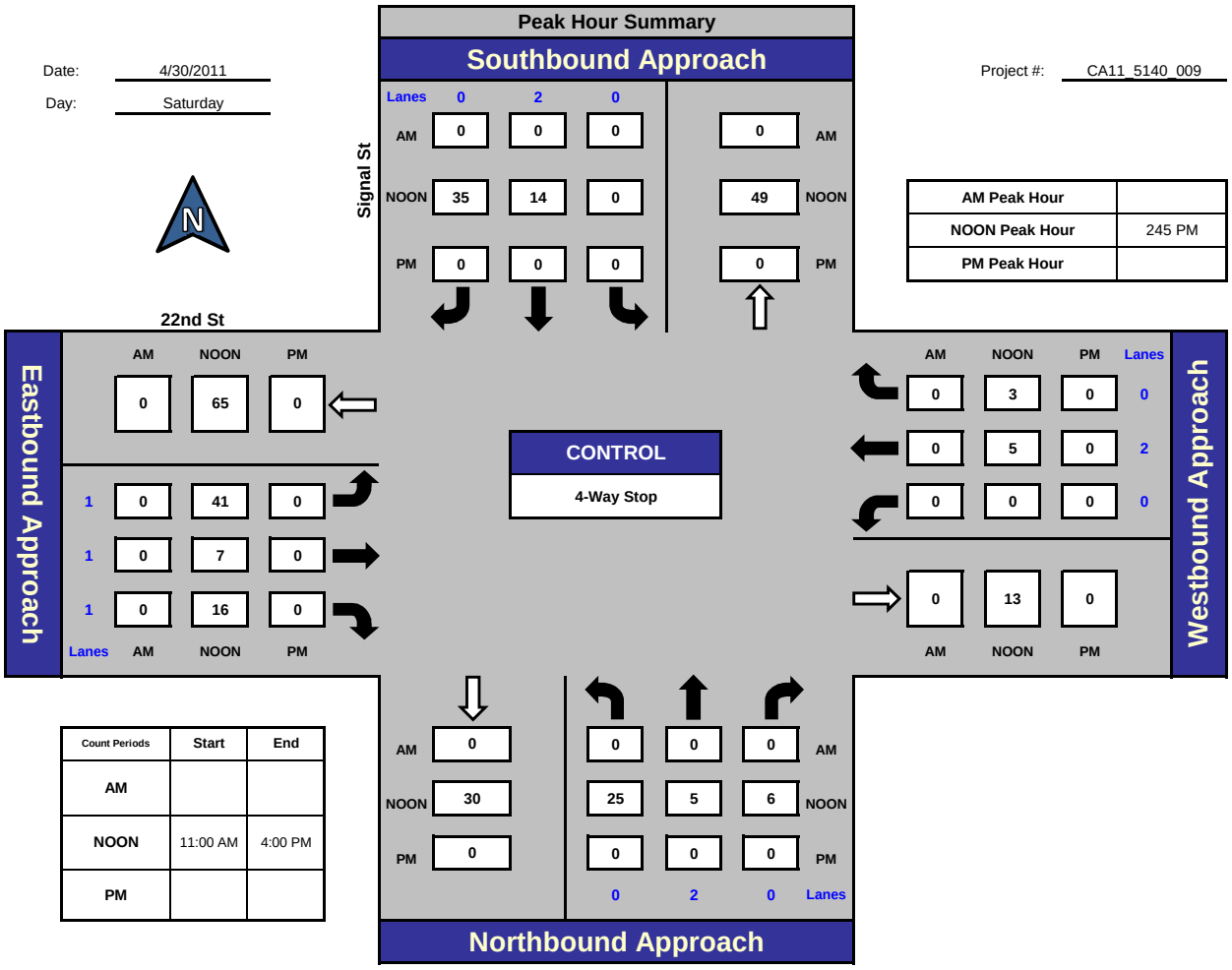
National Data & Surveying Services

## *Signal St and 22nd St ,*

Date: 4/30/2011

Day: Saturday

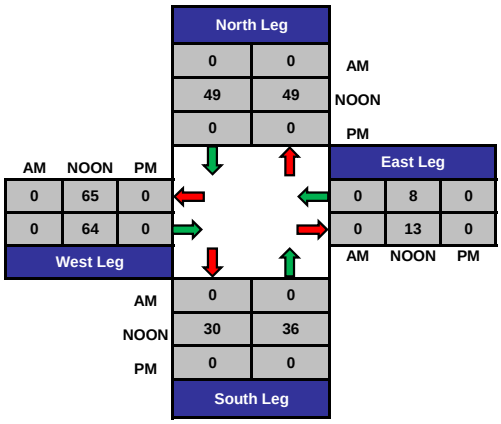
Project #: CA11_5140_009



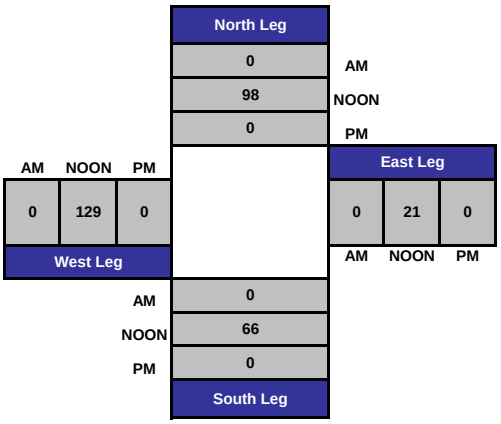

| AM Peak Hour | |
|---|---|
| NOON Peak Hour | 245 PM |
| PM Peak Hour | |

| Count Periods | Start | End |
|---|---|---|
| AM | | |
| NOON | 11:00 AM | 4:00 PM |
| PM | | |

### Total Ins & Outs




### Total Volume Per Leg



# APPENDIX C:
# LEVEL OF SERVICE WORKSHEETS

**EXISTING + PROJECT PHASE 1 (2011)**

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | East-West Street: | Summerland Av | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 112 | 1 | **112** | 0 | 112 | **112** | 0 | 112 | 1 | **112** | 0 | 112 | 1 | **112** | 0 | 112 | 1 | **112** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 369 | 1 | 192 | 0 | 369 | 192 | 0 | 369 | 1 | 192 | 0 | 369 | 1 | 192 | 0 | 369 | 1 | 192 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 15 | 0 | 0 | 0 | 15 | 0 | 0 | 15 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 15 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 11 | 1 | 11 | 0 | 11 | 11 | 0 | 11 | 1 | 11 | 0 | 11 | 1 | 11 | 0 | 11 | 1 | 11 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 287 | 1 | **217** | 2 | 289 | **218** | 0 | 287 | 1 | **217** | 2 | 289 | 1 | **218** | 0 | 289 | 1 | **218** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 146 | 0 | 0 | 0 | 146 | 0 | 0 | 146 | 0 | 0 | 0 | 146 | 0 | 0 | 0 | 146 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 421 | 1 | **421** | 0 | 421 | **421** | 0 | 421 | 1 | **421** | 0 | 421 | 1 | **421** | 0 | 421 | 1 | **421** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 5 | 0 | 59 | 0 | 5 | 59 | 0 | 5 | 0 | 59 | 0 | 5 | 0 | 59 | 0 | 5 | 0 | 59 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 54 | 0 | 0 | 0 | 54 | 0 | 0 | 54 | 0 | 0 | 0 | 54 | 0 | 0 | 0 | 54 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 391 | 2 | 215 | 0 | 391 | 215 | 0 | 391 | 2 | 215 | 0 | 391 | 2 | 215 | 0 | 391 | 2 | 215 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 146 | 0 | **396** | 0 | 146 | **396** | 0 | 146 | 0 | **396** | 0 | 146 | 0 | **396** | 0 | 146 | 0 | **396** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 250 | 0 | 0 | 0 | 250 | 0 | 0 | 250 | 0 | 0 | 0 | 250 | 0 | 0 | 0 | 250 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 329 | *North-South:* | | 330 | *North-South:* | | | 329 | *North-South:* | | | 330 | *North-South:* | | | 330 |
| | | *East-West:* | | 817 | *East-West:* | | 817 | *East-West:* | | | 817 | *East-West:* | | | 817 | *East-West:* | | | 817 |
| | | *SUM:* | | 1146 | *SUM:* | | 1147 | *SUM:* | | | 1146 | *SUM:* | | | 1147 | *SUM:* | | | 1147 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.804 | | | 0.805 | | | | 0.804 | | | | 0.805 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.704 | | | 0.705 | | | | 0.704 | | | | 0.705 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | C | | | C | | | | C | | | | C | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | Δ*v/c* after mitigation: | -0.804 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | East-West Street: | I-110 Ramps | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | 2 | | | 2 | | | 2 | | | | 2 | | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | 0 | | | 0 | | | 0 | | | | 0 | | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 1 SB-- / EB-- 0 WB-- | 0 / 0 | | NB-- 1 SB-- / EB-- 0 WB-- | 0 / 0 | | NB-- 1 SB-- / EB-- 0 WB-- | 0 / 0 | | | NB-- 1 SB-- / EB-- 0 WB-- | 0 / 0 | | | NB-- 0 SB-- / EB-- 0 WB-- | 0 / 0 | | |
| | ATSAC-1 or ATSAC+ATCS-2? | | 2 | | | 2 | | | 2 | | | | 2 | | | | | | 2 |
| | Override Capacity | | 0 | | | 0 | | | 0 | | | | 0 | | | | | | 0 |
| NORTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 497 | 2 | 249 | 0 | 497 | 249 | 0 | 497 | 2 | 249 | 0 | 497 | 2 | 249 | 0 | 497 | 2 | 249 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 2746 | 2 | 0 | 1 | 2747 | 0 | 0 | 2746 | 2 | 0 | 1 | 2747 | 2 | 0 | 0 | 2747 | 2 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 720 | 3 | 240 | 2 | 722 | 241 | 0 | 720 | 3 | 240 | 2 | 722 | 3 | 241 | 0 | 722 | 3 | 241 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 1335 | 2 | 466 | 5 | 1340 | 468 | 0 | 1335 | 2 | 466 | 5 | 1340 | 2 | 468 | 0 | 1340 | 2 | 468 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 64 | 0 | 466 | 0 | 64 | 468 | 0 | 64 | 0 | 466 | 0 | 64 | 0 | 468 | 0 | 64 | 0 | 468 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | CRITICAL VOLUMES | North-South: | 249 | | North-South: | 249 | | North-South: | 249 | | | North-South: | 249 | | | North-South: | 249 | | |
| | | East-West: | 466 | | East-West: | 468 | | East-West: | 466 | | | East-West: | 468 | | | East-West: | 468 | | |
| | | SUM: | 715 | | SUM: | 717 | | SUM: | 715 | | | SUM: | 717 | | | SUM: | 717 | | |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.477 | | | 0.478 | | | | 0.477 | | | | 0.478 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.377 | | | 0.378 | | | | 0.377 | | | | 0.378 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.001 | Δv/c after mitigation: | -0.477 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | East-West Street: | 1st St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 3 | | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- | 0 |
| | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | 0 |

| | MOVEMENT | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 12 | 1 | 12 | 0 | 12 | 12 | 0 | 12 | 1 | 12 | 0 | 12 | 1 | 12 | 0 | 12 | 1 | 12 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1696 | 2 | 568 | 1 | 1697 | 568 | 0 | 1696 | 2 | 568 | 1 | 1697 | 2 | 568 | 0 | 1697 | 2 | 568 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 73 | 1 | 73 | 0 | 73 | 73 | 0 | 73 | 1 | 73 | 0 | 73 | 1 | 73 | 0 | 73 | 1 | 73 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1363 | 2 | 567 | 6 | 1369 | 569 | 0 | 1363 | 2 | 567 | 6 | 1369 | 2 | 569 | 0 | 1369 | 2 | 569 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 339 | 0 | 0 | 0 | 339 | 0 | 0 | 339 | 0 | 0 | 0 | 339 | 0 | 0 | 0 | 339 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 1066 | 1 | 560 | 0 | 1066 | 560 | 0 | 1066 | 1 | 560 | 0 | 1066 | 1 | 560 | 0 | 1066 | 1 | 560 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 53 | 0 | 560 | 0 | 53 | 560 | 0 | 53 | 0 | 560 | 0 | 53 | 0 | 560 | 0 | 53 | 0 | 560 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 24 | 1 | 18 | 0 | 24 | 18 | 0 | 24 | 1 | 18 | 0 | 24 | 1 | 18 | 0 | 24 | 1 | 18 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 41 | 1 | 41 | 0 | 41 | 41 | 0 | 41 | 1 | 41 | 0 | 41 | 1 | 41 | 0 | 41 | 1 | 41 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 134 | 1 | 134 | 0 | 134 | 134 | 0 | 134 | 1 | 134 | 0 | 134 | 1 | 134 | 0 | 134 | 1 | 134 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 203 | 1 | 167 | 0 | 203 | 167 | 0 | 203 | 1 | 167 | 0 | 203 | 1 | 167 | 0 | 203 | 1 | 167 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | North-South: | | 641 | North-South: | | 641 | North-South: | | | 641 | North-South: | | | 641 | North-South: | | | 641 |
| | | East-West: | | 727 | East-West: | | 727 | East-West: | | | 727 | East-West: | | | 727 | East-West: | | | 727 |
| | | SUM: | | 1368 | SUM: | | 1368 | SUM: | | | 1368 | SUM: | | | 1368 | SUM: | | | 1368 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.960 | | | 0.960 | | | | 0.960 | | | | 0.960 | | | | |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.860 | | | 0.860 | | | | 0.860 | | | | 0.860 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | D | | | D | | | | D | | | | D | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.000 | Δv/c after mitigation: | -0.960 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | East-West Street: | 5th St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 18 | 1 | 18 | 0 | 18 | 18 | 0 | 18 | 1 | 18 | 0 | 18 | 1 | 18 | 0 | 18 | 1 | 18 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1467 | 1 | 762 | 1 | 1468 | 762 | 0 | 1467 | 1 | 762 | 1 | 1468 | 1 | 762 | 0 | 1468 | 1 | 762 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 56 | 0 | 0 | 0 | 56 | 0 | 0 | 56 | 0 | 0 | 0 | 56 | 0 | 0 | 0 | 56 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 64 | 1 | 64 | 0 | 64 | 64 | 0 | 64 | 1 | 64 | 0 | 64 | 1 | 64 | 0 | 64 | 1 | 64 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1249 | 1 | 653 | 6 | 1255 | 656 | 0 | 1249 | 1 | 653 | 6 | 1255 | 1 | 656 | 0 | 1255 | 1 | 656 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 57 | 0 | 0 | 0 | 57 | 0 | 0 | 57 | 0 | 0 | 0 | 57 | 0 | 0 | 0 | 57 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 172 | 1 | 172 | 0 | 172 | 172 | 0 | 172 | 1 | 172 | 0 | 172 | 1 | 172 | 0 | 172 | 1 | 172 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 134 | 0 | 155 | 0 | 134 | 155 | 0 | 134 | 0 | 155 | 0 | 134 | 0 | 155 | 0 | 134 | 0 | 155 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 21 | 0 | 0 | 0 | 21 | 0 | 0 | 21 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 21 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 65 | 1 | 65 | 0 | 65 | 65 | 0 | 65 | 1 | 65 | 0 | 65 | 1 | 65 | 0 | 65 | 1 | 65 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 104 | 0 | 163 | 0 | 104 | 163 | 0 | 104 | 0 | 163 | 0 | 104 | 0 | 163 | 0 | 104 | 0 | 163 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 59 | 0 | 0 | 0 | 59 | 0 | 0 | 59 | 0 | 0 | 0 | 59 | 0 | 0 | 0 | 59 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | | North-South: | 826 | | North-South: | 826 | | North-South: | 826 | | | North-South: | 826 | | | North-South: | | 826 |
| | | | East-West: | 335 | | East-West: | 335 | | East-West: | 335 | | | East-West: | 335 | | | East-West: | | 335 |
| | | | SUM: | 1161 | | SUM: | 1161 | | SUM: | 1161 | | | SUM: | 1161 | | | SUM: | | 1161 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.815 | | | 0.815 | | | 0.815 | | | | 0.815 | | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.715 | | | 0.715 | | | 0.715 | | | | 0.715 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | C | | | C | | | C | | | | C | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.000 | Δv/c after mitigation: | -0.815 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | East-West Street: | 7th St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 19 | 1 | 19 | 0 | 19 | 19 | 0 | 19 | 1 | 19 | 0 | 19 | 1 | 19 | 0 | 19 | 1 | 19 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1323 | 1 | 674 | 1 | 1324 | 675 | 0 | 1323 | 1 | 674 | 1 | 1324 | 1 | 675 | 0 | 1324 | 1 | 675 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 25 | 0 | 0 | 0 | 25 | 0 | 0 | 25 | 0 | 0 | 0 | 25 | 0 | 0 | 0 | 25 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 52 | 1 | 52 | 0 | 52 | 52 | 0 | 52 | 1 | 52 | 0 | 52 | 1 | 52 | 0 | 52 | 1 | 52 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1058 | 1 | 590 | 6 | 1064 | 593 | 0 | 1058 | 1 | 590 | 6 | 1064 | 1 | 593 | 0 | 1064 | 1 | 593 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 122 | 0 | 0 | 0 | 122 | 0 | 0 | 122 | 0 | 0 | 0 | 122 | 0 | 0 | 0 | 122 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 197 | 1 | 197 | 0 | 197 | 197 | 0 | 197 | 1 | 197 | 0 | 197 | 1 | 197 | 0 | 197 | 1 | 197 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 158 | 0 | 184 | 0 | 158 | 184 | 0 | 158 | 0 | 184 | 0 | 158 | 0 | 184 | 0 | 158 | 0 | 184 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 26 | 0 | 0 | 0 | 26 | 0 | 0 | 26 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 26 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 86 | 1 | 86 | 0 | 86 | 86 | 0 | 86 | 1 | 86 | 0 | 86 | 1 | 86 | 0 | 86 | 1 | 86 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 115 | 0 | 167 | 0 | 115 | 167 | 0 | 115 | 0 | 167 | 0 | 115 | 0 | 167 | 0 | 115 | 0 | 167 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 52 | 0 | 0 | 0 | 52 | 0 | 0 | 52 | 0 | 0 | 0 | 52 | 0 | 0 | 0 | 52 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 726 | North-South: | | 727 | North-South: | | | 726 | North-South: | | | 727 | North-South: | | | 727 |
| | | East-West: | | 364 | East-West: | | 364 | East-West: | | | 364 | East-West: | | | 364 | East-West: | | | 364 |
| | | SUM: | | 1090 | SUM: | | 1091 | SUM: | | | 1090 | SUM: | | | 1091 | SUM: | | | 1091 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.727 | | | 0.727 | | | | 0.727 | | | | 0.727 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.627 | | | 0.627 | | | | 0.627 | | | | 0.627 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | B | | | B | | | | B | | | | B | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.000 | Δv/c after mitigation: | -0.727 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | East-West Street: | 9th St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 62 | 1 | 62 | 0 | 62 | 62 | 0 | 62 | 1 | 62 | 0 | 62 | 1 | 62 | 0 | 62 | 1 | 62 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1136 | 1 | 577 | 1 | 1137 | 577 | 0 | 1136 | 1 | 577 | 1 | 1137 | 1 | 577 | 0 | 1137 | 1 | 577 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 44 | 1 | 44 | 0 | 44 | 44 | 0 | 44 | 1 | 44 | 0 | 44 | 1 | 44 | 0 | 44 | 1 | 44 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 894 | 1 | 503 | 6 | 900 | 506 | 0 | 894 | 1 | 503 | 6 | 900 | 1 | 506 | 0 | 900 | 1 | 506 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 112 | 0 | 0 | 0 | 112 | 0 | 0 | 112 | 0 | 0 | 0 | 112 | 0 | 0 | 0 | 112 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 230 | 1 | 230 | 0 | 230 | 230 | 0 | 230 | 1 | 230 | 0 | 230 | 1 | 230 | 0 | 230 | 1 | 230 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 276 | 1 | 276 | 1 | 277 | 277 | 0 | 276 | 1 | 276 | 1 | 277 | 1 | 277 | 0 | 277 | 1 | 277 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 43 | 1 | 12 | 1 | 44 | 13 | 0 | 43 | 1 | 12 | 1 | 44 | 1 | 13 | 0 | 44 | 1 | 13 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 52 | 1 | 52 | 0 | 52 | 52 | 0 | 52 | 1 | 52 | 0 | 52 | 1 | 52 | 0 | 52 | 1 | 52 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 241 | 0 | 274 | 0 | 241 | 274 | 0 | 241 | 0 | 274 | 0 | 241 | 0 | 274 | 0 | 241 | 0 | 274 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 33 | 0 | 0 | 0 | 33 | 0 | 0 | 33 | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 33 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 621 | North-South: | | 621 | North-South: | | | 621 | North-South: | | | 621 | North-South: | | | 621 |
| | | East-West: | | 504 | East-West: | | 504 | East-West: | | | 504 | East-West: | | | 504 | East-West: | | | 504 |
| | | SUM: | | 1125 | SUM: | | 1125 | SUM: | | | 1125 | SUM: | | | 1125 | SUM: | | | 1125 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.750 | | | 0.750 | | | | 0.750 | | | | 0.750 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.650 | | | 0.650 | | | | 0.650 | | | | 0.650 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | B | | | B | | | | B | | | | B | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.000 | Δv/c after mitigation: | -0.750 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | 2 | | | 2 | | | 2 | | | 2 | | 2 | | | | 0 | |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | 0 | | | 0 | | | 0 | | | 0 | | 0 | | | | 0 | |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | 0 | | NB-- 0 SB-- EB-- 0 WB-- | 0 | | NB-- 0 SB-- EB-- 0 WB-- | 0 | | | NB-- 0 SB-- EB-- 0 WB-- | 0 | | | NB-- 0 SB-- EB-- 0 WB-- | 0 | | |
| | ATSAC-1 or ATSAC+ATCS-2? | | 2 | | | 2 | | | 2 | | | 2 | | 2 | | | | 2 | |
| | Override Capacity | | 0 | | | 0 | | | 0 | | | 0 | | 0 | | | | 0 | |
| NORTHBOUND | Left | 5 | 0 | 5 | 0 | 5 | 5 | 0 | 5 | 0 | 5 | 0 | 5 | 0 | 5 | 0 | 5 | 0 | 5 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 566 | 0 | **348** | 0 | 566 | **350** | 0 | 566 | 0 | **348** | 0 | 566 | 0 | **350** | 0 | 566 | 0 | **350** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 119 | 0 | 348 | 5 | 124 | 350 | 0 | 119 | 0 | 348 | 5 | 124 | 0 | 350 | 0 | 124 | 0 | 350 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 88 | 0 | **88** | 7 | 95 | **95** | 0 | 88 | 0 | **88** | 7 | 95 | 0 | **95** | 0 | 95 | 0 | **95** |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 391 | 0 | 382 | 0 | 391 | 396 | 0 | 391 | 0 | 382 | 0 | 391 | 0 | 396 | 0 | 391 | 0 | 396 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 21 | 0 | 382 | 0 | 21 | 396 | 0 | 21 | 0 | 382 | 0 | 21 | 0 | 396 | 0 | 21 | 0 | 396 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 16 | 0 | **16** | 0 | 16 | **16** | 0 | 16 | 0 | **16** | 0 | 16 | 0 | **16** | 0 | 16 | 0 | **16** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 52 | 0 | 69 | 0 | 52 | 69 | 0 | 52 | 0 | 69 | 0 | 52 | 0 | 69 | 0 | 52 | 0 | 69 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 78 | 0 | 78 | 1 | 79 | 79 | 0 | 78 | 0 | 78 | 1 | 79 | 0 | 79 | 0 | 79 | 0 | 79 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 48 | 0 | **193** | 0 | 48 | **196** | 0 | 48 | 0 | **193** | 0 | 48 | 0 | **196** | 0 | 48 | 0 | **196** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 67 | 0 | 0 | 2 | 69 | 0 | 0 | 67 | 0 | 0 | 2 | 69 | 0 | 0 | 0 | 69 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | 436 | | *North-South:* | 445 | | *North-South:* | 436 | | | *North-South:* | 445 | | | *North-South:* | 445 | | |
| | | *East-West:* | 209 | | *East-West:* | 212 | | *East-West:* | 209 | | | *East-West:* | 212 | | | *East-West:* | 212 | | |
| | | *SUM:* | 645 | | *SUM:* | 657 | | *SUM:* | 645 | | | *SUM:* | 657 | | | *SUM:* | 657 | | |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | 0.430 | | | 0.438 | | | 0.430 | | | | 0.438 | | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | 0.330 | | | 0.338 | | | 0.330 | | | | 0.338 | | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | A | | | A | | | A | | | | A | | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.008 | Δ*v/c* after mitigation: | -0.430 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | East-West Street: | 25th St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | | EB-- 3 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 116 | 1 | **116** | 0 | 116 | **116** | 0 | 116 | 1 | **116** | 0 | 116 | 1 | **116** | 0 | 116 | 1 | **116** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 254 | 1 | 254 | 1 | 255 | 255 | 0 | 254 | 1 | 254 | 1 | 255 | 1 | 255 | 0 | 255 | 1 | 255 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 174 | 1 | **174** | 0 | 174 | **174** | 0 | 174 | 1 | **174** | 0 | 174 | 1 | **174** | 0 | 174 | 1 | **174** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 250 | 1 | 69 | 1 | 251 | 67 | 0 | 250 | 1 | 69 | 1 | 251 | 1 | 67 | 0 | 251 | 1 | 67 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 363 | 1 | **363** | 5 | 368 | **368** | 0 | 363 | 1 | **363** | 5 | 368 | 1 | **368** | 0 | 368 | 1 | **368** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 76 | 1 | 0 | 0 | 76 | 0 | 0 | 76 | 1 | 0 | 0 | 76 | 1 | 0 | 0 | 76 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 290 | *North-South:* | | 290 | *North-South:* | | 290 | | *North-South:* | | 290 | | *North-South:* | | | 290 |
| | | *East-West:* | | 363 | *East-West:* | | 368 | *East-West:* | | 363 | | *East-West:* | | 368 | | *East-West:* | | | 368 |
| | | *SUM:* | | 653 | *SUM:* | | 658 | *SUM:* | | 653 | | *SUM:* | | 658 | | *SUM:* | | | 658 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.458 | | | 0.462 | | | 0.458 | | | | 0.462 | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.358 | | | 0.362 | | | 0.358 | | | | 0.362 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.004 | Δ*v/c* after mitigation: | -0.458 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Via Cabrillo Marina | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 3 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 3 | SB-- 0 | NB-- | 3 | SB-- 0 | NB-- | 3 | SB-- 0 | NB-- | 3 | SB-- 0 | NB-- | 0 | SB-- 0 |
| | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 39 | 2 | **21** | 0 | 39 | **21** | 0 | 39 | 2 | **21** | 0 | 39 | 2 | **21** | 0 | 39 | 2 | **21** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 27 | 1 | 0 | 0 | 27 | 0 | 0 | 27 | 1 | 0 | 0 | 27 | 1 | 0 | 0 | 27 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 373 | 1 | **242** | 17 | 390 | **251** | 0 | 373 | 1 | **242** | 17 | 390 | 1 | **251** | 0 | 390 | 1 | **251** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 111 | 0 | 0 | 0 | 111 | 0 | 0 | 111 | 0 | 0 | 0 | 111 | 0 | 0 | 0 | 111 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 73 | 1 | **73** | 0 | 73 | **73** | 0 | 73 | 1 | **73** | 0 | 73 | 1 | **73** | 0 | 73 | 1 | **73** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 102 | 2 | 51 | 4 | 106 | 53 | 0 | 102 | 2 | 51 | 4 | 106 | 2 | 53 | 0 | 106 | 2 | 53 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 21 | *North-South:* | | 21 | *North-South:* | | | 21 | *North-South:* | | | 21 | *North-South:* | | | 21 |
| | | *East-West:* | | 315 | *East-West:* | | 324 | *East-West:* | | | 315 | *East-West:* | | | 324 | *East-West:* | | | 324 |
| | | *SUM:* | | 336 | *SUM:* | | 345 | *SUM:* | | | 336 | *SUM:* | | | 345 | *SUM:* | | | 345 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.236 | | | 0.242 | | | | 0.236 | | | | 0.242 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.136 | | | 0.142 | | | | 0.136 | | | | 0.142 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.006 | Δ*v/c* after mitigation: | -0.236 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | East-West Street: | Swinford St / SR-47 EB Ramps | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 4 | | | 4 | | | 4 | | | | 4 | | | | | 4 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 3 WB-- | | 0 0 | NB-- 0 SB-- EB-- 3 WB-- | | 0 0 | NB-- 0 SB-- EB-- 3 WB-- | | 0 0 | | NB-- 0 SB-- EB-- 3 WB-- | | 0 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 371 | 2 | 204 | 3 | 374 | 206 | 0 | 371 | 2 | 204 | 3 | 374 | 2 | 206 | 0 | 374 | 2 | 206 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 753 | 1 | 390 | 10 | 763 | 395 | 0 | 753 | 1 | 390 | 10 | 763 | 1 | 395 | 0 | 763 | 2 | 263 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 27 | 0 | 0 | 0 | 27 | 0 | 0 | 27 | 0 | 0 | 0 | 27 | 0 | 0 | 0 | 27 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 28 | 1 | 28 | 0 | 28 | 28 | 0 | 28 | 1 | 28 | 0 | 28 | 1 | 28 | 0 | 28 | 1 | 28 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 77 | 2 | 39 | 2 | 79 | 40 | 0 | 77 | 2 | 39 | 2 | 79 | 2 | 40 | 0 | 79 | 2 | 40 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 41 | 1 | 0 | 0 | 41 | 0 | 0 | 41 | 1 | 0 | 0 | 41 | 1 | 0 | 0 | 41 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 178 | 1 | 178 | 0 | 178 | 178 | 0 | 178 | 1 | 178 | 0 | 178 | 1 | 178 | 0 | 178 | 1 | 178 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 122 | 0 | 499 | 0 | 122 | 526 | 0 | 122 | 0 | 499 | 0 | 122 | 0 | 526 | 0 | 122 | 0 | 526 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 876 | 1 | 0 | 54 | 930 | 0 | 0 | 876 | 1 | 0 | 54 | 930 | 1 | 0 | 0 | 930 | 1 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 39 | 0 | 39 | 0 | 39 | 39 | 0 | 39 | 0 | 39 | 0 | 39 | 0 | 39 | 0 | 39 | 0 | 39 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 9 | 0 | 26 | 0 | 9 | 26 | 0 | 9 | 0 | 26 | 0 | 9 | 0 | 26 | 0 | 9 | 0 | 26 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | | North-South: | 418 | | North-South: | 423 | | North-South: | 418 | | | North-South: | 423 | | | North-South: | 291 | |
| | | | East-West: | 538 | | East-West: | 565 | | East-West: | 538 | | | East-West: | 565 | | | East-West: | 565 | |
| | | | SUM: | 956 | | SUM: | 988 | | SUM: | 956 | | | SUM: | 988 | | | SUM: | 856 | |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.695 | | | 0.719 | | | 0.695 | | | | 0.719 | | | | 0.623 | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.595 | | | 0.619 | | | 0.595 | | | | 0.619 | | | | 0.523 | |
| | LEVEL OF SERVICE (LOS): | | | A | | | B | | | A | | | | B | | | | A | |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.024 | Δv/c after mitigation: | -0.072 |
| Significant impacted? | NO | Fully mitigated? | N/A |

| EX | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| N-S | 418 | 418 | | | | | | |
| EB | 237 | 178 | | | | | | |
| WB | 39 | 39 | | | Scenario | Scenario | Change | Impact? |
| Sum | 694 | 635 | EX | | 0.505 | 0.519 | 0.014 | NO |
| V/C | 0.505 | 0.462 | FB | | 0.505 | 0.519 | 0.014 | NO |
| Less ATS | 0.505 | 0.462 | | | | | | |
| LOS | A | A | | | | | | |

| EP | | |
|---|---|---|
| N-S | 423 | 423 |
| EB | 251 | 178 |
| WB | 39 | 39 |
| Sum | 713 | 640 |
| V/C | 0.519 | 0.465 |
| Less ATS | 0.519 | 0.465 |
| LOS | A | A |

| FB | | |
|---|---|---|
| N-S | 418 | 418 |
| EB | 237 | 178 |
| WB | 39 | 39 |
| Sum | 694 | 635 |
| V/C | 0.505 | 0.462 |
| Less ATS | 0.505 | 0.462 |
| LOS | A | A |

| FP | | |
|---|---|---|
| N-S | 423 | 423 |
| EB | 251 | 178 |
| WB | 39 | 39 |
| Sum | 713 | 640 |
| V/C | 0.519 | 0.465 |
| Less ATS | 0.519 | 0.465 |
| LOS | A | A |

| FP Mitigation | | |
|---|---|---|
| N-S | 291 | 291 |
| EB | 251 | 178 |
| WB | 39 | 39 |
| Sum | 581 | 508 |
| V/C | 0.423 | 0.369 |
| Less ATS | 0.423 | 0.369 |
| LOS | A | A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | East-West Street: | O'Farrell St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 6 | 1 | 6 | 0 | 6 | 6 | 0 | 6 | 1 | 6 | 0 | 6 | 1 | 6 | 0 | 6 | 1 | 6 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1102 | 2 | 551 | 13 | 1115 | 558 | 0 | 1102 | 2 | 551 | 13 | 1115 | 2 | 558 | 0 | 1115 | 2 | 558 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 931 | 2 | 466 | 57 | 988 | 494 | 0 | 931 | 2 | 466 | 57 | 988 | 2 | 494 | 0 | 988 | 2 | 494 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 9 | 1 | 9 | 0 | 9 | 9 | 0 | 9 | 1 | 9 | 0 | 9 | 1 | 9 | 0 | 9 | 1 | 9 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 77 | 0 | 77 | 0 | 77 | 77 | 0 | 77 | 0 | 77 | 0 | 77 | 0 | 77 | 0 | 77 | 0 | 77 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 18 | 0 | 95 | 0 | 18 | 95 | 0 | 18 | 0 | 95 | 0 | 18 | 0 | 95 | 0 | 18 | 0 | 95 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 551 | North-South: | | 558 | North-South: | | | 551 | North-South: | | | 558 | North-South: | | | 558 |
| | | East-West: | | 95 | East-West: | | 95 | East-West: | | | 95 | East-West: | | | 95 | East-West: | | | 95 |
| | | SUM: | | 646 | SUM: | | 653 | SUM: | | | 646 | SUM: | | | 653 | SUM: | | | 653 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.431 | | | 0.435 | | | | 0.431 | | | | 0.435 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.431 | | | 0.435 | | | | 0.431 | | | | 0.435 | | | | 0.000 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.004 | Δv/c after mitigation: | -0.431 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | East-West Street: | 1st St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 16 | 1 | 16 | 0 | 16 | 16 | 0 | 16 | 1 | 16 | 0 | 16 | 1 | 16 | 0 | 16 | 1 | 16 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 997 | 1 | 503 | 13 | 1010 | 509 | 0 | 997 | 1 | 503 | 13 | 1010 | 1 | 509 | 0 | 1010 | 1 | 509 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 67 | 1 | 67 | 0 | 67 | 67 | 0 | 67 | 1 | 67 | 0 | 67 | 1 | 67 | 0 | 67 | 1 | 67 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 867 | 2 | 434 | 57 | 924 | 462 | 0 | 867 | 2 | 434 | 57 | 924 | 2 | 462 | 0 | 924 | 2 | 462 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 21 | 1 | 0 | 0 | 21 | 0 | 0 | 21 | 1 | 0 | 0 | 21 | 1 | 0 | 0 | 21 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 79 | 1 | 79 | 0 | 79 | 79 | 0 | 79 | 1 | 79 | 0 | 79 | 1 | 79 | 0 | 79 | 1 | 79 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 11 | 0 | 23 | 0 | 11 | 23 | 0 | 11 | 0 | 23 | 0 | 11 | 0 | 23 | 0 | 11 | 0 | 23 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 12 | 0 | 0 | 0 | 12 | 0 | 0 | 12 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 12 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 570 | North-South: | | 576 | North-South: | | | 570 | North-South: | | | 576 | North-South: | | | 576 |
| | | East-West: | | 79 | East-West: | | 79 | East-West: | | | 79 | East-West: | | | 79 | East-West: | | | 79 |
| | | SUM: | | 649 | SUM: | | 655 | SUM: | | | 649 | SUM: | | | 655 | SUM: | | | 655 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.433 | | | 0.437 | | | | 0.433 | | | | 0.437 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.333 | | | 0.337 | | | | 0.333 | | | | 0.337 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.004 | Δv/c after mitigation: | -0.433 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | East-West Street: | 5th St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 15 | 1 | 15 | 0 | 15 | **15** | 0 | 15 | 1 | 15 | 0 | 15 | 1 | **15** | 0 | 15 | 1 | **15** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 783 | 1 | **393** | 13 | 796 | 400 | 0 | 783 | 1 | **393** | 13 | 796 | 1 | 400 | 0 | 796 | 1 | 400 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 567 | 1 | 366 | 57 | 624 | **395** | 0 | 567 | 1 | 366 | 57 | 624 | 1 | **395** | 0 | 624 | 1 | **395** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 165 | 0 | 0 | 0 | 165 | 0 | 0 | 165 | 0 | 0 | 0 | 165 | 0 | 0 | 0 | 165 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 136 | 1 | **136** | 0 | 136 | **136** | 0 | 136 | 1 | **136** | 0 | 136 | 1 | **136** | 0 | 136 | 1 | **136** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 5 | 1 | 5 | 0 | 5 | 5 | 0 | 5 | 1 | 5 | 0 | 5 | 1 | 5 | 0 | 5 | 1 | 5 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 13 | 1 | 6 | 0 | 13 | 6 | 0 | 13 | 1 | 6 | 0 | 13 | 1 | 6 | 0 | 13 | 1 | 6 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 5 | 0 | **8** | 0 | 5 | **8** | 0 | 5 | 0 | **8** | 0 | 5 | 0 | **8** | 0 | 5 | 0 | **8** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 11 | 1 | 0 | 0 | 11 | 0 | 0 | 11 | 1 | 0 | 0 | 11 | 1 | 0 | 0 | 11 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | | *North-South:* | 393 | | *North-South:* | 410 | | *North-South:* | | 393 | | *North-South:* | | 410 | | *North-South:* | | 410 |
| | | | *East-West:* | 144 | | *East-West:* | 144 | | *East-West:* | | 144 | | *East-West:* | | 144 | | *East-West:* | | 144 |
| | | | *SUM:* | 537 | | *SUM:* | 554 | | *SUM:* | | 537 | | *SUM:* | | 554 | | *SUM:* | | 554 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.358 | | | 0.369 | | | | 0.358 | | | | 0.369 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.258 | | | 0.269 | | | | 0.258 | | | | 0.269 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.011 | Δ*v/c* after mitigation: | -0.358 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | East-West Street: | 6th St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 3 | 1 | 3 | 0 | 3 | 3 | 0 | 3 | 1 | 3 | 0 | 3 | 1 | 3 | 0 | 3 | 1 | 3 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 799 | 1 | 406 | 8 | 807 | 410 | 0 | 799 | 1 | 406 | 8 | 807 | 1 | 410 | 0 | 807 | 1 | 410 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 13 | 0 | 0 | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 13 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 71 | 1 | 71 | 20 | 91 | 91 | 0 | 71 | 1 | 71 | 20 | 91 | 1 | 91 | 0 | 91 | 1 | 91 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 482 | 1 | 271 | 37 | 519 | 289 | 0 | 482 | 1 | 271 | 37 | 519 | 1 | 289 | 0 | 519 | 1 | 289 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 59 | 0 | 0 | 0 | 59 | 0 | 0 | 59 | 0 | 0 | 0 | 59 | 0 | 0 | 0 | 59 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 23 | 1 | 23 | 0 | 23 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 12 | 0 | 14 | 5 | 17 | 19 | 0 | 12 | 0 | 14 | 5 | 17 | 0 | 19 | 0 | 17 | 0 | 19 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 3 | 1 | 3 | 0 | 3 | 3 | 0 | 3 | 1 | 3 | 0 | 3 | 1 | 3 | 0 | 3 | 1 | 3 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 2 | 1 | 2 | 1 | 3 | 3 | 0 | 2 | 1 | 2 | 1 | 3 | 1 | 3 | 0 | 3 | 1 | 3 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 14 | 2 | 0 | 5 | 19 | 0 | 0 | 14 | 2 | 0 | 5 | 19 | 2 | 0 | 0 | 19 | 2 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 477 | North-South: | | 501 | North-South: | | | 477 | North-South: | | | 501 | North-South: | | | 501 |
| | | East-West: | | 25 | East-West: | | 26 | East-West: | | | 25 | East-West: | | | 26 | East-West: | | | 26 |
| | | SUM: | | 502 | SUM: | | 527 | SUM: | | | 502 | SUM: | | | 527 | SUM: | | | 527 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.352 | | | 0.370 | | | | 0.352 | | | | 0.370 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.252 | | | 0.270 | | | | 0.252 | | | | 0.270 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.018 | Δv/c after mitigation: | -0.352 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17 | East-West Street: | 7th St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 13 | 1 | 13 | 0 | 13 | 13 | 0 | 13 | 1 | 13 | 0 | 13 | 1 | 13 | 0 | 13 | 1 | 13 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 640 | 2 | 320 | 8 | 648 | 324 | 0 | 640 | 2 | 320 | 8 | 648 | 2 | 324 | 0 | 648 | 2 | 324 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 274 | 2 | 137 | 37 | 311 | 156 | 0 | 274 | 2 | 137 | 37 | 311 | 2 | 156 | 0 | 311 | 2 | 156 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 211 | 1 | 154 | 0 | 211 | 154 | 0 | 211 | 1 | 154 | 0 | 211 | 1 | 154 | 0 | 211 | 1 | 154 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 221 | 1 | 114 | 0 | 221 | 114 | 0 | 221 | 1 | 114 | 0 | 221 | 1 | 114 | 0 | 221 | 1 | 114 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 7 | 0 | 114 | 0 | 7 | 114 | 0 | 7 | 0 | 114 | 0 | 7 | 0 | 114 | 0 | 7 | 0 | 114 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 320 | North-South: | | 324 | North-South: | | 320 | | North-South: | | 324 | | North-South: | | 324 | |
| | | East-West: | | 114 | East-West: | | 114 | East-West: | | 114 | | East-West: | | 114 | | East-West: | | 114 | |
| | | SUM: | | 434 | SUM: | | 438 | SUM: | | 434 | | SUM: | | 438 | | SUM: | | 438 | |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.289 | | | 0.292 | | | 0.289 | | | | 0.292 | | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.189 | | | 0.192 | | | 0.189 | | | | 0.192 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.003 | Δv/c after mitigation: | -0.289 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Miner St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 18 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 9 | 1 | 9 | 0 | 9 | 9 | 0 | 9 | 1 | 9 | 0 | 9 | 1 | 9 | 0 | 9 | 1 | 9 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 11 | 1 | 6 | 0 | 11 | 6 | 0 | 11 | 1 | 6 | 0 | 11 | 1 | 6 | 0 | 11 | 1 | 6 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 35 | 1 | 35 | 40 | 75 | 75 | 0 | 35 | 1 | 35 | 40 | 75 | 1 | 75 | 0 | 75 | 1 | 75 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 23 | 1 | 23 | 0 | 23 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 134 | 0 | 0 | 0 | 134 | 0 | 0 | 134 | 0 | 0 | 0 | 134 | 0 | 0 | 0 | 134 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 307 | 1 | 307 | 0 | 307 | 307 | 0 | 307 | 1 | 307 | 0 | 307 | 1 | 307 | 0 | 307 | 1 | 307 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 51 | 1 | 28 | 17 | 68 | 37 | 0 | 51 | 1 | 28 | 17 | 68 | 1 | 37 | 0 | 68 | 1 | 37 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 5 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 24 | 1 | 20 | 4 | 28 | 27 | 0 | 24 | 1 | 20 | 4 | 28 | 1 | 27 | 0 | 28 | 1 | 27 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 16 | 0 | 0 | 9 | 25 | 0 | 0 | 16 | 0 | 0 | 9 | 25 | 0 | 0 | 0 | 25 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 41 | North-South: | | 81 | North-South: | | 41 | | North-South: | | 81 | | North-South: | | | 81 |
| | | East-West: | | 327 | East-West: | | 334 | East-West: | | 327 | | East-West: | | 334 | | East-West: | | | 334 |
| | | SUM: | | 368 | SUM: | | 415 | SUM: | | 368 | | SUM: | | 415 | | SUM: | | | 415 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.258 | | | 0.291 | | | 0.258 | | | | 0.291 | | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.258 | | | 0.291 | | | 0.258 | | | | 0.291 | | | | | 0.000 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.033 | Δv/c after mitigation: | -0.258 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | East-West Street: | Summerland Av | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 0 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 |
| | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| **NORTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 125 | 1 | **125** | 0 | 125 | **125** | 0 | 125 | 1 | **125** | 0 | 125 | 1 | **125** | 0 | 125 | 1 | **125** |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 376 | 1 | 203 | 2 | 378 | 204 | 0 | 376 | 1 | 203 | 2 | 378 | 1 | 204 | 0 | 378 | 1 | 204 |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 29 | 0 | 0 | 0 | 29 | 0 | 0 | 29 | 0 | 0 | 0 | 29 | 0 | 0 | 0 | 29 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **SOUTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 16 | 1 | 16 | 0 | 16 | 16 | 0 | 16 | 1 | 16 | 0 | 16 | 1 | 16 | 0 | 16 | 1 | 16 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 517 | 1 | **387** | 1 | 518 | **388** | 0 | 517 | 1 | **387** | 1 | 518 | 1 | **388** | 0 | 518 | 1 | **388** |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 257 | 0 | 0 | 0 | 257 | 0 | 0 | 257 | 0 | 0 | 0 | 257 | 0 | 0 | 0 | 257 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **EASTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 221 | 1 | **221** | 0 | 221 | **221** | 0 | 221 | 1 | **221** | 0 | 221 | 1 | **221** | 0 | 221 | 1 | **221** |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 0 | 0 | 47 | 0 | 0 | 47 | 0 | 0 | 0 | 47 | 0 | 0 | 0 | 47 | 0 | 0 | 0 | 47 |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 47 | 0 | 0 | 0 | 47 | 0 | 0 | 47 | 0 | 0 | 0 | 47 | 0 | 0 | 0 | 47 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **WESTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 576 | 2 | 317 | 0 | 576 | 317 | 0 | 576 | 2 | 317 | 0 | 576 | 2 | 317 | 0 | 576 | 2 | 317 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 273 | 0 | **568** | 0 | 273 | **568** | 0 | 273 | 0 | **568** | 0 | 273 | 0 | **568** | 0 | 273 | 0 | **568** |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 295 | 0 | 0 | 0 | 295 | 0 | 0 | 295 | 0 | 0 | 0 | 295 | 0 | 0 | 0 | 295 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | *North-South:* | | 512 | *North-South:* | | 513 | *North-South:* | | | 512 | *North-South:* | | | 513 | *North-South:* | | | 513 |
| | *East-West:* | | 789 | *East-West:* | | 789 | *East-West:* | | | 789 | *East-West:* | | | 789 | *East-West:* | | | 789 |
| | *SUM:* | | 1301 | *SUM:* | | 1302 | *SUM:* | | | 1301 | *SUM:* | | | 1302 | *SUM:* | | | 1302 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.913 | | | 0.914 | | | | 0.913 | | | | 0.914 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.813 | | | 0.814 | | | | 0.813 | | | | 0.814 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | D | | | D | | | | D | | | | D | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | Δ*v/c* after mitigation: | -0.913 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | East-West Street: | I-110 Ramps | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 1 | SB-- | 0 | NB-- 1 | SB-- | 0 | NB-- 1 | SB-- | 0 | NB-- 1 | SB-- | 0 | NB-- 0 | SB-- | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 765 | 2 | **383** | 2 | 767 | **384** | 0 | 765 | 2 | **383** | 2 | 767 | 2 | **384** | 0 | 767 | 2 | **384** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1721 | 2 | 0 | 4 | 1725 | 0 | 0 | 1721 | 2 | 0 | 4 | 1725 | 2 | 0 | 0 | 1725 | 2 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1100 | 3 | 367 | 1 | 1101 | 367 | 0 | 1100 | 3 | 367 | 1 | 1101 | 3 | 367 | 0 | 1101 | 3 | 367 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 1534 | 2 | **538** | 1 | 1535 | **539** | 0 | 1534 | 2 | **538** | 1 | 1535 | 2 | **539** | 0 | 1535 | 2 | **539** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 81 | 0 | 538 | 0 | 81 | 539 | 0 | 81 | 0 | 538 | 0 | 81 | 0 | 539 | 0 | 81 | 0 | 539 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| CRITICAL VOLUMES | | *North-South:* | | 383 | *North-South:* | | 384 | *North-South:* | | | 383 | *North-South:* | | | 384 | *North-South:* | | | 384 |
| | | *East-West:* | | 538 | *East-West:* | | 539 | *East-West:* | | | 538 | *East-West:* | | | 539 | *East-West:* | | | 539 |
| | | *SUM:* | | 921 | *SUM:* | | 923 | *SUM:* | | | 921 | *SUM:* | | | 923 | *SUM:* | | | 923 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.614 | | | 0.615 | | | | 0.614 | | | | 0.615 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.514 | | | 0.515 | | | | 0.514 | | | | 0.515 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | Δ*v/c* after mitigation: | -0.614 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | East-West Street: | 1st St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 3 | | | 0 | |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 | |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 |
| | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | | 2 | | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| Override Capacity | | | | 0 | | | | 0 | | | | 0 | | | | 0 | | | | 0 |

| | MOVEMENT | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 31 | 1 | **31** | 0 | 31 | **31** | 0 | 31 | 1 | **31** | 0 | 31 | 1 | **31** | 0 | 31 | 1 | **31** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1421 | 2 | 479 | 6 | 1427 | 481 | 0 | 1421 | 2 | 479 | 6 | 1427 | 2 | 481 | 0 | 1427 | 2 | 481 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 88 | 1 | 88 | 0 | 88 | 88 | 0 | 88 | 1 | 88 | 0 | 88 | 1 | 88 | 0 | 88 | 1 | 88 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1726 | 2 | **723** | 2 | 1728 | **724** | 0 | 1726 | 2 | **723** | 2 | 1728 | 2 | **724** | 0 | 1728 | 2 | **724** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 444 | 0 | 0 | 0 | 444 | 0 | 0 | 444 | 0 | 0 | 0 | 444 | 0 | 0 | 0 | 444 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 771 | 1 | **439** | 0 | 771 | **439** | 0 | 771 | 1 | **439** | 0 | 771 | 1 | **439** | 0 | 771 | 1 | **439** |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 107 | 0 | 439 | 0 | 107 | 439 | 0 | 107 | 0 | 439 | 0 | 107 | 0 | 439 | 0 | 107 | 0 | 439 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 58 | 1 | 43 | 0 | 58 | 43 | 0 | 58 | 1 | 43 | 0 | 58 | 1 | 43 | 0 | 58 | 1 | 43 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 35 | 1 | 35 | 0 | 35 | 35 | 0 | 35 | 1 | 35 | 0 | 35 | 1 | 35 | 0 | 35 | 1 | 35 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 125 | 1 | **125** | 0 | 125 | **125** | 0 | 125 | 1 | **125** | 0 | 125 | 1 | **125** | 0 | 125 | 1 | **125** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 147 | 1 | 103 | 0 | 147 | 103 | 0 | 147 | 1 | 103 | 0 | 147 | 1 | 103 | 0 | 147 | 1 | 103 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 754 | *North-South:* | | 755 | *North-South:* | | | 754 | *North-South:* | | | 755 | *North-South:* | | | 755 |
| | | *East-West:* | | 564 | *East-West:* | | 564 | *East-West:* | | | 564 | *East-West:* | | | 564 | *East-West:* | | | 564 |
| | | *SUM:* | | 1318 | *SUM:* | | 1319 | *SUM:* | | | 1318 | *SUM:* | | | 1319 | *SUM:* | | | 1319 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.925 | | | 0.926 | | | | 0.925 | | | | 0.926 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.825 | | | 0.826 | | | | 0.825 | | | | 0.826 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | D | | | D | | | | D | | | | D | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | Δ*v/c* after mitigation: | -0.925 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | East-West Street: | 5th St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 23 | 1 | 23 | 0 | 23 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1363 | 1 | 696 | 6 | 1369 | 699 | 0 | 1363 | 1 | 696 | 6 | 1369 | 1 | 699 | 0 | 1369 | 1 | 699 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 29 | 0 | 0 | 0 | 29 | 0 | 0 | 29 | 0 | 0 | 0 | 29 | 0 | 0 | 0 | 29 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 70 | 1 | 70 | 0 | 70 | 70 | 0 | 70 | 1 | 70 | 0 | 70 | 1 | 70 | 0 | 70 | 1 | 70 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1339 | 1 | 706 | 2 | 1341 | 707 | 0 | 1339 | 1 | 706 | 2 | 1341 | 1 | 707 | 0 | 1341 | 1 | 707 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 73 | 0 | 0 | 0 | 73 | 0 | 0 | 73 | 0 | 0 | 0 | 73 | 0 | 0 | 0 | 73 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 112 | 1 | 112 | 0 | 112 | 112 | 0 | 112 | 1 | 112 | 0 | 112 | 1 | 112 | 0 | 112 | 1 | 112 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 105 | 0 | 123 | 0 | 105 | 123 | 0 | 105 | 0 | 123 | 0 | 105 | 0 | 123 | 0 | 105 | 0 | 123 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 18 | 0 | 0 | 0 | 18 | 0 | 0 | 18 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 18 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 49 | 1 | 49 | 0 | 49 | 49 | 0 | 49 | 1 | 49 | 0 | 49 | 1 | 49 | 0 | 49 | 1 | 49 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 93 | 0 | 168 | 0 | 93 | 168 | 0 | 93 | 0 | 168 | 0 | 93 | 0 | 168 | 0 | 93 | 0 | 168 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 75 | 0 | 0 | 0 | 75 | 0 | 0 | 75 | 0 | 0 | 0 | 75 | 0 | 0 | 0 | 75 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 766 | North-South: | | 769 | North-South: | | | 766 | North-South: | | | 769 | North-South: | | | 769 |
| | | East-West: | | 280 | East-West: | | 280 | East-West: | | | 280 | East-West: | | | 280 | East-West: | | | 280 |
| | | SUM: | | 1046 | SUM: | | 1049 | SUM: | | | 1046 | SUM: | | | 1049 | SUM: | | | 1049 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.734 | | | 0.736 | | | | 0.734 | | | | 0.736 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.634 | | | 0.636 | | | | 0.634 | | | | 0.636 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | B | | | B | | | | B | | | | B | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.002 | Δv/c after mitigation: | -0.734 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | East-West Street: | 7th St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 24 | 1 | 24 | 0 | 24 | 24 | 0 | 24 | 1 | 24 | 0 | 24 | 1 | 24 | 0 | 24 | 1 | 24 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1158 | 1 | 599 | 6 | 1164 | 602 | 0 | 1158 | 1 | 599 | 6 | 1164 | 1 | 602 | 0 | 1164 | 1 | 602 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 40 | 0 | 0 | 0 | 40 | 0 | 0 | 40 | 0 | 0 | 0 | 40 | 0 | 0 | 0 | 40 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 72 | 1 | 72 | 0 | 72 | 72 | 0 | 72 | 1 | 72 | 0 | 72 | 1 | 72 | 0 | 72 | 1 | 72 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1176 | 1 | 636 | 2 | 1178 | 637 | 0 | 1176 | 1 | 636 | 2 | 1178 | 1 | 637 | 0 | 1178 | 1 | 637 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 95 | 0 | 0 | 0 | 95 | 0 | 0 | 95 | 0 | 0 | 0 | 95 | 0 | 0 | 0 | 95 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 159 | 1 | 159 | 0 | 159 | 159 | 0 | 159 | 1 | 159 | 0 | 159 | 1 | 159 | 0 | 159 | 1 | 159 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 143 | 0 | 170 | 0 | 143 | 170 | 0 | 143 | 0 | 170 | 0 | 143 | 0 | 170 | 0 | 143 | 0 | 170 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 27 | 0 | 0 | 0 | 27 | 0 | 0 | 27 | 0 | 0 | 0 | 27 | 0 | 0 | 0 | 27 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 60 | 1 | 60 | 0 | 60 | 60 | 0 | 60 | 1 | 60 | 0 | 60 | 1 | 60 | 0 | 60 | 1 | 60 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 137 | 0 | 209 | 0 | 137 | 209 | 0 | 137 | 0 | 209 | 0 | 137 | 0 | 209 | 0 | 137 | 0 | 209 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 72 | 0 | 0 | 0 | 72 | 0 | 0 | 72 | 0 | 0 | 0 | 72 | 0 | 0 | 0 | 72 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 671 | North-South: | | 674 | North-South: | | 671 | | North-South: | | 674 | | North-South: | | 674 | |
| | | East-West: | | 368 | East-West: | | 368 | East-West: | | 368 | | East-West: | | 368 | | East-West: | | 368 | |
| | | SUM: | | 1039 | SUM: | | 1042 | SUM: | | 1039 | | SUM: | | 1042 | | SUM: | | 1042 | |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.693 | | | 0.695 | | | 0.693 | | | | 0.695 | | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.593 | | | 0.595 | | | 0.593 | | | | 0.595 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.002 | Δv/c after mitigation: | -0.693 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | East-West Street: | 9th St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 58 | 1 | **58** | 1 | 59 | **59** | 0 | 58 | 1 | **58** | 1 | 59 | 1 | **59** | 0 | 59 | 1 | **59** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 989 | 1 | 516 | 6 | 995 | 519 | 0 | 989 | 1 | 516 | 6 | 995 | 1 | 519 | 0 | 995 | 1 | 519 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 43 | 0 | 0 | 0 | 43 | 0 | 0 | 43 | 0 | 0 | 0 | 43 | 0 | 0 | 0 | 43 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 72 | 1 | 72 | 0 | 72 | 72 | 0 | 72 | 1 | 72 | 0 | 72 | 1 | 72 | 0 | 72 | 1 | 72 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1035 | 1 | **568** | 2 | 1037 | **569** | 0 | 1035 | 1 | **568** | 2 | 1037 | 1 | **569** | 0 | 1037 | 1 | **569** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 101 | 0 | 0 | 0 | 101 | 0 | 0 | 101 | 0 | 0 | 0 | 101 | 0 | 0 | 0 | 101 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 168 | 1 | **168** | 0 | 168 | **168** | 0 | 168 | 1 | **168** | 0 | 168 | 1 | **168** | 0 | 168 | 1 | **168** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 223 | 1 | 223 | 0 | 223 | 223 | 0 | 223 | 1 | 223 | 0 | 223 | 1 | 223 | 0 | 223 | 1 | 223 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 51 | 1 | 22 | 0 | 51 | 22 | 0 | 51 | 1 | 22 | 0 | 51 | 1 | 22 | 0 | 51 | 1 | 22 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 63 | 1 | 63 | 0 | 63 | 63 | 0 | 63 | 1 | 63 | 0 | 63 | 1 | 63 | 0 | 63 | 1 | 63 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 200 | 0 | **273** | 1 | 201 | **274** | 0 | 200 | 0 | **273** | 1 | 201 | 0 | **274** | 0 | 201 | 0 | **274** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 73 | 0 | 0 | 0 | 73 | 0 | 0 | 73 | 0 | 0 | 0 | 73 | 0 | 0 | 0 | 73 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 626 | *North-South:* | | 628 | *North-South:* | | | 626 | *North-South:* | | | 628 | *North-South:* | | | 628 |
| | | *East-West:* | | 441 | *East-West:* | | 442 | *East-West:* | | | 441 | *East-West:* | | | 442 | *East-West:* | | | 442 |
| | | *SUM:* | | 1067 | *SUM:* | | 1070 | *SUM:* | | | 1067 | *SUM:* | | | 1070 | *SUM:* | | | 1070 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.711 | | | 0.713 | | | | 0.711 | | | | 0.713 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.611 | | | 0.613 | | | | 0.611 | | | | 0.613 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | B | | | B | | | | B | | | | B | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.002 | Δ*v/c* after mitigation: | -0.711 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 4 | 0 | **4** | 0 | 4 | **4** | 0 | 4 | 0 | **4** | 0 | 4 | 0 | **4** | 0 | 4 | 0 | **4** |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 445 | 0 | 255 | 0 | 445 | 256 | 0 | 445 | 0 | 255 | 0 | 445 | 0 | 256 | 0 | 445 | 0 | 256 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 57 | 0 | 255 | 1 | 58 | 256 | 0 | 57 | 0 | 255 | 1 | 58 | 0 | 256 | 0 | 58 | 0 | 256 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 101 | 0 | 101 | 2 | 103 | 103 | 0 | 101 | 0 | 101 | 2 | 103 | 0 | 103 | 0 | 103 | 0 | 103 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 546 | 0 | **379** | 0 | 546 | **381** | 0 | 546 | 0 | **379** | 0 | 546 | 0 | **381** | 0 | 546 | 0 | **381** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 9 | 0 | 379 | 0 | 9 | 381 | 0 | 9 | 0 | 379 | 0 | 9 | 0 | 381 | 0 | 9 | 0 | 381 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 10 | 0 | **10** | 0 | 10 | **10** | 0 | 10 | 0 | **10** | 0 | 10 | 0 | **10** | 0 | 10 | 0 | **10** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 29 | 0 | 40 | 0 | 29 | 40 | 0 | 29 | 0 | 40 | 0 | 29 | 0 | 40 | 0 | 29 | 0 | 40 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 155 | 0 | 155 | 5 | 160 | 160 | 0 | 155 | 0 | 155 | 5 | 160 | 0 | 160 | 0 | 160 | 0 | 160 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 33 | 0 | **257** | 0 | 33 | **268** | 0 | 33 | 0 | **257** | 0 | 33 | 0 | **268** | 0 | 33 | 0 | **268** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 69 | 0 | 0 | 6 | 75 | 0 | 0 | 69 | 0 | 0 | 6 | 75 | 0 | 0 | 0 | 75 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 383 | *North-South:* | | 385 | *North-South:* | | 383 | | *North-South:* | | 385 | | *North-South:* | | | 385 |
| | | *East-West:* | | 267 | *East-West:* | | 278 | *East-West:* | | 267 | | *East-West:* | | 278 | | *East-West:* | | | 278 |
| | | *SUM:* | | 650 | *SUM:* | | 663 | *SUM:* | | 650 | | *SUM:* | | 663 | | *SUM:* | | | 663 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.433 | | | 0.442 | | | | 0.433 | | | | 0.442 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.333 | | | 0.342 | | | | 0.333 | | | | 0.342 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.009 | Δ*v/c* after mitigation: | -0.433 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | East-West Street: | 25th St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 3 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 |
| | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| | MOVEMENT | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 67 | 1 | **67** | 0 | 67 | **67** | 0 | 67 | 1 | **67** | 0 | 67 | 1 | **67** | 0 | 67 | 1 | **67** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 202 | 1 | 202 | 0 | 202 | 202 | 0 | 202 | 1 | 202 | 0 | 202 | 1 | 202 | 0 | 202 | 1 | 202 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 235 | 1 | **235** | 1 | 236 | **236** | 0 | 235 | 1 | **235** | 1 | 236 | 1 | **236** | 0 | 236 | 1 | **236** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 335 | 1 | 183 | 4 | 339 | 187 | 0 | 335 | 1 | 183 | 4 | 339 | 1 | 187 | 0 | 339 | 1 | 187 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 304 | 1 | **304** | 1 | 305 | **305** | 0 | 304 | 1 | **304** | 1 | 305 | 1 | **305** | 0 | 305 | 1 | **305** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 98 | 1 | 31 | 0 | 98 | 31 | 0 | 98 | 1 | 31 | 0 | 98 | 1 | 31 | 0 | 98 | 1 | 31 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 302 | *North-South:* | | 303 | *North-South:* | | | 302 | *North-South:* | | | 303 | *North-South:* | | | 303 |
| | | *East-West:* | | 304 | *East-West:* | | 305 | *East-West:* | | | 304 | *East-West:* | | | 305 | *East-West:* | | | 305 |
| | | *SUM:* | | 606 | *SUM:* | | 608 | *SUM:* | | | 606 | *SUM:* | | | 608 | *SUM:* | | | 608 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.425 | | | 0.427 | | | | 0.425 | | | | 0.427 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.325 | | | 0.327 | | | | 0.325 | | | | 0.327 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.002 | Δ*v/c* after mitigation: | -0.425 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Via Cabrillo Marina | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 102 | 2 | **56** | 0 | 102 | **56** | 0 | 102 | 2 | **56** | 0 | 102 | 2 | **56** | 0 | 102 | 2 | **56** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 105 | 1 | 41 | 0 | 105 | 41 | 0 | 105 | 1 | 41 | 0 | 105 | 1 | 41 | 0 | 105 | 1 | 41 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 203 | 1 | **137** | 5 | 208 | **139** | 0 | 203 | 1 | **137** | 5 | 208 | 1 | **139** | 0 | 208 | 1 | **139** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 70 | 0 | 0 | 0 | 70 | 0 | 0 | 70 | 0 | 0 | 0 | 70 | 0 | 0 | 0 | 70 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 64 | 1 | **64** | 0 | 64 | **64** | 0 | 64 | 1 | **64** | 0 | 64 | 1 | **64** | 0 | 64 | 1 | **64** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 290 | 2 | 145 | 15 | 305 | 153 | 0 | 290 | 2 | 145 | 15 | 305 | 2 | 153 | 0 | 305 | 2 | 153 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 56 | *North-South:* | | 56 | *North-South:* | | | 56 | *North-South:* | | | 56 | *North-South:* | | | 56 |
| | | *East-West:* | | 201 | *East-West:* | | 203 | *East-West:* | | | 201 | *East-West:* | | | 203 | *East-West:* | | | 203 |
| | | *SUM:* | | 257 | *SUM:* | | 259 | *SUM:* | | | 257 | *SUM:* | | | 259 | *SUM:* | | | 259 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.180 | | | 0.182 | | | | 0.180 | | | | 0.182 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.080 | | | 0.082 | | | | 0.080 | | | | 0.082 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.002 | Δ*v/c* after mitigation: | -0.180 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | East-West Street: | Swinford St / SR-47 EB Ramps | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 4 | | | 4 | | | 4 | | | | 4 | | | | | 4 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | | EB-- 3 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 435 | 2 | 239 | 11 | 446 | 245 | 0 | 435 | 2 | 239 | 11 | 446 | 2 | 245 | 0 | 446 | 2 | **245** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 605 | 1 | **314** | 40 | 645 | **334** | 0 | 605 | 1 | **314** | 40 | 645 | 1 | **334** | 0 | 645 | 2 | 222 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 22 | 0 | 0 | 0 | 22 | 0 | 0 | 22 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 22 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 12 | 1 | **12** | 0 | 12 | **12** | 0 | 12 | 1 | **12** | 0 | 12 | 1 | **12** | 0 | 12 | 1 | 12 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 123 | 2 | 62 | 1 | 124 | 62 | 0 | 123 | 2 | 62 | 1 | 124 | 2 | 62 | 0 | 124 | 2 | **62** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 75 | 1 | 0 | 0 | 75 | 0 | 0 | 75 | 1 | 0 | 0 | 75 | 1 | 0 | 0 | 75 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 224 | 1 | 224 | 0 | 224 | 224 | 0 | 224 | 1 | 224 | 0 | 224 | 1 | 224 | 0 | 224 | 1 | 224 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 13 | 0 | **557** | 0 | 13 | **564** | 0 | 13 | 0 | **557** | 0 | 13 | 0 | **564** | 0 | 13 | 0 | **564** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1100 | 1 | 0 | 14 | 1114 | 0 | 0 | 1100 | 1 | 0 | 14 | 1114 | 1 | 0 | 0 | 1114 | 1 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 38 | 0 | 38 | 0 | 38 | 38 | 0 | 38 | 0 | 38 | 0 | 38 | 0 | 38 | 0 | 38 | 0 | 38 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 31 | 0 | **44** | 0 | 31 | **44** | 0 | 31 | 0 | **44** | 0 | 31 | 0 | **44** | 0 | 31 | 0 | **44** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 13 | 0 | 0 | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 13 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | | *North-South:* | 326 | | *North-South:* | 346 | | *North-South:* | 326 | | | *North-South:* | 346 | | | *North-South:* | 307 | |
| | | | *East-West:* | 601 | | *East-West:* | 608 | | *East-West:* | 601 | | | *East-West:* | 608 | | | *East-West:* | 608 | |
| | | | *SUM:* | 927 | | *SUM:* | 954 | | *SUM:* | 927 | | | *SUM:* | 954 | | | *SUM:* | 915 | |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.674 | | | 0.694 | | | 0.674 | | | | 0.694 | | | | 0.665 | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.574 | | | 0.594 | | | 0.574 | | | | 0.594 | | | | 0.565 | |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | A | |

**PROJECT IMPACT**

Change in *v/c* due to project: 0.020 — *Δv/c* after mitigation: -0.009

Significant impacted? NO — Fully mitigated? N/A

| EX | | | | |
|---|---|---|---|---|
| N-S | 326 | 326 | | |
| EB | 297 | 224 | | |
| WB | 44 | 44 | | |
| Sum | 667 | 594 | | |
| **V/C** | 0.485 | 0.432 | | |
| Less ATS | 0.485 | 0.432 | | |
| LOS | A | A | | |

| EP | | |
|---|---|---|
| N-S | 346 | 346 |
| EB | 301 | 224 |
| WB | 44 | 44 |
| Sum | 691 | 614 |
| **V/C** | 0.503 | 0.447 |
| Less ATS | 0.503 | 0.447 |
| LOS | A | A |

| FB | | |
|---|---|---|
| N-S | 326 | 326 |
| EB | 297 | 224 |
| WB | 44 | 44 |
| Sum | 667 | 594 |
| **V/C** | 0.485 | 0.432 |
| Less ATS | 0.485 | 0.432 |
| LOS | A | A |

| FP | | |
|---|---|---|
| N-S | 346 | 346 |
| EB | 301 | 224 |
| WB | 44 | 44 |
| Sum | 691 | 614 |
| **V/C** | 0.503 | 0.447 |
| Less ATS | 0.503 | 0.447 |
| LOS | A | A |

| FP Mitigation | | |
|---|---|---|
| N-S | 307 | 307 |
| EB | 301 | 224 |
| WB | 44 | 44 |
| Sum | 652 | 575 |
| **V/C** | 0.474 | 0.418 |
| Less ATS | 0.474 | 0.418 |
| LOS | A | A |

| | Scenario | Scenario | Change | Impact? |
|---|---|---|---|---|
| EX | 0.485 | 0.503 | 0.017 | NO |
| FB | 0.485 | 0.503 | 0.017 | NO |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | East-West Street: | O'Farrell St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 10 | 1 | **10** | 0 | 10 | **10** | 0 | 10 | 1 | **10** | 0 | 10 | 1 | **10** | 0 | 10 | 1 | **10** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 980 | 2 | 490 | 51 | 1031 | 516 | 0 | 980 | 2 | 490 | 51 | 1031 | 2 | 516 | 0 | 1031 | 2 | 516 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1221 | 2 | **611** | 15 | 1236 | **618** | 0 | 1221 | 2 | **611** | 15 | 1236 | 2 | **618** | 0 | 1236 | 2 | **618** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 8 | 1 | 8 | 0 | 8 | 8 | 0 | 8 | 1 | 8 | 0 | 8 | 1 | 8 | 0 | 8 | 1 | 8 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 101 | 0 | 101 | 0 | 101 | 101 | 0 | 101 | 0 | 101 | 0 | 101 | 0 | 101 | 0 | 101 | 0 | 101 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 18 | 0 | **119** | 0 | 18 | **119** | 0 | 18 | 0 | **119** | 0 | 18 | 0 | **119** | 0 | 18 | 0 | **119** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| WESTBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 621 | *North-South:* | | 628 | *North-South:* | | | 621 | *North-South:* | | | 628 | *North-South:* | | | 628 |
| | | *East-West:* | | 119 | *East-West:* | | 119 | *East-West:* | | | 119 | *East-West:* | | | 119 | *East-West:* | | | 119 |
| | | *SUM:* | | 740 | *SUM:* | | 747 | *SUM:* | | | 740 | *SUM:* | | | 747 | *SUM:* | | | 747 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.493 | | | 0.498 | | | | 0.493 | | | | 0.498 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.493 | | | 0.498 | | | | 0.493 | | | | 0.498 | | | | 0.000 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.005 | Δ*v/c* after mitigation: | -0.493 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | East-West Street: | 1st St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 9 | 1 | **9** | 0 | 9 | **9** | 0 | 9 | 1 | **9** | 0 | 9 | 1 | **9** | 0 | 9 | 1 | **9** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 927 | 1 | 464 | 51 | 978 | 490 | 0 | 927 | 1 | 464 | 51 | 978 | 1 | 490 | 0 | 978 | 1 | 490 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 7 | 1 | 7 | 0 | 7 | 7 | 0 | 7 | 1 | 7 | 0 | 7 | 1 | 7 | 0 | 7 | 1 | 7 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1191 | 2 | **596** | 15 | 1206 | **603** | 0 | 1191 | 2 | **596** | 15 | 1206 | 2 | **603** | 0 | 1206 | 2 | **603** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 46 | 1 | 11 | 0 | 46 | 11 | 0 | 46 | 1 | 11 | 0 | 46 | 1 | 11 | 0 | 46 | 1 | 11 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 71 | 1 | **71** | 0 | 71 | **71** | 0 | 71 | 1 | **71** | 0 | 71 | 1 | **71** | 0 | 71 | 1 | **71** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 16 | 0 | 0 | 16 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 16 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 16 | 0 | 0 | 0 | 16 | 0 | 0 | 16 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 16 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 605 | *North-South:* | | 612 | *North-South:* | | | 605 | *North-South:* | | | 612 | *North-South:* | | | 612 |
| | | *East-West:* | | 71 | *East-West:* | | 71 | *East-West:* | | | 71 | *East-West:* | | | 71 | *East-West:* | | | 71 |
| | | *SUM:* | | 676 | *SUM:* | | 683 | *SUM:* | | | 676 | *SUM:* | | | 683 | *SUM:* | | | 683 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.451 | | | 0.455 | | | | 0.451 | | | | 0.455 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.351 | | | 0.355 | | | | 0.351 | | | | 0.355 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.004 | Δ*v/c* after mitigation: | -0.451 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | East-West Street: | 5th St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 26 | 1 | 26 | 0 | 26 | 26 | 0 | 26 | 1 | 26 | 0 | 26 | 1 | 26 | 0 | 26 | 1 | 26 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 628 | 1 | 316 | 51 | 679 | 341 | 0 | 628 | 1 | 316 | 51 | 679 | 1 | 341 | 0 | 679 | 1 | 341 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1018 | 1 | 568 | 15 | 1033 | 575 | 0 | 1018 | 1 | 568 | 15 | 1033 | 1 | 575 | 0 | 1033 | 1 | 575 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 117 | 0 | 0 | 0 | 117 | 0 | 0 | 117 | 0 | 0 | 0 | 117 | 0 | 0 | 0 | 117 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 285 | 1 | 285 | 0 | 285 | 285 | 0 | 285 | 1 | 285 | 0 | 285 | 1 | 285 | 0 | 285 | 1 | 285 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 6 | 1 | 6 | 0 | 6 | 6 | 0 | 6 | 1 | 6 | 0 | 6 | 1 | 6 | 0 | 6 | 1 | 6 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 17 | 1 | 4 | 0 | 17 | 4 | 0 | 17 | 1 | 4 | 0 | 17 | 1 | 4 | 0 | 17 | 1 | 4 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 4 | 1 | 4 | 0 | 4 | 4 | 0 | 4 | 1 | 4 | 0 | 4 | 1 | 4 | 0 | 4 | 1 | 4 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 6 | 0 | 18 | 0 | 6 | 18 | 0 | 6 | 0 | 18 | 0 | 6 | 0 | 18 | 0 | 6 | 0 | 18 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 30 | 1 | 0 | 0 | 30 | 0 | 0 | 30 | 1 | 0 | 0 | 30 | 1 | 0 | 0 | 30 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 594 | *North-South:* | | 601 | *North-South:* | | | 594 | *North-South:* | | | 601 | *North-South:* | | | 601 |
| | | *East-West:* | | 303 | *East-West:* | | 303 | *East-West:* | | | 303 | *East-West:* | | | 303 | *East-West:* | | | 303 |
| | | *SUM:* | | 897 | *SUM:* | | 904 | *SUM:* | | | 897 | *SUM:* | | | 904 | *SUM:* | | | 904 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.598 | | | 0.603 | | | | 0.598 | | | | 0.603 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.498 | | | 0.503 | | | | 0.498 | | | | 0.503 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.005 | Δ*v/c* after mitigation: | -0.598 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | East-West Street: | 6th St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- WB-- | | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 7 | 1 | 7 | 0 | 7 | 7 | 0 | 7 | 1 | 7 | 0 | 7 | 1 | 7 | 0 | 7 | 1 | 7 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 533 | 1 | 292 | 33 | 566 | 308 | 0 | 533 | 1 | 292 | 33 | 566 | 1 | 308 | 0 | 566 | 1 | 308 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 50 | 0 | 0 | 0 | 50 | 0 | 0 | 50 | 0 | 0 | 0 | 50 | 0 | 0 | 0 | 50 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 97 | 1 | 97 | 5 | 102 | 102 | 0 | 97 | 1 | 97 | 5 | 102 | 1 | 102 | 0 | 102 | 1 | 102 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 890 | 1 | 472 | 10 | 900 | 477 | 0 | 890 | 1 | 472 | 10 | 900 | 1 | 477 | 0 | 900 | 1 | 477 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 54 | 0 | 0 | 0 | 54 | 0 | 0 | 54 | 0 | 0 | 0 | 54 | 0 | 0 | 0 | 54 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 29 | 1 | 29 | 0 | 29 | 29 | 0 | 29 | 1 | 29 | 0 | 29 | 1 | 29 | 0 | 29 | 1 | 29 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 22 | 0 | 28 | 1 | 23 | 29 | 0 | 22 | 0 | 28 | 1 | 23 | 0 | 29 | 0 | 23 | 0 | 29 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 6 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 6 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 20 | 1 | 20 | 0 | 20 | 20 | 0 | 20 | 1 | 20 | 0 | 20 | 1 | 20 | 0 | 20 | 1 | 20 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 37 | 1 | 37 | 5 | 42 | 42 | 0 | 37 | 1 | 37 | 5 | 42 | 1 | 42 | 0 | 42 | 1 | 42 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 115 | 2 | 15 | 18 | 133 | 22 | 0 | 115 | 2 | 15 | 18 | 133 | 2 | 22 | 0 | 133 | 2 | 22 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 479 | North-South: | | 484 | North-South: | | | 479 | North-South: | | | 484 | North-South: | | | 484 |
| | | East-West: | | 66 | East-West: | | 71 | East-West: | | | 66 | East-West: | | | 71 | East-West: | | | 71 |
| | | SUM: | | 545 | SUM: | | 555 | SUM: | | | 545 | SUM: | | | 555 | SUM: | | | 555 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.382 | | | 0.389 | | | | 0.382 | | | | 0.389 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.282 | | | 0.289 | | | | 0.282 | | | | 0.289 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.007 | Δv/c after mitigation: | -0.382 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17 | East-West Street: | 7th St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 12 | 1 | **12** | 0 | 12 | **12** | 0 | 12 | 1 | **12** | 0 | 12 | 1 | **12** | 0 | 12 | 1 | **12** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 361 | 2 | 181 | 33 | 394 | 197 | 0 | 361 | 2 | 181 | 33 | 394 | 2 | 197 | 0 | 394 | 2 | 197 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 642 | 2 | **321** | 10 | 652 | **326** | 0 | 642 | 2 | **321** | 10 | 652 | 2 | **326** | 0 | 652 | 2 | **326** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 275 | 1 | 215 | 0 | 275 | 215 | 0 | 275 | 1 | 215 | 0 | 275 | 1 | 215 | 0 | 275 | 1 | 215 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 230 | 1 | 121 | 0 | 230 | 121 | 0 | 230 | 1 | 121 | 0 | 230 | 1 | 121 | 0 | 230 | 1 | 121 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 12 | 0 | **121** | 0 | 12 | **121** | 0 | 12 | 0 | **121** | 0 | 12 | 0 | **121** | 0 | 12 | 0 | **121** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| WESTBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 333 | North-South: | | 338 | North-South: | | | 333 | North-South: | | | 338 | North-South: | | | 338 |
| | | East-West: | | 121 | East-West: | | 121 | East-West: | | | 121 | East-West: | | | 121 | East-West: | | | 121 |
| | | SUM: | | 454 | SUM: | | 459 | SUM: | | | 454 | SUM: | | | 459 | SUM: | | | 459 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.303 | | | 0.306 | | | | 0.303 | | | | 0.306 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.203 | | | 0.206 | | | | 0.203 | | | | 0.206 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.003 | Δv/c after mitigation: | -0.303 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Miner St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 18 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | 3 | | | 3 | | | 3 | | | | 3 | | | | 3 | | |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | | |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | 0 | | NB-- 0 SB-- | 0 | | NB-- 0 SB-- | 0 | | | NB-- 0 SB-- | 0 | | | NB-- 0 SB-- | 0 | | |
| | | EB-- 0 WB-- | 0 | | EB-- 0 WB-- | 0 | | EB-- 0 WB-- | 0 | | | EB-- 0 WB-- | 0 | | | EB-- 0 WB-- | 0 | | |
| | ATSAC-1 or ATSAC+ATCS-2? | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | | |
| | Override Capacity | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | | |
| NORTHBOUND | Left | 8 | 1 | 8 | 0 | 8 | 8 | 0 | 8 | 1 | 8 | 0 | 8 | 1 | 8 | 0 | 8 | 1 | 8 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 24 | 1 | 13 | 0 | 24 | 13 | 0 | 24 | 1 | 13 | 0 | 24 | 1 | 13 | 0 | 24 | 1 | 13 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 23 | 1 | 23 | 11 | 34 | 34 | 0 | 23 | 1 | 23 | 11 | 34 | 1 | 34 | 0 | 34 | 1 | 34 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 19 | 1 | 19 | 0 | 19 | 19 | 0 | 19 | 1 | 19 | 0 | 19 | 1 | 19 | 0 | 19 | 1 | 19 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 279 | 0 | 177 | 0 | 279 | 177 | 0 | 279 | 0 | 177 | 0 | 279 | 0 | 177 | 0 | 279 | 0 | 177 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 204 | 1 | 204 | 0 | 204 | 204 | 0 | 204 | 1 | 204 | 0 | 204 | 1 | 204 | 0 | 204 | 1 | 204 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 36 | 1 | 22 | 5 | 41 | 25 | 0 | 36 | 1 | 22 | 5 | 41 | 1 | 25 | 0 | 41 | 1 | 25 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 3 | 1 | 3 | 0 | 3 | 3 | 0 | 3 | 1 | 3 | 0 | 3 | 1 | 3 | 0 | 3 | 1 | 3 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 48 | 1 | 40 | 15 | 63 | 63 | 0 | 48 | 1 | 40 | 15 | 63 | 1 | 63 | 0 | 63 | 1 | 63 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 31 | 0 | 0 | 36 | 67 | 50 | 0 | 31 | 0 | 0 | 36 | 67 | 0 | 50 | 0 | 67 | 0 | 50 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 185 | North-South: | | 185 | North-South: | | | 185 | North-South: | | | 185 | North-South: | | | 185 |
| | | East-West: | | 244 | East-West: | | 267 | East-West: | | | 244 | East-West: | | | 267 | East-West: | | | 267 |
| | | SUM: | | 429 | SUM: | | 452 | SUM: | | | 429 | SUM: | | | 452 | SUM: | | | 452 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.301 | | | 0.317 | | | | 0.301 | | | | 0.317 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.301 | | | 0.317 | | | | 0.301 | | | | 0.317 | | | | 0.000 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.016 | Δv/c after mitigation: | -0.301 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | East-West Street: | Summerland Av | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 127 | 1 | 127 | 0 | 127 | 127 | 0 | 127 | 1 | 127 | 0 | 127 | 1 | 127 | 0 | 127 | 1 | 127 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 498 | 1 | 260 | 0 | 498 | 260 | 0 | 498 | 1 | 260 | 0 | 498 | 1 | 260 | 0 | 498 | 1 | 260 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 22 | 0 | 0 | 0 | 22 | 0 | 0 | 22 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 22 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 11 | 1 | 11 | 0 | 11 | 11 | 0 | 11 | 1 | 11 | 0 | 11 | 1 | 11 | 0 | 11 | 1 | 11 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 515 | 1 | 336 | 1 | 516 | 337 | 0 | 515 | 1 | 336 | 1 | 516 | 1 | 337 | 0 | 516 | 1 | 337 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 157 | 0 | 0 | 0 | 157 | 0 | 0 | 157 | 0 | 0 | 0 | 157 | 0 | 0 | 0 | 157 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 176 | 1 | 176 | 0 | 176 | 176 | 0 | 176 | 1 | 176 | 0 | 176 | 1 | 176 | 0 | 176 | 1 | 176 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 3 | 0 | 72 | 0 | 3 | 72 | 0 | 3 | 0 | 72 | 0 | 3 | 0 | 72 | 0 | 3 | 0 | 72 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 69 | 0 | 0 | 0 | 69 | 0 | 0 | 69 | 0 | 0 | 0 | 69 | 0 | 0 | 0 | 69 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 414 | 2 | 228 | 0 | 414 | 228 | 0 | 414 | 2 | 228 | 0 | 414 | 2 | 228 | 0 | 414 | 2 | 228 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 148 | 0 | 336 | 0 | 148 | 336 | 0 | 148 | 0 | 336 | 0 | 148 | 0 | 336 | 0 | 148 | 0 | 336 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 188 | 0 | 0 | 0 | 188 | 0 | 0 | 188 | 0 | 0 | 0 | 188 | 0 | 0 | 0 | 188 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 463 | North-South: | | 464 | North-South: | | | 463 | North-South: | | | 464 | North-South: | | | 464 |
| | | East-West: | | 512 | East-West: | | 512 | East-West: | | | 512 | East-West: | | | 512 | East-West: | | | 512 |
| | | SUM: | | 975 | SUM: | | 976 | SUM: | | | 975 | SUM: | | | 976 | SUM: | | | 976 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.684 | | | 0.685 | | | | 0.684 | | | | 0.685 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.584 | | | 0.585 | | | | 0.584 | | | | 0.585 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.001 | Δv/c after mitigation: | -0.684 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | East-West Street: | I-110 Ramps | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | 2 | | | 2 | | | 2 | | | 2 | | | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 1 SB-- | 0 | | NB-- 1 SB-- | 0 | | NB-- 1 SB-- | 0 | | | NB-- 1 SB-- | 0 | | | NB-- 0 SB-- | 0 | | |
| | | EB-- 0 WB-- | 0 | | EB-- 0 WB-- | 0 | | EB-- 0 WB-- | 0 | | | EB-- 0 WB-- | 0 | | | EB-- 0 WB-- | 0 | | |
| | ATSAC-1 or ATSAC+ATCS-2? | | 2 | | | 2 | | | 2 | | | 2 | | | | | | | 2 |
| | Override Capacity | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | 0 |
| NORTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 570 | 2 | 285 | 0 | 570 | 285 | 0 | 570 | 2 | 285 | 0 | 570 | 2 | 285 | 0 | 570 | 2 | 285 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1942 | 2 | 0 | 0 | 1942 | 0 | 0 | 1942 | 2 | 0 | 0 | 1942 | 2 | 0 | 0 | 1942 | 2 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 934 | 3 | 311 | 1 | 935 | 312 | 0 | 934 | 3 | 311 | 1 | 935 | 3 | 312 | 0 | 935 | 3 | 312 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 1371 | 2 | 483 | 2 | 1373 | 484 | 0 | 1371 | 2 | 483 | 2 | 1373 | 2 | 484 | 0 | 1373 | 2 | 484 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 78 | 0 | 483 | 0 | 78 | 484 | 0 | 78 | 0 | 483 | 0 | 78 | 0 | 484 | 0 | 78 | 0 | 484 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | CRITICAL VOLUMES | North-South: | 311 | | North-South: | 312 | | North-South: | 311 | | | North-South: | 312 | | | North-South: | 312 | | |
| | | East-West: | 483 | | East-West: | 484 | | East-West: | 483 | | | East-West: | 484 | | | East-West: | 484 | | |
| | | SUM: | 794 | | SUM: | 796 | | SUM: | 794 | | | SUM: | 796 | | | SUM: | 796 | | |
| | VOLUME/CAPACITY (V/C) RATIO: | | 0.529 | | | 0.531 | | | 0.529 | | | | 0.531 | | | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | 0.429 | | | 0.431 | | | 0.429 | | | | 0.431 | | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | A | | | A | | | A | | | | A | | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.002 | Δv/c after mitigation: | -0.529 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | East-West Street: | 1st St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 50 | 1 | **50** | 0 | 50 | **50** | 0 | 50 | 1 | **50** | 0 | 50 | 1 | **50** | 0 | 50 | 1 | **50** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1390 | 2 | 469 | 2 | 1392 | 470 | 0 | 1390 | 2 | 469 | 2 | 1392 | 2 | 470 | 0 | 1392 | 2 | 470 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 18 | 0 | 0 | 0 | 18 | 0 | 0 | 18 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 18 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 106 | 1 | 106 | 0 | 106 | 106 | 0 | 106 | 1 | 106 | 0 | 106 | 1 | 106 | 0 | 106 | 1 | 106 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1771 | 2 | **718** | 2 | 1773 | **719** | 0 | 1771 | 2 | **718** | 2 | 1773 | 2 | **719** | 0 | 1773 | 2 | **719** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 384 | 0 | 0 | 0 | 384 | 0 | 0 | 384 | 0 | 0 | 0 | 384 | 0 | 0 | 0 | 384 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 593 | 1 | **342** | 0 | 593 | **342** | 0 | 593 | 1 | **342** | 0 | 593 | 1 | **342** | 0 | 593 | 1 | **342** |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 91 | 0 | 342 | 0 | 91 | 342 | 0 | 91 | 0 | 342 | 0 | 91 | 0 | 342 | 0 | 91 | 0 | 342 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 86 | 1 | 61 | 0 | 86 | 61 | 0 | 86 | 1 | 61 | 0 | 86 | 1 | 61 | 0 | 86 | 1 | 61 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 45 | 1 | 45 | 0 | 45 | 45 | 0 | 45 | 1 | 45 | 0 | 45 | 1 | 45 | 0 | 45 | 1 | 45 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 141 | 1 | **141** | 0 | 141 | **141** | 0 | 141 | 1 | **141** | 0 | 141 | 1 | **141** | 0 | 141 | 1 | **141** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 163 | 1 | 110 | 0 | 163 | 110 | 0 | 163 | 1 | 110 | 0 | 163 | 1 | 110 | 0 | 163 | 1 | 110 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 768 | *North-South:* | | 769 | *North-South:* | | | 768 | *North-South:* | | | 769 | *North-South:* | | | 769 |
| | | *East-West:* | | 483 | *East-West:* | | 483 | *East-West:* | | | 483 | *East-West:* | | | 483 | *East-West:* | | | 483 |
| | | *SUM:* | | 1251 | *SUM:* | | 1252 | *SUM:* | | | 1251 | *SUM:* | | | 1252 | *SUM:* | | | 1252 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.878 | | | 0.879 | | | | 0.878 | | | | 0.879 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.778 | | | 0.779 | | | | 0.778 | | | | 0.779 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | C | | | C | | | | C | | | | C | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | Δ*v/c* after mitigation: | -0.878 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | East-West Street: | 5th St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 28 | 1 | 28 | 0 | 28 | 28 | 0 | 28 | 1 | 28 | 0 | 28 | 1 | 28 | 0 | 28 | 1 | 28 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1455 | 1 | 745 | 2 | 1457 | 746 | 0 | 1455 | 1 | 745 | 2 | 1457 | 1 | 746 | 0 | 1457 | 1 | 746 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 34 | 0 | 0 | 0 | 34 | 0 | 0 | 34 | 0 | 0 | 0 | 34 | 0 | 0 | 0 | 34 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 104 | 1 | 104 | 0 | 104 | 104 | 0 | 104 | 1 | 104 | 0 | 104 | 1 | 104 | 0 | 104 | 1 | 104 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1473 | 1 | 776 | 2 | 1475 | 777 | 0 | 1473 | 1 | 776 | 2 | 1475 | 1 | 777 | 0 | 1475 | 1 | 777 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 79 | 0 | 0 | 0 | 79 | 0 | 0 | 79 | 0 | 0 | 0 | 79 | 0 | 0 | 0 | 79 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 104 | 1 | 104 | 0 | 104 | 104 | 0 | 104 | 1 | 104 | 0 | 104 | 1 | 104 | 0 | 104 | 1 | 104 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 100 | 0 | 120 | 0 | 100 | 120 | 0 | 100 | 0 | 120 | 0 | 100 | 0 | 120 | 0 | 100 | 0 | 120 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 20 | 0 | 0 | 0 | 20 | 0 | 0 | 20 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 20 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 33 | 1 | 33 | 0 | 33 | 33 | 0 | 33 | 1 | 33 | 0 | 33 | 1 | 33 | 0 | 33 | 1 | 33 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 81 | 0 | 150 | 0 | 81 | 150 | 0 | 81 | 0 | 150 | 0 | 81 | 0 | 150 | 0 | 81 | 0 | 150 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 69 | 0 | 0 | 0 | 69 | 0 | 0 | 69 | 0 | 0 | 0 | 69 | 0 | 0 | 0 | 69 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 849 | North-South: | | 850 | North-South: | | | 849 | North-South: | | | 850 | North-South: | | | 850 |
| | | East-West: | | 254 | East-West: | | 254 | East-West: | | | 254 | East-West: | | | 254 | East-West: | | | 254 |
| | | SUM: | | 1103 | SUM: | | 1104 | SUM: | | | 1103 | SUM: | | | 1104 | SUM: | | | 1104 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.774 | | | 0.775 | | | | 0.774 | | | | 0.775 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.674 | | | 0.675 | | | | 0.674 | | | | 0.675 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | B | | | B | | | | B | | | | B | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.001 | Δv/c after mitigation: | -0.774 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | East-West Street: | 7th St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 29 | 1 | 29 | 0 | 29 | 29 | 0 | 29 | 1 | 29 | 0 | 29 | 1 | 29 | 0 | 29 | 1 | 29 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1343 | 1 | 690 | 2 | 1345 | 691 | 0 | 1343 | 1 | 690 | 2 | 1345 | 1 | 691 | 0 | 1345 | 1 | 691 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 36 | 0 | 0 | 0 | 36 | 0 | 0 | 36 | 0 | 0 | 0 | 36 | 0 | 0 | 0 | 36 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 113 | 1 | 113 | 0 | 113 | 113 | 0 | 113 | 1 | 113 | 0 | 113 | 1 | 113 | 0 | 113 | 1 | 113 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1290 | 1 | 679 | 2 | 1292 | 680 | 0 | 1290 | 1 | 679 | 2 | 1292 | 1 | 680 | 0 | 1292 | 1 | 680 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 68 | 0 | 0 | 0 | 68 | 0 | 0 | 68 | 0 | 0 | 0 | 68 | 0 | 0 | 0 | 68 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 133 | 1 | 133 | 0 | 133 | 133 | 0 | 133 | 1 | 133 | 0 | 133 | 1 | 133 | 0 | 133 | 1 | 133 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 113 | 0 | 165 | 0 | 113 | 165 | 0 | 113 | 0 | 165 | 0 | 113 | 0 | 165 | 0 | 113 | 0 | 165 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 52 | 0 | 0 | 0 | 52 | 0 | 0 | 52 | 0 | 0 | 0 | 52 | 0 | 0 | 0 | 52 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 60 | 1 | 60 | 0 | 60 | 60 | 0 | 60 | 1 | 60 | 0 | 60 | 1 | 60 | 0 | 60 | 1 | 60 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 84 | 0 | 147 | 0 | 84 | 147 | 0 | 84 | 0 | 147 | 0 | 84 | 0 | 147 | 0 | 84 | 0 | 147 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 63 | 0 | 0 | 0 | 63 | 0 | 0 | 63 | 0 | 0 | 0 | 63 | 0 | 0 | 0 | 63 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 803 | North-South: | | 804 | North-South: | | 803 | | North-South: | | 804 | | North-South: | | 804 | |
| | | East-West: | | 280 | East-West: | | 280 | East-West: | | 280 | | East-West: | | 280 | | East-West: | | 280 | |
| | | SUM: | | 1083 | SUM: | | 1084 | SUM: | | 1083 | | SUM: | | 1084 | | SUM: | | 1084 | |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.722 | | | 0.723 | | | 0.722 | | | | 0.723 | | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.622 | | | 0.623 | | | 0.622 | | | | 0.623 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | B | | | B | | | B | | | | B | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.001 | Δv/c after mitigation: | -0.722 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | East-West Street: | 9th St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 52 | 1 | **52** | 0 | 52 | **52** | 0 | 52 | 1 | **52** | 0 | 52 | 1 | **52** | 0 | 52 | 1 | **52** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1142 | 1 | 588 | 2 | 1144 | 589 | 0 | 1142 | 1 | 588 | 2 | 1144 | 1 | 589 | 0 | 1144 | 1 | 589 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 33 | 0 | 0 | 0 | 33 | 0 | 0 | 33 | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 33 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 64 | 1 | 64 | 0 | 64 | 64 | 0 | 64 | 1 | 64 | 0 | 64 | 1 | 64 | 0 | 64 | 1 | 64 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1126 | 1 | **607** | 2 | 1128 | **608** | 0 | 1126 | 1 | **607** | 2 | 1128 | 1 | **608** | 0 | 1128 | 1 | **608** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 88 | 0 | 0 | 0 | 88 | 0 | 0 | 88 | 0 | 0 | 0 | 88 | 0 | 0 | 0 | 88 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 172 | 1 | **172** | 0 | 172 | **172** | 0 | 172 | 1 | **172** | 0 | 172 | 1 | **172** | 0 | 172 | 1 | **172** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 178 | 1 | 178 | 0 | 178 | 178 | 0 | 178 | 1 | 178 | 0 | 178 | 1 | 178 | 0 | 178 | 1 | 178 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 53 | 1 | 27 | 0 | 53 | 27 | 0 | 53 | 1 | 27 | 0 | 53 | 1 | 27 | 0 | 53 | 1 | 27 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 51 | 1 | 51 | 0 | 51 | 51 | 0 | 51 | 1 | 51 | 0 | 51 | 1 | 51 | 0 | 51 | 1 | 51 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 177 | 0 | **269** | 0 | 177 | **269** | 0 | 177 | 0 | **269** | 0 | 177 | 0 | **269** | 0 | 177 | 0 | **269** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 92 | 0 | 0 | 0 | 92 | 0 | 0 | 92 | 0 | 0 | 0 | 92 | 0 | 0 | 0 | 92 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 659 | *North-South:* | | 660 | *North-South:* | | 659 | | *North-South:* | | 660 | | *North-South:* | | 660 | |
| | | *East-West:* | | 441 | *East-West:* | | 441 | *East-West:* | | 441 | | *East-West:* | | 441 | | *East-West:* | | 441 | |
| | | *SUM:* | | 1100 | *SUM:* | | 1101 | *SUM:* | | 1100 | | *SUM:* | | 1101 | | *SUM:* | | 1101 | |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.733 | | | 0.734 | | | 0.733 | | | | 0.734 | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.633 | | | 0.634 | | | 0.633 | | | | 0.634 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | B | | | B | | | B | | | | B | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | Δ*v/c* after mitigation: | -0.733 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 6 | 0 | **6** | 0 | 6 | **6** | 0 | 6 | 0 | **6** | 0 | 6 | 0 | **6** | 0 | 6 | 0 | **6** |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 509 | 0 | 320 | 0 | 509 | 321 | 0 | 509 | 0 | 320 | 0 | 509 | 0 | 321 | 0 | 509 | 0 | 321 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 106 | 0 | 320 | 2 | 108 | 321 | 0 | 106 | 0 | 320 | 2 | 108 | 0 | 321 | 0 | 108 | 0 | 321 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 128 | 0 | 128 | 3 | 131 | 131 | 0 | 128 | 0 | 128 | 3 | 131 | 0 | 131 | 0 | 131 | 0 | 131 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 615 | 0 | **570** | 0 | 615 | **576** | 0 | 615 | 0 | **570** | 0 | 615 | 0 | **576** | 0 | 615 | 0 | **576** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 13 | 0 | 570 | 0 | 13 | 576 | 0 | 13 | 0 | 570 | 0 | 13 | 0 | 576 | 0 | 13 | 0 | 576 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 14 | 0 | **14** | 0 | 14 | **14** | 0 | 14 | 0 | **14** | 0 | 14 | 0 | **14** | 0 | 14 | 0 | **14** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 23 | 0 | 40 | 0 | 23 | 40 | 0 | 23 | 0 | 40 | 0 | 23 | 0 | 40 | 0 | 23 | 0 | 40 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 102 | 0 | 102 | 1 | 103 | 103 | 0 | 102 | 0 | 102 | 1 | 103 | 0 | 103 | 0 | 103 | 0 | 103 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 27 | 0 | **200** | 0 | 27 | **203** | 0 | 27 | 0 | **200** | 0 | 27 | 0 | **203** | 0 | 27 | 0 | **203** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 71 | 0 | 0 | 2 | 73 | 0 | 0 | 71 | 0 | 0 | 2 | 73 | 0 | 0 | 0 | 73 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 576 | *North-South:* | | 582 | *North-South:* | | | 576 | *North-South:* | | | 582 | *North-South:* | | | 582 |
| | | *East-West:* | | 214 | *East-West:* | | 217 | *East-West:* | | | 214 | *East-West:* | | | 217 | *East-West:* | | | 217 |
| | | *SUM:* | | 790 | *SUM:* | | 799 | *SUM:* | | | 790 | *SUM:* | | | 799 | *SUM:* | | | 799 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.527 | | | 0.533 | | | | 0.527 | | | | 0.533 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.427 | | | 0.433 | | | | 0.427 | | | | 0.433 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.006 | Δ*v/c* after mitigation: | -0.527 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | East-West Street: | 25th St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 3 | | | 3 | | | | 3 | | | | 3 | | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | | 0 | NB-- 0 | SB-- | | 0 | NB-- 0 | SB-- | | 0 |
| | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | | 0 | EB-- 3 | WB-- | | 0 | EB-- 0 | WB-- | | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 67 | 1 | **67** | 0 | 67 | **67** | 0 | 67 | 1 | **67** | 0 | 67 | 1 | **67** | 0 | 67 | 1 | **67** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 238 | 1 | 238 | 0 | 238 | 238 | 0 | 238 | 1 | 238 | 0 | 238 | 1 | 238 | 0 | 238 | 1 | 238 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 374 | 1 | **374** | 0 | 374 | **374** | 0 | 374 | 1 | **374** | 0 | 374 | 1 | **374** | 0 | 374 | 1 | **374** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 372 | 1 | 189 | 1 | 373 | 189 | 0 | 372 | 1 | 189 | 1 | 373 | 1 | 189 | 0 | 373 | 1 | 189 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 366 | 1 | **366** | 2 | 368 | **368** | 0 | 366 | 1 | **366** | 2 | 368 | 1 | **368** | 0 | 368 | 1 | **368** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 99 | 1 | 32 | 0 | 99 | 32 | 0 | 99 | 1 | 32 | 0 | 99 | 1 | 32 | 0 | 99 | 1 | 32 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 441 | *North-South:* | | 441 | *North-South:* | | | 441 | *North-South:* | | | 441 | *North-South:* | | | 441 |
| | | *East-West:* | | 366 | *East-West:* | | 368 | *East-West:* | | | 366 | *East-West:* | | | 368 | *East-West:* | | | 368 |
| | | *SUM:* | | 807 | *SUM:* | | 809 | *SUM:* | | | 807 | *SUM:* | | | 809 | *SUM:* | | | 809 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.566 | | | 0.568 | | | | 0.566 | | | | 0.568 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.466 | | | 0.468 | | | | 0.466 | | | | 0.468 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.002 | Δ*v/c* after mitigation: | -0.566 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Via Cabrillo Marina | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 3 SB-- | | 0 | NB-- 3 SB-- | | 0 | NB-- 3 SB-- | | 0 | | NB-- 3 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 123 | 2 | 68 | 0 | 123 | 68 | 0 | 123 | 2 | 68 | 0 | 123 | 2 | 68 | 0 | 123 | 2 | 68 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 82 | 1 | 0 | 0 | 82 | 0 | 0 | 82 | 1 | 0 | 0 | 82 | 1 | 0 | 0 | 82 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 216 | 1 | 163 | 7 | 223 | 166 | 0 | 216 | 1 | 163 | 7 | 223 | 1 | 166 | 0 | 223 | 1 | 166 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 109 | 0 | 0 | 0 | 109 | 0 | 0 | 109 | 0 | 0 | 0 | 109 | 0 | 0 | 0 | 109 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 85 | 1 | 85 | 0 | 85 | 85 | 0 | 85 | 1 | 85 | 0 | 85 | 1 | 85 | 0 | 85 | 1 | 85 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 181 | 2 | 91 | 4 | 185 | 93 | 0 | 181 | 2 | 91 | 4 | 185 | 2 | 93 | 0 | 185 | 2 | 93 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 68 | North-South: | | 68 | North-South: | | 68 | | North-South: | | 68 | | North-South: | | | 68 |
| | | East-West: | | 248 | East-West: | | 251 | East-West: | | 248 | | East-West: | | 251 | | East-West: | | | 251 |
| | | SUM: | | 316 | SUM: | | 319 | SUM: | | 316 | | SUM: | | 319 | | SUM: | | | 319 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.222 | | | 0.224 | | | 0.222 | | | | 0.224 | | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.122 | | | 0.124 | | | 0.122 | | | | 0.124 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.002 | Δv/c after mitigation: | -0.222 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | East-West Street: | Swinford St / SR-47 EB Ramps | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 4 | | | 4 | | | 4 | | | | 4 | | | | 4 | |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | | EB-- 3 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | |
| NORTHBOUND | Left | 256 | 2 | 141 | 3 | 259 | 142 | 0 | 256 | 2 | 141 | 3 | 259 | 2 | 142 | 0 | 259 | 2 | 142 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 538 | 1 | **310** | 11 | 549 | **315** | 0 | 538 | 1 | **310** | 11 | 549 | 1 | **315** | 0 | 549 | 2 | **210** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 81 | 0 | 0 | 0 | 81 | 0 | 0 | 81 | 0 | 0 | 0 | 81 | 0 | 0 | 0 | 81 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 35 | 1 | **35** | 0 | 35 | **35** | 0 | 35 | 1 | **35** | 0 | 35 | 1 | **35** | 0 | 35 | 1 | **35** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 138 | 2 | 69 | 1 | 139 | 70 | 0 | 138 | 2 | 69 | 1 | 139 | 2 | 70 | 0 | 139 | 2 | 70 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 97 | 1 | 0 | 0 | 97 | 0 | 0 | 97 | 1 | 0 | 0 | 97 | 1 | 0 | 0 | 97 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 210 | 1 | 210 | 0 | 210 | 210 | 0 | 210 | 1 | 210 | 0 | 210 | 1 | 210 | 0 | 210 | 1 | 210 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 215 | 0 | **480** | 0 | 215 | **491** | 0 | 215 | 0 | **480** | 0 | 215 | 0 | **491** | 0 | 215 | 0 | **491** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 745 | 1 | 0 | 21 | 766 | 0 | 0 | 745 | 1 | 0 | 21 | 766 | 1 | 0 | 0 | 766 | 1 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 59 | 0 | 59 | 0 | 59 | 59 | 0 | 59 | 0 | 59 | 0 | 59 | 0 | 59 | 0 | 59 | 0 | 59 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 114 | 0 | **205** | 0 | 114 | **205** | 0 | 114 | 0 | **205** | 0 | 114 | 0 | **205** | 0 | 114 | 0 | **205** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 91 | 0 | 0 | 0 | 91 | 0 | 0 | 91 | 0 | 0 | 0 | 91 | 0 | 0 | 0 | 91 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | | *North-South:* | 345 | | *North-South:* | 350 | | *North-South:* | 345 | | | *North-South:* | 350 | | | *North-South:* | 245 | |
| | | | *East-West:* | 685 | | *East-West:* | 696 | | *East-West:* | 685 | | | *East-West:* | 696 | | | *East-West:* | 696 | |
| | | | *SUM:* | 1030 | | *SUM:* | 1046 | | *SUM:* | 1030 | | | *SUM:* | 1046 | | | *SUM:* | 941 | |
| | VOLUME/CAPACITY (*V/C*) RATIO: | | | 0.749 | | | 0.761 | | | 0.749 | | | | 0.761 | | | | 0.684 | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.649 | | | 0.661 | | | 0.649 | | | | 0.661 | | | | 0.584 | |
| | LEVEL OF SERVICE (LOS): | | | B | | | B | | | B | | | | B | | | | A | |

**PROJECT IMPACT**

Change in *v/c* due to project: 0.012 — *Δv/c* after mitigation: -0.065

Significant impacted? NO — Fully mitigated? N/A

| | EX | | | FP | | | FP Mitigation | | |
|---|---|---|---|---|---|---|---|---|---|
| N-S | 345 | 345 | | 350 | 350 | | 245 | 245 | |
| EB | 252 | 210 | | 253 | 210 | | 253 | 210 | |
| WB | 205 | 205 | | 205 | 205 | | 205 | 205 | |
| Sum | 802 | 760 | | 808 | 765 | | 703 | 660 | |
| **V/C** | 0.583 | 0.553 | | 0.588 | 0.556 | | 0.511 | 0.480 | |
| Less ATS | 0.583 | 0.553 | | 0.588 | 0.556 | | 0.511 | 0.480 | |
| LOS | A | A | | A | A | | A | A | |

| | Scenario | Scenario | Change | Impact? |
|---|---|---|---|---|
| EX | 0.583 | 0.588 | 0.004 | NO |
| FB | 0.583 | 0.588 | 0.004 | NO |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | East-West Street: | O'Farrell St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | 2 | | | 2 | | | 2 | | | 2 | | | | 0 | | | |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | 0 | | | 0 | | | 0 | | | 0 | | | | 0 | | | |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | 0 | | NB-- 0 SB-- EB-- 0 WB-- | 0 | | NB-- 0 SB-- EB-- 0 WB-- | 0 | | | NB-- 0 SB-- EB-- 0 WB-- | 0 | | | NB-- 0 SB-- EB-- 0 WB-- | 0 | | |
| | ATSAC-1 or ATSAC+ATCS-2? | | 0 | | | 0 | | | 0 | | | 0 | | | | 0 | | | |
| | Override Capacity | | 0 | | | 0 | | | 0 | | | 0 | | | | 0 | | | |
| NORTHBOUND | Left | 6 | 1 | **6** | 0 | 6 | **6** | 0 | 6 | 1 | **6** | 0 | 6 | 1 | **6** | 0 | 6 | 1 | **6** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 840 | 2 | 420 | 14 | 854 | 427 | 0 | 840 | 2 | 420 | 14 | 854 | 2 | 427 | 0 | 854 | 2 | 427 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 983 | 2 | **492** | 22 | 1005 | **503** | 0 | 983 | 2 | **492** | 22 | 1005 | 2 | **503** | 0 | 1005 | 2 | **503** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 19 | 1 | 19 | 0 | 19 | 19 | 0 | 19 | 1 | 19 | 0 | 19 | 1 | 19 | 0 | 19 | 1 | 19 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 77 | 0 | 77 | 0 | 77 | 77 | 0 | 77 | 0 | 77 | 0 | 77 | 0 | 77 | 0 | 77 | 0 | 77 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 11 | 0 | **88** | 0 | 11 | **88** | 0 | 11 | 0 | **88** | 0 | 11 | 0 | **88** | 0 | 11 | 0 | **88** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| WESTBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | 498 | | *North-South:* | 509 | | *North-South:* | 498 | | | *North-South:* | 509 | | | *North-South:* | 509 | | |
| | | *East-West:* | 88 | | *East-West:* | 88 | | *East-West:* | 88 | | | *East-West:* | 88 | | | *East-West:* | 88 | | |
| | | *SUM:* | 586 | | *SUM:* | 597 | | *SUM:* | 586 | | | *SUM:* | 597 | | | *SUM:* | 597 | | |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | 0.391 | | | 0.398 | | | 0.391 | | | | 0.398 | | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | 0.391 | | | 0.398 | | | 0.391 | | | | 0.398 | | | | 0.000 | | |
| | LEVEL OF SERVICE (LOS): | | A | | | A | | | A | | | | A | | | | A | | |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.007 | Δ*v/c* after mitigation: | -0.391 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | East-West Street: | 1st St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 15 | 1 | **15** | 0 | 15 | **15** | 0 | 15 | 1 | **15** | 0 | 15 | 1 | **15** | 0 | 15 | 1 | **15** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 787 | 1 | 397 | 14 | 801 | 404 | 0 | 787 | 1 | 397 | 14 | 801 | 1 | 404 | 0 | 801 | 1 | 404 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 6 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 6 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 22 | 1 | 22 | 0 | 22 | 22 | 0 | 22 | 1 | 22 | 0 | 22 | 1 | 22 | 0 | 22 | 1 | 22 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 887 | 2 | **444** | 22 | 909 | **455** | 0 | 887 | 2 | **444** | 22 | 909 | 2 | **455** | 0 | 909 | 2 | **455** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 59 | 1 | 32 | 0 | 59 | 32 | 0 | 59 | 1 | 32 | 0 | 59 | 1 | 32 | 0 | 59 | 1 | 32 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 54 | 1 | 54 | 0 | 54 | 54 | 0 | 54 | 1 | 54 | 0 | 54 | 1 | 54 | 0 | 54 | 1 | 54 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 2 | 0 | **56** | 0 | 2 | **56** | 0 | 2 | 0 | **56** | 0 | 2 | 0 | **56** | 0 | 2 | 0 | **56** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 54 | 0 | 0 | 0 | 54 | 0 | 0 | 54 | 0 | 0 | 0 | 54 | 0 | 0 | 0 | 54 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 3 | 0 | **3** | 0 | 3 | **3** | 0 | 3 | 0 | **3** | 0 | 3 | 0 | **3** | 0 | 3 | 0 | **3** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1 | 0 | 5 | 0 | 1 | 5 | 0 | 1 | 0 | 5 | 0 | 1 | 0 | 5 | 0 | 1 | 0 | 5 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 459 | *North-South:* | | 470 | *North-South:* | | | 459 | *North-South:* | | | 470 | *North-South:* | | | 470 |
| | | *East-West:* | | 59 | *East-West:* | | 59 | *East-West:* | | | 59 | *East-West:* | | | 59 | *East-West:* | | | 59 |
| | | *SUM:* | | 518 | *SUM:* | | 529 | *SUM:* | | | 518 | *SUM:* | | | 529 | *SUM:* | | | 529 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.345 | | | 0.353 | | | | 0.345 | | | | 0.353 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.245 | | | 0.253 | | | | 0.245 | | | | 0.253 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.008 | Δ*v/c* after mitigation: | -0.345 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | East-West Street: | 5th St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 13 | 1 | **13** | 0 | 13 | **13** | 0 | 13 | 1 | **13** | 0 | 13 | 1 | **13** | 0 | 13 | 1 | **13** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 688 | 1 | 346 | 14 | 702 | 353 | 0 | 688 | 1 | 346 | 14 | 702 | 1 | 353 | 0 | 702 | 1 | 353 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 858 | 1 | **468** | 22 | 880 | **479** | 0 | 858 | 1 | **468** | 22 | 880 | 1 | **479** | 0 | 880 | 1 | **479** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 78 | 0 | 0 | 0 | 78 | 0 | 0 | 78 | 0 | 0 | 0 | 78 | 0 | 0 | 0 | 78 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 70 | 1 | **70** | 0 | 70 | **70** | 0 | 70 | 1 | **70** | 0 | 70 | 1 | **70** | 0 | 70 | 1 | **70** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 23 | 1 | 23 | 0 | 23 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 23 | 1 | 17 | 0 | 23 | 17 | 0 | 23 | 1 | 17 | 0 | 23 | 1 | 17 | 0 | 23 | 1 | 17 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 2 | 1 | 2 | 0 | 2 | 2 | 0 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 0 | 2 | 1 | 2 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 7 | 0 | **22** | 0 | 7 | **22** | 0 | 7 | 0 | **22** | 0 | 7 | 0 | **22** | 0 | 7 | 0 | **22** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 37 | 1 | 0 | 0 | 37 | 0 | 0 | 37 | 1 | 0 | 0 | 37 | 1 | 0 | 0 | 37 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 481 | *North-South:* | | 492 | *North-South:* | | | 481 | *North-South:* | | | 492 | *North-South:* | | | 492 |
| | | *East-West:* | | 92 | *East-West:* | | 92 | *East-West:* | | | 92 | *East-West:* | | | 92 | *East-West:* | | | 92 |
| | | *SUM:* | | 573 | *SUM:* | | 584 | *SUM:* | | | 573 | *SUM:* | | | 584 | *SUM:* | | | 584 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.382 | | | 0.389 | | | | 0.382 | | | | 0.389 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.282 | | | 0.289 | | | | 0.282 | | | | 0.289 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.007 | $\Delta v/c$ after mitigation: | -0.382 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | East-West Street: | 6th St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 9 | 1 | 9 | 0 | 9 | 9 | 0 | 9 | 1 | 9 | 0 | 9 | 1 | 9 | 0 | 9 | 1 | 9 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 438 | 1 | 269 | 9 | 447 | 273 | 0 | 438 | 1 | 269 | 9 | 447 | 1 | 273 | 0 | 447 | 1 | 273 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 99 | 0 | 0 | 0 | 99 | 0 | 0 | 99 | 0 | 0 | 0 | 99 | 0 | 0 | 0 | 99 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 343 | 1 | 343 | 8 | 351 | 351 | 0 | 343 | 1 | 343 | 8 | 351 | 1 | 351 | 0 | 351 | 1 | 351 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 545 | 1 | 299 | 14 | 559 | 306 | 0 | 545 | 1 | 299 | 14 | 559 | 1 | 306 | 0 | 559 | 1 | 306 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 53 | 0 | 0 | 0 | 53 | 0 | 0 | 53 | 0 | 0 | 0 | 53 | 0 | 0 | 0 | 53 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 52 | 1 | 52 | 0 | 52 | 52 | 0 | 52 | 1 | 52 | 0 | 52 | 1 | 52 | 0 | 52 | 1 | 52 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 90 | 0 | 98 | 2 | 92 | 100 | 0 | 90 | 0 | 98 | 2 | 92 | 0 | 100 | 0 | 92 | 0 | 100 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 11 | 1 | 11 | 0 | 11 | 11 | 0 | 11 | 1 | 11 | 0 | 11 | 1 | 11 | 0 | 11 | 1 | 11 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 26 | 1 | 26 | 1 | 27 | 27 | 0 | 26 | 1 | 26 | 1 | 27 | 1 | 27 | 0 | 27 | 1 | 27 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 155 | 2 | 0 | 5 | 160 | 0 | 0 | 155 | 2 | 0 | 5 | 160 | 2 | 0 | 0 | 160 | 2 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 612 | North-South: | | 624 | North-South: | | | 612 | North-South: | | | 624 | North-South: | | | 624 |
| | | East-West: | | 109 | East-West: | | 111 | East-West: | | | 109 | East-West: | | | 111 | East-West: | | | 111 |
| | | SUM: | | 721 | SUM: | | 735 | SUM: | | | 721 | SUM: | | | 735 | SUM: | | | 735 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.506 | | | 0.516 | | | | 0.506 | | | | 0.516 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.406 | | | 0.416 | | | | 0.406 | | | | 0.416 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.010 | Δv/c after mitigation: | -0.506 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17 | East-West Street: | 7th St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 25 | 1 | **25** | 0 | 25 | **25** | 0 | 25 | 1 | **25** | 0 | 25 | 1 | **25** | 0 | 25 | 1 | **25** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 339 | 2 | 170 | 9 | 348 | 174 | 0 | 339 | 2 | 170 | 9 | 348 | 2 | 174 | 0 | 348 | 2 | 174 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 393 | 2 | **197** | 14 | 407 | **204** | 0 | 393 | 2 | **197** | 14 | 407 | 2 | **204** | 0 | 407 | 2 | **204** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 145 | 1 | 80 | 0 | 145 | 80 | 0 | 145 | 1 | 80 | 0 | 145 | 1 | 80 | 0 | 145 | 1 | 80 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 235 | 1 | 130 | 0 | 235 | 130 | 0 | 235 | 1 | 130 | 0 | 235 | 1 | 130 | 0 | 235 | 1 | 130 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 25 | 0 | **130** | 0 | 25 | **130** | 0 | 25 | 0 | **130** | 0 | 25 | 0 | **130** | 0 | 25 | 0 | **130** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| WESTBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 222 | North-South: | | 229 | North-South: | | | 222 | North-South: | | | 229 | North-South: | | | 229 |
| | | East-West: | | 130 | East-West: | | 130 | East-West: | | | 130 | East-West: | | | 130 | East-West: | | | 130 |
| | | SUM: | | 352 | SUM: | | 359 | SUM: | | | 352 | SUM: | | | 359 | SUM: | | | 359 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.235 | | | 0.239 | | | | 0.235 | | | | 0.239 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.135 | | | 0.139 | | | | 0.135 | | | | 0.139 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.004 | Δv/c after mitigation: | -0.235 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Miner St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 18 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 19 | 1 | 19 | 0 | 19 | 19 | 0 | 19 | 1 | 19 | 0 | 19 | 1 | 19 | 0 | 19 | 1 | 19 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 24 | 1 | 17 | 0 | 24 | 17 | 0 | 24 | 1 | 17 | 0 | 24 | 1 | 17 | 0 | 24 | 1 | 17 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 9 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 9 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 24 | 1 | 24 | 15 | 39 | 39 | 0 | 24 | 1 | 24 | 15 | 39 | 1 | 39 | 0 | 39 | 1 | 39 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 35 | 1 | 35 | 0 | 35 | 35 | 0 | 35 | 1 | 35 | 0 | 35 | 1 | 35 | 0 | 35 | 1 | 35 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 214 | 0 | 127 | 0 | 214 | 127 | 0 | 214 | 0 | 127 | 0 | 214 | 0 | 127 | 0 | 214 | 0 | 127 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 175 | 1 | 175 | 0 | 175 | 175 | 0 | 175 | 1 | 175 | 0 | 175 | 1 | 175 | 0 | 175 | 1 | 175 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 49 | 1 | 32 | 7 | 56 | 35 | 0 | 49 | 1 | 32 | 7 | 56 | 1 | 35 | 0 | 56 | 1 | 35 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 14 | 0 | 0 | 0 | 14 | 0 | 0 | 14 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 14 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 5 | 1 | 5 | 0 | 5 | 5 | 0 | 5 | 1 | 5 | 0 | 5 | 1 | 5 | 0 | 5 | 1 | 5 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 48 | 1 | 34 | 4 | 52 | 41 | 0 | 48 | 1 | 34 | 4 | 52 | 1 | 41 | 0 | 52 | 1 | 41 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 19 | 0 | 0 | 10 | 29 | 0 | 0 | 19 | 0 | 0 | 10 | 29 | 0 | 0 | 0 | 29 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 146 | North-South: | | 146 | North-South: | | 146 | | North-South: | | 146 | | North-South: | | | 146 |
| | | East-West: | | 209 | East-West: | | 216 | East-West: | | 209 | | East-West: | | 216 | | East-West: | | | 216 |
| | | SUM: | | 355 | SUM: | | 362 | SUM: | | 355 | | SUM: | | 362 | | SUM: | | | 362 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.249 | | | 0.254 | | | 0.249 | | | | 0.254 | | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.249 | | | 0.254 | | | 0.249 | | | | 0.254 | | | | | 0.000 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.005 | Δv/c after mitigation: | -0.249 |
| Significant impacted? | NO | Fully mitigated? | N/A |

**EXISTING PLUS PROJECT PHASE 2 (2011)**

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | East-West Street: | Summerland Av | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 112 | 1 | **112** | 0 | 112 | **112** | 0 | 112 | 1 | **112** | 0 | 112 | 1 | **112** | 0 | 112 | 1 | **112** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 369 | 1 | 192 | 1 | 370 | 193 | 0 | 369 | 1 | 192 | 1 | 370 | 1 | 193 | 0 | 370 | 1 | 193 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 15 | 0 | 0 | 0 | 15 | 0 | 0 | 15 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 15 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 11 | 1 | 11 | 0 | 11 | 11 | 0 | 11 | 1 | 11 | 0 | 11 | 1 | 11 | 0 | 11 | 1 | 11 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 287 | 1 | **217** | 7 | 294 | **220** | 0 | 287 | 1 | **217** | 7 | 294 | 1 | **220** | 0 | 294 | 1 | **220** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 146 | 0 | 0 | 0 | 146 | 0 | 0 | 146 | 0 | 0 | 0 | 146 | 0 | 0 | 0 | 146 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 421 | 1 | **421** | 0 | 421 | **421** | 0 | 421 | 1 | **421** | 0 | 421 | 1 | **421** | 0 | 421 | 1 | **421** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 5 | 0 | 59 | 0 | 5 | 59 | 0 | 5 | 0 | 59 | 0 | 5 | 0 | 59 | 0 | 5 | 0 | 59 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 54 | 0 | 0 | 0 | 54 | 0 | 0 | 54 | 0 | 0 | 0 | 54 | 0 | 0 | 0 | 54 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 391 | 2 | 215 | 0 | 391 | 215 | 0 | 391 | 2 | 215 | 0 | 391 | 2 | 215 | 0 | 391 | 2 | 215 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 146 | 0 | **396** | 0 | 146 | **396** | 0 | 146 | 0 | **396** | 0 | 146 | 0 | **396** | 0 | 146 | 0 | **396** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 250 | 0 | 0 | 0 | 250 | 0 | 0 | 250 | 0 | 0 | 0 | 250 | 0 | 0 | 0 | 250 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 329 | *North-South:* | | 332 | *North-South:* | | | 329 | *North-South:* | | | 332 | *North-South:* | | | 332 |
| | | *East-West:* | | 817 | *East-West:* | | 817 | *East-West:* | | | 817 | *East-West:* | | | 817 | *East-West:* | | | 817 |
| | | *SUM:* | | 1146 | *SUM:* | | 1149 | *SUM:* | | | 1146 | *SUM:* | | | 1149 | *SUM:* | | | 1149 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.804 | | | 0.806 | | | | 0.804 | | | | 0.806 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.704 | | | 0.706 | | | | 0.704 | | | | 0.706 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | C | | | C | | | | C | | | | C | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.002 | Δ*v/c* after mitigation: | -0.804 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | East-West Street: | I-110 Ramps | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 1 | SB-- 0 | NB-- | 1 | SB-- 0 | NB-- | 1 | SB-- 0 | NB-- | 1 | SB-- 0 | NB-- | 0 | SB-- 0 |
| | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 497 | 2 | 249 | 1 | 498 | 249 | 0 | 497 | 2 | 249 | 1 | 498 | 2 | 249 | 0 | 498 | 2 | 249 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 2746 | 2 | 0 | 4 | 2750 | 0 | 0 | 2746 | 2 | 0 | 4 | 2750 | 2 | 0 | 0 | 2750 | 2 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 720 | 3 | 240 | 7 | 727 | 242 | 0 | 720 | 3 | 240 | 7 | 727 | 3 | 242 | 0 | 727 | 3 | 242 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 1335 | 2 | 466 | 17 | 1352 | 472 | 0 | 1335 | 2 | 466 | 17 | 1352 | 2 | 472 | 0 | 1352 | 2 | 472 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 64 | 0 | 466 | 0 | 64 | 472 | 0 | 64 | 0 | 466 | 0 | 64 | 0 | 472 | 0 | 64 | 0 | 472 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| CRITICAL VOLUMES | | North-South: | | 249 | North-South: | | 249 | North-South: | | | 249 | North-South: | | | 249 | North-South: | | | 249 |
| | | East-West: | | 466 | East-West: | | 472 | East-West: | | | 466 | East-West: | | | 472 | East-West: | | | 472 |
| | | SUM: | | 715 | SUM: | | 721 | SUM: | | | 715 | SUM: | | | 721 | SUM: | | | 721 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.477 | | | 0.481 | | | | 0.477 | | | | 0.481 | | | | |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.377 | | | 0.381 | | | | 0.377 | | | | 0.381 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.004 | Δv/c after mitigation: | -0.477 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | East-West Street: | 1st St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 3 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 12 | 1 | 12 | 0 | 12 | 12 | 0 | 12 | 1 | 12 | 0 | 12 | 1 | 12 | 0 | 12 | 1 | 12 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1696 | 2 | 568 | 5 | 1701 | 570 | 0 | 1696 | 2 | 568 | 5 | 1701 | 2 | 570 | 0 | 1701 | 2 | 570 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 73 | 1 | 73 | 0 | 73 | 73 | 0 | 73 | 1 | 73 | 0 | 73 | 1 | 73 | 0 | 73 | 1 | 73 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1363 | 2 | 567 | 24 | 1387 | 575 | 0 | 1363 | 2 | 567 | 24 | 1387 | 2 | 575 | 0 | 1387 | 2 | 575 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 339 | 0 | 0 | 0 | 339 | 0 | 0 | 339 | 0 | 0 | 0 | 339 | 0 | 0 | 0 | 339 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 1066 | 1 | 560 | 0 | 1066 | 560 | 0 | 1066 | 1 | 560 | 0 | 1066 | 1 | 560 | 0 | 1066 | 1 | 560 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 53 | 0 | 560 | 1 | 54 | 560 | 0 | 53 | 0 | 560 | 1 | 54 | 0 | 560 | 0 | 54 | 0 | 560 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 24 | 1 | 18 | 0 | 24 | 18 | 0 | 24 | 1 | 18 | 0 | 24 | 1 | 18 | 0 | 24 | 1 | 18 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 41 | 1 | 41 | 0 | 41 | 41 | 0 | 41 | 1 | 41 | 0 | 41 | 1 | 41 | 0 | 41 | 1 | 41 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 134 | 1 | 134 | 0 | 134 | 134 | 0 | 134 | 1 | 134 | 0 | 134 | 1 | 134 | 0 | 134 | 1 | 134 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 203 | 1 | 167 | 0 | 203 | 167 | 0 | 203 | 1 | 167 | 0 | 203 | 1 | 167 | 0 | 203 | 1 | 167 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 641 | North-South: | | 643 | North-South: | | | 641 | North-South: | | | 643 | North-South: | | | 643 |
| | | East-West: | | 727 | East-West: | | 727 | East-West: | | | 727 | East-West: | | | 727 | East-West: | | | 727 |
| | | SUM: | | 1368 | SUM: | | 1370 | SUM: | | | 1368 | SUM: | | | 1370 | SUM: | | | 1370 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.960 | | | 0.961 | | | | 0.960 | | | | 0.961 | | | | 0.961 |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.860 | | | 0.861 | | | | 0.860 | | | | 0.861 | | | | 0.861 |
| | LEVEL OF SERVICE (LOS): | | | D | | | D | | | | D | | | | D | | | | D |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.001 | Δv/c after mitigation: | 0.001 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | East-West Street: | 5th St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 3 | | | 0 | |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 18 | 1 | 18 | 0 | 18 | 18 | 0 | 18 | 1 | 18 | 0 | 18 | 1 | 18 | 0 | 18 | 1 | 18 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1467 | 1 | 762 | 5 | 1472 | 764 | 0 | 1467 | 1 | 762 | 5 | 1472 | 1 | 764 | 0 | 1472 | 1 | 764 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 56 | 0 | 0 | 0 | 56 | 0 | 0 | 56 | 0 | 0 | 0 | 56 | 0 | 0 | 0 | 56 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 64 | 1 | 64 | 0 | 64 | 64 | 0 | 64 | 1 | 64 | 0 | 64 | 1 | 64 | 0 | 64 | 1 | 64 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1249 | 1 | 653 | 24 | 1273 | 665 | 0 | 1249 | 1 | 653 | 24 | 1273 | 1 | 665 | 0 | 1273 | 1 | 665 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 57 | 0 | 0 | 0 | 57 | 0 | 0 | 57 | 0 | 0 | 0 | 57 | 0 | 0 | 0 | 57 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 172 | 1 | 172 | 0 | 172 | 172 | 0 | 172 | 1 | 172 | 0 | 172 | 1 | 172 | 0 | 172 | 1 | 172 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 134 | 0 | 155 | 0 | 134 | 155 | 0 | 134 | 0 | 155 | 0 | 134 | 0 | 155 | 0 | 134 | 0 | 155 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 21 | 0 | 0 | 0 | 21 | 0 | 0 | 21 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 21 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 65 | 1 | 65 | 0 | 65 | 65 | 0 | 65 | 1 | 65 | 0 | 65 | 1 | 65 | 0 | 65 | 1 | 65 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 104 | 0 | 163 | 0 | 104 | 163 | 0 | 104 | 0 | 163 | 0 | 104 | 0 | 163 | 0 | 104 | 0 | 163 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 59 | 0 | 0 | 0 | 59 | 0 | 0 | 59 | 0 | 0 | 0 | 59 | 0 | 0 | 0 | 59 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | North-South: | | 826 | North-South: | | 828 | North-South: | | | 826 | North-South: | | | 828 | North-South: | | | 828 |
| | | East-West: | | 335 | East-West: | | 335 | East-West: | | | 335 | East-West: | | | 335 | East-West: | | | 335 |
| | | SUM: | | 1161 | SUM: | | 1163 | SUM: | | | 1161 | SUM: | | | 1163 | SUM: | | | 1163 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.815 | | | 0.816 | | | | 0.815 | | | | 0.816 | | | | |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.715 | | | 0.716 | | | | 0.715 | | | | 0.716 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | C | | | C | | | | C | | | | C | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.001 | Δv/c after mitigation: | -0.815 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | East-West Street: | 7th St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 19 | 1 | 19 | 0 | 19 | 19 | 0 | 19 | 1 | 19 | 0 | 19 | 1 | 19 | 0 | 19 | 1 | 19 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1323 | 1 | 674 | 5 | 1328 | 677 | 0 | 1323 | 1 | 674 | 5 | 1328 | 1 | 677 | 0 | 1328 | 1 | 677 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 25 | 0 | 0 | 0 | 25 | 0 | 0 | 25 | 0 | 0 | 0 | 25 | 0 | 0 | 0 | 25 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 52 | 1 | 52 | 0 | 52 | 52 | 0 | 52 | 1 | 52 | 0 | 52 | 1 | 52 | 0 | 52 | 1 | 52 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1058 | 1 | 590 | 24 | 1082 | 602 | 0 | 1058 | 1 | 590 | 24 | 1082 | 1 | 602 | 0 | 1082 | 1 | 602 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 122 | 0 | 0 | 0 | 122 | 0 | 0 | 122 | 0 | 0 | 0 | 122 | 0 | 0 | 0 | 122 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 197 | 1 | 197 | 0 | 197 | 197 | 0 | 197 | 1 | 197 | 0 | 197 | 1 | 197 | 0 | 197 | 1 | 197 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 158 | 0 | 184 | 1 | 159 | 185 | 0 | 158 | 0 | 184 | 1 | 159 | 0 | 185 | 0 | 159 | 0 | 185 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 26 | 0 | 0 | 0 | 26 | 0 | 0 | 26 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 26 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 86 | 1 | 86 | 0 | 86 | 86 | 0 | 86 | 1 | 86 | 0 | 86 | 1 | 86 | 0 | 86 | 1 | 86 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 115 | 0 | 167 | 0 | 115 | 167 | 0 | 115 | 0 | 167 | 0 | 115 | 0 | 167 | 0 | 115 | 0 | 167 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 52 | 0 | 0 | 0 | 52 | 0 | 0 | 52 | 0 | 0 | 0 | 52 | 0 | 0 | 0 | 52 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 726 | North-South: | | 729 | North-South: | | | 726 | North-South: | | | 729 | North-South: | | | 729 |
| | | East-West: | | 364 | East-West: | | 364 | East-West: | | | 364 | East-West: | | | 364 | East-West: | | | 364 |
| | | SUM: | | 1090 | SUM: | | 1093 | SUM: | | | 1090 | SUM: | | | 1093 | SUM: | | | 1093 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.727 | | | 0.729 | | | | 0.727 | | | | 0.729 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.627 | | | 0.629 | | | | 0.627 | | | | 0.629 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | B | | | B | | | | B | | | | B | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.002 | Δv/c after mitigation: | -0.727 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | East-West Street: | 9th St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 62 | 1 | 62 | 1 | 63 | 63 | 0 | 62 | 1 | 62 | 1 | 63 | 1 | 63 | 0 | 63 | 1 | 63 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1136 | 1 | 577 | 5 | 1141 | 579 | 0 | 1136 | 1 | 577 | 5 | 1141 | 1 | 579 | 0 | 1141 | 1 | 579 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 44 | 1 | 44 | 0 | 44 | 44 | 0 | 44 | 1 | 44 | 0 | 44 | 1 | 44 | 0 | 44 | 1 | 44 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 894 | 1 | 503 | 24 | 918 | 515 | 0 | 894 | 1 | 503 | 24 | 918 | 1 | 515 | 0 | 918 | 1 | 515 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 112 | 0 | 0 | 0 | 112 | 0 | 0 | 112 | 0 | 0 | 0 | 112 | 0 | 0 | 0 | 112 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 230 | 1 | 230 | 0 | 230 | 230 | 0 | 230 | 1 | 230 | 0 | 230 | 1 | 230 | 0 | 230 | 1 | 230 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 276 | 1 | 276 | 3 | 279 | 279 | 0 | 276 | 1 | 276 | 3 | 279 | 1 | 279 | 0 | 279 | 1 | 279 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 43 | 1 | 12 | 3 | 46 | 15 | 0 | 43 | 1 | 12 | 3 | 46 | 1 | 15 | 0 | 46 | 1 | 15 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 52 | 1 | 52 | 0 | 52 | 52 | 0 | 52 | 1 | 52 | 0 | 52 | 1 | 52 | 0 | 52 | 1 | 52 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 241 | 0 | 274 | 1 | 242 | 275 | 0 | 241 | 0 | 274 | 1 | 242 | 0 | 275 | 0 | 242 | 0 | 275 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 33 | 0 | 0 | 0 | 33 | 0 | 0 | 33 | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 33 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 621 | North-South: | | 623 | North-South: | | | 621 | North-South: | | | 623 | North-South: | | | 623 |
| | | East-West: | | 504 | East-West: | | 505 | East-West: | | | 504 | East-West: | | | 505 | East-West: | | | 505 |
| | | SUM: | | 1125 | SUM: | | 1128 | SUM: | | | 1125 | SUM: | | | 1128 | SUM: | | | 1128 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.750 | | | 0.752 | | | | 0.750 | | | | 0.752 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.650 | | | 0.652 | | | | 0.650 | | | | 0.652 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | B | | | B | | | | B | | | | B | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.002 | Δv/c after mitigation: | -0.750 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| | MOVEMENT | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 5 | 0 | 5 | 0 | 5 | 5 | 0 | 5 | 0 | 5 | 0 | 5 | 0 | 5 | 0 | 5 | 0 | 5 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 566 | 0 | **348** | 0 | 566 | **358** | 0 | 566 | 0 | **348** | 0 | 566 | 0 | **358** | 0 | 566 | 0 | **358** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 119 | 0 | 348 | 21 | 140 | 358 | 0 | 119 | 0 | 348 | 21 | 140 | 0 | 358 | 0 | 140 | 0 | 358 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 88 | 0 | **88** | 25 | 113 | **113** | 0 | 88 | 0 | **88** | 25 | 113 | 0 | **113** | 0 | 113 | 0 | **113** |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 391 | 0 | 382 | 0 | 391 | 412 | 0 | 391 | 0 | 382 | 0 | 391 | 0 | 412 | 0 | 391 | 0 | 412 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 21 | 0 | 382 | 0 | 21 | 0 | 0 | 21 | 0 | 382 | 0 | 21 | 0 | 0 | 0 | 21 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 16 | 0 | **16** | 0 | 16 | **16** | 0 | 16 | 0 | **16** | 0 | 16 | 0 | **16** | 0 | 16 | 0 | **16** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 52 | 0 | 69 | 0 | 52 | 69 | 0 | 52 | 0 | 69 | 0 | 52 | 0 | 69 | 0 | 52 | 0 | 69 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 78 | 0 | 78 | 4 | 82 | 82 | 0 | 78 | 0 | 78 | 4 | 82 | 0 | 82 | 0 | 82 | 0 | 82 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 48 | 0 | **193** | 0 | 48 | **202** | 0 | 48 | 0 | **193** | 0 | 48 | 0 | **202** | 0 | 48 | 0 | **202** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 67 | 0 | 0 | 5 | 72 | 0 | 0 | 67 | 0 | 0 | 5 | 72 | 0 | 0 | 0 | 72 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 436 | *North-South:* | | 471 | *North-South:* | | | 436 | *North-South:* | | | 471 | *North-South:* | | | 471 |
| | | *East-West:* | | 209 | *East-West:* | | 218 | *East-West:* | | | 209 | *East-West:* | | | 218 | *East-West:* | | | 218 |
| | | *SUM:* | | 645 | *SUM:* | | 689 | *SUM:* | | | 645 | *SUM:* | | | 689 | *SUM:* | | | 689 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.430 | | | 0.459 | | | | 0.430 | | | | 0.459 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.330 | | | 0.359 | | | | 0.330 | | | | 0.359 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.029 | Δ*v/c* after mitigation: | -0.430 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | East-West Street: | 25th St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | 3 | 3 | | 3 | 3 | | 3 | 3 | | | 3 | 3 | | | 3 | 3 | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | 0 | 0 | | 0 | 0 | | 0 | 0 | | | 0 | 0 | | | 0 | 0 | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 3 WB-- | 0 | 0 | NB-- 0 SB-- EB-- 3 WB-- | 0 | 0 | NB-- 0 SB-- EB-- 3 WB-- | 0 | 0 | 0 | NB-- 0 SB-- EB-- 3 WB-- | 0 | 0 | 0 | NB-- 0 SB-- EB-- 0 WB-- | 0 | 0 | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | 2 | 2 | | 2 | 2 | | 2 | 2 | | | 2 | 2 | | | 2 | 2 | 2 |
| | Override Capacity | | 0 | 0 | | 0 | 0 | | 0 | 0 | | | 0 | 0 | | | 0 | 0 | 0 |
| NORTHBOUND | Left | 116 | 1 | **116** | 0 | 116 | **116** | 0 | 116 | 1 | **116** | 0 | 116 | 1 | **116** | 0 | 116 | 1 | **116** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 254 | 1 | 254 | 3 | 257 | 257 | 0 | 254 | 1 | 254 | 3 | 257 | 1 | 257 | 0 | 257 | 1 | 257 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 174 | 1 | **174** | 1 | 175 | **175** | 0 | 174 | 1 | **174** | 1 | 175 | 1 | **175** | 0 | 175 | 1 | **175** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 250 | 1 | 69 | 4 | 254 | 64 | 0 | 250 | 1 | 69 | 4 | 254 | 1 | 64 | 0 | 254 | 1 | 64 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 363 | 1 | **363** | 18 | 381 | **381** | 0 | 363 | 1 | **363** | 18 | 381 | 1 | **381** | 0 | 381 | 1 | **381** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 76 | 1 | 0 | 0 | 76 | 0 | 0 | 76 | 1 | 0 | 0 | 76 | 1 | 0 | 0 | 76 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | 290 | | *North-South:* | 291 | | *North-South:* | 290 | | | *North-South:* | 291 | | | *North-South:* | 291 | | |
| | | *East-West:* | 363 | | *East-West:* | 381 | | *East-West:* | 363 | | | *East-West:* | 381 | | | *East-West:* | 381 | | |
| | | *SUM:* | 653 | | *SUM:* | 672 | | *SUM:* | 653 | | | *SUM:* | 672 | | | *SUM:* | 672 | | |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | 0.458 | | | 0.472 | | | 0.458 | | | | 0.472 | | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | 0.358 | | | 0.372 | | | 0.358 | | | | 0.372 | | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | A | | | A | | | A | | | | A | | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.014 | Δ*v/c* after mitigation: | -0.458 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Via Cabrillo Marina | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 39 | 2 | 21 | 0 | 39 | 21 | 0 | 39 | 2 | 21 | 0 | 39 | 2 | 21 | 0 | 39 | 2 | 21 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 27 | 1 | 0 | 0 | 27 | 0 | 0 | 27 | 1 | 0 | 0 | 27 | 1 | 0 | 0 | 27 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 373 | 1 | 242 | 66 | 439 | 275 | 0 | 373 | 1 | 242 | 66 | 439 | 1 | 275 | 0 | 439 | 1 | 275 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 111 | 0 | 0 | 0 | 111 | 0 | 0 | 111 | 0 | 0 | 0 | 111 | 0 | 0 | 0 | 111 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 73 | 1 | 73 | 0 | 73 | 73 | 0 | 73 | 1 | 73 | 0 | 73 | 1 | 73 | 0 | 73 | 1 | 73 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 102 | 2 | 51 | 14 | 116 | 58 | 0 | 102 | 2 | 51 | 14 | 116 | 2 | 58 | 0 | 116 | 2 | 58 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 21 | North-South: | | 21 | North-South: | | 21 | | North-South: | | 21 | | North-South: | | | 21 |
| | | East-West: | | 315 | East-West: | | 348 | East-West: | | 315 | | East-West: | | 348 | | East-West: | | | 348 |
| | | SUM: | | 336 | SUM: | | 369 | SUM: | | 336 | | SUM: | | 369 | | SUM: | | | 369 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.236 | | | 0.259 | | | 0.236 | | | | 0.259 | | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.136 | | | 0.159 | | | 0.136 | | | | 0.159 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.023 | Δv/c after mitigation: | -0.236 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | East-West Street: | Swinford St / SR-47 EB Ramps | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 4 | | | 4 | | | 4 | | | | 4 | | | | | 4 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | | EB-- 3 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 371 | 2 | 204 | 10 | 381 | 210 | 0 | 371 | 2 | 204 | 10 | 381 | 2 | 210 | 0 | 381 | 2 | 210 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 753 | 1 | 390 | 35 | 788 | 408 | 0 | 753 | 1 | 390 | 35 | 788 | 1 | 408 | 0 | 788 | 1 | 408 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 27 | 0 | 0 | 0 | 27 | 0 | 0 | 27 | 0 | 0 | 0 | 27 | 0 | 0 | 0 | 27 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 28 | 1 | 28 | 0 | 28 | 28 | 0 | 28 | 1 | 28 | 0 | 28 | 1 | 28 | 0 | 28 | 1 | 28 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 77 | 2 | 39 | 10 | 87 | 44 | 0 | 77 | 2 | 39 | 10 | 87 | 2 | 44 | 0 | 87 | 2 | 44 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 41 | 1 | 0 | 0 | 41 | 0 | 0 | 41 | 1 | 0 | 0 | 41 | 1 | 0 | 0 | 41 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 178 | 1 | 178 | 0 | 178 | 178 | 0 | 178 | 1 | 178 | 0 | 178 | 1 | 178 | 0 | 178 | 1 | 178 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 122 | 0 | 499 | 0 | 122 | 603 | 0 | 122 | 0 | 499 | 0 | 122 | 0 | 603 | 0 | 122 | 0 | 603 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 876 | 1 | 0 | 208 | 1084 | 0 | 0 | 876 | 1 | 0 | 208 | 1084 | 1 | 0 | 0 | 1084 | 1 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 39 | 0 | 39 | 0 | 39 | 39 | 0 | 39 | 0 | 39 | 0 | 39 | 0 | 39 | 0 | 39 | 0 | 39 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 9 | 0 | 26 | 0 | 9 | 26 | 0 | 9 | 0 | 26 | 0 | 9 | 0 | 26 | 0 | 9 | 0 | 26 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 418 | North-South: | | 436 | North-South: | | 418 | | North-South: | | 436 | | North-South: | | 436 | |
| | | East-West: | | 538 | East-West: | | 642 | East-West: | | 538 | | East-West: | | 642 | | East-West: | | 642 | |
| | | SUM: | | 956 | SUM: | | 1078 | SUM: | | 956 | | SUM: | | 1078 | | SUM: | | 1078 | |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.695 | | | 0.784 | | | 0.695 | | | | 0.784 | | | | 0.784 | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.595 | | | 0.684 | | | 0.595 | | | | 0.684 | | | | 0.684 | |
| | LEVEL OF SERVICE (LOS): | | | A | | | B | | | A | | | | B | | | | B | |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.089 | Δv/c after mitigation: | 0.089 |
| Significant impacted? | NO | Fully mitigated? | N/A |

EX

| | | |
|---|---|---|
| N-S | 418 | 418 |
| EB | 237 | 178 |
| WB | 39 | 39 |
| Sum | 694 | 635 |
| V/C | 0.505 | 0.462 |
| Less ATS | 0.505 | 0.462 |
| LOS | A | A |

EP

| | | |
|---|---|---|
| N-S | 436 | 436 |
| EB | 293 | 178 |
| WB | 39 | 39 |
| Sum | 768 | 653 |
| V/C | 0.559 | 0.475 |
| Less ATS | 0.559 | 0.475 |
| LOS | A | A |

FB

| | | |
|---|---|---|
| N-S | 418 | 418 |
| EB | 237 | 178 |
| WB | 39 | 39 |
| Sum | 694 | 635 |
| V/C | 0.505 | 0.462 |
| Less ATS | 0.505 | 0.462 |
| LOS | A | A |

FP

| | | |
|---|---|---|
| N-S | 436 | 436 |
| EB | 293 | 178 |
| WB | 39 | 39 |
| Sum | 768 | 653 |
| V/C | 0.559 | 0.475 |
| Less ATS | 0.559 | 0.475 |
| LOS | A | A |

| | Scenario | Scenario | Change | Impact? |
|---|---|---|---|---|
| EX | 0.505 | 0.559 | 0.054 | NO |
| FB | 0.505 | 0.559 | 0.054 | NO |

FP Mitigation

| | | |
|---|---|---|
| N-S | 436 | 436 |
| EB | 293 | 178 |
| WB | 39 | 39 |
| Sum | 768 | 653 |
| V/C | 0.559 | 0.475 |
| Less ATS | 0.559 | 0.475 |
| LOS | A | A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | East-West Street: | O'Farrell St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 6 | 1 | 6 | 0 | 6 | **6** | 0 | 6 | 1 | 6 | 0 | 6 | 1 | **6** | 0 | 6 | 1 | **6** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1102 | 2 | **551** | 45 | 1147 | 574 | 0 | 1102 | 2 | **551** | 45 | 1147 | 2 | 574 | 0 | 1147 | 2 | 574 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 931 | 2 | 466 | 218 | 1149 | **575** | 0 | 931 | 2 | 466 | 218 | 1149 | 2 | **575** | 0 | 1149 | 2 | **575** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 9 | 1 | 9 | 0 | 9 | 9 | 0 | 9 | 1 | 9 | 0 | 9 | 1 | 9 | 0 | 9 | 1 | 9 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 77 | 0 | 77 | 0 | 77 | 77 | 0 | 77 | 0 | 77 | 0 | 77 | 0 | 77 | 0 | 77 | 0 | 77 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 18 | 0 | **95** | 0 | 18 | **95** | 0 | 18 | 0 | **95** | 0 | 18 | 0 | **95** | 0 | 18 | 0 | **95** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| WESTBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 551 | *North-South:* | | 581 | *North-South:* | | 551 | | *North-South:* | | 581 | | *North-South:* | | 581 | |
| | | *East-West:* | | 95 | *East-West:* | | 95 | *East-West:* | | 95 | | *East-West:* | | 95 | | *East-West:* | | 95 | |
| | | *SUM:* | | 646 | *SUM:* | | 676 | *SUM:* | | 646 | | *SUM:* | | 676 | | *SUM:* | | 676 | |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.431 | | | 0.451 | | | 0.431 | | | | 0.451 | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.431 | | | 0.451 | | | 0.431 | | | | 0.451 | | | | | 0.000 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.020 | Δ*v/c* after mitigation: | -0.431 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | East-West Street: | 1st St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 16 | 1 | 16 | 0 | 16 | 16 | 0 | 16 | 1 | 16 | 0 | 16 | 1 | 16 | 0 | 16 | 1 | 16 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 997 | 1 | 503 | 45 | 1042 | 525 | 0 | 997 | 1 | 503 | 45 | 1042 | 1 | 525 | 0 | 1042 | 1 | 525 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 67 | 1 | 67 | 0 | 67 | 67 | 0 | 67 | 1 | 67 | 0 | 67 | 1 | 67 | 0 | 67 | 1 | 67 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 867 | 2 | 434 | 218 | 1085 | 543 | 0 | 867 | 2 | 434 | 218 | 1085 | 2 | 543 | 0 | 1085 | 2 | 543 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 21 | 1 | 0 | 0 | 21 | 0 | 0 | 21 | 1 | 0 | 0 | 21 | 1 | 0 | 0 | 21 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 79 | 1 | 79 | 0 | 79 | 79 | 0 | 79 | 1 | 79 | 0 | 79 | 1 | 79 | 0 | 79 | 1 | 79 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 11 | 0 | 23 | 0 | 11 | 23 | 0 | 11 | 0 | 23 | 0 | 11 | 0 | 23 | 0 | 11 | 0 | 23 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 12 | 0 | 0 | 0 | 12 | 0 | 0 | 12 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 12 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 570 | North-South: | | 592 | North-South: | | | 570 | North-South: | | | 592 | North-South: | | | 592 |
| | | East-West: | | 79 | East-West: | | 79 | East-West: | | | 79 | East-West: | | | 79 | East-West: | | | 79 |
| | | SUM: | | 649 | SUM: | | 671 | SUM: | | | 649 | SUM: | | | 671 | SUM: | | | 671 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.433 | | | 0.447 | | | | 0.433 | | | | 0.447 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.333 | | | 0.347 | | | | 0.333 | | | | 0.347 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.014 | Δv/c after mitigation: | -0.433 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | East-West Street: | 5th St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 |
| | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| **NORTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 15 | 1 | 15 | 0 | 15 | **15** | 0 | 15 | 1 | 15 | 0 | 15 | 1 | **15** | 0 | 15 | 1 | **15** |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 783 | 1 | **393** | 45 | 828 | 416 | 0 | 783 | 1 | **393** | 45 | 828 | 1 | 416 | 0 | 828 | 1 | 416 |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **SOUTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 567 | 1 | 366 | 218 | 785 | **475** | 0 | 567 | 1 | 366 | 218 | 785 | 1 | **475** | 0 | 785 | 1 | **475** |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 165 | 0 | 0 | 0 | 165 | 0 | 0 | 165 | 0 | 0 | 0 | 165 | 0 | 0 | 0 | 165 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **EASTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 136 | 1 | **136** | 0 | 136 | **136** | 0 | 136 | 1 | **136** | 0 | 136 | 1 | **136** | 0 | 136 | 1 | **136** |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 5 | 1 | 5 | 0 | 5 | 5 | 0 | 5 | 1 | 5 | 0 | 5 | 1 | 5 | 0 | 5 | 1 | 5 |
| Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Right | 13 | 1 | 6 | 0 | 13 | 6 | 0 | 13 | 1 | 6 | 0 | 13 | 1 | 6 | 0 | 13 | 1 | 6 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **WESTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 5 | 0 | **8** | 0 | 5 | **8** | 0 | 5 | 0 | **8** | 0 | 5 | 0 | **8** | 0 | 5 | 0 | **8** |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 11 | 1 | 0 | 0 | 11 | 0 | 0 | 11 | 1 | 0 | 0 | 11 | 1 | 0 | 0 | 11 | 1 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | *North-South:* | | 393 | *North-South:* | | 490 | *North-South:* | | 393 | | *North-South:* | | 490 | | *North-South:* | | 490 | |
| | *East-West:* | | 144 | *East-West:* | | 144 | *East-West:* | | 144 | | *East-West:* | | 144 | | *East-West:* | | 144 | |
| | *SUM:* | | 537 | *SUM:* | | 634 | *SUM:* | | 537 | | *SUM:* | | 634 | | *SUM:* | | 634 | |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.358 | | | 0.423 | | | 0.358 | | | | 0.423 | | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.258 | | | 0.323 | | | 0.258 | | | | 0.323 | | | | -0.100 | |
| LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | A | |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.065 | *Δv/c* after mitigation: | -0.358 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | East-West Street: | 6th St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 3 | 1 | 3 | 0 | 3 | 3 | 0 | 3 | 1 | 3 | 0 | 3 | 1 | 3 | 0 | 3 | 1 | 3 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 799 | 1 | 406 | 29 | 828 | 421 | 0 | 799 | 1 | 406 | 29 | 828 | 1 | 421 | 0 | 828 | 1 | 421 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 13 | 0 | 0 | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 13 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 71 | 1 | 71 | 78 | 149 | 149 | 0 | 71 | 1 | 71 | 78 | 149 | 1 | 149 | 0 | 149 | 1 | 149 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 482 | 1 | 271 | 140 | 622 | 341 | 0 | 482 | 1 | 271 | 140 | 622 | 1 | 341 | 0 | 622 | 1 | 341 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 59 | 0 | 0 | 0 | 59 | 0 | 0 | 59 | 0 | 0 | 0 | 59 | 0 | 0 | 0 | 59 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 23 | 1 | 23 | 0 | 23 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 12 | 0 | 14 | 20 | 32 | 34 | 0 | 12 | 0 | 14 | 20 | 32 | 0 | 34 | 0 | 32 | 0 | 34 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 3 | 1 | 3 | 0 | 3 | 3 | 0 | 3 | 1 | 3 | 0 | 3 | 1 | 3 | 0 | 3 | 1 | 3 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 2 | 1 | 2 | 4 | 6 | 6 | 0 | 2 | 1 | 2 | 4 | 6 | 1 | 6 | 0 | 6 | 1 | 6 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 14 | 2 | 0 | 16 | 30 | 0 | 0 | 14 | 2 | 0 | 16 | 30 | 2 | 0 | 0 | 30 | 2 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 477 | North-South: | | 570 | North-South: | | 477 | | North-South: | | 570 | | North-South: | | 570 | |
| | | East-West: | | 25 | East-West: | | 37 | East-West: | | 25 | | East-West: | | 37 | | East-West: | | 37 | |
| | | SUM: | | 502 | SUM: | | 607 | SUM: | | 502 | | SUM: | | 607 | | SUM: | | 607 | |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.352 | | | 0.426 | | | 0.352 | | | | 0.426 | | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.252 | | | 0.326 | | | 0.252 | | | | 0.326 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.074 | Δv/c after mitigation: | -0.352 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17 | East-West Street: | 7th St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 13 | 1 | 13 | 0 | 13 | 13 | 0 | 13 | 1 | 13 | 0 | 13 | 1 | 13 | 0 | 13 | 1 | 13 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 640 | 2 | 320 | 29 | 669 | 335 | 0 | 640 | 2 | 320 | 29 | 669 | 2 | 335 | 0 | 669 | 2 | 335 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 274 | 2 | 137 | 140 | 414 | 207 | 0 | 274 | 2 | 137 | 140 | 414 | 2 | 207 | 0 | 414 | 2 | 207 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 211 | 1 | 154 | 0 | 211 | 154 | 0 | 211 | 1 | 154 | 0 | 211 | 1 | 154 | 0 | 211 | 1 | 154 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 221 | 1 | 114 | 0 | 221 | 114 | 0 | 221 | 1 | 114 | 0 | 221 | 1 | 114 | 0 | 221 | 1 | 114 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 7 | 0 | 114 | 0 | 7 | 114 | 0 | 7 | 0 | 114 | 0 | 7 | 0 | 114 | 0 | 7 | 0 | 114 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 320 | North-South: | | 335 | North-South: | | | 320 | North-South: | | | 335 | North-South: | | | 335 |
| | | East-West: | | 114 | East-West: | | 114 | East-West: | | | 114 | East-West: | | | 114 | East-West: | | | 114 |
| | | SUM: | | 434 | SUM: | | 449 | SUM: | | | 434 | SUM: | | | 449 | SUM: | | | 449 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.289 | | | 0.299 | | | | 0.289 | | | | 0.299 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.189 | | | 0.199 | | | | 0.189 | | | | 0.199 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.010 | Δv/c after mitigation: | -0.289 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Miner St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 18 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 9 | 1 | 9 | 0 | 9 | 9 | 0 | 9 | 1 | 9 | 0 | 9 | 1 | 9 | 0 | 9 | 1 | 9 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 11 | 1 | 6 | 0 | 11 | 6 | 0 | 11 | 1 | 6 | 0 | 11 | 1 | 6 | 0 | 11 | 1 | 6 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 35 | 1 | 35 | 153 | 188 | 188 | 0 | 35 | 1 | 35 | 153 | 188 | 1 | 188 | 0 | 188 | 1 | 188 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 23 | 1 | 23 | 0 | 23 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 134 | 0 | 0 | 0 | 134 | 0 | 0 | 134 | 0 | 0 | 0 | 134 | 0 | 0 | 0 | 134 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 307 | 1 | 307 | 0 | 307 | 307 | 0 | 307 | 1 | 307 | 0 | 307 | 1 | 307 | 0 | 307 | 1 | 307 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 51 | 1 | 28 | 67 | 118 | 62 | 0 | 51 | 1 | 28 | 67 | 118 | 1 | 62 | 0 | 118 | 1 | 62 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 5 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 24 | 1 | 20 | 14 | 38 | 38 | 0 | 24 | 1 | 20 | 14 | 38 | 1 | 38 | 0 | 38 | 1 | 38 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 16 | 0 | 0 | 32 | 48 | 0 | 0 | 16 | 0 | 0 | 32 | 48 | 0 | 0 | 0 | 48 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 41 | North-South: | | 194 | North-South: | | 41 | | North-South: | | 194 | | North-South: | | | 194 |
| | | East-West: | | 327 | East-West: | | 345 | East-West: | | 327 | | East-West: | | 345 | | East-West: | | | 345 |
| | | SUM: | | 368 | SUM: | | 539 | SUM: | | 368 | | SUM: | | 539 | | SUM: | | | 539 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.258 | | | 0.378 | | | 0.258 | | | | 0.378 | | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.258 | | | 0.378 | | | 0.258 | | | | 0.378 | | | | | 0.000 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.120 | Δv/c after mitigation: | -0.258 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | East-West Street: | Summerland Av | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 0 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 125 | 1 | **125** | 0 | 125 | **125** | 0 | 125 | 1 | **125** | 0 | 125 | 1 | **125** | 0 | 125 | 1 | **125** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 376 | 1 | 203 | 6 | 382 | 206 | 0 | 376 | 1 | 203 | 6 | 382 | 1 | 206 | 0 | 382 | 1 | 206 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 29 | 0 | 0 | 0 | 29 | 0 | 0 | 29 | 0 | 0 | 0 | 29 | 0 | 0 | 0 | 29 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 16 | 1 | 16 | 0 | 16 | 16 | 0 | 16 | 1 | 16 | 0 | 16 | 1 | 16 | 0 | 16 | 1 | 16 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 517 | 1 | **387** | 2 | 519 | **388** | 0 | 517 | 1 | **387** | 2 | 519 | 1 | **388** | 0 | 519 | 1 | **388** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 257 | 0 | 0 | 0 | 257 | 0 | 0 | 257 | 0 | 0 | 0 | 257 | 0 | 0 | 0 | 257 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 221 | 1 | **221** | 0 | 221 | **221** | 0 | 221 | 1 | **221** | 0 | 221 | 1 | **221** | 0 | 221 | 1 | **221** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 47 | 0 | 0 | 47 | 0 | 0 | 0 | 47 | 0 | 0 | 0 | 47 | 0 | 0 | 0 | 47 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 47 | 0 | 0 | 0 | 47 | 0 | 0 | 47 | 0 | 0 | 0 | 47 | 0 | 0 | 0 | 47 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 576 | 2 | 317 | 0 | 576 | 317 | 0 | 576 | 2 | 317 | 0 | 576 | 2 | 317 | 0 | 576 | 2 | 317 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 273 | 0 | **568** | 0 | 273 | **568** | 0 | 273 | 0 | **568** | 0 | 273 | 0 | **568** | 0 | 273 | 0 | **568** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 295 | 0 | 0 | 0 | 295 | 0 | 0 | 295 | 0 | 0 | 0 | 295 | 0 | 0 | 0 | 295 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 512 | *North-South:* | | 513 | *North-South:* | | | 512 | *North-South:* | | | 513 | *North-South:* | | | 513 |
| | | *East-West:* | | 789 | *East-West:* | | 789 | *East-West:* | | | 789 | *East-West:* | | | 789 | *East-West:* | | | 789 |
| | | *SUM:* | | 1301 | *SUM:* | | 1302 | *SUM:* | | | 1301 | *SUM:* | | | 1302 | *SUM:* | | | 1302 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.913 | | | 0.914 | | | | 0.913 | | | | 0.914 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.813 | | | 0.814 | | | | 0.813 | | | | 0.814 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | D | | | D | | | | D | | | | D | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | Δ*v/c* after mitigation: | -0.913 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | East-West Street: | I-110 Ramps | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 1 | SB-- | 0 | NB-- 1 | SB-- | 0 | NB-- 1 | SB-- | 0 | NB-- 1 | SB-- | 0 | NB-- 0 | SB-- | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 765 | 2 | 383 | 6 | 771 | 386 | 0 | 765 | 2 | 383 | 6 | 771 | 2 | 386 | 0 | 771 | 2 | 386 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1721 | 2 | 0 | 16 | 1737 | 0 | 0 | 1721 | 2 | 0 | 16 | 1737 | 2 | 0 | 0 | 1737 | 2 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1100 | 3 | 367 | 2 | 1102 | 367 | 0 | 1100 | 3 | 367 | 2 | 1102 | 3 | 367 | 0 | 1102 | 3 | 367 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 1534 | 2 | 538 | 3 | 1537 | 539 | 0 | 1534 | 2 | 538 | 3 | 1537 | 2 | 539 | 0 | 1537 | 2 | 539 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 81 | 0 | 538 | 0 | 81 | 539 | 0 | 81 | 0 | 538 | 0 | 81 | 0 | 539 | 0 | 81 | 0 | 539 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| CRITICAL VOLUMES | | North-South: | | 383 | North-South: | | 386 | North-South: | | | 383 | North-South: | | | 386 | North-South: | | | 386 |
| | | East-West: | | 538 | East-West: | | 539 | East-West: | | | 538 | East-West: | | | 539 | East-West: | | | 539 |
| | | SUM: | | 921 | SUM: | | 925 | SUM: | | | 921 | SUM: | | | 925 | SUM: | | | 925 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.614 | | | 0.617 | | | | 0.614 | | | | 0.617 | | | | |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.514 | | | 0.517 | | | | 0.514 | | | | 0.517 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.003 | Δv/c after mitigation: | -0.614 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | East-West Street: | 1st St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 3 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 31 | 1 | **31** | 0 | 31 | **31** | 0 | 31 | 1 | **31** | 0 | 31 | 1 | **31** | 0 | 31 | 1 | **31** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1421 | 2 | 479 | 22 | 1443 | 487 | 0 | 1421 | 2 | 479 | 22 | 1443 | 2 | 487 | 0 | 1443 | 2 | 487 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 88 | 1 | 88 | 0 | 88 | 88 | 0 | 88 | 1 | 88 | 0 | 88 | 1 | 88 | 0 | 88 | 1 | 88 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1726 | 2 | **723** | 5 | 1731 | **725** | 0 | 1726 | 2 | **723** | 5 | 1731 | 2 | **725** | 0 | 1731 | 2 | **725** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 444 | 0 | 0 | 0 | 444 | 0 | 0 | 444 | 0 | 0 | 0 | 444 | 0 | 0 | 0 | 444 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 771 | 1 | **439** | 0 | 771 | **439** | 0 | 771 | 1 | **439** | 0 | 771 | 1 | **439** | 0 | 771 | 1 | **439** |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 107 | 0 | 439 | 0 | 107 | 439 | 0 | 107 | 0 | 439 | 0 | 107 | 0 | 439 | 0 | 107 | 0 | 439 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 58 | 1 | 43 | 0 | 58 | 43 | 0 | 58 | 1 | 43 | 0 | 58 | 1 | 43 | 0 | 58 | 1 | 43 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 35 | 1 | 35 | 0 | 35 | 35 | 0 | 35 | 1 | 35 | 0 | 35 | 1 | 35 | 0 | 35 | 1 | 35 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 125 | 1 | **125** | 1 | 126 | **126** | 0 | 125 | 1 | **125** | 1 | 126 | 1 | **126** | 0 | 126 | 1 | **126** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 147 | 1 | 103 | 0 | 147 | 103 | 0 | 147 | 1 | 103 | 0 | 147 | 1 | 103 | 0 | 147 | 1 | 103 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 754 | *North-South:* | | 756 | *North-South:* | | | 754 | *North-South:* | | | 756 | *North-South:* | | | 756 |
| | | *East-West:* | | 564 | *East-West:* | | 565 | *East-West:* | | | 564 | *East-West:* | | | 565 | *East-West:* | | | 565 |
| | | *SUM:* | | 1318 | *SUM:* | | 1321 | *SUM:* | | | 1318 | *SUM:* | | | 1321 | *SUM:* | | | 1321 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.925 | | | 0.927 | | | | 0.925 | | | | 0.927 | | | | 0.927 |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.825 | | | 0.827 | | | | 0.825 | | | | 0.827 | | | | 0.827 |
| | LEVEL OF SERVICE (LOS): | | | D | | | D | | | | D | | | | D | | | | D |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.002 | Δ*v/c* after mitigation: | 0.002 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | East-West Street: | 5th St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 23 | 1 | 23 | 0 | 23 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1363 | 1 | 696 | 22 | 1385 | 707 | 0 | 1363 | 1 | 696 | 22 | 1385 | 1 | 707 | 0 | 1385 | 1 | 707 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 29 | 0 | 0 | 0 | 29 | 0 | 0 | 29 | 0 | 0 | 0 | 29 | 0 | 0 | 0 | 29 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 70 | 1 | 70 | 0 | 70 | 70 | 0 | 70 | 1 | 70 | 0 | 70 | 1 | 70 | 0 | 70 | 1 | 70 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1339 | 1 | 706 | 5 | 1344 | 709 | 0 | 1339 | 1 | 706 | 5 | 1344 | 1 | 709 | 0 | 1344 | 1 | 709 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 73 | 0 | 0 | 0 | 73 | 0 | 0 | 73 | 0 | 0 | 0 | 73 | 0 | 0 | 0 | 73 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 112 | 1 | 112 | 0 | 112 | 112 | 0 | 112 | 1 | 112 | 0 | 112 | 1 | 112 | 0 | 112 | 1 | 112 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 105 | 0 | 123 | 0 | 105 | 123 | 0 | 105 | 0 | 123 | 0 | 105 | 0 | 123 | 0 | 105 | 0 | 123 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 18 | 0 | 0 | 0 | 18 | 0 | 0 | 18 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 18 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 49 | 1 | 49 | 0 | 49 | 49 | 0 | 49 | 1 | 49 | 0 | 49 | 1 | 49 | 0 | 49 | 1 | 49 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 93 | 0 | 168 | 0 | 93 | 168 | 0 | 93 | 0 | 168 | 0 | 93 | 0 | 168 | 0 | 93 | 0 | 168 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 75 | 0 | 0 | 0 | 75 | 0 | 0 | 75 | 0 | 0 | 0 | 75 | 0 | 0 | 0 | 75 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 766 | North-South: | | 777 | North-South: | | | 766 | North-South: | | | 777 | North-South: | | | 777 |
| | | East-West: | | 280 | East-West: | | 280 | East-West: | | | 280 | East-West: | | | 280 | East-West: | | | 280 |
| | | SUM: | | 1046 | SUM: | | 1057 | SUM: | | | 1046 | SUM: | | | 1057 | SUM: | | | 1057 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.734 | | | 0.742 | | | | 0.734 | | | | 0.742 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.634 | | | 0.642 | | | | 0.634 | | | | 0.642 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | B | | | B | | | | B | | | | B | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.008 | Δv/c after mitigation: | -0.734 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | East-West Street: | 7th St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 24 | 1 | 24 | 0 | 24 | 24 | 0 | 24 | 1 | 24 | 0 | 24 | 1 | 24 | 0 | 24 | 1 | 24 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1158 | 1 | 599 | 22 | 1180 | 610 | 0 | 1158 | 1 | 599 | 22 | 1180 | 1 | 610 | 0 | 1180 | 1 | 610 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 40 | 0 | 0 | 0 | 40 | 0 | 0 | 40 | 0 | 0 | 0 | 40 | 0 | 0 | 0 | 40 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 72 | 1 | 72 | 0 | 72 | 72 | 0 | 72 | 1 | 72 | 0 | 72 | 1 | 72 | 0 | 72 | 1 | 72 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1176 | 1 | 636 | 5 | 1181 | 638 | 0 | 1176 | 1 | 636 | 5 | 1181 | 1 | 638 | 0 | 1181 | 1 | 638 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 95 | 0 | 0 | 0 | 95 | 0 | 0 | 95 | 0 | 0 | 0 | 95 | 0 | 0 | 0 | 95 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 159 | 1 | 159 | 0 | 159 | 159 | 0 | 159 | 1 | 159 | 0 | 159 | 1 | 159 | 0 | 159 | 1 | 159 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 143 | 0 | 170 | 0 | 143 | 170 | 0 | 143 | 0 | 170 | 0 | 143 | 0 | 170 | 0 | 143 | 0 | 170 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 27 | 0 | 0 | 0 | 27 | 0 | 0 | 27 | 0 | 0 | 0 | 27 | 0 | 0 | 0 | 27 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 60 | 1 | 60 | 0 | 60 | 60 | 0 | 60 | 1 | 60 | 0 | 60 | 1 | 60 | 0 | 60 | 1 | 60 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 137 | 0 | 209 | 1 | 138 | 210 | 0 | 137 | 0 | 209 | 1 | 138 | 0 | 210 | 0 | 138 | 0 | 210 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 72 | 0 | 0 | 0 | 72 | 0 | 0 | 72 | 0 | 0 | 0 | 72 | 0 | 0 | 0 | 72 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 671 | North-South: | | 682 | North-South: | | 671 | | North-South: | | 682 | | North-South: | | 682 | |
| | | East-West: | | 368 | East-West: | | 369 | East-West: | | 368 | | East-West: | | 369 | | East-West: | | 369 | |
| | | SUM: | | 1039 | SUM: | | 1051 | SUM: | | 1039 | | SUM: | | 1051 | | SUM: | | 1051 | |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.693 | | | 0.701 | | | 0.693 | | | | 0.701 | | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.593 | | | 0.601 | | | 0.593 | | | | 0.601 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | B | | | A | | | | B | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.008 | Δv/c after mitigation: | -0.693 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | East-West Street: | 9th St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 58 | 1 | **58** | 3 | 61 | **61** | 0 | 58 | 1 | **58** | 3 | 61 | 1 | **61** | 0 | 61 | 1 | **61** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 989 | 1 | 516 | 22 | 1011 | 527 | 0 | 989 | 1 | 516 | 22 | 1011 | 1 | 527 | 0 | 1011 | 1 | 527 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 43 | 0 | 0 | 0 | 43 | 0 | 0 | 43 | 0 | 0 | 0 | 43 | 0 | 0 | 0 | 43 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 72 | 1 | 72 | 0 | 72 | 72 | 0 | 72 | 1 | 72 | 0 | 72 | 1 | 72 | 0 | 72 | 1 | 72 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1035 | 1 | **568** | 5 | 1040 | **571** | 0 | 1035 | 1 | **568** | 5 | 1040 | 1 | **571** | 0 | 1040 | 1 | **571** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 101 | 0 | 0 | 0 | 101 | 0 | 0 | 101 | 0 | 0 | 0 | 101 | 0 | 0 | 0 | 101 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 168 | 1 | **168** | 0 | 168 | **168** | 0 | 168 | 1 | **168** | 0 | 168 | 1 | **168** | 0 | 168 | 1 | **168** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 223 | 1 | 223 | 1 | 224 | 224 | 0 | 223 | 1 | 223 | 1 | 224 | 1 | 224 | 0 | 224 | 1 | 224 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 51 | 1 | 22 | 1 | 52 | 22 | 0 | 51 | 1 | 22 | 1 | 52 | 1 | 22 | 0 | 52 | 1 | 22 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 63 | 1 | 63 | 0 | 63 | 63 | 0 | 63 | 1 | 63 | 0 | 63 | 1 | 63 | 0 | 63 | 1 | 63 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 200 | 0 | **273** | 3 | 203 | **276** | 0 | 200 | 0 | **273** | 3 | 203 | 0 | **276** | 0 | 203 | 0 | **276** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 73 | 0 | 0 | 0 | 73 | 0 | 0 | 73 | 0 | 0 | 0 | 73 | 0 | 0 | 0 | 73 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 626 | *North-South:* | | 632 | *North-South:* | | | 626 | *North-South:* | | | 632 | *North-South:* | | | 632 |
| | | *East-West:* | | 441 | *East-West:* | | 444 | *East-West:* | | | 441 | *East-West:* | | | 444 | *East-West:* | | | 444 |
| | | *SUM:* | | 1067 | *SUM:* | | 1076 | *SUM:* | | | 1067 | *SUM:* | | | 1076 | *SUM:* | | | 1076 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.711 | | | 0.717 | | | | 0.711 | | | | 0.717 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.611 | | | 0.617 | | | | 0.611 | | | | 0.617 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | B | | | B | | | | B | | | | B | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.006 | Δ*v/c* after mitigation: | -0.711 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- SB-- EB-- WB-- | | 0 | | NB-- SB-- EB-- WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 4 | 0 | 4 | 0 | 4 | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 4 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 445 | 0 | 255 | 0 | 445 | 257 | 0 | 445 | 0 | 255 | 0 | 445 | 0 | 257 | 0 | 445 | 0 | 257 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 57 | 0 | 255 | 4 | 61 | 257 | 0 | 57 | 0 | 255 | 4 | 61 | 0 | 257 | 0 | 61 | 0 | 257 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 101 | 0 | 101 | 5 | 106 | 106 | 0 | 101 | 0 | 101 | 5 | 106 | 0 | 106 | 0 | 106 | 0 | 106 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 546 | 0 | 379 | 0 | 546 | 384 | 0 | 546 | 0 | 379 | 0 | 546 | 0 | 384 | 0 | 546 | 0 | 384 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 9 | 0 | 379 | 0 | 9 | 384 | 0 | 9 | 0 | 379 | 0 | 9 | 0 | 384 | 0 | 9 | 0 | 384 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 10 | 0 | 10 | 0 | 10 | 10 | 0 | 10 | 0 | 10 | 0 | 10 | 0 | 10 | 0 | 10 | 0 | 10 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 29 | 0 | 40 | 0 | 29 | 40 | 0 | 29 | 0 | 40 | 0 | 29 | 0 | 40 | 0 | 29 | 0 | 40 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 155 | 0 | 155 | 19 | 174 | 174 | 0 | 155 | 0 | 155 | 19 | 174 | 0 | 174 | 0 | 174 | 0 | 174 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 33 | 0 | 257 | 0 | 33 | 299 | 0 | 33 | 0 | 257 | 0 | 33 | 0 | 299 | 0 | 33 | 0 | 299 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 69 | 0 | 0 | 23 | 92 | 0 | 0 | 69 | 0 | 0 | 23 | 92 | 0 | 0 | 0 | 92 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 383 | North-South: | | 388 | North-South: | | | 383 | North-South: | | | 388 | North-South: | | | 388 |
| | | East-West: | | 267 | East-West: | | 309 | East-West: | | | 267 | East-West: | | | 309 | East-West: | | | 309 |
| | | SUM: | | 650 | SUM: | | 697 | SUM: | | | 650 | SUM: | | | 697 | SUM: | | | 697 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.433 | | | 0.465 | | | | 0.433 | | | | 0.465 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.333 | | | 0.365 | | | | 0.333 | | | | 0.365 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.032 | Δv/c after mitigation: | -0.433 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | East-West Street: | 25th St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 3 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 |
| | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| | MOVEMENT | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 67 | 1 | **67** | 0 | 67 | **67** | 0 | 67 | 1 | **67** | 0 | 67 | 1 | **67** | 0 | 67 | 1 | **67** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 202 | 1 | 202 | 1 | 203 | 203 | 0 | 202 | 1 | 202 | 1 | 203 | 1 | 203 | 0 | 203 | 1 | 203 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 235 | 1 | **235** | 3 | 238 | **238** | 0 | 235 | 1 | **235** | 3 | 238 | 1 | **238** | 0 | 238 | 1 | **238** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 335 | 1 | 183 | 16 | 351 | 198 | 0 | 335 | 1 | 183 | 16 | 351 | 1 | 198 | 0 | 351 | 1 | 198 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 304 | 1 | **304** | 3 | 307 | **307** | 0 | 304 | 1 | **304** | 3 | 307 | 1 | **307** | 0 | 307 | 1 | **307** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 98 | 1 | 31 | 0 | 98 | 31 | 0 | 98 | 1 | 31 | 0 | 98 | 1 | 31 | 0 | 98 | 1 | 31 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 302 | *North-South:* | | 305 | *North-South:* | | | 302 | *North-South:* | | | 305 | *North-South:* | | | 305 |
| | | *East-West:* | | 304 | *East-West:* | | 307 | *East-West:* | | | 304 | *East-West:* | | | 307 | *East-West:* | | | 307 |
| | | *SUM:* | | 606 | *SUM:* | | 612 | *SUM:* | | | 606 | *SUM:* | | | 612 | *SUM:* | | | 612 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.425 | | | 0.429 | | | | 0.425 | | | | 0.429 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.325 | | | 0.329 | | | | 0.325 | | | | 0.329 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.004 | Δ*v/c* after mitigation: | -0.425 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Via Cabrillo Marina | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 3 SB-- | | 0 | NB-- 3 SB-- | | 0 | NB-- 3 SB-- | | 0 | | NB-- 3 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 102 | 2 | **56** | 0 | 102 | **56** | 0 | 102 | 2 | **56** | 0 | 102 | 2 | **56** | 0 | 102 | 2 | **56** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 105 | 1 | 41 | 0 | 105 | 41 | 0 | 105 | 1 | 41 | 0 | 105 | 1 | 41 | 0 | 105 | 1 | 41 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 203 | 1 | **137** | 13 | 216 | **143** | 0 | 203 | 1 | **137** | 13 | 216 | 1 | **143** | 0 | 216 | 1 | **143** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 70 | 0 | 0 | 0 | 70 | 0 | 0 | 70 | 0 | 0 | 0 | 70 | 0 | 0 | 0 | 70 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 64 | 1 | **64** | 0 | 64 | **64** | 0 | 64 | 1 | **64** | 0 | 64 | 1 | **64** | 0 | 64 | 1 | **64** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 290 | 2 | 145 | 59 | 349 | 175 | 0 | 290 | 2 | 145 | 59 | 349 | 2 | 175 | 0 | 349 | 2 | 175 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 56 | *North-South:* | | 56 | *North-South:* | | | 56 | *North-South:* | | | 56 | *North-South:* | | | 56 |
| | | *East-West:* | | 201 | *East-West:* | | 207 | *East-West:* | | | 201 | *East-West:* | | | 207 | *East-West:* | | | 207 |
| | | *SUM:* | | 257 | *SUM:* | | 263 | *SUM:* | | | 257 | *SUM:* | | | 263 | *SUM:* | | | 263 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.180 | | | 0.185 | | | | 0.180 | | | | 0.185 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.080 | | | 0.085 | | | | 0.080 | | | | 0.085 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.005 | Δ*v/c* after mitigation: | -0.180 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | East-West Street: | Swinford St / SR-47 EB Ramps | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 4 | | | 4 | | | 4 | | | 4 | | | 4 | | | 4 | |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | |
| | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 0 | WB-- | 0 | | | | |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 435 | 2 | 239 | 42 | 477 | 262 | 0 | 435 | 2 | 239 | 42 | 477 | 2 | 262 | 0 | 477 | 2 | 262 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 605 | 1 | **314** | 151 | 756 | **389** | 0 | 605 | 1 | **314** | 151 | 756 | 1 | **389** | 0 | 756 | 1 | **389** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 22 | 0 | 0 | 0 | 22 | 0 | 0 | 22 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 22 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 12 | 1 | **12** | 0 | 12 | **12** | 0 | 12 | 1 | **12** | 0 | 12 | 1 | **12** | 0 | 12 | 1 | **12** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 123 | 2 | 62 | 2 | 125 | 63 | 0 | 123 | 2 | 62 | 2 | 125 | 2 | 63 | 0 | 125 | 2 | 63 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 75 | 1 | 0 | 0 | 75 | 0 | 0 | 75 | 1 | 0 | 0 | 75 | 1 | 0 | 0 | 75 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 224 | 1 | 224 | 0 | 224 | 224 | 0 | 224 | 1 | 224 | 0 | 224 | 1 | 224 | 0 | 224 | 1 | 224 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 13 | 0 | **557** | 0 | 13 | **576** | 0 | 13 | 0 | **557** | 0 | 13 | 0 | **576** | 0 | 13 | 0 | **576** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1100 | 1 | 0 | 39 | 1139 | 0 | 0 | 1100 | 1 | 0 | 39 | 1139 | 1 | 0 | 0 | 1139 | 1 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 38 | 0 | 38 | 0 | 38 | 38 | 0 | 38 | 0 | 38 | 0 | 38 | 0 | 38 | 0 | 38 | 0 | 38 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 31 | 0 | **44** | 0 | 31 | **44** | 0 | 31 | 0 | **44** | 0 | 31 | 0 | **44** | 0 | 31 | 0 | **44** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 13 | 0 | 0 | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 13 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 326 | *North-South:* | | 401 | *North-South:* | | | 326 | *North-South:* | | | 401 | *North-South:* | | | 401 |
| | | *East-West:* | | 601 | *East-West:* | | 620 | *East-West:* | | | 601 | *East-West:* | | | 620 | *East-West:* | | | 620 |
| | | *SUM:* | | 927 | *SUM:* | | 1021 | *SUM:* | | | 927 | *SUM:* | | | 1021 | *SUM:* | | | 1021 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.674 | | | 0.743 | | | | 0.674 | | | | 0.743 | | | | 0.743 |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.574 | | | 0.643 | | | | 0.574 | | | | 0.643 | | | | 0.643 |
| LEVEL OF SERVICE (LOS): | | | | A | | | B | | | | A | | | | B | | | | B |

**PROJECT IMPACT**

Change in *v/c* due to project: 0.069 $\Delta v/c$ after mitigation: 0.069

| EX | | |
|---|---|---|
| N-S | 326 | 326 |
| EB | 297 | 224 |
| WB | 44 | 44 |
| Sum | 667 | 594 |
| **V/C** | 0.485 | 0.432 |
| Less ATS | 0.485 | 0.432 |
| LOS | A | A |

| | Scenario | Scenario | Change | Impact? |
|---|---|---|---|---|
| EX | 0.485 | 0.548 | 0.063 | NO |
| FB | 0.485 | 0.548 | 0.063 | NO |

| EP | | |
|---|---|---|
| N-S | 401 | 401 |
| EB | 308 | 224 |
| WB | 44 | 44 |
| Sum | 753 | 669 |
| **V/C** | 0.548 | 0.487 |
| Less ATS | 0.548 | 0.487 |
| LOS | A | A |

| FB | | |
|---|---|---|
| N-S | 326 | 326 |
| EB | 297 | 224 |
| WB | 44 | 44 |
| Sum | 667 | 594 |
| **V/C** | 0.485 | 0.432 |
| Less ATS | 0.485 | 0.432 |
| LOS | A | A |

| FP | | |
|---|---|---|
| N-S | 401 | 401 |
| EB | 308 | 224 |
| WB | 44 | 44 |
| Sum | 753 | 669 |
| **V/C** | 0.548 | 0.487 |
| Less ATS | 0.548 | 0.487 |
| LOS | A | A |

FP Mitigation

| | | |
|---|---|---|
| N-S | 401 | 401 |
| EB | 308 | 224 |
| WB | 44 | 44 |
| Sum | 753 | 669 |
| **V/C** | 0.548 | 0.487 |
| Less ATS | 0.548 | 0.487 |
| LOS | A | A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | East-West Street: | O'Farrell St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 10 | 1 | **10** | 0 | 10 | **10** | 0 | 10 | 1 | **10** | 0 | 10 | 1 | **10** | 0 | 10 | 1 | **10** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 980 | 2 | 490 | 194 | 1174 | 587 | 0 | 980 | 2 | 490 | 194 | 1174 | 2 | 587 | 0 | 1174 | 2 | 587 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1221 | 2 | **611** | 41 | 1262 | **631** | 0 | 1221 | 2 | **611** | 41 | 1262 | 2 | **631** | 0 | 1262 | 2 | **631** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 8 | 1 | 8 | 0 | 8 | 8 | 0 | 8 | 1 | 8 | 0 | 8 | 1 | 8 | 0 | 8 | 1 | 8 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 101 | 0 | 101 | 0 | 101 | 101 | 0 | 101 | 0 | 101 | 0 | 101 | 0 | 101 | 0 | 101 | 0 | 101 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 18 | 0 | **119** | 0 | 18 | **119** | 0 | 18 | 0 | **119** | 0 | 18 | 0 | **119** | 0 | 18 | 0 | **119** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| WESTBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 621 | *North-South:* | | 641 | *North-South:* | | | 621 | *North-South:* | | | 641 | *North-South:* | | | 641 |
| | | *East-West:* | | 119 | *East-West:* | | 119 | *East-West:* | | | 119 | *East-West:* | | | 119 | *East-West:* | | | 119 |
| | | *SUM:* | | 740 | *SUM:* | | 760 | *SUM:* | | | 740 | *SUM:* | | | 760 | *SUM:* | | | 760 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.493 | | | 0.507 | | | | 0.493 | | | | 0.507 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.493 | | | 0.507 | | | | 0.493 | | | | 0.507 | | | | 0.000 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.014 | Δ*v/c* after mitigation: | -0.493 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | East-West Street: | 1st St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 9 | 1 | **9** | 1 | 10 | **10** | 0 | 9 | 1 | **9** | 1 | 10 | 1 | **10** | 0 | 10 | 1 | **10** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 927 | 1 | 464 | 194 | 1121 | 561 | 0 | 927 | 1 | 464 | 194 | 1121 | 1 | 561 | 0 | 1121 | 1 | 561 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 7 | 1 | 7 | 0 | 7 | 7 | 0 | 7 | 1 | 7 | 0 | 7 | 1 | 7 | 0 | 7 | 1 | 7 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1191 | 2 | **596** | 41 | 1232 | **616** | 0 | 1191 | 2 | **596** | 41 | 1232 | 2 | **616** | 0 | 1232 | 2 | **616** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 46 | 1 | 11 | 0 | 46 | 11 | 0 | 46 | 1 | 11 | 0 | 46 | 1 | 11 | 0 | 46 | 1 | 11 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 71 | 1 | **71** | 0 | 71 | **71** | 0 | 71 | 1 | **71** | 0 | 71 | 1 | **71** | 0 | 71 | 1 | **71** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 16 | 0 | 0 | 16 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 16 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 16 | 0 | 0 | 0 | 16 | 0 | 0 | 16 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 16 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 605 | *North-South:* | | 626 | *North-South:* | | 605 | | *North-South:* | | 626 | | *North-South:* | | 626 | |
| | | *East-West:* | | 71 | *East-West:* | | 71 | *East-West:* | | 71 | | *East-West:* | | 71 | | *East-West:* | | 71 | |
| | | *SUM:* | | 676 | *SUM:* | | 697 | *SUM:* | | 676 | | *SUM:* | | 697 | | *SUM:* | | 697 | |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.451 | | | 0.465 | | | 0.451 | | | | 0.465 | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.351 | | | 0.365 | | | 0.351 | | | | 0.365 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.014 | Δ*v/c* after mitigation: | -0.451 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | East-West Street: | 5th St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| | MOVEMENT | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 26 | 1 | **26** | 0 | 26 | **26** | 0 | 26 | 1 | **26** | 0 | 26 | 1 | **26** | 0 | 26 | 1 | **26** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 628 | 1 | 316 | 194 | 822 | 413 | 0 | 628 | 1 | 316 | 194 | 822 | 1 | 413 | 0 | 822 | 1 | 413 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1018 | 1 | **568** | 41 | 1059 | **588** | 0 | 1018 | 1 | **568** | 41 | 1059 | 1 | **588** | 0 | 1059 | 1 | **588** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 117 | 0 | 0 | 0 | 117 | 0 | 0 | 117 | 0 | 0 | 0 | 117 | 0 | 0 | 0 | 117 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 285 | 1 | **285** | 0 | 285 | **285** | 0 | 285 | 1 | **285** | 0 | 285 | 1 | **285** | 0 | 285 | 1 | **285** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 6 | 1 | 6 | 0 | 6 | 6 | 0 | 6 | 1 | 6 | 0 | 6 | 1 | 6 | 0 | 6 | 1 | 6 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 17 | 1 | 4 | 0 | 17 | 4 | 0 | 17 | 1 | 4 | 0 | 17 | 1 | 4 | 0 | 17 | 1 | 4 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 4 | 1 | 4 | 0 | 4 | 4 | 0 | 4 | 1 | 4 | 0 | 4 | 1 | 4 | 0 | 4 | 1 | 4 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 6 | 0 | **18** | 0 | 6 | **18** | 0 | 6 | 0 | **18** | 0 | 6 | 0 | **18** | 0 | 6 | 0 | **18** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 30 | 1 | 0 | 0 | 30 | 0 | 0 | 30 | 1 | 0 | 0 | 30 | 1 | 0 | 0 | 30 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 594 | *North-South:* | | 614 | *North-South:* | | | 594 | *North-South:* | | | 614 | *North-South:* | | | 614 |
| | | *East-West:* | | 303 | *East-West:* | | 303 | *East-West:* | | | 303 | *East-West:* | | | 303 | *East-West:* | | | 303 |
| | | *SUM:* | | 897 | *SUM:* | | 917 | *SUM:* | | | 897 | *SUM:* | | | 917 | *SUM:* | | | 917 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.598 | | | 0.611 | | | | 0.598 | | | | 0.611 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.498 | | | 0.511 | | | | 0.498 | | | | 0.511 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.013 | Δ*v/c* after mitigation: | -0.598 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | East-West Street: | 6th St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 7 | 1 | 7 | 0 | 7 | 7 | 0 | 7 | 1 | 7 | 0 | 7 | 1 | 7 | 0 | 7 | 1 | 7 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 533 | 1 | 292 | 125 | 658 | 354 | 0 | 533 | 1 | 292 | 125 | 658 | 1 | 354 | 0 | 658 | 1 | 354 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 50 | 0 | 0 | 0 | 50 | 0 | 0 | 50 | 0 | 0 | 0 | 50 | 0 | 0 | 0 | 50 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 97 | 1 | 97 | 15 | 112 | 112 | 0 | 97 | 1 | 97 | 15 | 112 | 1 | 112 | 0 | 112 | 1 | 112 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 890 | 1 | 472 | 26 | 916 | 485 | 0 | 890 | 1 | 472 | 26 | 916 | 1 | 485 | 0 | 916 | 1 | 485 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 54 | 0 | 0 | 0 | 54 | 0 | 0 | 54 | 0 | 0 | 0 | 54 | 0 | 0 | 0 | 54 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 29 | 1 | 29 | 0 | 29 | 29 | 0 | 29 | 1 | 29 | 0 | 29 | 1 | 29 | 0 | 29 | 1 | 29 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 22 | 0 | 28 | 4 | 26 | 32 | 0 | 22 | 0 | 28 | 4 | 26 | 0 | 32 | 0 | 26 | 0 | 32 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 6 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 6 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 20 | 1 | 20 | 0 | 20 | 20 | 0 | 20 | 1 | 20 | 0 | 20 | 1 | 20 | 0 | 20 | 1 | 20 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 37 | 1 | 37 | 18 | 55 | 55 | 0 | 37 | 1 | 37 | 18 | 55 | 1 | 55 | 0 | 55 | 1 | 55 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 115 | 2 | 15 | 70 | 185 | 46 | 0 | 115 | 2 | 15 | 70 | 185 | 2 | 46 | 0 | 185 | 2 | 46 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 479 | North-South: | | 492 | North-South: | | | 479 | North-South: | | | 492 | North-South: | | | 492 |
| | | East-West: | | 66 | East-West: | | 84 | East-West: | | | 66 | East-West: | | | 84 | East-West: | | | 84 |
| | | SUM: | | 545 | SUM: | | 576 | SUM: | | | 545 | SUM: | | | 576 | SUM: | | | 576 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.382 | | | 0.404 | | | | 0.382 | | | | 0.404 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.282 | | | 0.304 | | | | 0.282 | | | | 0.304 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.022 | Δv/c after mitigation: | -0.382 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17 | East-West Street: | 7th St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 12 | 1 | **12** | 0 | 12 | **12** | 0 | 12 | 1 | **12** | 0 | 12 | 1 | **12** | 0 | 12 | 1 | **12** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 361 | 2 | 181 | 125 | 486 | 243 | 0 | 361 | 2 | 181 | 125 | 486 | 2 | 243 | 0 | 486 | 2 | 243 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 642 | 2 | **321** | 26 | 668 | **334** | 0 | 642 | 2 | **321** | 26 | 668 | 2 | **334** | 0 | 668 | 2 | **334** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 275 | 1 | 215 | 0 | 275 | 215 | 0 | 275 | 1 | 215 | 0 | 275 | 1 | 215 | 0 | 275 | 1 | 215 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 230 | 1 | 121 | 0 | 230 | 121 | 0 | 230 | 1 | 121 | 0 | 230 | 1 | 121 | 0 | 230 | 1 | 121 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 12 | 0 | **121** | 0 | 12 | **121** | 0 | 12 | 0 | **121** | 0 | 12 | 0 | **121** | 0 | 12 | 0 | **121** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| WESTBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 333 | *North-South:* | | 346 | *North-South:* | | | 333 | *North-South:* | | | 346 | *North-South:* | | | 346 |
| | | *East-West:* | | 121 | *East-West:* | | 121 | *East-West:* | | | 121 | *East-West:* | | | 121 | *East-West:* | | | 121 |
| | | *SUM:* | | 454 | *SUM:* | | 467 | *SUM:* | | | 454 | *SUM:* | | | 467 | *SUM:* | | | 467 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.303 | | | 0.311 | | | | 0.303 | | | | 0.311 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.203 | | | 0.211 | | | | 0.203 | | | | 0.211 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.008 | Δ*v/c* after mitigation: | -0.303 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Miner St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 18 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| **NORTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 8 | 1 | 8 | 0 | 8 | 8 | 0 | 8 | 1 | 8 | 0 | 8 | 1 | 8 | 0 | 8 | 1 | 8 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 24 | 1 | 13 | 0 | 24 | 13 | 0 | 24 | 1 | 13 | 0 | 24 | 1 | 13 | 0 | 24 | 1 | 13 |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **SOUTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 23 | 1 | 23 | 29 | 52 | 52 | 0 | 23 | 1 | 23 | 29 | 52 | 1 | 52 | 0 | 52 | 1 | 52 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 19 | 1 | 19 | 0 | 19 | 19 | 0 | 19 | 1 | 19 | 0 | 19 | 1 | 19 | 0 | 19 | 1 | 19 |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 279 | 0 | 177 | 0 | 279 | 177 | 0 | 279 | 0 | 177 | 0 | 279 | 0 | 177 | 0 | 279 | 0 | 177 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **EASTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 204 | 1 | 204 | 0 | 204 | 204 | 0 | 204 | 1 | 204 | 0 | 204 | 1 | 204 | 0 | 204 | 1 | 204 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 36 | 1 | 22 | 13 | 49 | 29 | 0 | 36 | 1 | 22 | 13 | 49 | 1 | 29 | 0 | 49 | 1 | 29 |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **WESTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 3 | 1 | 3 | 0 | 3 | 3 | 0 | 3 | 1 | 3 | 0 | 3 | 1 | 3 | 0 | 3 | 1 | 3 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 48 | 1 | 40 | 60 | 108 | 108 | 0 | 48 | 1 | 40 | 60 | 108 | 1 | 108 | 0 | 108 | 1 | 108 |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 31 | 0 | 0 | 136 | 167 | 141 | 0 | 31 | 0 | 0 | 136 | 167 | 0 | 141 | 0 | 167 | 0 | 141 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | *North-South:* | | 185 | *North-South:* | | 185 | *North-South:* | | | 185 | *North-South:* | | | 185 | *North-South:* | | | 185 |
| | *East-West:* | | 244 | *East-West:* | | 345 | *East-West:* | | | 244 | *East-West:* | | | 345 | *East-West:* | | | 345 |
| | *SUM:* | | 429 | *SUM:* | | 530 | *SUM:* | | | 429 | *SUM:* | | | 530 | *SUM:* | | | 530 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.301 | | | 0.372 | | | | 0.301 | | | | 0.372 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.301 | | | 0.372 | | | | 0.301 | | | | 0.372 | | | | 0.000 |
| LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

| No. of Phases | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 3 | | | 3 | | | | 3 | | | | 3 | | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 |
| | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | | 0 | | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| Override Capacity | | | | 0 | | | | 0 | | | | 0 | | | | 0 | | | | 0 |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.071 | *Δv/c* after mitigation: | -0.301 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | East-West Street: | Summerland Av | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 127 | 1 | 127 | 0 | 127 | 127 | 0 | 127 | 1 | 127 | 0 | 127 | 1 | 127 | 0 | 127 | 1 | 127 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 498 | 1 | 260 | 1 | 499 | 261 | 0 | 498 | 1 | 260 | 1 | 499 | 1 | 261 | 0 | 499 | 1 | 261 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 22 | 0 | 0 | 0 | 22 | 0 | 0 | 22 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 22 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 11 | 1 | 11 | 0 | 11 | 11 | 0 | 11 | 1 | 11 | 0 | 11 | 1 | 11 | 0 | 11 | 1 | 11 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 515 | 1 | 336 | 2 | 517 | 337 | 0 | 515 | 1 | 336 | 2 | 517 | 1 | 337 | 0 | 517 | 1 | 337 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 157 | 0 | 0 | 0 | 157 | 0 | 0 | 157 | 0 | 0 | 0 | 157 | 0 | 0 | 0 | 157 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 176 | 1 | 176 | 0 | 176 | 176 | 0 | 176 | 1 | 176 | 0 | 176 | 1 | 176 | 0 | 176 | 1 | 176 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 3 | 0 | 72 | 0 | 3 | 72 | 0 | 3 | 0 | 72 | 0 | 3 | 0 | 72 | 0 | 3 | 0 | 72 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 69 | 0 | 0 | 0 | 69 | 0 | 0 | 69 | 0 | 0 | 0 | 69 | 0 | 0 | 0 | 69 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 414 | 2 | 228 | 0 | 414 | 228 | 0 | 414 | 2 | 228 | 0 | 414 | 2 | 228 | 0 | 414 | 2 | 228 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 148 | 0 | 336 | 0 | 148 | 336 | 0 | 148 | 0 | 336 | 0 | 148 | 0 | 336 | 0 | 148 | 0 | 336 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 188 | 0 | 0 | 0 | 188 | 0 | 0 | 188 | 0 | 0 | 0 | 188 | 0 | 0 | 0 | 188 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 463 | North-South: | | 464 | North-South: | | | 463 | North-South: | | | 464 | North-South: | | | 464 |
| | | East-West: | | 512 | East-West: | | 512 | East-West: | | | 512 | East-West: | | | 512 | East-West: | | | 512 |
| | | SUM: | | 975 | SUM: | | 976 | SUM: | | | 975 | SUM: | | | 976 | SUM: | | | 976 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.684 | | | 0.685 | | | | 0.684 | | | | 0.685 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.584 | | | 0.585 | | | | 0.584 | | | | 0.585 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.001 | Δv/c after mitigation: | -0.684 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | East-West Street: | I-110 Ramps | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 1 SB-- / EB-- 0 WB-- | | 0 | NB-- 1 SB-- / EB-- 0 WB-- | | 0 | NB-- 1 SB-- / EB-- 0 WB-- | | 0 | | NB-- 1 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 570 | 2 | 285 | 1 | 571 | 286 | 0 | 570 | 2 | 285 | 1 | 571 | 2 | 286 | 0 | 571 | 2 | 286 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1942 | 2 | 0 | 2 | 1944 | 0 | 0 | 1942 | 2 | 0 | 2 | 1944 | 2 | 0 | 0 | 1944 | 2 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 934 | 3 | **311** | 2 | 936 | **312** | 0 | 934 | 3 | **311** | 2 | 936 | 3 | **312** | 0 | 936 | 3 | **312** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 1371 | 2 | **483** | 4 | 1375 | **484** | 0 | 1371 | 2 | **483** | 4 | 1375 | 2 | **484** | 0 | 1375 | 2 | **484** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 78 | 0 | 483 | 0 | 78 | 484 | 0 | 78 | 0 | 483 | 0 | 78 | 0 | 484 | 0 | 78 | 0 | 484 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | CRITICAL VOLUMES | North-South: | | 311 | North-South: | | 312 | North-South: | | | 311 | North-South: | | | 312 | North-South: | | | 312 |
| | | East-West: | | 483 | East-West: | | 484 | East-West: | | | 483 | East-West: | | | 484 | East-West: | | | 484 |
| | | SUM: | | 794 | SUM: | | 796 | SUM: | | | 794 | SUM: | | | 796 | SUM: | | | 796 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.529 | | | 0.531 | | | | 0.529 | | | | 0.531 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.429 | | | 0.431 | | | | 0.429 | | | | 0.431 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.002 | Δv/c after mitigation: | -0.529 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | East-West Street: | 1st St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | |
| No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | 3 | |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | | NB-- 0 | SB-- | 0 | | NB-- 0 | SB-- | 0 | |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | | EB-- 0 | WB-- | 0 | | EB-- 0 | WB-- | 0 | |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | |

| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NORTHBOUND | Left | 50 | 1 | **50** | 0 | 50 | **50** | 0 | 50 | 1 | **50** | 0 | 50 | 1 | **50** | 0 | 50 | 1 | **50** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1390 | 2 | 469 | 3 | 1393 | 470 | 0 | 1390 | 2 | 469 | 3 | 1393 | 2 | 470 | 0 | 1393 | 2 | 470 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 18 | 0 | 0 | 0 | 18 | 0 | 0 | 18 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 18 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 106 | 1 | 106 | 0 | 106 | 106 | 0 | 106 | 1 | 106 | 0 | 106 | 1 | 106 | 0 | 106 | 1 | 106 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1771 | 2 | **718** | 6 | 1777 | **720** | 0 | 1771 | 2 | **718** | 6 | 1777 | 2 | **720** | 0 | 1777 | 2 | **720** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 384 | 0 | 0 | 0 | 384 | 0 | 0 | 384 | 0 | 0 | 0 | 384 | 0 | 0 | 0 | 384 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 593 | 1 | **342** | 0 | 593 | **342** | 0 | 593 | 1 | **342** | 0 | 593 | 1 | **342** | 0 | 593 | 1 | **342** |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 91 | 0 | 342 | 0 | 91 | 342 | 0 | 91 | 0 | 342 | 0 | 91 | 0 | 342 | 0 | 91 | 0 | 342 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 86 | 1 | 61 | 0 | 86 | 61 | 0 | 86 | 1 | 61 | 0 | 86 | 1 | 61 | 0 | 86 | 1 | 61 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 45 | 1 | 45 | 0 | 45 | 45 | 0 | 45 | 1 | 45 | 0 | 45 | 1 | 45 | 0 | 45 | 1 | 45 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 141 | 1 | **141** | 0 | 141 | **141** | 0 | 141 | 1 | **141** | 0 | 141 | 1 | **141** | 0 | 141 | 1 | **141** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 163 | 1 | 110 | 0 | 163 | 110 | 0 | 163 | 1 | 110 | 0 | 163 | 1 | 110 | 0 | 163 | 1 | 110 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 768 | *North-South:* | | 770 | *North-South:* | | | 768 | *North-South:* | | | 770 | *North-South:* | | | 770 |
| | | *East-West:* | | 483 | *East-West:* | | 483 | *East-West:* | | | 483 | *East-West:* | | | 483 | *East-West:* | | | 483 |
| | | *SUM:* | | 1251 | *SUM:* | | 1253 | *SUM:* | | | 1251 | *SUM:* | | | 1253 | *SUM:* | | | 1253 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.878 | | | 0.879 | | | | 0.878 | | | | 0.879 | | | | 0.879 |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.778 | | | 0.779 | | | | 0.778 | | | | 0.779 | | | | 0.779 |
| LEVEL OF SERVICE (LOS): | | | | C | | | C | | | | C | | | | C | | | | C |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | *Δv/c* after mitigation: | 0.001 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | East-West Street: | 5th St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 28 | 1 | 28 | 0 | 28 | 28 | 0 | 28 | 1 | 28 | 0 | 28 | 1 | 28 | 0 | 28 | 1 | 28 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1455 | 1 | 745 | 3 | 1458 | 746 | 0 | 1455 | 1 | 745 | 3 | 1458 | 1 | 746 | 0 | 1458 | 1 | 746 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 34 | 0 | 0 | 0 | 34 | 0 | 0 | 34 | 0 | 0 | 0 | 34 | 0 | 0 | 0 | 34 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 104 | 1 | 104 | 0 | 104 | 104 | 0 | 104 | 1 | 104 | 0 | 104 | 1 | 104 | 0 | 104 | 1 | 104 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1473 | 1 | 776 | 6 | 1479 | 779 | 0 | 1473 | 1 | 776 | 6 | 1479 | 1 | 779 | 0 | 1479 | 1 | 779 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 79 | 0 | 0 | 0 | 79 | 0 | 0 | 79 | 0 | 0 | 0 | 79 | 0 | 0 | 0 | 79 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 104 | 1 | 104 | 0 | 104 | 104 | 0 | 104 | 1 | 104 | 0 | 104 | 1 | 104 | 0 | 104 | 1 | 104 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 100 | 0 | 120 | 0 | 100 | 120 | 0 | 100 | 0 | 120 | 0 | 100 | 0 | 120 | 0 | 100 | 0 | 120 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 20 | 0 | 0 | 0 | 20 | 0 | 0 | 20 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 20 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 33 | 1 | 33 | 0 | 33 | 33 | 0 | 33 | 1 | 33 | 0 | 33 | 1 | 33 | 0 | 33 | 1 | 33 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 81 | 0 | 150 | 0 | 81 | 150 | 0 | 81 | 0 | 150 | 0 | 81 | 0 | 150 | 0 | 81 | 0 | 150 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 69 | 0 | 0 | 0 | 69 | 0 | 0 | 69 | 0 | 0 | 0 | 69 | 0 | 0 | 0 | 69 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 849 | North-South: | | 850 | North-South: | | | 849 | North-South: | | | 850 | North-South: | | | 850 |
| | | East-West: | | 254 | East-West: | | 254 | East-West: | | | 254 | East-West: | | | 254 | East-West: | | | 254 |
| | | SUM: | | 1103 | SUM: | | 1104 | SUM: | | | 1103 | SUM: | | | 1104 | SUM: | | | 1104 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.774 | | | 0.775 | | | | 0.774 | | | | 0.775 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.674 | | | 0.675 | | | | 0.674 | | | | 0.675 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | B | | | B | | | | B | | | | B | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.001 | Δv/c after mitigation: | -0.774 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | East-West Street: | 7th St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 29 | 1 | 29 | 0 | 29 | 29 | 0 | 29 | 1 | 29 | 0 | 29 | 1 | 29 | 0 | 29 | 1 | 29 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1343 | 1 | 690 | 3 | 1346 | 691 | 0 | 1343 | 1 | 690 | 3 | 1346 | 1 | 691 | 0 | 1346 | 1 | 691 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 36 | 0 | 0 | 0 | 36 | 0 | 0 | 36 | 0 | 0 | 0 | 36 | 0 | 0 | 0 | 36 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 113 | 1 | 113 | 0 | 113 | 113 | 0 | 113 | 1 | 113 | 0 | 113 | 1 | 113 | 0 | 113 | 1 | 113 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1290 | 1 | 679 | 6 | 1296 | 682 | 0 | 1290 | 1 | 679 | 6 | 1296 | 1 | 682 | 0 | 1296 | 1 | 682 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 68 | 0 | 0 | 0 | 68 | 0 | 0 | 68 | 0 | 0 | 0 | 68 | 0 | 0 | 0 | 68 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 133 | 1 | 133 | 0 | 133 | 133 | 0 | 133 | 1 | 133 | 0 | 133 | 1 | 133 | 0 | 133 | 1 | 133 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 113 | 0 | 165 | 0 | 113 | 165 | 0 | 113 | 0 | 165 | 0 | 113 | 0 | 165 | 0 | 113 | 0 | 165 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 52 | 0 | 0 | 0 | 52 | 0 | 0 | 52 | 0 | 0 | 0 | 52 | 0 | 0 | 0 | 52 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 60 | 1 | 60 | 0 | 60 | 60 | 0 | 60 | 1 | 60 | 0 | 60 | 1 | 60 | 0 | 60 | 1 | 60 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 84 | 0 | 147 | 0 | 84 | 147 | 0 | 84 | 0 | 147 | 0 | 84 | 0 | 147 | 0 | 84 | 0 | 147 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 63 | 0 | 0 | 0 | 63 | 0 | 0 | 63 | 0 | 0 | 0 | 63 | 0 | 0 | 0 | 63 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 803 | *North-South:* | | 804 | *North-South:* | | 803 | | *North-South:* | | 804 | | *North-South:* | | 804 | |
| | | *East-West:* | | 280 | *East-West:* | | 280 | *East-West:* | | 280 | | *East-West:* | | 280 | | *East-West:* | | 280 | |
| | | *SUM:* | | 1083 | *SUM:* | | 1084 | *SUM:* | | 1083 | | *SUM:* | | 1084 | | *SUM:* | | 1084 | |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.722 | | | 0.723 | | | 0.722 | | | | 0.723 | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.622 | | | 0.623 | | | 0.622 | | | | 0.623 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | B | | | B | | | B | | | | B | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | Δ*v/c* after mitigation: | -0.722 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | East-West Street: | 9th St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 52 | 1 | **52** | 0 | 52 | **52** | 0 | 52 | 1 | **52** | 0 | 52 | 1 | **52** | 0 | 52 | 1 | **52** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1142 | 1 | 588 | 3 | 1145 | 589 | 0 | 1142 | 1 | 588 | 3 | 1145 | 1 | 589 | 0 | 1145 | 1 | 589 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 33 | 0 | 0 | 0 | 33 | 0 | 0 | 33 | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 33 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 64 | 1 | 64 | 0 | 64 | 64 | 0 | 64 | 1 | 64 | 0 | 64 | 1 | 64 | 0 | 64 | 1 | 64 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1126 | 1 | **607** | 6 | 1132 | **610** | 0 | 1126 | 1 | **607** | 6 | 1132 | 1 | **610** | 0 | 1132 | 1 | **610** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 88 | 0 | 0 | 0 | 88 | 0 | 0 | 88 | 0 | 0 | 0 | 88 | 0 | 0 | 0 | 88 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 172 | 1 | **172** | 0 | 172 | **172** | 0 | 172 | 1 | **172** | 0 | 172 | 1 | **172** | 0 | 172 | 1 | **172** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 178 | 1 | 178 | 1 | 179 | 179 | 0 | 178 | 1 | 178 | 1 | 179 | 1 | 179 | 0 | 179 | 1 | 179 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 53 | 1 | 27 | 1 | 54 | 28 | 0 | 53 | 1 | 27 | 1 | 54 | 1 | 28 | 0 | 54 | 1 | 28 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 51 | 1 | 51 | 0 | 51 | 51 | 0 | 51 | 1 | 51 | 0 | 51 | 1 | 51 | 0 | 51 | 1 | 51 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 177 | 0 | **269** | 0 | 177 | **269** | 0 | 177 | 0 | **269** | 0 | 177 | 0 | **269** | 0 | 177 | 0 | **269** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 92 | 0 | 0 | 0 | 92 | 0 | 0 | 92 | 0 | 0 | 0 | 92 | 0 | 0 | 0 | 92 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 659 | *North-South:* | | 662 | *North-South:* | | | 659 | *North-South:* | | | 662 | *North-South:* | | | 662 |
| | | *East-West:* | | 441 | *East-West:* | | 441 | *East-West:* | | | 441 | *East-West:* | | | 441 | *East-West:* | | | 441 |
| | | *SUM:* | | 1100 | *SUM:* | | 1103 | *SUM:* | | | 1100 | *SUM:* | | | 1103 | *SUM:* | | | 1103 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.733 | | | 0.735 | | | | 0.733 | | | | 0.735 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.633 | | | 0.635 | | | | 0.633 | | | | 0.635 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | B | | | B | | | | B | | | | B | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.002 | Δ*v/c* after mitigation: | -0.733 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 6 | 0 | **6** | 0 | 6 | **6** | 0 | 6 | 0 | **6** | 0 | 6 | 0 | **6** | 0 | 6 | 0 | **6** |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 509 | 0 | 320 | 0 | 509 | 322 | 0 | 509 | 0 | 320 | 0 | 509 | 0 | 322 | 0 | 509 | 0 | 322 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 106 | 0 | 320 | 5 | 111 | 322 | 0 | 106 | 0 | 320 | 5 | 111 | 0 | 322 | 0 | 111 | 0 | 322 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 128 | 0 | 128 | 6 | 134 | 134 | 0 | 128 | 0 | 128 | 6 | 134 | 0 | 134 | 0 | 134 | 0 | 134 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 615 | 0 | **570** | 0 | 615 | **582** | 0 | 615 | 0 | **570** | 0 | 615 | 0 | **582** | 0 | 615 | 0 | **582** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 13 | 0 | 570 | 0 | 13 | 582 | 0 | 13 | 0 | 570 | 0 | 13 | 0 | 582 | 0 | 13 | 0 | 582 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 14 | 0 | **14** | 0 | 14 | **14** | 0 | 14 | 0 | **14** | 0 | 14 | 0 | **14** | 0 | 14 | 0 | **14** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 23 | 0 | 40 | 0 | 23 | 40 | 0 | 23 | 0 | 40 | 0 | 23 | 0 | 40 | 0 | 23 | 0 | 40 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 102 | 0 | 102 | 2 | 104 | 104 | 0 | 102 | 0 | 102 | 2 | 104 | 0 | 104 | 0 | 104 | 0 | 104 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 27 | 0 | **200** | 0 | 27 | **205** | 0 | 27 | 0 | **200** | 0 | 27 | 0 | **205** | 0 | 27 | 0 | **205** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 71 | 0 | 0 | 3 | 74 | 0 | 0 | 71 | 0 | 0 | 3 | 74 | 0 | 0 | 0 | 74 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 576 | *North-South:* | | 588 | *North-South:* | | 576 | | *North-South:* | | 588 | | *North-South:* | | 588 | |
| | | *East-West:* | | 214 | *East-West:* | | 219 | *East-West:* | | 214 | | *East-West:* | | 219 | | *East-West:* | | 219 | |
| | | *SUM:* | | 790 | *SUM:* | | 807 | *SUM:* | | 790 | | *SUM:* | | 807 | | *SUM:* | | 807 | |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.527 | | | 0.538 | | | 0.527 | | | | 0.538 | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.427 | | | 0.438 | | | 0.427 | | | | 0.438 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.011 | Δ*v/c* after mitigation: | -0.527 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | East-West Street: | 25th St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | | EB-- 3 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 67 | 1 | **67** | 0 | 67 | **67** | 0 | 67 | 1 | **67** | 0 | 67 | 1 | **67** | 0 | 67 | 1 | **67** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 238 | 1 | 238 | 1 | 239 | 239 | 0 | 238 | 1 | 238 | 1 | 239 | 1 | 239 | 0 | 239 | 1 | 239 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 374 | 1 | **374** | 0 | 374 | **374** | 0 | 374 | 1 | **374** | 0 | 374 | 1 | **374** | 0 | 374 | 1 | **374** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 372 | 1 | 189 | 2 | 374 | 189 | 0 | 372 | 1 | 189 | 2 | 374 | 1 | 189 | 0 | 374 | 1 | 189 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 366 | 1 | **366** | 4 | 370 | **370** | 0 | 366 | 1 | **366** | 4 | 370 | 1 | **370** | 0 | 370 | 1 | **370** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 99 | 1 | 32 | 0 | 99 | 32 | 0 | 99 | 1 | 32 | 0 | 99 | 1 | 32 | 0 | 99 | 1 | 32 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 441 | *North-South:* | | 441 | *North-South:* | | 441 | | *North-South:* | | 441 | | *North-South:* | | | 441 |
| | | *East-West:* | | 366 | *East-West:* | | 370 | *East-West:* | | 366 | | *East-West:* | | 370 | | *East-West:* | | | 370 |
| | | *SUM:* | | 807 | *SUM:* | | 811 | *SUM:* | | 807 | | *SUM:* | | 811 | | *SUM:* | | | 811 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.566 | | | 0.569 | | | 0.566 | | | | 0.569 | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.466 | | | 0.469 | | | 0.466 | | | | 0.469 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.003 | Δ*v/c* after mitigation: | -0.566 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Via Cabrillo Marina | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 3 SB-- | | 0 | NB-- 3 SB-- | | 0 | NB-- 3 SB-- | | 0 | | NB-- 3 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 123 | 2 | **68** | 0 | 123 | **68** | 0 | 123 | 2 | **68** | 0 | 123 | 2 | **68** | 0 | 123 | 2 | **68** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 82 | 1 | 0 | 0 | 82 | 0 | 0 | 82 | 1 | 0 | 0 | 82 | 1 | 0 | 0 | 82 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 216 | 1 | **163** | 16 | 232 | **171** | 0 | 216 | 1 | **163** | 16 | 232 | 1 | **171** | 0 | 232 | 1 | **171** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 109 | 0 | 0 | 0 | 109 | 0 | 0 | 109 | 0 | 0 | 0 | 109 | 0 | 0 | 0 | 109 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 85 | 1 | **85** | 0 | 85 | **85** | 0 | 85 | 1 | **85** | 0 | 85 | 1 | **85** | 0 | 85 | 1 | **85** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 181 | 2 | 91 | 7 | 188 | 94 | 0 | 181 | 2 | 91 | 7 | 188 | 2 | 94 | 0 | 188 | 2 | 94 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 68 | *North-South:* | | 68 | *North-South:* | | 68 | | *North-South:* | | 68 | | *North-South:* | | | 68 |
| | | *East-West:* | | 248 | *East-West:* | | 256 | *East-West:* | | 248 | | *East-West:* | | 256 | | *East-West:* | | | 256 |
| | | *SUM:* | | 316 | *SUM:* | | 324 | *SUM:* | | 316 | | *SUM:* | | 324 | | *SUM:* | | | 324 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.222 | | | 0.227 | | | 0.222 | | | | 0.227 | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.122 | | | 0.127 | | | 0.122 | | | | 0.127 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.005 | Δ*v/c* after mitigation: | -0.222 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | East-West Street: | Swinford St / SR-47 EB Ramps | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | | 4 | | | 4 | | | 4 | | | 4 | | | 4 | | | 4 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 0 | SB-- 0 | 0 | NB-- | 0 | SB-- 0 | 0 | NB-- | 0 | SB-- 0 | 0 | NB-- | 0 | SB-- 0 | 0 | NB-- | 0 | SB-- 0 | 0 |
| | EB-- | 3 | WB-- 0 | 0 | EB-- | 3 | WB-- 0 | 0 | EB-- | 3 | WB-- 0 | 0 | EB-- | 3 | WB-- 0 | 0 | EB-- | 0 | WB-- 0 | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | | 2 | | | 2 | 2 | | | 2 | 2 | | | 2 | 2 | | | 2 | 2 |
| Override Capacity | | | | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 256 | 2 | 141 | 5 | 261 | 144 | 0 | 256 | 2 | 141 | 5 | 261 | 2 | 144 | 0 | 261 | 2 | 144 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 538 | 1 | 310 | 19 | 557 | 319 | 0 | 538 | 1 | 310 | 19 | 557 | 1 | 319 | 0 | 557 | 1 | 319 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 81 | 0 | 0 | 0 | 81 | 0 | 0 | 81 | 0 | 0 | 0 | 81 | 0 | 0 | 0 | 81 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 35 | 1 | 35 | 0 | 35 | 35 | 0 | 35 | 1 | 35 | 0 | 35 | 1 | 35 | 0 | 35 | 1 | 35 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 138 | 2 | 69 | 2 | 140 | 70 | 0 | 138 | 2 | 69 | 2 | 140 | 2 | 70 | 0 | 140 | 2 | 70 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 97 | 1 | 0 | 0 | 97 | 0 | 0 | 97 | 1 | 0 | 0 | 97 | 1 | 0 | 0 | 97 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 210 | 1 | 210 | 0 | 210 | 210 | 0 | 210 | 1 | 210 | 0 | 210 | 1 | 210 | 0 | 210 | 1 | 210 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 215 | 0 | 480 | 0 | 215 | 505 | 0 | 215 | 0 | 480 | 0 | 215 | 0 | 505 | 0 | 215 | 0 | 505 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 745 | 1 | 0 | 50 | 795 | 0 | 0 | 745 | 1 | 0 | 50 | 795 | 1 | 0 | 0 | 795 | 1 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 59 | 0 | 59 | 0 | 59 | 59 | 0 | 59 | 0 | 59 | 0 | 59 | 0 | 59 | 0 | 59 | 0 | 59 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 114 | 0 | 205 | 0 | 114 | 205 | 0 | 114 | 0 | 205 | 0 | 114 | 0 | 205 | 0 | 114 | 0 | 205 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 91 | 0 | 0 | 0 | 91 | 0 | 0 | 91 | 0 | 0 | 0 | 91 | 0 | 0 | 0 | 91 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | North-South: | | 345 | North-South: | | 354 | North-South: | | | 345 | North-South: | | | 354 | North-South: | | | 354 |
| | | East-West: | | 685 | East-West: | | 710 | East-West: | | | 685 | East-West: | | | 710 | East-West: | | | 710 |
| | | SUM: | | 1030 | SUM: | | 1064 | SUM: | | | 1030 | SUM: | | | 1064 | SUM: | | | 1064 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.749 | | | 0.774 | | | | 0.749 | | | | 0.774 | | | | 0.774 |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.649 | | | 0.674 | | | | 0.649 | | | | 0.674 | | | | 0.674 |
| LEVEL OF SERVICE (LOS): | | | | B | | | B | | | | B | | | | B | | | | B |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.025 | Δv/c after mitigation: | 0.025 |
| Significant impacted? | NO | Fully mitigated? | N/A |

EX

| | | |
|---|---|---|
| N-S | 345 | 345 |
| EB | 252 | 210 |
| WB | 205 | 205 |
| Sum | 802 | 760 |
| V/C | 0.583 | 0.553 |
| Less ATS | 0.583 | 0.553 |
| LOS | A | A |

EP

| | | |
|---|---|---|
| N-S | 354 | 354 |
| EB | 255 | 210 |
| WB | 205 | 205 |
| Sum | 814 | 769 |
| V/C | 0.592 | 0.559 |
| Less ATS | 0.592 | 0.559 |
| LOS | A | A |

FB

| | | |
|---|---|---|
| N-S | 345 | 345 |
| EB | 252 | 210 |
| WB | 205 | 205 |
| Sum | 802 | 760 |
| V/C | 0.583 | 0.553 |
| Less ATS | 0.583 | 0.553 |
| LOS | A | A |

FP

| | | |
|---|---|---|
| N-S | 354 | 354 |
| EB | 255 | 210 |
| WB | 205 | 205 |
| Sum | 814 | 769 |
| V/C | 0.592 | 0.559 |
| Less ATS | 0.592 | 0.559 |
| LOS | A | A |

| | Scenario | Scenario | Change | Impact? |
|---|---|---|---|---|
| EX | 0.583 | 0.592 | 0.009 | NO |
| FB | 0.583 | 0.592 | 0.009 | NO |

FP Mitigation

| | | |
|---|---|---|
| N-S | 354 | 354 |
| EB | 255 | 210 |
| WB | 205 | 205 |
| Sum | 814 | 769 |
| V/C | 0.592 | 0.559 |
| Less ATS | 0.592 | 0.559 |
| LOS | A | A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | East-West Street: | O'Farrell St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | 2 | | | 2 | | | 2 | | | 2 | | | | | | | |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | 0 | | NB-- 0 SB-- | 0 | | NB-- 0 SB-- | 0 | | | NB-- 0 SB-- | 0 | | | NB-- 0 SB-- | 0 | | |
| | | EB-- 0 WB-- | 0 | | EB-- 0 WB-- | 0 | | EB-- 0 WB-- | 0 | | | EB-- 0 WB-- | 0 | | | EB-- 0 WB-- | 0 | | |
| | ATSAC-1 or ATSAC+ATCS-2? | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| | Override Capacity | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| NORTHBOUND | Left | 6 | 1 | **6** | 0 | 6 | **6** | 0 | 6 | 1 | **6** | 0 | 6 | 1 | **6** | 0 | 6 | 1 | **6** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 840 | 2 | 420 | 24 | 864 | 432 | 0 | 840 | 2 | 420 | 24 | 864 | 2 | 432 | 0 | 864 | 2 | 432 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 983 | 2 | **492** | 53 | 1036 | **518** | 0 | 983 | 2 | **492** | 53 | 1036 | 2 | **518** | 0 | 1036 | 2 | **518** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 19 | 1 | 19 | 0 | 19 | 19 | 0 | 19 | 1 | 19 | 0 | 19 | 1 | 19 | 0 | 19 | 1 | 19 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 77 | 0 | 77 | 0 | 77 | 77 | 0 | 77 | 0 | 77 | 0 | 77 | 0 | 77 | 0 | 77 | 0 | 77 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 11 | 0 | **88** | 0 | 11 | **88** | 0 | 11 | 0 | **88** | 0 | 11 | 0 | **88** | 0 | 11 | 0 | **88** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| WESTBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | 498 | | North-South: | 524 | | North-South: | 498 | | | North-South: | 524 | | | North-South: | 524 | | |
| | | East-West: | 88 | | East-West: | 88 | | East-West: | 88 | | | East-West: | 88 | | | East-West: | 88 | | |
| | | SUM: | 586 | | SUM: | 612 | | SUM: | 586 | | | SUM: | 612 | | | SUM: | 612 | | |
| | VOLUME/CAPACITY (V/C) RATIO: | | 0.391 | | | 0.408 | | | 0.391 | | | | 0.408 | | | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | 0.391 | | | 0.408 | | | 0.391 | | | | 0.408 | | | | | | 0.000 |
| | LEVEL OF SERVICE (LOS): | | A | | | A | | | A | | | | A | | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.017 | Δv/c after mitigation: | -0.391 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | East-West Street: | 1st St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 15 | 1 | **15** | 0 | 15 | **15** | 0 | 15 | 1 | **15** | 0 | 15 | 1 | **15** | 0 | 15 | 1 | **15** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 787 | 1 | 397 | 24 | 811 | 409 | 0 | 787 | 1 | 397 | 24 | 811 | 1 | 409 | 0 | 811 | 1 | 409 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 6 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 6 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 22 | 1 | 22 | 0 | 22 | 22 | 0 | 22 | 1 | 22 | 0 | 22 | 1 | 22 | 0 | 22 | 1 | 22 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 887 | 2 | **444** | 53 | 940 | **470** | 0 | 887 | 2 | **444** | 53 | 940 | 2 | **470** | 0 | 940 | 2 | **470** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 59 | 1 | 32 | 0 | 59 | 32 | 0 | 59 | 1 | 32 | 0 | 59 | 1 | 32 | 0 | 59 | 1 | 32 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 54 | 1 | 54 | 0 | 54 | 54 | 0 | 54 | 1 | 54 | 0 | 54 | 1 | 54 | 0 | 54 | 1 | 54 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 2 | 0 | **56** | 0 | 2 | **56** | 0 | 2 | 0 | **56** | 0 | 2 | 0 | **56** | 0 | 2 | 0 | **56** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 54 | 0 | 0 | 0 | 54 | 0 | 0 | 54 | 0 | 0 | 0 | 54 | 0 | 0 | 0 | 54 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 3 | 0 | **3** | 0 | 3 | **3** | 0 | 3 | 0 | **3** | 0 | 3 | 0 | **3** | 0 | 3 | 0 | **3** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1 | 0 | 5 | 0 | 1 | 5 | 0 | 1 | 0 | 5 | 0 | 1 | 0 | 5 | 0 | 1 | 0 | 5 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 459 | *North-South:* | | 485 | *North-South:* | | | 459 | *North-South:* | | | 485 | *North-South:* | | | 485 |
| | | *East-West:* | | 59 | *East-West:* | | 59 | *East-West:* | | | 59 | *East-West:* | | | 59 | *East-West:* | | | 59 |
| | | *SUM:* | | 518 | *SUM:* | | 544 | *SUM:* | | | 518 | *SUM:* | | | 544 | *SUM:* | | | 544 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.345 | | | 0.363 | | | | 0.345 | | | | 0.363 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.245 | | | 0.263 | | | | 0.245 | | | | 0.263 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.018 | Δ*v/c* after mitigation: | -0.345 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | East-West Street: | 5th St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 13 | 1 | **13** | 0 | 13 | **13** | 0 | 13 | 1 | **13** | 0 | 13 | 1 | **13** | 0 | 13 | 1 | **13** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 688 | 1 | 346 | 24 | 712 | 358 | 0 | 688 | 1 | 346 | 24 | 712 | 1 | 358 | 0 | 712 | 1 | 358 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 858 | 1 | **468** | 53 | 911 | **495** | 0 | 858 | 1 | **468** | 53 | 911 | 1 | **495** | 0 | 911 | 1 | **495** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 78 | 0 | 0 | 0 | 78 | 0 | 0 | 78 | 0 | 0 | 0 | 78 | 0 | 0 | 0 | 78 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 70 | 1 | **70** | 0 | 70 | **70** | 0 | 70 | 1 | **70** | 0 | 70 | 1 | **70** | 0 | 70 | 1 | **70** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 23 | 1 | 23 | 0 | 23 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 23 | 1 | 17 | 0 | 23 | 17 | 0 | 23 | 1 | 17 | 0 | 23 | 1 | 17 | 0 | 23 | 1 | 17 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 2 | 1 | 2 | 0 | 2 | 2 | 0 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 0 | 2 | 1 | 2 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 7 | 0 | **22** | 0 | 7 | **22** | 0 | 7 | 0 | **22** | 0 | 7 | 0 | **22** | 0 | 7 | 0 | **22** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 37 | 1 | 0 | 0 | 37 | 0 | 0 | 37 | 1 | 0 | 0 | 37 | 1 | 0 | 0 | 37 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 481 | *North-South:* | | 508 | *North-South:* | | | 481 | *North-South:* | | | 508 | *North-South:* | | | 508 |
| | | *East-West:* | | 92 | *East-West:* | | 92 | *East-West:* | | | 92 | *East-West:* | | | 92 | *East-West:* | | | 92 |
| | | *SUM:* | | 573 | *SUM:* | | 600 | *SUM:* | | | 573 | *SUM:* | | | 600 | *SUM:* | | | 600 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.382 | | | 0.400 | | | | 0.382 | | | | 0.400 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.282 | | | 0.300 | | | | 0.282 | | | | 0.300 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.018 | Δ*v/c* after mitigation: | -0.382 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | East-West Street: | 6th St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 9 | 1 | 9 | 0 | 9 | 9 | 0 | 9 | 1 | 9 | 0 | 9 | 1 | 9 | 0 | 9 | 1 | 9 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 438 | 1 | 269 | 15 | 453 | 276 | 0 | 438 | 1 | 269 | 15 | 453 | 1 | 276 | 0 | 453 | 1 | 276 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 99 | 0 | 0 | 0 | 99 | 0 | 0 | 99 | 0 | 0 | 0 | 99 | 0 | 0 | 0 | 99 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 343 | 1 | 343 | 19 | 362 | 362 | 0 | 343 | 1 | 343 | 19 | 362 | 1 | 362 | 0 | 362 | 1 | 362 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 545 | 1 | 299 | 34 | 579 | 316 | 0 | 545 | 1 | 299 | 34 | 579 | 1 | 316 | 0 | 579 | 1 | 316 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 53 | 0 | 0 | 0 | 53 | 0 | 0 | 53 | 0 | 0 | 0 | 53 | 0 | 0 | 0 | 53 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 52 | 1 | 52 | 0 | 52 | 52 | 0 | 52 | 1 | 52 | 0 | 52 | 1 | 52 | 0 | 52 | 1 | 52 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 90 | 0 | 98 | 5 | 95 | 103 | 0 | 90 | 0 | 98 | 5 | 95 | 0 | 103 | 0 | 95 | 0 | 103 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 11 | 1 | 11 | 0 | 11 | 11 | 0 | 11 | 1 | 11 | 0 | 11 | 1 | 11 | 0 | 11 | 1 | 11 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 26 | 1 | 26 | 2 | 28 | 28 | 0 | 26 | 1 | 26 | 2 | 28 | 1 | 28 | 0 | 28 | 1 | 28 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 155 | 2 | 0 | 9 | 164 | 0 | 0 | 155 | 2 | 0 | 9 | 164 | 2 | 0 | 0 | 164 | 2 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 612 | North-South: | | 638 | North-South: | | | 612 | North-South: | | | 638 | North-South: | | | 638 |
| | | East-West: | | 109 | East-West: | | 114 | East-West: | | | 109 | East-West: | | | 114 | East-West: | | | 114 |
| | | SUM: | | 721 | SUM: | | 752 | SUM: | | | 721 | SUM: | | | 752 | SUM: | | | 752 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.506 | | | 0.528 | | | | 0.506 | | | | 0.528 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.406 | | | 0.428 | | | | 0.406 | | | | 0.428 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.022 | Δv/c after mitigation: | -0.506 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17 | East-West Street: | 7th St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 25 | 1 | **25** | 0 | 25 | **25** | 0 | 25 | 1 | **25** | 0 | 25 | 1 | **25** | 0 | 25 | 1 | **25** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 339 | 2 | 170 | 15 | 354 | 177 | 0 | 339 | 2 | 170 | 15 | 354 | 2 | 177 | 0 | 354 | 2 | 177 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 393 | 2 | **197** | 34 | 427 | **214** | 0 | 393 | 2 | **197** | 34 | 427 | 2 | **214** | 0 | 427 | 2 | **214** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 145 | 1 | 80 | 0 | 145 | 80 | 0 | 145 | 1 | 80 | 0 | 145 | 1 | 80 | 0 | 145 | 1 | 80 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 235 | 1 | 130 | 0 | 235 | 130 | 0 | 235 | 1 | 130 | 0 | 235 | 1 | 130 | 0 | 235 | 1 | 130 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 25 | 0 | **130** | 0 | 25 | **130** | 0 | 25 | 0 | **130** | 0 | 25 | 0 | **130** | 0 | 25 | 0 | **130** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| WESTBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 222 | *North-South:* | | 239 | *North-South:* | | | 222 | *North-South:* | | | 239 | *North-South:* | | | 239 |
| | | *East-West:* | | 130 | *East-West:* | | 130 | *East-West:* | | | 130 | *East-West:* | | | 130 | *East-West:* | | | 130 |
| | | *SUM:* | | 352 | *SUM:* | | 369 | *SUM:* | | | 352 | *SUM:* | | | 369 | *SUM:* | | | 369 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.235 | | | 0.246 | | | | 0.235 | | | | 0.246 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.135 | | | 0.146 | | | | 0.135 | | | | 0.146 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.011 | Δ*v/c* after mitigation: | -0.235 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Miner St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 18 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| **NORTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 19 | 1 | **19** | 0 | 19 | **19** | 0 | 19 | 1 | **19** | 0 | 19 | 1 | **19** | 0 | 19 | 1 | **19** |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 24 | 1 | 17 | 0 | 24 | 17 | 0 | 24 | 1 | 17 | 0 | 24 | 1 | 17 | 0 | 24 | 1 | 17 |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 9 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 9 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **SOUTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 24 | 1 | 24 | 37 | 61 | 61 | 0 | 24 | 1 | 24 | 37 | 61 | 1 | 61 | 0 | 61 | 1 | 61 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 35 | 1 | 35 | 0 | 35 | 35 | 0 | 35 | 1 | 35 | 0 | 35 | 1 | 35 | 0 | 35 | 1 | 35 |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 214 | 0 | **127** | 0 | 214 | **127** | 0 | 214 | 0 | **127** | 0 | 214 | 0 | **127** | 0 | 214 | 0 | **127** |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **EASTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 175 | 1 | **175** | 0 | 175 | **175** | 0 | 175 | 1 | **175** | 0 | 175 | 1 | **175** | 0 | 175 | 1 | **175** |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 49 | 1 | 32 | 16 | 65 | 40 | 0 | 49 | 1 | 32 | 16 | 65 | 1 | 40 | 0 | 65 | 1 | 40 |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 14 | 0 | 0 | 0 | 14 | 0 | 0 | 14 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 14 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **WESTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 5 | 1 | 5 | 0 | 5 | 5 | 0 | 5 | 1 | 5 | 0 | 5 | 1 | 5 | 0 | 5 | 1 | 5 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 48 | 1 | **34** | 7 | 55 | **46** | 0 | 48 | 1 | **34** | 7 | 55 | 1 | **46** | 0 | 55 | 1 | **46** |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 19 | 0 | 0 | 17 | 36 | 0 | 0 | 19 | 0 | 0 | 17 | 36 | 0 | 0 | 0 | 36 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | *North-South:* | | 146 | *North-South:* | | 146 | *North-South:* | | | 146 | *North-South:* | | | 146 | *North-South:* | | | 146 |
| | *East-West:* | | 209 | *East-West:* | | 221 | *East-West:* | | | 209 | *East-West:* | | | 221 | *East-West:* | | | 221 |
| | *SUM:* | | 355 | *SUM:* | | 367 | *SUM:* | | | 355 | *SUM:* | | | 367 | *SUM:* | | | 367 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.249 | | | 0.258 | | | | 0.249 | | | | 0.258 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.249 | | | 0.258 | | | | 0.249 | | | | 0.258 | | | | 0.000 |
| LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 |
| | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | | 0 | | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| Override Capacity | | | | 0 | | | | 0 | | | | 0 | | | | 0 | | | | 0 |

**PROJECT IMPACT**

Change in *v/c* due to project: 0.009 — Δ*v/c* after mitigation: -0.249

Significant impacted? NO — Fully mitigated? N/A

**YEAR 2016**

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | East-West Street: | Summerland Av | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 112 | 1 | **112** | 0 | 112 | **112** | 0 | 112 | 1 | **112** | 0 | 112 | 1 | **112** | 0 | 112 | 1 | **112** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 372 | 1 | 194 | 0 | 372 | 194 | 0 | 372 | 1 | 194 | 0 | 372 | 1 | 194 | 0 | 372 | 1 | 194 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 15 | 0 | 0 | 0 | 15 | 0 | 0 | 15 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 15 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 12 | 1 | 12 | 0 | 12 | 12 | 0 | 12 | 1 | 12 | 0 | 12 | 1 | 12 | 0 | 12 | 1 | 12 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 303 | 1 | **226** | 2 | 305 | **227** | -1 | 302 | 1 | **226** | 2 | 304 | 1 | **227** | 0 | 304 | 1 | **227** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 149 | 0 | 0 | 0 | 149 | 0 | 0 | 149 | 0 | 0 | 0 | 149 | 0 | 0 | 0 | 149 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 425 | 1 | **425** | 0 | 425 | **425** | 0 | 425 | 1 | **425** | 0 | 425 | 1 | **425** | 0 | 425 | 1 | **425** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 5 | 0 | 59 | 0 | 5 | 59 | 0 | 5 | 0 | 59 | 0 | 5 | 0 | 59 | 0 | 5 | 0 | 59 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 54 | 0 | 0 | 0 | 54 | 0 | 0 | 54 | 0 | 0 | 0 | 54 | 0 | 0 | 0 | 54 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 398 | 2 | 219 | 0 | 398 | 219 | 0 | 398 | 2 | 219 | 0 | 398 | 2 | 219 | 0 | 398 | 2 | 219 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 146 | 0 | **431** | 0 | 146 | **431** | 0 | 146 | 0 | **431** | 0 | 146 | 0 | **431** | 0 | 146 | 0 | **431** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 285 | 0 | 0 | 0 | 285 | 0 | 0 | 285 | 0 | 0 | 0 | 285 | 0 | 0 | 0 | 285 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 338 | *North-South:* | | 339 | *North-South:* | | 338 | | *North-South:* | | 339 | | *North-South:* | | | 339 |
| | | *East-West:* | | 856 | *East-West:* | | 856 | *East-West:* | | 856 | | *East-West:* | | 856 | | *East-West:* | | | 856 |
| | | *SUM:* | | 1194 | *SUM:* | | 1195 | *SUM:* | | 1194 | | *SUM:* | | 1195 | | *SUM:* | | | 1195 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.838 | | | 0.839 | | | 0.838 | | | | 0.839 | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.738 | | | 0.739 | | | 0.738 | | | | 0.739 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | C | | | C | | | C | | | | C | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | Δ*v/c* after mitigation: | -0.838 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | East-West Street: | I-110 Ramps | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 1 | SB-- | 0 | NB-- 1 | SB-- | 0 | NB-- 1 | SB-- | 0 | NB-- 1 | SB-- | 0 | NB-- 0 | SB-- | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 501 | 2 | 251 | 0 | 501 | 251 | 0 | 501 | 2 | 251 | 0 | 501 | 2 | 251 | 0 | 501 | 2 | 251 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 2827 | 2 | 0 | 1 | 2828 | 0 | 0 | 2827 | 2 | 0 | 1 | 2828 | 2 | 0 | 0 | 2828 | 2 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 758 | 3 | **253** | 2 | 760 | **253** | -1 | 757 | 3 | **252** | 2 | 759 | 3 | **253** | 0 | 759 | 3 | **253** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 1468 | 2 | **511** | 5 | 1473 | **512** | 0 | 1468 | 2 | **511** | 5 | 1473 | 2 | **512** | 0 | 1473 | 2 | **512** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 64 | 0 | 511 | 0 | 64 | 512 | 0 | 64 | 0 | 511 | 0 | 64 | 0 | 512 | 0 | 64 | 0 | 512 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| CRITICAL VOLUMES | | *North-South:* | | 253 | *North-South:* | | 253 | *North-South:* | | | 252 | *North-South:* | | | 253 | *North-South:* | | | 253 |
| | | *East-West:* | | 511 | *East-West:* | | 512 | *East-West:* | | | 511 | *East-West:* | | | 512 | *East-West:* | | | 512 |
| | | *SUM:* | | 764 | *SUM:* | | 765 | *SUM:* | | | 763 | *SUM:* | | | 765 | *SUM:* | | | 765 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.509 | | | 0.510 | | | | 0.509 | | | | 0.510 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.409 | | | 0.410 | | | | 0.409 | | | | 0.410 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | Δ*v/c* after mitigation: | -0.509 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | East-West Street: | 1st St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 3 | | | 3 | |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 |
| | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | | 2 | | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| Override Capacity | | | | 0 | | | | 0 | | | | 0 | | | | 0 | | | | 0 |

| | MOVEMENT | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 12 | 1 | 12 | 0 | 12 | 12 | 0 | 12 | 1 | 12 | 0 | 12 | 1 | 12 | 0 | 12 | 1 | 12 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1707 | 2 | 572 | 1 | 1708 | 572 | 0 | 1707 | 2 | 572 | 1 | 1708 | 2 | 572 | 0 | 1708 | 2 | 572 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 83 | 1 | 83 | 0 | 83 | 83 | 0 | 83 | 1 | 83 | 0 | 83 | 1 | 83 | 0 | 83 | 1 | 83 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1369 | 2 | 578 | 6 | 1375 | 580 | -1 | 1368 | 2 | 578 | 6 | 1374 | 2 | 580 | 0 | 1374 | 2 | 580 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 365 | 0 | 0 | 0 | 365 | 0 | 0 | 365 | 0 | 0 | 0 | 365 | 0 | 0 | 0 | 365 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 1075 | 1 | 565 | 0 | 1075 | 565 | 0 | 1075 | 1 | 565 | 0 | 1075 | 1 | 565 | 0 | 1075 | 1 | 565 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 54 | 0 | 565 | 0 | 54 | 565 | 0 | 54 | 0 | 565 | 0 | 54 | 0 | 565 | 0 | 54 | 0 | 565 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 24 | 1 | 18 | 0 | 24 | 18 | 0 | 24 | 1 | 18 | 0 | 24 | 1 | 18 | 0 | 24 | 1 | 18 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 41 | 1 | 41 | 0 | 41 | 41 | 0 | 41 | 1 | 41 | 0 | 41 | 1 | 41 | 0 | 41 | 1 | 41 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 138 | 1 | 138 | 0 | 138 | 138 | 0 | 138 | 1 | 138 | 0 | 138 | 1 | 138 | 0 | 138 | 1 | 138 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 221 | 1 | 180 | 0 | 221 | 180 | 0 | 221 | 1 | 180 | 0 | 221 | 1 | 180 | 0 | 221 | 1 | 180 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | North-South: | | 655 | North-South: | | 655 | North-South: | | | 655 | North-South: | | | 655 | North-South: | | | 655 |
| | | East-West: | | 745 | East-West: | | 745 | East-West: | | | 745 | East-West: | | | 745 | East-West: | | | 745 |
| | | SUM: | | 1400 | SUM: | | 1400 | SUM: | | | 1400 | SUM: | | | 1400 | SUM: | | | 1400 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.982 | | | 0.982 | | | | 0.982 | | | | 0.982 | | | | 0.982 |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.882 | | | 0.882 | | | | 0.882 | | | | 0.882 | | | | 0.882 |
| LEVEL OF SERVICE (LOS): | | | | D | | | D | | | | D | | | | D | | | | D |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.000 | Δv/c after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | East-West Street: | 5th St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 3 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 18 | 1 | 18 | 0 | 18 | 18 | 0 | 18 | 1 | 18 | 0 | 18 | 1 | 18 | 0 | 18 | 1 | 18 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1470 | 1 | 763 | 1 | 1471 | 764 | 0 | 1470 | 1 | 763 | 1 | 1471 | 1 | 764 | 0 | 1471 | 1 | 764 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 56 | 0 | 0 | 0 | 56 | 0 | 0 | 56 | 0 | 0 | 0 | 56 | 0 | 0 | 0 | 56 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 64 | 1 | 64 | 0 | 64 | 64 | 0 | 64 | 1 | 64 | 0 | 64 | 1 | 64 | 0 | 64 | 1 | 64 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1250 | 1 | 654 | 6 | 1256 | 657 | -1 | 1249 | 1 | 653 | 6 | 1255 | 1 | 656 | 0 | 1255 | 1 | 656 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 57 | 0 | 0 | 0 | 57 | 0 | 0 | 57 | 0 | 0 | 0 | 57 | 0 | 0 | 0 | 57 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 172 | 1 | 172 | 0 | 172 | 172 | 0 | 172 | 1 | 172 | 0 | 172 | 1 | 172 | 0 | 172 | 1 | 172 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 134 | 0 | 155 | 0 | 134 | 155 | 0 | 134 | 0 | 155 | 0 | 134 | 0 | 155 | 0 | 134 | 0 | 155 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 21 | 0 | 0 | 0 | 21 | 0 | 0 | 21 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 21 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 66 | 1 | 66 | 0 | 66 | 66 | 0 | 66 | 1 | 66 | 0 | 66 | 1 | 66 | 0 | 66 | 1 | 66 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 105 | 0 | 165 | 0 | 105 | 165 | 0 | 105 | 0 | 165 | 0 | 105 | 0 | 165 | 0 | 105 | 0 | 165 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 60 | 0 | 0 | 0 | 60 | 0 | 0 | 60 | 0 | 0 | 0 | 60 | 0 | 0 | 0 | 60 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | North-South: | | 827 | North-South: | | 828 | North-South: | | | 827 | North-South: | | | 828 | North-South: | | | 828 |
| | | East-West: | | 337 | East-West: | | 337 | East-West: | | | 337 | East-West: | | | 337 | East-West: | | | 337 |
| | | SUM: | | 1164 | SUM: | | 1165 | SUM: | | | 1164 | SUM: | | | 1165 | SUM: | | | 1165 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.817 | | | 0.818 | | | | 0.817 | | | | 0.818 | | | | |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.717 | | | 0.718 | | | | 0.717 | | | | 0.718 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | C | | | C | | | | C | | | | C | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.001 | Δv/c after mitigation: | -0.817 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | East-West Street: | 7th St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2 | | | 2 | | | 2 | | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | | NB-- 0 | SB-- | 0 | | NB-- 0 | SB-- | 0 | |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | | EB-- 0 | WB-- | 0 | | EB-- 0 | WB-- | 0 | |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | |

| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NORTHBOUND | Left | 41 | 1 | 41 | 0 | 41 | 41 | 0 | 41 | 1 | 41 | 0 | 41 | 1 | 41 | 0 | 41 | 1 | 41 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1554 | 1 | 809 | 1 | 1555 | 810 | 0 | 1554 | 1 | 809 | 1 | 1555 | 1 | 810 | 0 | 1555 | 1 | 810 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 64 | 0 | 0 | 0 | 64 | 0 | 0 | 64 | 0 | 0 | 0 | 64 | 0 | 0 | 0 | 64 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 63 | 1 | 63 | 0 | 63 | 63 | 0 | 63 | 1 | 63 | 0 | 63 | 1 | 63 | 0 | 63 | 1 | 63 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1089 | 1 | 608 | 6 | 1095 | 611 | -1 | 1088 | 1 | 607 | 6 | 1094 | 1 | 610 | 0 | 1094 | 1 | 610 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 126 | 0 | 0 | 0 | 126 | 0 | 0 | 126 | 0 | 0 | 0 | 126 | 0 | 0 | 0 | 126 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 197 | 1 | 197 | 0 | 197 | 197 | 0 | 197 | 1 | 197 | 0 | 197 | 1 | 197 | 0 | 197 | 1 | 197 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 158 | 0 | 184 | 0 | 158 | 184 | 0 | 158 | 0 | 184 | 0 | 158 | 0 | 184 | 0 | 158 | 0 | 184 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 26 | 0 | 0 | 0 | 26 | 0 | 0 | 26 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 26 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 96 | 1 | 96 | 0 | 96 | 96 | 0 | 96 | 1 | 96 | 0 | 96 | 1 | 96 | 0 | 96 | 1 | 96 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 129 | 0 | 181 | 0 | 129 | 181 | 0 | 129 | 0 | 181 | 0 | 129 | 0 | 181 | 0 | 129 | 0 | 181 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 52 | 0 | 0 | 0 | 52 | 0 | 0 | 52 | 0 | 0 | 0 | 52 | 0 | 0 | 0 | 52 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | | North-South: | 872 | | North-South: | 873 | | North-South: | | 872 | | North-South: | | 873 | | North-South: | | 873 |
| | | | East-West: | 378 | | East-West: | 378 | | East-West: | | 378 | | East-West: | | 378 | | East-West: | | 378 |
| | | | SUM: | 1250 | | SUM: | 1251 | | SUM: | | 1250 | | SUM: | | 1251 | | SUM: | | 1251 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.833 | | | 0.834 | | | | 0.833 | | | | 0.834 | | | | |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.733 | | | 0.734 | | | | 0.733 | | | | 0.734 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | C | | | C | | | | C | | | | C | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.001 | Δv/c after mitigation: | -0.833 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | East-West Street: | 9th St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| **NORTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 145 | 1 | 145 | 0 | 145 | 145 | 0 | 145 | 1 | 145 | 0 | 145 | 1 | 145 | 0 | 145 | 1 | 145 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 1634 | 1 | 853 | 1 | 1635 | 853 | 0 | 1634 | 1 | 853 | 1 | 1635 | 1 | 853 | 0 | 1635 | 1 | 853 |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 71 | 0 | 0 | 0 | 71 | 0 | 0 | 71 | 0 | 0 | 0 | 71 | 0 | 0 | 0 | 71 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **SOUTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 52 | 1 | 52 | 0 | 52 | 52 | 0 | 52 | 1 | 52 | 0 | 52 | 1 | 52 | 0 | 52 | 1 | 52 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 1010 | 1 | 561 | 6 | 1016 | 564 | -1 | 1009 | 1 | 561 | 6 | 1015 | 1 | 564 | 0 | 1015 | 1 | 564 |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 112 | 0 | 0 | 0 | 112 | 0 | 0 | 112 | 0 | 0 | 0 | 112 | 0 | 0 | 0 | 112 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **EASTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 230 | 1 | 230 | 0 | 230 | 230 | 0 | 230 | 1 | 230 | 0 | 230 | 1 | 230 | 0 | 230 | 1 | 230 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 303 | 1 | 303 | 1 | 304 | 304 | -1 | 302 | 1 | 302 | 1 | 303 | 1 | 303 | 0 | 303 | 1 | 303 |
| Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Right | 45 | 1 | 0 | 1 | 46 | 0 | 0 | 45 | 1 | 0 | 1 | 46 | 1 | 0 | 0 | 46 | 1 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **WESTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 75 | 1 | 75 | 0 | 75 | 75 | 0 | 75 | 1 | 75 | 0 | 75 | 1 | 75 | 0 | 75 | 1 | 75 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 243 | 0 | 276 | 0 | 243 | 276 | 0 | 243 | 0 | 276 | 0 | 243 | 0 | 276 | 0 | 243 | 0 | 276 |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 33 | 0 | 0 | 0 | 33 | 0 | 0 | 33 | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 33 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | *North-South:* | | 905 | *North-South:* | | 905 | *North-South:* | | | 905 | *North-South:* | | | 905 | *North-South:* | | | 905 |
| | *East-West:* | | 506 | *East-West:* | | 506 | *East-West:* | | | 506 | *East-West:* | | | 506 | *East-West:* | | | 506 |
| | *SUM:* | | 1411 | *SUM:* | | 1411 | *SUM:* | | | 1411 | *SUM:* | | | 1411 | *SUM:* | | | 1411 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.941 | | | 0.941 | | | | 0.941 | | | | 0.941 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.841 | | | 0.841 | | | | 0.841 | | | | 0.841 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | D | | | D | | | | D | | | | D | | | | A |

| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 |
| | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | | 2 | | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| Override Capacity | | | | 0 | | | | 0 | | | | 0 | | | | 0 | | | | 0 |

**PROJECT IMPACT**

Change in *v/c* due to project: 0.000 — $\Delta v/c$ after mitigation: -0.941

Significant impacted? NO — Fully mitigated? N/A

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 6 | 0 | 6 | 0 | 6 | 6 | 0 | 6 | 0 | 6 | 0 | 6 | 0 | 6 | 0 | 6 | 0 | 6 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 654 | 0 | **393** | 0 | 654 | **396** | 0 | 654 | 0 | **393** | 0 | 654 | 0 | **395** | 0 | 654 | 0 | **395** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 120 | 0 | 393 | 5 | 125 | 396 | -1 | 119 | 0 | 393 | 5 | 124 | 0 | 395 | 0 | 124 | 0 | 395 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 90 | 0 | **90** | 7 | 97 | **97** | -1 | 89 | 0 | **89** | 7 | 96 | 0 | **96** | 0 | 96 | 0 | **96** |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 480 | 0 | 432 | 0 | 480 | 446 | 0 | 480 | 0 | 430 | 0 | 480 | 0 | 444 | 0 | 480 | 0 | 444 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 24 | 0 | 432 | 0 | 24 | 446 | 0 | 24 | 0 | 430 | 0 | 24 | 0 | 444 | 0 | 24 | 0 | 444 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 18 | 0 | **18** | 0 | 18 | **18** | 0 | 18 | 0 | **18** | 0 | 18 | 0 | **18** | 0 | 18 | 0 | **18** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 52 | 0 | 71 | 0 | 52 | 71 | 0 | 52 | 0 | 71 | 0 | 52 | 0 | 71 | 0 | 52 | 0 | 71 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 81 | 0 | 81 | 1 | 82 | 82 | -1 | 80 | 0 | 80 | 1 | 81 | 0 | 81 | 0 | 81 | 0 | 81 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 48 | 0 | **199** | 0 | 48 | **202** | 0 | 48 | 0 | **198** | 0 | 48 | 0 | **201** | 0 | 48 | 0 | **201** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 70 | 0 | 0 | 2 | 72 | 0 | 0 | 70 | 0 | 0 | 2 | 72 | 0 | 0 | 0 | 72 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 483 | *North-South:* | | 493 | *North-South:* | | | 482 | *North-South:* | | | 491 | *North-South:* | | | 491 |
| | | *East-West:* | | 217 | *East-West:* | | 220 | *East-West:* | | | 216 | *East-West:* | | | 219 | *East-West:* | | | 219 |
| | | *SUM:* | | 700 | *SUM:* | | 713 | *SUM:* | | | 698 | *SUM:* | | | 710 | *SUM:* | | | 710 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.467 | | | 0.475 | | | | 0.465 | | | | 0.473 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.367 | | | 0.375 | | | | 0.365 | | | | 0.373 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.008 | Δ*v/c* after mitigation: | -0.465 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | East-West Street: | 25th St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | | EB-- 3 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 116 | 1 | **116** | 0 | 116 | **116** | 0 | 116 | 1 | **116** | 0 | 116 | 1 | **116** | 0 | 116 | 1 | **116** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 314 | 1 | 314 | 1 | 315 | 315 | 0 | 314 | 1 | 314 | 1 | 315 | 1 | 315 | 0 | 315 | 1 | 315 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 258 | 1 | **258** | 0 | 258 | **258** | 0 | 258 | 1 | **258** | 0 | 258 | 1 | **258** | 0 | 258 | 1 | **258** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 272 | 1 | 85 | 1 | 273 | 84 | -1 | 271 | 1 | 85 | 1 | 272 | 1 | 83 | 0 | 272 | 1 | 83 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 374 | 1 | **374** | 5 | 379 | **379** | -1 | 373 | 1 | **373** | 5 | 378 | 1 | **378** | 0 | 378 | 1 | **378** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 81 | 1 | 0 | 0 | 81 | 0 | 0 | 81 | 1 | 0 | 0 | 81 | 1 | 0 | 0 | 81 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 374 | *North-South:* | | 374 | *North-South:* | | 374 | | *North-South:* | | 374 | | *North-South:* | | | 374 |
| | | *East-West:* | | 374 | *East-West:* | | 379 | *East-West:* | | 373 | | *East-West:* | | 378 | | *East-West:* | | | 378 |
| | | *SUM:* | | 748 | *SUM:* | | 753 | *SUM:* | | 747 | | *SUM:* | | 752 | | *SUM:* | | | 752 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.525 | | | 0.528 | | | 0.524 | | | | 0.528 | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.425 | | | 0.428 | | | 0.424 | | | | 0.428 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.004 | Δ*v/c* after mitigation: | -0.524 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Via Cabrillo Marina | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 3 SB-- 0 EB-- 0 WB-- 0 | | | NB-- 3 SB-- 0 EB-- 0 WB-- 0 | | | NB-- 3 SB-- 0 EB-- 0 WB-- 0 | | | | NB-- 3 SB-- 0 EB-- 0 WB-- 0 | | | | NB-- 0 SB-- 0 EB-- 0 WB-- 0 | | | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 39 | 2 | 21 | 0 | 39 | 21 | 0 | 39 | 2 | 21 | 0 | 39 | 2 | 21 | 0 | 39 | 2 | 21 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 27 | 1 | 0 | 0 | 27 | 0 | 0 | 27 | 1 | 0 | 0 | 27 | 1 | 0 | 0 | 27 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 375 | 1 | 243 | 17 | 392 | 252 | -4 | 371 | 1 | 241 | 17 | 388 | 1 | 250 | 0 | 388 | 1 | 250 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 111 | 0 | 0 | 0 | 111 | 0 | 0 | 111 | 0 | 0 | 0 | 111 | 0 | 0 | 0 | 111 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 73 | 1 | 73 | 0 | 73 | 73 | 0 | 73 | 1 | 73 | 0 | 73 | 1 | 73 | 0 | 73 | 1 | 73 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 107 | 2 | 54 | 4 | 111 | 56 | -2 | 105 | 2 | 53 | 4 | 109 | 2 | 55 | 0 | 109 | 2 | 55 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 21 | North-South: | | 21 | North-South: | | 21 | | North-South: | | 21 | | North-South: | | | 21 |
| | | East-West: | | 316 | East-West: | | 325 | East-West: | | 314 | | East-West: | | 323 | | East-West: | | | 323 |
| | | SUM: | | 337 | SUM: | | 346 | SUM: | | 335 | | SUM: | | 344 | | SUM: | | | 344 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.236 | | | 0.243 | | | 0.235 | | | | 0.241 | | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.136 | | | 0.143 | | | 0.135 | | | | 0.141 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.006 | Δv/c after mitigation: | -0.235 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | East-West Street: | Swinford St / SR-47 EB Ramps | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | | 4 | | | 4 | | | 4 | | | 4 | | | 4 | | | 4 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 |
| | EB-- | 3 | WB-- | 0 | EB-- | 3 | WB-- | 0 | EB-- | 3 | WB-- | 0 | EB-- | 3 | WB-- | 0 | EB-- | 3 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | | 2 | | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| Override Capacity | | | | 0 | | | | 0 | | | | 0 | | | | 0 | | | | 0 |

| | MOVEMENT | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 488 | 2 | 268 | 3 | 491 | 270 | -1 | 487 | 2 | 268 | 3 | 490 | 2 | 270 | 0 | 490 | 2 | 270 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 828 | 1 | 428 | 10 | 838 | 433 | -6 | 822 | 1 | 425 | 10 | 832 | 1 | 430 | 0 | 832 | 2 | 286 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 27 | 0 | 0 | 0 | 27 | 0 | 0 | 27 | 0 | 0 | 0 | 27 | 0 | 0 | 0 | 27 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 28 | 1 | 28 | 0 | 28 | 28 | 0 | 28 | 1 | 28 | 0 | 28 | 1 | 28 | 0 | 28 | 1 | 28 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 79 | 2 | 40 | 2 | 81 | 41 | -1 | 78 | 2 | 39 | 2 | 80 | 2 | 40 | 0 | 80 | 2 | 40 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 41 | 1 | 0 | 0 | 41 | 0 | 0 | 41 | 1 | 0 | 0 | 41 | 1 | 0 | 0 | 41 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 218 | 1 | 218 | 0 | 218 | 218 | 0 | 218 | 1 | 218 | 0 | 218 | 1 | 218 | 0 | 218 | 0 | 218 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 1 | |
| | Through | 122 | 0 | 513 | 0 | 122 | 540 | 0 | 122 | 0 | 505 | 0 | 122 | 0 | 532 | 0 | 122 | 0 | 340 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 904 | 1 | 0 | 54 | 958 | 0 | -17 | 887 | 1 | 0 | 54 | 941 | 1 | 0 | 0 | 941 | 2 | 248 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 39 | 0 | 39 | 0 | 39 | 39 | 0 | 39 | 0 | 39 | 0 | 39 | 0 | 39 | 0 | 39 | 0 | 39 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 9 | 0 | 26 | 0 | 9 | 26 | 0 | 9 | 0 | 26 | 0 | 9 | 0 | 26 | 0 | 9 | 0 | 26 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | | North-South: | 456 | | North-South: | 461 | | North-South: | 453 | | | North-South: | 458 | | | North-South: | 314 | |
| | | | East-West: | 552 | | East-West: | 579 | | East-West: | 544 | | | East-West: | 571 | | | East-West: | 379 | |
| | | | SUM: | 1008 | | SUM: | 1040 | | SUM: | 997 | | | SUM: | 1029 | | | SUM: | 693 | |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.733 | | | 0.756 | | | 0.725 | | | | 0.748 | | | | 0.504 | |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.633 | | | 0.656 | | | 0.625 | | | | 0.648 | | | | 0.404 | |
| LEVEL OF SERVICE (LOS): | | | | B | | | B | | | B | | | | B | | | | A | |

### PROJECT IMPACT

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.023 | Δv/c after mitigation: | -0.221 |
| Significant impacted? | NO | Fully mitigated? | N/A |

| | Scenario | Scenario | Change | Impact? |
|---|---|---|---|---|
| FB | 0.418 | 0.431 | 0.013 | NO |

| FB | | |
|---|---|---|
| N-S | 453 | 453 |
| EB | 220 | 218 |
| WB | 39 | 39 |
| Sum | 712 | 710 |
| V/C | 0.518 | 0.516 |
| Less ATS | 0.418 | 0.416 |
| LOS | A | A |

| FP | | |
|---|---|---|
| N-S | 458 | 458 |
| EB | 233 | 218 |
| WB | 39 | 39 |
| Sum | 730 | 715 |
| V/C | 0.531 | 0.520 |
| Less ATS | 0.431 | 0.420 |
| LOS | A | A |

| FP Mitigation | | |
|---|---|---|
| N-S | 314 | 314 |
| EB | 233 | 218 |
| WB | 39 | 39 |
| Sum | 586 | 571 |
| V/C | 0.426 | 0.415 |
| Less ATS | 0.326 | 0.415 |
| LOS | A | A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | East-West Street: | O'Farrell St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 7 | 1 | 7 | 0 | 7 | 7 | 0 | 7 | 1 | 7 | 0 | 7 | 1 | 7 | 0 | 7 | 1 | 7 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1232 | 2 | **616** | 13 | 1245 | **623** | -7 | 1225 | 2 | **613** | 13 | 1238 | 2 | **619** | 0 | 1238 | 2 | **619** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1005 | 2 | 503 | 57 | 1062 | 531 | -17 | 988 | 2 | 494 | 57 | 1045 | 2 | 523 | 0 | 1045 | 2 | 523 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 9 | 1 | 9 | 0 | 9 | 9 | 0 | 9 | 1 | 9 | 0 | 9 | 1 | 9 | 0 | 9 | 1 | 9 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 77 | 0 | 77 | 0 | 77 | 77 | 0 | 77 | 0 | 77 | 0 | 77 | 0 | 77 | 0 | 77 | 0 | 77 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 18 | 0 | **95** | 0 | 18 | **95** | 0 | 18 | 0 | **95** | 0 | 18 | 0 | **95** | 0 | 18 | 0 | **95** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| WESTBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 616 | *North-South:* | | 623 | *North-South:* | | | 613 | *North-South:* | | | 619 | *North-South:* | | | 619 |
| | | *East-West:* | | 95 | *East-West:* | | 95 | *East-West:* | | | 95 | *East-West:* | | | 95 | *East-West:* | | | 95 |
| | | *SUM:* | | 711 | *SUM:* | | 718 | *SUM:* | | | 708 | *SUM:* | | | 714 | *SUM:* | | | 714 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.474 | | | 0.479 | | | | 0.472 | | | | 0.476 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.374 | | | 0.379 | | | | 0.372 | | | | 0.376 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.004 | Δ*v/c* after mitigation: | -0.472 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | East-West Street: | 1st St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 21 | 1 | 21 | 0 | 21 | 21 | 0 | 21 | 1 | 21 | 0 | 21 | 1 | 21 | 0 | 21 | 1 | 21 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1058 | 1 | 533 | 13 | 1071 | 540 | -7 | 1051 | 1 | 530 | 13 | 1064 | 1 | 536 | 0 | 1064 | 1 | 536 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 67 | 1 | 67 | 0 | 67 | 67 | 0 | 67 | 1 | 67 | 0 | 67 | 1 | 67 | 0 | 67 | 1 | 67 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 899 | 2 | 450 | 57 | 956 | 478 | -18 | 881 | 2 | 441 | 57 | 938 | 2 | 469 | 0 | 938 | 2 | 469 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 42 | 1 | 0 | 0 | 42 | 0 | 0 | 42 | 1 | 0 | 0 | 42 | 1 | 0 | 0 | 42 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 146 | 1 | 146 | 0 | 146 | 146 | 0 | 146 | 1 | 146 | 0 | 146 | 1 | 146 | 0 | 146 | 1 | 146 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 11 | 0 | 27 | 0 | 11 | 27 | 0 | 11 | 0 | 27 | 0 | 11 | 0 | 27 | 0 | 11 | 0 | 27 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 16 | 0 | 0 | 0 | 16 | 0 | 0 | 16 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 16 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 600 | North-South: | | 607 | North-South: | | 597 | | North-South: | | 603 | | North-South: | | 603 | |
| | | East-West: | | 146 | East-West: | | 146 | East-West: | | 146 | | East-West: | | 146 | | East-West: | | 146 | |
| | | SUM: | | 746 | SUM: | | 753 | SUM: | | 743 | | SUM: | | 749 | | SUM: | | 749 | |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.524 | | | 0.528 | | | 0.521 | | | | 0.526 | | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.424 | | | 0.428 | | | 0.421 | | | | 0.426 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.005 | Δv/c after mitigation: | -0.521 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | East-West Street: | 5th St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 16 | 1 | 16 | 0 | 16 | **16** | 0 | 16 | 1 | 16 | 0 | 16 | 1 | 16 | 0 | 16 | 1 | 16 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 836 | 1 | **420** | 13 | 849 | 426 | -7 | 829 | 1 | **416** | 13 | 842 | 1 | **423** | 0 | 842 | 1 | **423** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 1 | **0** | 0 | 0 | 0 | 0 | 0 | 1 | **0** | 0 | 0 | 1 | **0** | 0 | 0 | 1 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 593 | 1 | 385 | 57 | 650 | **414** | -18 | 575 | 1 | 376 | 57 | 632 | 1 | 405 | 0 | 632 | 1 | 405 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 177 | 0 | 0 | 0 | 177 | 0 | 0 | 177 | 0 | 0 | 0 | 177 | 0 | 0 | 0 | 177 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 151 | 1 | **151** | 0 | 151 | **151** | 0 | 151 | 1 | **151** | 0 | 151 | 1 | **151** | 0 | 151 | 1 | **151** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 5 | 1 | 5 | 0 | 5 | 5 | 0 | 5 | 1 | 5 | 0 | 5 | 1 | 5 | 0 | 5 | 1 | 5 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 14 | 1 | 6 | 0 | 14 | 6 | 0 | 14 | 1 | 6 | 0 | 14 | 1 | 6 | 0 | 14 | 1 | 6 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 5 | 1 | 5 | 0 | 5 | 5 | 0 | 5 | 1 | 5 | 0 | 5 | 1 | 5 | 0 | 5 | 1 | 5 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 11 | 1 | **11** | 0 | 11 | **11** | 0 | 11 | 1 | **11** | 0 | 11 | 1 | **11** | 0 | 11 | 1 | **11** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 420 | *North-South:* | | 430 | *North-South:* | | | 416 | *North-South:* | | | 423 | *North-South:* | | | 423 |
| | | *East-West:* | | 162 | *East-West:* | | 162 | *East-West:* | | | 162 | *East-West:* | | | 162 | *East-West:* | | | 162 |
| | | *SUM:* | | 582 | *SUM:* | | 592 | *SUM:* | | | 578 | *SUM:* | | | 585 | *SUM:* | | | 585 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.408 | | | 0.415 | | | | 0.406 | | | | 0.411 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.308 | | | 0.315 | | | | 0.306 | | | | 0.311 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.005 | Δ*v/c* after mitigation: | -0.406 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | East-West Street: | 6th St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 4 | | | 4 | | | 4 | | | | 4 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 3 SB-- | | 0 | NB-- 3 SB-- | | 0 | NB-- 3 SB-- | | 0 | | NB-- 3 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 3 | EB-- 0 WB-- | | 3 | EB-- 0 WB-- | | 3 | | EB-- 0 WB-- | | 3 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 8 | 1 | 8 | 0 | 8 | 8 | 0 | 8 | 1 | 8 | 0 | 8 | 1 | 8 | 0 | 8 | 1 | 8 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 874 | 1 | 437 | 13 | 887 | 444 | -7 | 867 | 1 | 434 | 13 | 880 | 1 | 440 | 0 | 880 | 1 | 440 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 570 | 2 | 285 | 57 | 627 | 314 | -18 | 552 | 2 | 276 | 57 | 609 | 2 | 305 | 0 | 609 | 2 | 305 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 60 | 1 | 49 | 0 | 60 | 49 | 0 | 60 | 1 | 49 | 0 | 60 | 1 | 49 | 0 | 60 | 1 | 49 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 23 | 1 | 23 | 0 | 23 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 437 | North-South: | | 444 | North-South: | | | 434 | North-South: | | | 440 | North-South: | | | 440 |
| | | East-West: | | 23 | East-West: | | 23 | East-West: | | | 23 | East-West: | | | 23 | East-West: | | | 23 |
| | | SUM: | | 460 | SUM: | | 467 | SUM: | | | 457 | SUM: | | | 463 | SUM: | | | 463 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.335 | | | 0.340 | | | | 0.332 | | | | 0.337 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.235 | | | 0.240 | | | | 0.232 | | | | 0.237 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.005 | Δv/c after mitigation: | -0.332 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17A | East-West Street: | 7th St | Projection Year: | 2016 | Peak Hour: | AM | Reviewed by: | | Project: | 2016 CD1 CB |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 3 |
| | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | YEAR 2016 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 13 | 1 | 13 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 755 | 3 | 252 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 348 | 2 | 174 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 1 | | | | | | | | | | | | | | | | |
| | Right | 223 | 0 | 153 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 257 | 2 | 141 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 8 | 1 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | North-South: | | 252 | North-South: | | 0 | North-South: | | | 0 | North-South: | | | 0 | North-South: | | | 0 |
| | | East-West: | | 141 | East-West: | | 0 | East-West: | | | 0 | East-West: | | | 0 | East-West: | | | 0 |
| | | SUM: | | 393 | SUM: | | 0 | SUM: | | | 0 | SUM: | | | 0 | SUM: | | | 0 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.276 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.176 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.000 | Δv/c after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17A | East-West Street: | 7th St | | Projection Year: | 2016 | Peak Hour: | AM | Reviewed by: | | Project: | 2016 WITH PROJECT |

| | YEAR 2016 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | |
| No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | 0 | |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | | NB-- 0 | SB-- | 0 | | NB-- 0 | SB-- | 3 | |
| | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | | EB-- 3 | WB-- | 0 | | EB-- 0 | WB-- | 0 | |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | |

| MOVEMENT | | YEAR 2016 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 14 | 1 | 14 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 761 | 3 | 254 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 387 | 2 | 194 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 1 | | | | | | | | | | | | | | | | |
| | Right | 223 | 0 | 153 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 257 | 2 | 141 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 12 | 1 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | | North-South: | 254 | | North-South: | 0 | | North-South: | | 0 | | North-South: | | 0 | | North-South: | | 0 |
| | | | East-West: | 141 | | East-West: | 0 | | East-West: | | 0 | | East-West: | | 0 | | East-West: | | 0 |
| | | | SUM: | 395 | | SUM: | 0 | | SUM: | | 0 | | SUM: | | 0 | | SUM: | | 0 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.277 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.177 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

Change in v/c due to project: 0.000 — Δv/c after mitigation: 0.000

Significant impacted? NO — Fully mitigated? N/A

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17B | East-West Street: | Sampson Way | Projection Year: | 2016 | Peak Hour: | AM | Reviewed by: | | Project: | 2016 CD1 CB |

| | YEAR 2016 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | |
| No. of Phases | | | 2 | | | 2 | | | | 2 | | | | 2 | | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | | 3 | NB-- 0 | SB-- | | 3 | NB-- 0 | SB-- | | 3 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | | 0 | EB-- 0 | WB-- | | 0 | EB-- 0 | WB-- | | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |

| MOVEMENT | | YEAR 2016 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 0 | 1 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 2 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 2 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 337 | 1 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 761 | 2 | 419 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 1 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | North-South: | | 0 | North-South: | | 0 | North-South: | | | 0 | North-South: | | | 0 | North-South: | | | 0 |
| | | East-West: | | 419 | East-West: | | 0 | East-West: | | | 0 | East-West: | | | 0 | East-West: | | | 0 |
| | | SUM: | | 419 | SUM: | | 0 | SUM: | | | 0 | SUM: | | | 0 | SUM: | | | 0 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.279 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.179 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.000 | Δv/c after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17B | East-West Street: | Sampson Way | | Projection Year: | 2016 | Peak Hour: | AM | Reviewed by: | | Project: | 2016 WITH PROJECT |

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | | 2 | | | | 2 | | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | | 0 | | | | 0 | | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 0 | SB-- | 3 | NB-- | 0 | SB-- | 3 | NB-- | 0 | SB-- | 3 | NB-- | 0 | SB-- | 3 | NB-- | 0 | SB-- | 3 | NB-- | 0 | SB-- | 3 |
| | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | | 2 | | | | 2 | | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| Override Capacity | | | | 0 | | | | 0 | | | | 0 | | | | 0 | | | | 0 | | | | 0 |

| | MOVEMENT | YEAR 2016 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 0 | 1 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 6 | 2 | 3 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 25 | 2 | 13 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 374 | 1 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 769 | 2 | 423 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 1 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | North-South: | | 13 | North-South: | | 0 | North-South: | | | 0 | North-South: | | | 0 | North-South: | | | 0 |
| | | East-West: | | 423 | East-West: | | 0 | East-West: | | | 0 | East-West: | | | 0 | East-West: | | | 0 |
| | | SUM: | | 436 | SUM: | | 0 | SUM: | | | 0 | SUM: | | | 0 | SUM: | | | 0 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.291 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.191 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.000 | Δv/c after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Miner St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 18 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 4 | | | 4 | | | 4 | | | | 4 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 13 | 1 | **13** | 0 | 13 | 13 | 0 | 13 | 1 | **13** | 0 | 13 | 1 | 13 | 0 | 13 | 1 | 13 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 54 | 1 | 30 | 0 | 54 | **30** | 0 | 54 | 1 | 30 | 0 | 54 | 1 | **30** | 0 | 54 | 1 | **30** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 5 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 35 | 1 | 35 | 40 | 75 | **75** | 0 | 35 | 1 | 35 | 40 | 75 | 1 | **75** | 0 | 75 | 1 | **75** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 53 | 1 | **53** | 0 | 53 | 53 | 0 | 53 | 1 | **53** | 0 | 53 | 1 | 53 | 0 | 53 | 1 | 53 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 135 | 0 | 0 | 0 | 135 | 0 | 0 | 135 | 0 | 0 | 0 | 135 | 0 | 0 | 0 | 135 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 308 | 1 | **308** | 0 | 308 | **308** | 0 | 308 | 1 | **308** | 0 | 308 | 1 | **308** | 0 | 308 | 1 | **308** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 58 | 1 | 33 | 17 | 75 | 41 | 0 | 58 | 1 | 33 | 17 | 75 | 1 | 41 | 0 | 75 | 1 | 41 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 7 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 7 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 3 | 1 | 3 | 0 | 3 | 3 | 0 | 3 | 1 | 3 | 0 | 3 | 1 | 3 | 0 | 3 | 1 | 3 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 29 | 1 | **26** | 4 | 33 | **32** | 0 | 29 | 1 | **26** | 4 | 33 | 1 | **32** | 0 | 33 | 1 | **32** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 22 | 0 | 0 | 9 | 31 | 0 | 0 | 22 | 0 | 0 | 9 | 31 | 0 | 0 | 0 | 31 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 66 | *North-South:* | | 105 | *North-South:* | | 66 | | *North-South:* | | 105 | | *North-South:* | | 105 | |
| | | *East-West:* | | 334 | *East-West:* | | 340 | *East-West:* | | 334 | | *East-West:* | | 340 | | *East-West:* | | 340 | |
| | | *SUM:* | | 400 | *SUM:* | | 445 | *SUM:* | | 400 | | *SUM:* | | 445 | | *SUM:* | | 445 | |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.291 | | | 0.324 | | | 0.291 | | | | 0.324 | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.191 | | | 0.224 | | | 0.191 | | | | 0.224 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.033 | *Δv/c* after mitigation: | -0.291 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | East-West Street: | Summerland Av | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 0 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 |
| | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| **NORTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 142 | 1 | **142** | 0 | 142 | **142** | 0 | 142 | 1 | **142** | 0 | 142 | 1 | **142** | 0 | 142 | 1 | **142** |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 379 | 1 | 204 | 2 | 381 | 205 | 4 | 383 | 1 | 206 | 2 | 385 | 1 | 207 | 0 | 385 | 1 | 207 |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 29 | 0 | 0 | 0 | 29 | 0 | 0 | 29 | 0 | 0 | 0 | 29 | 0 | 0 | 0 | 29 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **SOUTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 16 | 1 | 16 | 0 | 16 | 16 | 0 | 16 | 1 | 16 | 0 | 16 | 1 | 16 | 0 | 16 | 1 | 16 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 537 | 1 | **414** | 1 | 538 | **415** | 2 | 539 | 1 | **415** | 1 | 540 | 1 | **416** | 0 | 540 | 1 | **416** |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 291 | 0 | 0 | 0 | 291 | 0 | 0 | 291 | 0 | 0 | 0 | 291 | 0 | 0 | 0 | 291 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **EASTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 255 | 1 | **255** | 0 | 255 | **255** | 0 | 255 | 1 | **255** | 0 | 255 | 1 | **255** | 0 | 255 | 1 | **255** |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 0 | 0 | 56 | 0 | 0 | 56 | 0 | 0 | 0 | 56 | 0 | 0 | 0 | 56 | 0 | 0 | 0 | 56 |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 56 | 0 | 0 | 0 | 56 | 0 | 0 | 56 | 0 | 0 | 0 | 56 | 0 | 0 | 0 | 56 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **WESTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 643 | 2 | 354 | 0 | 643 | 354 | 0 | 643 | 2 | 354 | 0 | 643 | 2 | 354 | 0 | 643 | 2 | 354 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 333 | 0 | **652** | 0 | 333 | **652** | 0 | 333 | 0 | **652** | 0 | 333 | 0 | **652** | 0 | 333 | 0 | **652** |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 319 | 0 | 0 | 0 | 319 | 0 | 0 | 319 | 0 | 0 | 0 | 319 | 0 | 0 | 0 | 319 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | *North-South:* | | 556 | *North-South:* | | 557 | *North-South:* | | | 557 | *North-South:* | | | 558 | *North-South:* | | | 558 |
| | *East-West:* | | 907 | *East-West:* | | 907 | *East-West:* | | | 907 | *East-West:* | | | 907 | *East-West:* | | | 907 |
| | *SUM:* | | 1463 | *SUM:* | | 1464 | *SUM:* | | | 1464 | *SUM:* | | | 1465 | *SUM:* | | | 1465 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | 1.027 | | | 1.027 | | | | 1.027 | | | | 1.028 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.927 | | | 0.927 | | | | 0.927 | | | | 0.928 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | E | | | E | | | | E | | | | E | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | Δ*v/c* after mitigation: | -1.027 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | East-West Street: | I-110 Ramps | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 1 | SB-- | 0 | NB-- 1 | SB-- | 0 | NB-- 1 | SB-- | 0 | NB-- 1 | SB-- | 0 | NB-- 0 | SB-- | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 765 | 2 | **383** | 2 | 767 | **384** | 4 | 769 | 2 | **385** | 2 | 771 | 2 | **386** | 0 | 771 | 2 | **386** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1785 | 2 | 0 | 4 | 1789 | 0 | 7 | 1792 | 2 | 0 | 4 | 1796 | 2 | 0 | 0 | 1796 | 2 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1131 | 3 | 377 | 1 | 1132 | 377 | 2 | 1133 | 3 | 378 | 1 | 1134 | 3 | 378 | 0 | 1134 | 3 | 378 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 1642 | 2 | **580** | 1 | 1643 | **580** | 3 | 1645 | 2 | **581** | 1 | 1646 | 2 | **581** | 0 | 1646 | 2 | **581** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 97 | 0 | 580 | 0 | 97 | 580 | 0 | 97 | 0 | 581 | 0 | 97 | 0 | 581 | 0 | 97 | 0 | 581 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| CRITICAL VOLUMES | | *North-South:* | | 383 | *North-South:* | | 384 | *North-South:* | | | 385 | *North-South:* | | | 386 | *North-South:* | | | 386 |
| | | *East-West:* | | 580 | *East-West:* | | 580 | *East-West:* | | | 581 | *East-West:* | | | 581 | *East-West:* | | | 581 |
| | | *SUM:* | | 963 | *SUM:* | | 964 | *SUM:* | | | 966 | *SUM:* | | | 967 | *SUM:* | | | 967 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.642 | | | 0.643 | | | | 0.644 | | | | 0.645 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.542 | | | 0.543 | | | | 0.544 | | | | 0.545 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | Δ*v/c* after mitigation: | -0.644 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | East-West Street: | 1st St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 3 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 31 | 1 | **31** | 0 | 31 | **31** | 2 | 33 | 1 | **33** | 0 | 33 | 1 | **33** | 0 | 33 | 1 | **33** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1438 | 2 | 486 | 6 | 1444 | 488 | 5 | 1443 | 2 | 488 | 6 | 1449 | 2 | 490 | 0 | 1449 | 2 | 490 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 20 | 0 | 0 | 0 | 20 | 0 | 0 | 20 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 20 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 149 | 1 | 149 | 0 | 149 | 149 | 2 | 151 | 1 | 151 | 0 | 151 | 1 | 151 | 0 | 151 | 1 | 151 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1745 | 2 | **766** | 2 | 1747 | **767** | 3 | 1748 | 2 | **767** | 2 | 1750 | 2 | **768** | 0 | 1750 | 2 | **768** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 553 | 0 | 0 | 0 | 553 | 0 | 0 | 553 | 0 | 0 | 0 | 553 | 0 | 0 | 0 | 553 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 833 | 1 | **484** | 0 | 833 | **484** | 0 | 833 | 1 | **485** | 0 | 833 | 1 | **485** | 0 | 833 | 1 | **485** |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 135 | 0 | 484 | 0 | 135 | 484 | 1 | 136 | 0 | 485 | 0 | 136 | 0 | 485 | 0 | 136 | 0 | 485 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 58 | 1 | 43 | 0 | 58 | 43 | 1 | 59 | 1 | 43 | 0 | 59 | 1 | 43 | 0 | 59 | 1 | 43 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 35 | 1 | 35 | 0 | 35 | 35 | 2 | 37 | 1 | 37 | 0 | 37 | 1 | 37 | 0 | 37 | 1 | 37 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 134 | 1 | **134** | 0 | 134 | **134** | 3 | 137 | 1 | **137** | 0 | 137 | 1 | **137** | 0 | 137 | 1 | **137** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 182 | 1 | 108 | 0 | 182 | 108 | 6 | 188 | 1 | 113 | 0 | 188 | 1 | 113 | 0 | 188 | 1 | 113 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 797 | *North-South:* | | 798 | *North-South:* | | | 800 | *North-South:* | | | 801 | *North-South:* | | | 801 |
| | | *East-West:* | | 618 | *East-West:* | | 618 | *East-West:* | | | 622 | *East-West:* | | | 622 | *East-West:* | | | 622 |
| | | *SUM:* | | 1415 | *SUM:* | | 1416 | *SUM:* | | | 1422 | *SUM:* | | | 1423 | *SUM:* | | | 1423 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.993 | | | 0.994 | | | | 0.998 | | | | 0.999 | | | | 0.999 |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.893 | | | 0.894 | | | | 0.898 | | | | 0.899 | | | | 0.899 |
| | LEVEL OF SERVICE (LOS): | | | D | | | D | | | | D | | | | D | | | | D |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | Δ*v/c* after mitigation: | 0.001 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | East-West Street: | 5th St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 23 | 1 | 23 | 0 | 23 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1369 | 1 | 705 | 6 | 1375 | 708 | 7 | 1376 | 1 | 708 | 6 | 1382 | 1 | 711 | 0 | 1382 | 1 | 711 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 40 | 0 | 0 | 0 | 40 | 0 | 0 | 40 | 0 | 0 | 0 | 40 | 0 | 0 | 0 | 40 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 120 | 1 | 120 | 0 | 120 | 120 | 0 | 120 | 1 | 120 | 0 | 120 | 1 | 120 | 0 | 120 | 1 | 120 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1351 | 1 | 715 | 2 | 1353 | 716 | 5 | 1356 | 1 | 718 | 2 | 1358 | 1 | 719 | 0 | 1358 | 1 | 719 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 79 | 0 | 0 | 0 | 79 | 0 | 0 | 79 | 0 | 0 | 0 | 79 | 0 | 0 | 0 | 79 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 112 | 1 | 112 | 0 | 112 | 112 | 0 | 112 | 1 | 112 | 0 | 112 | 1 | 112 | 0 | 112 | 1 | 112 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 125 | 0 | 143 | 0 | 125 | 143 | 0 | 125 | 0 | 143 | 0 | 125 | 0 | 143 | 0 | 125 | 0 | 143 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 18 | 0 | 0 | 0 | 18 | 0 | 0 | 18 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 18 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 49 | 1 | 49 | 0 | 49 | 49 | 0 | 49 | 1 | 49 | 0 | 49 | 1 | 49 | 0 | 49 | 1 | 49 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 93 | 0 | 177 | 0 | 93 | 177 | 0 | 93 | 0 | 177 | 0 | 93 | 0 | 177 | 0 | 93 | 0 | 177 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 84 | 0 | 0 | 0 | 84 | 0 | 0 | 84 | 0 | 0 | 0 | 84 | 0 | 0 | 0 | 84 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 825 | North-South: | | 828 | North-South: | | | 828 | North-South: | | | 831 | North-South: | | | 831 |
| | | East-West: | | 289 | East-West: | | 289 | East-West: | | | 289 | East-West: | | | 289 | East-West: | | | 289 |
| | | SUM: | | 1114 | SUM: | | 1117 | SUM: | | | 1117 | SUM: | | | 1120 | SUM: | | | 1120 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.782 | | | 0.784 | | | | 0.784 | | | | 0.786 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.682 | | | 0.684 | | | | 0.684 | | | | 0.686 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | B | | | B | | | | B | | | | B | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.002 | Δv/c after mitigation: | -0.784 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | East-West Street: | 7th St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | | |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | | |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | 0 | | NB-- 0 SB-- | 0 | | NB-- 0 SB-- | 0 | | | NB-- 0 SB-- | 0 | | | NB-- 0 SB-- | 0 | | |
| | | EB-- 0 WB-- | 0 | | EB-- 0 WB-- | 0 | | EB-- 0 WB-- | 0 | | | EB-- 0 WB-- | 0 | | | EB-- 0 WB-- | 0 | | |
| | ATSAC-1 or ATSAC+ATCS-2? | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | | |
| | Override Capacity | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | | |
| NORTHBOUND | Left | 38 | 1 | 38 | 0 | 38 | 38 | 2 | 40 | 1 | 40 | 0 | 40 | 1 | 40 | 0 | 40 | 1 | 40 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1246 | 1 | 649 | 6 | 1252 | 652 | 7 | 1253 | 1 | 652 | 6 | 1259 | 1 | 655 | 0 | 1259 | 1 | 655 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 51 | 0 | 0 | 0 | 51 | 0 | 0 | 51 | 0 | 0 | 0 | 51 | 0 | 0 | 0 | 51 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 72 | 1 | 72 | 0 | 72 | 72 | 0 | 72 | 1 | 72 | 0 | 72 | 1 | 72 | 0 | 72 | 1 | 72 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1272 | 1 | 689 | 2 | 1274 | 690 | 5 | 1277 | 1 | 692 | 2 | 1279 | 1 | 693 | 0 | 1279 | 1 | 693 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 106 | 0 | 0 | 0 | 106 | 0 | 0 | 106 | 0 | 0 | 0 | 106 | 0 | 0 | 0 | 106 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 168 | 1 | 168 | 0 | 168 | 168 | 0 | 168 | 1 | 168 | 0 | 168 | 1 | 168 | 0 | 168 | 1 | 168 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 178 | 0 | 219 | 0 | 178 | 219 | 0 | 178 | 0 | 220 | 0 | 178 | 0 | 220 | 0 | 178 | 0 | 220 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 41 | 0 | 0 | 0 | 41 | 0 | 1 | 42 | 0 | 0 | 0 | 42 | 0 | 0 | 0 | 42 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 66 | 1 | 66 | 0 | 66 | 66 | 0 | 66 | 1 | 66 | 0 | 66 | 1 | 66 | 0 | 66 | 1 | 66 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 159 | 0 | 231 | 0 | 159 | 231 | 0 | 159 | 0 | 231 | 0 | 159 | 0 | 231 | 0 | 159 | 0 | 231 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 72 | 0 | 0 | 0 | 72 | 0 | 0 | 72 | 0 | 0 | 0 | 72 | 0 | 0 | 0 | 72 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 727 | North-South: | | 728 | North-South: | | | 732 | North-South: | | | 733 | North-South: | | | 733 |
| | | East-West: | | 399 | East-West: | | 399 | East-West: | | | 399 | East-West: | | | 399 | East-West: | | | 399 |
| | | SUM: | | 1126 | SUM: | | 1127 | SUM: | | | 1131 | SUM: | | | 1132 | SUM: | | | 1132 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.751 | | | 0.751 | | | | 0.754 | | | | 0.755 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.651 | | | 0.651 | | | | 0.654 | | | | 0.655 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | B | | | B | | | | B | | | | B | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.001 | Δv/c after mitigation: | -0.754 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | East-West Street: | 9th St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | |
| No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | 0 | |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | | NB-- 0 | SB-- | 0 | | NB-- 0 | SB-- | 0 | |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | | EB-- 0 | WB-- | 0 | | EB-- 0 | WB-- | 0 | |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | |

| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NORTHBOUND | Left | 77 | 1 | **77** | 1 | 78 | **78** | 0 | 77 | 1 | **77** | 1 | 78 | 1 | **78** | 0 | 78 | 1 | **78** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1041 | 1 | 556 | 6 | 1047 | 559 | 9 | 1050 | 1 | 560 | 6 | 1056 | 1 | 563 | 0 | 1056 | 1 | 563 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 70 | 0 | 0 | 0 | 70 | 0 | 0 | 70 | 0 | 0 | 0 | 70 | 0 | 0 | 0 | 70 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 83 | 1 | 83 | 0 | 83 | 83 | 0 | 83 | 1 | 83 | 0 | 83 | 1 | 83 | 0 | 83 | 1 | 83 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1209 | 1 | **655** | 2 | 1211 | **656** | 4 | 1213 | 1 | **658** | 2 | 1215 | 1 | **659** | 0 | 1215 | 1 | **659** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 101 | 0 | 0 | 0 | 101 | 0 | 1 | 102 | 0 | 0 | 0 | 102 | 0 | 0 | 0 | 102 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 168 | 1 | **168** | 0 | 168 | **168** | 0 | 168 | 1 | **168** | 0 | 168 | 1 | **168** | 0 | 168 | 1 | **168** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 256 | 1 | 256 | 0 | 256 | 256 | 1 | 257 | 1 | 257 | 0 | 257 | 1 | 257 | 0 | 257 | 1 | 257 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 59 | 1 | 21 | 0 | 59 | 20 | 0 | 59 | 1 | 21 | 0 | 59 | 1 | 20 | 0 | 59 | 1 | 20 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 123 | 1 | 123 | 0 | 123 | 123 | 0 | 123 | 1 | 123 | 0 | 123 | 1 | 123 | 0 | 123 | 1 | 123 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 315 | 0 | **406** | 1 | 316 | **407** | 3 | 318 | 0 | **409** | 1 | 319 | 0 | **410** | 0 | 319 | 0 | **410** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 91 | 0 | 0 | 0 | 91 | 0 | 0 | 91 | 0 | 0 | 0 | 91 | 0 | 0 | 0 | 91 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 732 | *North-South:* | | 734 | *North-South:* | | | 735 | *North-South:* | | | 737 | *North-South:* | | | 737 |
| | | *East-West:* | | 574 | *East-West:* | | 575 | *East-West:* | | | 577 | *East-West:* | | | 578 | *East-West:* | | | 578 |
| | | *SUM:* | | 1306 | *SUM:* | | 1309 | *SUM:* | | | 1312 | *SUM:* | | | 1315 | *SUM:* | | | 1315 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.871 | | | 0.873 | | | | 0.875 | | | | 0.877 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.771 | | | 0.773 | | | | 0.775 | | | | 0.777 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | C | | | C | | | | C | | | | C | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.002 | Δ*v/c* after mitigation: | -0.875 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 5 | 0 | **5** | 0 | 5 | **5** | 0 | 5 | 0 | **5** | 0 | 5 | 0 | **5** | 0 | 5 | 0 | **5** |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 496 | 0 | 292 | 0 | 496 | 293 | 0 | 496 | 0 | 295 | 0 | 496 | 0 | 295 | 0 | 496 | 0 | 295 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 68 | 0 | 292 | 1 | 69 | 293 | 5 | 73 | 0 | 295 | 1 | 74 | 0 | 295 | 0 | 74 | 0 | 295 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 112 | 0 | 112 | 2 | 114 | 114 | 4 | 116 | 0 | 116 | 2 | 118 | 0 | 118 | 0 | 118 | 0 | 118 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 645 | 0 | **440** | 0 | 645 | **442** | 1 | 646 | 0 | **444** | 0 | 646 | 0 | **446** | 0 | 646 | 0 | **446** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 10 | 0 | 440 | 0 | 10 | 442 | 0 | 10 | 0 | 444 | 0 | 10 | 0 | 446 | 0 | 10 | 0 | 446 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 10 | 0 | **10** | 0 | 10 | **10** | 0 | 10 | 0 | **10** | 0 | 10 | 0 | **10** | 0 | 10 | 0 | **10** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 30 | 0 | 41 | 0 | 30 | 41 | 3 | 33 | 0 | 44 | 0 | 33 | 0 | 44 | 0 | 33 | 0 | 44 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 162 | 0 | 162 | 5 | 167 | 167 | 11 | 173 | 0 | 173 | 5 | 178 | 0 | 178 | 0 | 178 | 0 | 178 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 33 | 0 | **265** | 0 | 33 | **276** | 6 | 39 | 0 | **291** | 0 | 39 | 0 | **302** | 0 | 39 | 0 | **302** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 70 | 0 | 0 | 6 | 76 | 0 | 9 | 79 | 0 | 0 | 6 | 85 | 0 | 0 | 0 | 85 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 445 | *North-South:* | | 447 | *North-South:* | | | 449 | *North-South:* | | | 451 | *North-South:* | | | 451 |
| | | *East-West:* | | 275 | *East-West:* | | 286 | *East-West:* | | | 301 | *East-West:* | | | 312 | *East-West:* | | | 312 |
| | | *SUM:* | | 720 | *SUM:* | | 733 | *SUM:* | | | 750 | *SUM:* | | | 763 | *SUM:* | | | 763 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.480 | | | 0.489 | | | | 0.500 | | | | 0.509 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.380 | | | 0.389 | | | | 0.400 | | | | 0.409 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.009 | Δ*v/c* after mitigation: | -0.500 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | East-West Street: | 25th St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | | EB-- 3 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 67 | 1 | **67** | 0 | 67 | **67** | 0 | 67 | 1 | **67** | 0 | 67 | 1 | **67** | 0 | 67 | 1 | **67** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 255 | 1 | 255 | 0 | 255 | 255 | 2 | 257 | 1 | 257 | 0 | 257 | 1 | 257 | 0 | 257 | 1 | 257 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 320 | 1 | **320** | 1 | 321 | **321** | 3 | 323 | 1 | **323** | 1 | 324 | 1 | **324** | 0 | 324 | 1 | **324** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 342 | 1 | 173 | 4 | 346 | 177 | 7 | 349 | 1 | 179 | 4 | 353 | 1 | 182 | 0 | 353 | 1 | 182 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 338 | 1 | **338** | 1 | 339 | **339** | 3 | 341 | 1 | **341** | 1 | 342 | 1 | **342** | 0 | 342 | 1 | **342** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 107 | 1 | 40 | 0 | 107 | 40 | 0 | 107 | 1 | 40 | 0 | 107 | 1 | 40 | 0 | 107 | 1 | 40 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 387 | *North-South:* | | 388 | *North-South:* | | | 390 | *North-South:* | | | 391 | *North-South:* | | | 391 |
| | | *East-West:* | | 338 | *East-West:* | | 339 | *East-West:* | | | 341 | *East-West:* | | | 342 | *East-West:* | | | 342 |
| | | *SUM:* | | 725 | *SUM:* | | 727 | *SUM:* | | | 731 | *SUM:* | | | 733 | *SUM:* | | | 733 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.509 | | | 0.510 | | | | 0.513 | | | | 0.514 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.409 | | | 0.410 | | | | 0.413 | | | | 0.414 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | Δ*v/c* after mitigation: | -0.513 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Via Cabrillo Marina | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 102 | 2 | **56** | 0 | 102 | **56** | 0 | 102 | 2 | **56** | 0 | 102 | 2 | **56** | 0 | 102 | 2 | **56** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 105 | 1 | 41 | 0 | 105 | 41 | 0 | 105 | 1 | 41 | 0 | 105 | 1 | 41 | 0 | 105 | 1 | 41 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 203 | 1 | **137** | 5 | 208 | **139** | 11 | 214 | 1 | **142** | 5 | 219 | 1 | **145** | 0 | 219 | 1 | **145** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 70 | 0 | 0 | 0 | 70 | 0 | 0 | 70 | 0 | 0 | 0 | 70 | 0 | 0 | 0 | 70 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 64 | 1 | **64** | 0 | 64 | **64** | 0 | 64 | 1 | **64** | 0 | 64 | 1 | **64** | 0 | 64 | 1 | **64** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 289 | 2 | 145 | 15 | 304 | 152 | 26 | 315 | 2 | 158 | 15 | 330 | 2 | 165 | 0 | 330 | 2 | 165 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 56 | *North-South:* | | 56 | *North-South:* | | | 56 | *North-South:* | | | 56 | *North-South:* | | | 56 |
| | | *East-West:* | | 201 | *East-West:* | | 203 | *East-West:* | | | 206 | *East-West:* | | | 209 | *East-West:* | | | 209 |
| | | *SUM:* | | 257 | *SUM:* | | 259 | *SUM:* | | | 262 | *SUM:* | | | 265 | *SUM:* | | | 265 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.180 | | | 0.182 | | | | 0.184 | | | | 0.186 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.080 | | | 0.082 | | | | 0.084 | | | | 0.086 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.002 | Δ*v/c* after mitigation: | -0.184 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | East-West Street: | Swinford St / SR-47 EB Ramps | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | | 4 | | | 4 | | | 4 | | | 4 | | | 4 | | | 4 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 |
| | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| **NORTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 488 | 2 | **268** | 11 | 499 | 274 | 41 | 529 | 2 | **291** | 11 | 540 | 2 | **297** | 0 | 540 | 2 | **297** |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 616 | 1 | 319 | 40 | 656 | **339** | 34 | 650 | 1 | 336 | 40 | 690 | 1 | 356 | 0 | 690 | 1 | 356 |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 22 | 0 | 0 | 0 | 22 | 0 | 0 | 22 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 22 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **SOUTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 12 | 1 | 12 | 0 | 12 | **12** | 0 | 12 | 1 | 12 | 0 | 12 | 1 | 12 | 0 | 12 | 1 | 12 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 141 | 2 | **71** | 1 | 142 | 71 | 1 | 142 | 2 | **71** | 1 | 143 | 2 | **72** | 0 | 143 | 2 | **72** |
| Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Right | 81 | 1 | 0 | 0 | 81 | 0 | 0 | 81 | 1 | 0 | 0 | 81 | 1 | 0 | 0 | 81 | 1 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **EASTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 239 | 1 | 239 | 0 | 239 | 239 | 0 | 239 | 1 | 239 | 0 | 239 | 1 | 239 | 0 | 239 | 1 | 239 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 13 | 0 | **611** | 0 | 13 | **618** | 0 | 13 | 0 | **620** | 0 | 13 | 0 | **627** | 0 | 13 | 0 | **627** |
| Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Right | 1209 | 1 | 0 | 14 | 1223 | 0 | 17 | 1226 | 1 | 0 | 14 | 1240 | 1 | 0 | 0 | 1240 | 1 | 0 |
| Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **WESTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 38 | 0 | 38 | 0 | 38 | 38 | 0 | 38 | 0 | 38 | 0 | 38 | 0 | 38 | 0 | 38 | 0 | 38 |
| Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Through | 31 | 0 | **44** | 0 | 31 | **44** | 0 | 31 | 0 | **44** | 0 | 31 | 0 | **44** | 0 | 31 | 0 | **44** |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 13 | 0 | 0 | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 13 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | *North-South:* | | 339 | *North-South:* | | 351 | *North-South:* | | 362 | | *North-South:* | | 369 | | *North-South:* | | 369 | |
| | *East-West:* | | 655 | *East-West:* | | 662 | *East-West:* | | 664 | | *East-West:* | | 671 | | *East-West:* | | 671 | |
| | *SUM:* | | 994 | *SUM:* | | 1013 | *SUM:* | | 1026 | | *SUM:* | | 1040 | | *SUM:* | | 1040 | |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.723 | | | 0.737 | | | 0.746 | | | | 0.756 | | | | 0.756 | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.623 | | | 0.637 | | | 0.646 | | | | 0.656 | | | | 0.656 | |
| LEVEL OF SERVICE (LOS): | | | B | | | B | | | B | | | | B | | | | B | |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.010 | *Δv/c* after mitigation: | 0.010 |
| Significant impacted? | NO | Fully mitigated? | N/A |

| | Scenario | Scenario | Change | Impact? |
|---|---|---|---|---|
| FB | 0.405 | 0.423 | 0.017 | NO |

| FB | | |
|---|---|---|
| N-S | 348 | 348 |
| EB | 303 | 239 |
| WB | 44 | 44 |
| Sum | 695 | 631 |
| **V/C** | 0.505 | 0.459 |
| Less ATS | 0.405 | 0.359 |
| LOS | A | A |

| FP | | |
|---|---|---|
| N-S | 368 | 368 |
| EB | 307 | 239 |
| WB | 44 | 44 |
| Sum | 719 | 651 |
| **V/C** | 0.523 | 0.473 |
| Less ATS | 0.423 | 0.373 |
| LOS | A | A |

| FP Mitigation | | |
|---|---|---|
| N-S | 369 | 369 |
| EB | 307 | 239 |
| WB | 44 | 44 |
| Sum | 720 | 652 |
| **V/C** | 0.524 | 0.474 |
| Less ATS | 0.424 | 0.474 |
| LOS | A | A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | East-West Street: | O'Farrell St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | | 2 | | | | 2 | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | NB-- SB-- / EB-- WB-- | | | 0 | NB-- 0 SB-- / EB-- 0 WB-- | | | 0 | NB-- 0 SB-- / EB-- 0 WB-- | | | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| NORTHBOUND | Left | 9 | 1 | **9** | 0 | 9 | **9** | 0 | 9 | 1 | **9** | 0 | 9 | 1 | **9** | 0 | 9 | 1 | **9** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 968 | 2 | 484 | 51 | 1019 | 510 | 75 | 1043 | 2 | 522 | 51 | 1094 | 2 | 547 | 0 | 1094 | 2 | 547 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1349 | 2 | **675** | 15 | 1364 | **682** | 19 | 1368 | 2 | **684** | 15 | 1383 | 2 | **692** | 0 | 1383 | 2 | **692** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 8 | 1 | 8 | 0 | 8 | 8 | 0 | 8 | 1 | 8 | 0 | 8 | 1 | 8 | 0 | 8 | 1 | 8 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 101 | 0 | 101 | 0 | 101 | 101 | 0 | 101 | 0 | 101 | 0 | 101 | 0 | 101 | 0 | 101 | 0 | 101 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 18 | 0 | **119** | 0 | 18 | **119** | 0 | 18 | 0 | **119** | 0 | 18 | 0 | **119** | 0 | 18 | 0 | **119** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| WESTBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 684 | North-South: | | 691 | North-South: | | | 693 | North-South: | | | 701 | North-South: | | | 701 |
| | | East-West: | | 119 | East-West: | | 119 | East-West: | | | 119 | East-West: | | | 119 | East-West: | | | 119 |
| | | SUM: | | 803 | SUM: | | 810 | SUM: | | | 812 | SUM: | | | 820 | SUM: | | | 820 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.535 | | | 0.540 | | | | 0.541 | | | | 0.547 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.435 | | | 0.440 | | | | 0.441 | | | | 0.447 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.006 | Δv/c after mitigation: | -0.541 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | East-West Street: | 1st St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 4 | | | 4 | | | 4 | | | | 4 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 12 | 1 | **12** | 0 | 12 | **12** | 0 | 12 | 1 | **12** | 0 | 12 | 1 | **12** | 0 | 12 | 1 | **12** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 911 | 1 | 456 | 51 | 962 | 482 | 5 | 916 | 1 | 459 | 51 | 967 | 1 | 485 | 0 | 967 | 1 | 485 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 7 | 1 | 7 | 0 | 7 | 7 | 20 | 27 | 1 | 27 | 0 | 27 | 1 | 27 | 0 | 27 | 1 | 27 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1259 | 2 | **630** | 15 | 1274 | **637** | -2 | 1257 | 2 | **629** | 15 | 1272 | 2 | **636** | 0 | 1272 | 2 | **636** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 86 | 1 | 38 | 0 | 86 | 38 | 0 | 86 | 1 | 38 | 0 | 86 | 1 | 38 | 0 | 86 | 1 | 38 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 96 | 1 | **96** | 0 | 96 | **96** | 0 | 96 | 1 | **96** | 0 | 96 | 1 | **96** | 0 | 96 | 1 | **96** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 18 | 0 | 0 | 18 | 4 | 4 | 0 | 22 | 0 | 4 | 0 | 22 | 0 | 4 | 0 | 22 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 18 | 0 | 0 | 0 | 18 | 0 | 0 | 18 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 18 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 13 | 13 | 0 | **85** | 0 | 13 | 0 | **85** | 0 | 13 | 0 | **85** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 69 | 69 | 0 | 0 | 0 | 69 | 0 | 0 | 0 | 69 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 642 | *North-South:* | | 649 | *North-South:* | | 641 | | *North-South:* | | 648 | | *North-South:* | | 648 | |
| | | *East-West:* | | 96 | *East-West:* | | 96 | *East-West:* | | 181 | | *East-West:* | | 181 | | *East-West:* | | 181 | |
| | | *SUM:* | | 738 | *SUM:* | | 745 | *SUM:* | | 822 | | *SUM:* | | 829 | | *SUM:* | | 829 | |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.537 | | | 0.542 | | | 0.598 | | | | 0.603 | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.437 | | | 0.442 | | | 0.498 | | | | 0.503 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.005 | Δ*v/c* after mitigation: | -0.598 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | East-West Street: | 5th St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 26 | 1 | **26** | 0 | 26 | **26** | 0 | 26 | 1 | **26** | 0 | 26 | 1 | **26** | 0 | 26 | 1 | **26** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 610 | 1 | 307 | 51 | 661 | 332 | 6 | 616 | 1 | 310 | 51 | 667 | 1 | 335 | 0 | 667 | 1 | 335 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 2 | 1 | 2 | 0 | 2 | 2 | 0 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 0 | 2 | 1 | 2 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1090 | 1 | **606** | 15 | 1105 | **614** | 1 | 1091 | 1 | **607** | 15 | 1106 | 1 | **614** | 0 | 1106 | 1 | **614** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 122 | 0 | 0 | 0 | 122 | 0 | 0 | 122 | 0 | 0 | 0 | 122 | 0 | 0 | 0 | 122 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 287 | 1 | **287** | 0 | 287 | **287** | 0 | 287 | 1 | **287** | 0 | 287 | 1 | **287** | 0 | 287 | 1 | **287** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 6 | 1 | 6 | 0 | 6 | 6 | 0 | 6 | 1 | 6 | 0 | 6 | 1 | 6 | 0 | 6 | 1 | 6 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 17 | 1 | 4 | 0 | 17 | 4 | 0 | 17 | 1 | 4 | 0 | 17 | 1 | 4 | 0 | 17 | 1 | 4 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 4 | 1 | 4 | 0 | 4 | 4 | 0 | 4 | 1 | 4 | 0 | 4 | 1 | 4 | 0 | 4 | 1 | 4 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 6 | 1 | 6 | 0 | 6 | 6 | 0 | 6 | 1 | 6 | 0 | 6 | 1 | 6 | 0 | 6 | 1 | 6 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 30 | 1 | **29** | 0 | 30 | **29** | 0 | 30 | 1 | **29** | 0 | 30 | 1 | **29** | 0 | 30 | 1 | **29** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 632 | *North-South:* | | 640 | *North-South:* | | | 633 | *North-South:* | | | 640 | *North-South:* | | | 640 |
| | | *East-West:* | | 316 | *East-West:* | | 316 | *East-West:* | | | 316 | *East-West:* | | | 316 | *East-West:* | | | 316 |
| | | *SUM:* | | 948 | *SUM:* | | 956 | *SUM:* | | | 949 | *SUM:* | | | 956 | *SUM:* | | | 956 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.665 | | | 0.671 | | | | 0.666 | | | | 0.671 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.565 | | | 0.571 | | | | 0.566 | | | | 0.571 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.005 | $\Delta v/c$ after mitigation: | -0.666 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | East-West Street: | 6th St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 4 | | | 4 | | | 4 | | | 4 | | | 4 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 3 | SB-- 0 | NB-- | 3 | SB-- 0 | NB-- | 3 | SB-- 0 | NB-- | 3 | SB-- 0 | NB-- | 0 | SB-- 0 |
| | EB-- | 0 | WB-- 3 | EB-- | 0 | WB-- 3 | EB-- | 0 | WB-- 3 | EB-- | 0 | WB-- 3 | EB-- | 0 | WB-- 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 9 | 1 | **9** | 0 | 9 | **9** | 0 | 9 | 1 | **9** | 0 | 9 | 1 | **9** | 0 | 9 | 1 | **9** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 713 | 1 | 357 | 51 | 764 | 382 | 6 | 719 | 1 | 360 | 51 | 770 | 1 | 385 | 0 | 770 | 1 | 385 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1194 | 2 | **597** | 15 | 1209 | **605** | 1 | 1195 | 2 | **598** | 15 | 1210 | 2 | **605** | 0 | 1210 | 2 | **605** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 98 | 1 | 55 | 0 | 98 | 55 | 0 | 98 | 1 | 55 | 0 | 98 | 1 | 55 | 0 | 98 | 1 | 55 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 86 | 1 | **86** | 0 | 86 | **86** | 0 | 86 | 1 | **86** | 0 | 86 | 1 | **86** | 0 | 86 | 1 | **86** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 3 | 0 | 16 | 0 | 3 | 16 | 0 | 3 | 0 | 16 | 0 | 3 | 0 | 16 | 0 | 3 | 0 | 16 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 13 | 0 | 0 | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 13 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 606 | *North-South:* | | 614 | *North-South:* | | | 607 | *North-South:* | | | 614 | *North-South:* | | | 614 |
| | | *East-West:* | | 86 | *East-West:* | | 86 | *East-West:* | | | 86 | *East-West:* | | | 86 | *East-West:* | | | 86 |
| | | *SUM:* | | 692 | *SUM:* | | 700 | *SUM:* | | | 693 | *SUM:* | | | 700 | *SUM:* | | | 700 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.503 | | | 0.509 | | | | 0.504 | | | | 0.509 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.403 | | | 0.409 | | | | 0.404 | | | | 0.409 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.005 | *Δv/c* after mitigation: | -0.504 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17A | East-West Street: | 7th St | | Projection Year: | 2016 | Peak Hour: | PM | Reviewed by: | | Project: | 2016 CD1 CB |

| | YEAR 2016 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | |
| No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | 0 | |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | | NB-- 0 | SB-- | 0 | | NB-- 0 | SB-- | 3 | |
| | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | | EB-- 3 | WB-- | 0 | | EB-- 0 | WB-- | 0 | |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | |

| MOVEMENT | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NORTHBOUND | Left | 12 | 1 | **12** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 440 | 3 | 147 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 660 | 2 | **330** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 1 | | | | | | | | | | | | | | | | |
| | Right | 360 | 0 | 287 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 268 | 2 | **147** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 12 | 1 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | *North-South:* | | 342 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 147 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 489 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.343 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.243 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17A | East-West Street: | 7th St | Projection Year: | 2016 | Peak Hour: | PM | Reviewed by: | | Project: | 2016 WITH PROJECT |

| | YEAR 2016 CONDITIONS | EXISTING PLUS PROJECT | FUTURE CONDITION W/O PROJECT | FUTURE CONDITION W/ PROJECT | FUTURE W/ PROJECT W/ MITIGATION |
|---|---|---|---|---|---|
| No. of Phases | 3 | 3 | 3 | 3 | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | 0 | 0 | 0 | 0 | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- 0<br>EB-- 3 WB-- 0 | NB-- 0 SB-- 0<br>EB-- 3 WB-- 0 | NB-- 0 SB-- 0<br>EB-- 3 WB-- 0 | NB-- 0 SB-- 0<br>EB-- 3 WB-- 0 | NB-- 0 SB-- 3<br>EB-- 0 WB-- 0 |
| ATSAC-1 or ATSAC+ATCS-2? | 2 | 2 | 2 | 2 | 2 |
| Override Capacity | 0 | 0 | 0 | 0 | 0 |

| MOVEMENT | | YEAR 2016 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 15 | 1 | **15** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 477 | 3 | 159 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 666 | 2 | **333** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 1 | | | | | | | | | | | | | | | | |
| | Right | 360 | 0 | 287 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 268 | 2 | **147** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 12 | 1 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | *North-South:* | | 348 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 147 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 495 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.347 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.247 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17B | East-West Street: | Sampson Way | | Projection Year: | 2016 | Peak Hour: | PM | Reviewed by: | | Project: | 2016 CD1 CB |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- | SB-- | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | YEAR 2016 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 0 | 1 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 2 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 2 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 672 | 1 | 421 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 456 | 2 | 251 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 1 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | North-South: | | 421 | North-South: | | 0 | North-South: | | | 0 | North-South: | | | 0 | North-South: | | | 0 |
| | | East-West: | | 251 | East-West: | | 0 | East-West: | | | 0 | East-West: | | | 0 | East-West: | | | 0 |
| | | SUM: | | 672 | SUM: | | 0 | SUM: | | | 0 | SUM: | | | 0 | SUM: | | | 0 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.448 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.348 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.000 | Δv/c after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17B | East-West Street: | Sampson Way | Projection Year: | 2016 | Peak Hour: | PM | Reviewed by: | | Project: | 2016 WITH PROJECT |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| | MOVEMENT | YEAR 2016 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 0 | 1 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 23 | 3 | 8 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 6 | 2 | 3 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 682 | 1 | 413 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 489 | 2 | 269 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 1 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | North-South: | | 413 | North-South: | | 0 | North-South: | | | 0 | North-South: | | | 0 | North-South: | | | 0 |
| | | East-West: | | 269 | East-West: | | 0 | East-West: | | | 0 | East-West: | | | 0 | East-West: | | | 0 |
| | | SUM: | | 682 | SUM: | | 0 | SUM: | | | 0 | SUM: | | | 0 | SUM: | | | 0 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.455 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.355 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.000 | Δv/c after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Miner St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 18 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 4 | | | 4 | | | 4 | | | | 4 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 9 | 1 | 9 | 0 | 9 | 9 | 0 | 9 | 1 | 9 | 0 | 9 | 1 | 9 | 0 | 9 | 1 | 9 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 37 | 1 | 20 | 0 | 37 | 20 | 0 | 37 | 1 | 20 | 0 | 37 | 1 | 20 | 0 | 37 | 1 | 20 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 23 | 1 | 23 | 11 | 34 | 34 | 0 | 23 | 1 | 23 | 11 | 34 | 1 | 34 | 0 | 34 | 1 | 34 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 29 | 1 | 29 | 0 | 29 | 29 | 0 | 29 | 1 | 29 | 0 | 29 | 1 | 29 | 0 | 29 | 1 | 29 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 279 | 0 | 177 | 0 | 279 | 177 | 3 | 282 | 0 | 180 | 0 | 282 | 0 | 180 | 0 | 282 | 0 | 180 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 204 | 1 | 204 | 0 | 204 | 204 | 1 | 205 | 1 | 205 | 0 | 205 | 1 | 205 | 0 | 205 | 1 | 205 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 34 | 1 | 22 | 5 | 39 | 24 | 0 | 34 | 1 | 22 | 5 | 39 | 1 | 24 | 0 | 39 | 1 | 24 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 9 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 9 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 4 | 1 | 4 | 0 | 4 | 4 | 0 | 4 | 1 | 4 | 0 | 4 | 1 | 4 | 0 | 4 | 1 | 4 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 45 | 1 | 38 | 15 | 60 | 60 | 0 | 45 | 1 | 38 | 15 | 60 | 1 | 60 | 0 | 60 | 1 | 60 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 31 | 0 | 0 | 36 | 67 | 50 | 0 | 31 | 0 | 0 | 36 | 67 | 0 | 50 | 0 | 67 | 0 | 50 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 186 | North-South: | | 186 | North-South: | | 189 | | North-South: | | 189 | | North-South: | | 189 | |
| | | East-West: | | 242 | East-West: | | 264 | East-West: | | 243 | | East-West: | | 265 | | East-West: | | 265 | |
| | | SUM: | | 428 | SUM: | | 450 | SUM: | | 432 | | SUM: | | 454 | | SUM: | | 454 | |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.311 | | | 0.327 | | | 0.314 | | | | 0.330 | | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.211 | | | 0.227 | | | 0.214 | | | | 0.230 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.016 | Δv/c after mitigation: | -0.314 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | East-West Street: | Summerland Av | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 3 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 144 | 1 | **144** | 0 | 144 | **144** | 0 | 144 | 1 | **144** | 0 | 144 | 1 | **144** | 0 | 144 | 1 | **144** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 502 | 1 | 262 | 0 | 502 | 262 | 7 | 509 | 1 | 266 | 0 | 509 | 1 | 266 | 0 | 509 | 1 | 266 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 22 | 0 | 0 | 0 | 22 | 0 | 0 | 22 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 22 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 11 | 1 | 11 | 0 | 11 | 11 | 0 | 11 | 1 | 11 | 0 | 11 | 1 | 11 | 0 | 11 | 1 | 11 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 536 | 1 | **357** | 1 | 537 | **358** | 12 | 548 | 1 | **363** | 1 | 549 | 1 | **364** | 0 | 549 | 1 | **364** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 178 | 0 | 0 | 0 | 178 | 0 | 0 | 178 | 0 | 0 | 0 | 178 | 0 | 0 | 0 | 178 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 203 | 1 | **203** | 0 | 203 | **203** | 0 | 203 | 1 | **203** | 0 | 203 | 1 | **203** | 0 | 203 | 1 | **203** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 82 | 0 | 0 | 82 | 0 | 0 | 0 | 82 | 0 | 0 | 0 | 82 | 0 | 0 | 0 | 82 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 82 | 0 | 0 | 0 | 82 | 0 | 0 | 82 | 0 | 0 | 0 | 82 | 0 | 0 | 0 | 82 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 462 | 2 | 254 | 0 | 462 | 254 | 0 | 462 | 2 | 254 | 0 | 462 | 2 | 254 | 0 | 462 | 2 | 254 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 181 | 0 | **384** | 0 | 181 | **384** | 0 | 181 | 0 | **384** | 0 | 181 | 0 | **384** | 0 | 181 | 0 | **384** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 203 | 0 | 0 | 0 | 203 | 0 | 0 | 203 | 0 | 0 | 0 | 203 | 0 | 0 | 0 | 203 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | | *North-South:* | 501 | | *North-South:* | 502 | | *North-South:* | | 507 | | *North-South:* | | 508 | | *North-South:* | | 508 |
| | | | *East-West:* | 587 | | *East-West:* | 587 | | *East-West:* | | 587 | | *East-West:* | | 587 | | *East-West:* | | 587 |
| | | | *SUM:* | 1088 | | *SUM:* | 1089 | | *SUM:* | | 1094 | | *SUM:* | | 1095 | | *SUM:* | | 1095 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.764 | | | 0.764 | | | | 0.768 | | | | 0.768 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.664 | | | 0.664 | | | | 0.668 | | | | 0.668 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | B | | | B | | | | B | | | | B | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | -0.768 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | East-West Street: | I-110 Ramps | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | 2 | | | 2 | | | 2 | | | 2 | | | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 1 SB-- / EB-- 0 WB-- | 0 | | NB-- 1 SB-- / EB-- 0 WB-- | 0 | | NB-- 1 SB-- / EB-- 0 WB-- | 0 | | | NB-- 1 SB-- / EB-- 0 WB-- | 0 | | | NB-- 0 SB-- / EB-- 0 WB-- | 0 | | |
| | ATSAC-1 or ATSAC+ATCS-2? | | 2 | | | 2 | | | 2 | | | 2 | | | | | | | 2 |
| | Override Capacity | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | 0 |
| NORTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 570 | 2 | 285 | 0 | 570 | 285 | 7 | 577 | 2 | 289 | 0 | 577 | 2 | 289 | 0 | 577 | 2 | 289 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 2019 | 2 | 0 | 1 | 2020 | 0 | 12 | 2031 | 2 | 0 | 1 | 2032 | 2 | 0 | 0 | 2032 | 2 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 961 | 3 | 320 | 1 | 962 | 321 | 12 | 973 | 3 | 324 | 1 | 974 | 3 | 325 | 0 | 974 | 3 | 325 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 1480 | 2 | 524 | 2 | 1482 | 525 | 17 | 1497 | 2 | 530 | 2 | 1499 | 2 | 531 | 0 | 1499 | 2 | 531 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 93 | 0 | 524 | 0 | 93 | 525 | 0 | 93 | 0 | 530 | 0 | 93 | 0 | 531 | 0 | 93 | 0 | 531 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | CRITICAL VOLUMES | North-South: | 320 | | North-South: | 321 | | North-South: | 324 | | | North-South: | 325 | | | North-South: | 325 | | |
| | | East-West: | 524 | | East-West: | 525 | | East-West: | 530 | | | East-West: | 531 | | | East-West: | 531 | | |
| | | SUM: | 844 | | SUM: | 846 | | SUM: | 854 | | | SUM: | 856 | | | SUM: | 856 | | |
| | VOLUME/CAPACITY (V/C) RATIO: | | 0.563 | | | 0.564 | | | 0.569 | | | | 0.571 | | | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | 0.463 | | | 0.464 | | | 0.469 | | | | 0.471 | | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | A | | | A | | | A | | | | A | | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.002 | Δv/c after mitigation: | -0.569 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | East-West Street: | 1st St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 3 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | | 0 | NB-- 0 SB-- | | | 0 | NB-- 0 SB-- | | | 0 |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | | 0 | EB-- 0 WB-- | | | 0 | EB-- 0 WB-- | | | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| NORTHBOUND | Left | 50 | 1 | **50** | 0 | 50 | **50** | 2 | 52 | 1 | **52** | 0 | 52 | 1 | **52** | 0 | 52 | 1 | **52** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1408 | 2 | 476 | 2 | 1410 | 477 | 10 | 1418 | 2 | 481 | 2 | 1420 | 2 | 481 | 0 | 1420 | 2 | 481 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 21 | 0 | 0 | 0 | 21 | 0 | 3 | 24 | 0 | 0 | 0 | 24 | 0 | 0 | 0 | 24 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 188 | 1 | 188 | 0 | 188 | 188 | 10 | 198 | 1 | 198 | 0 | 198 | 1 | 198 | 0 | 198 | 1 | 198 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1793 | 2 | **757** | 2 | 1795 | **758** | 20 | 1813 | 2 | **764** | 2 | 1815 | 2 | **764** | 0 | 1815 | 2 | **764** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 478 | 0 | 0 | 0 | 478 | 0 | 0 | 478 | 0 | 0 | 0 | 478 | 0 | 0 | 0 | 478 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 641 | 1 | **379** | 0 | 641 | **379** | 0 | 641 | 1 | **381** | 0 | 641 | 1 | **381** | 0 | 641 | 1 | **381** |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 116 | 0 | 379 | 0 | 116 | 379 | 5 | 121 | 0 | 381 | 0 | 121 | 0 | 381 | 0 | 121 | 0 | 381 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 86 | 1 | 61 | 0 | 86 | 61 | 4 | 90 | 1 | 64 | 0 | 90 | 1 | 64 | 0 | 90 | 1 | 64 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 45 | 1 | 45 | 0 | 45 | 45 | 2 | 47 | 1 | 47 | 0 | 47 | 1 | 47 | 0 | 47 | 1 | 47 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 151 | 1 | **151** | 0 | 151 | **151** | 4 | 155 | 1 | **155** | 0 | 155 | 1 | **155** | 0 | 155 | 1 | **155** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 207 | 1 | 113 | 0 | 207 | 113 | 9 | 216 | 1 | 117 | 0 | 216 | 1 | 117 | 0 | 216 | 1 | 117 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 807 | *North-South:* | | 808 | *North-South:* | | | 816 | *North-South:* | | | 816 | *North-South:* | | | 816 |
| | | *East-West:* | | 530 | *East-West:* | | 530 | *East-West:* | | | 536 | *East-West:* | | | 536 | *East-West:* | | | 536 |
| | | *SUM:* | | 1337 | *SUM:* | | 1338 | *SUM:* | | | 1352 | *SUM:* | | | 1352 | *SUM:* | | | 1352 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.938 | | | 0.939 | | | | 0.949 | | | | 0.949 | | | | 0.949 |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.838 | | | 0.839 | | | | 0.849 | | | | 0.849 | | | | 0.849 |
| | LEVEL OF SERVICE (LOS): | | | D | | | D | | | | D | | | | D | | | | D |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | East-West Street: | 5th St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 28 | 1 | 28 | 0 | 28 | 28 | 0 | 28 | 1 | 28 | 0 | 28 | 1 | 28 | 0 | 28 | 1 | 28 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1462 | 1 | 755 | 2 | 1464 | 756 | 15 | 1477 | 1 | 762 | 2 | 1479 | 1 | 763 | 0 | 1479 | 1 | 763 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 47 | 0 | 0 | 0 | 47 | 0 | 0 | 47 | 0 | 0 | 0 | 47 | 0 | 0 | 0 | 47 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 178 | 1 | 178 | 0 | 178 | 178 | 0 | 178 | 1 | 178 | 0 | 178 | 1 | 178 | 0 | 178 | 1 | 178 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1488 | 1 | 787 | 2 | 1490 | 788 | 26 | 1514 | 1 | 800 | 2 | 1516 | 1 | 801 | 0 | 1516 | 1 | 801 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 85 | 0 | 0 | 0 | 85 | 0 | 0 | 85 | 0 | 0 | 0 | 85 | 0 | 0 | 0 | 85 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 104 | 1 | 104 | 0 | 104 | 104 | 0 | 104 | 1 | 104 | 0 | 104 | 1 | 104 | 0 | 104 | 1 | 104 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 119 | 0 | 139 | 0 | 119 | 139 | 0 | 119 | 0 | 139 | 0 | 119 | 0 | 139 | 0 | 119 | 0 | 139 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 20 | 0 | 0 | 0 | 20 | 0 | 0 | 20 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 20 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 33 | 1 | 33 | 0 | 33 | 33 | 0 | 33 | 1 | 33 | 0 | 33 | 1 | 33 | 0 | 33 | 1 | 33 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 81 | 0 | 158 | 0 | 81 | 158 | 0 | 81 | 0 | 158 | 0 | 81 | 0 | 158 | 0 | 81 | 0 | 158 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 77 | 0 | 0 | 0 | 77 | 0 | 0 | 77 | 0 | 0 | 0 | 77 | 0 | 0 | 0 | 77 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 933 | North-South: | | 934 | North-South: | | | 940 | North-South: | | | 941 | North-South: | | | 941 |
| | | East-West: | | 262 | East-West: | | 262 | East-West: | | | 262 | East-West: | | | 262 | East-West: | | | 262 |
| | | SUM: | | 1195 | SUM: | | 1196 | SUM: | | | 1202 | SUM: | | | 1203 | SUM: | | | 1203 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.839 | | | 0.839 | | | | 0.844 | | | | 0.844 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.739 | | | 0.739 | | | | 0.744 | | | | 0.744 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | C | | | C | | | | C | | | | C | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.000 | Δv/c after mitigation: | -0.844 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | East-West Street: | 7th St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 38 | 1 | **38** | 0 | 38 | **38** | 3 | 41 | 1 | **41** | 0 | 41 | 1 | **41** | 0 | 41 | 1 | **41** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1247 | 1 | 649 | 2 | 1249 | 650 | 15 | 1262 | 1 | 657 | 2 | 1264 | 1 | 658 | 0 | 1264 | 1 | 658 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 51 | 0 | 0 | 0 | 51 | 0 | 0 | 51 | 0 | 0 | 0 | 51 | 0 | 0 | 0 | 51 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 72 | 1 | 72 | 0 | 72 | 72 | 0 | 72 | 1 | 72 | 0 | 72 | 1 | 72 | 0 | 72 | 1 | 72 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1275 | 1 | **691** | 2 | 1277 | **692** | 26 | 1301 | 1 | **704** | 2 | 1303 | 1 | **705** | 0 | 1303 | 1 | **705** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 106 | 0 | 0 | 0 | 106 | 0 | 0 | 106 | 0 | 0 | 0 | 106 | 0 | 0 | 0 | 106 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 168 | 1 | **168** | 0 | 168 | **168** | 0 | 168 | 1 | **168** | 0 | 168 | 1 | **168** | 0 | 168 | 1 | **168** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 177 | 0 | 218 | 0 | 177 | 218 | 0 | 177 | 0 | 224 | 0 | 177 | 0 | 224 | 0 | 177 | 0 | 224 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 41 | 0 | 0 | 0 | 41 | 0 | 6 | 47 | 0 | 0 | 0 | 47 | 0 | 0 | 0 | 47 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 66 | 1 | 66 | 0 | 66 | 66 | 0 | 66 | 1 | 66 | 0 | 66 | 1 | 66 | 0 | 66 | 1 | 66 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 158 | 0 | **230** | 0 | 158 | **230** | 0 | 158 | 0 | **230** | 0 | 158 | 0 | **230** | 0 | 158 | 0 | **230** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 72 | 0 | 0 | 0 | 72 | 0 | 0 | 72 | 0 | 0 | 0 | 72 | 0 | 0 | 0 | 72 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 729 | *North-South:* | | 730 | *North-South:* | | | 745 | *North-South:* | | | 746 | *North-South:* | | | 746 |
| | | *East-West:* | | 398 | *East-West:* | | 398 | *East-West:* | | | 398 | *East-West:* | | | 398 | *East-West:* | | | 398 |
| | | *SUM:* | | 1127 | *SUM:* | | 1128 | *SUM:* | | | 1143 | *SUM:* | | | 1144 | *SUM:* | | | 1144 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.751 | | | 0.752 | | | | 0.762 | | | | 0.763 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.651 | | | 0.652 | | | | 0.662 | | | | 0.663 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | B | | | B | | | | B | | | | B | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | Δ*v/c* after mitigation: | -0.762 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | East-West Street: | 9th St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 69 | 1 | **69** | 0 | 69 | **69** | 0 | 69 | 1 | **69** | 0 | 69 | 1 | **69** | 0 | 69 | 1 | **69** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1203 | 1 | 629 | 2 | 1205 | 630 | 15 | 1218 | 1 | 636 | 2 | 1220 | 1 | 637 | 0 | 1220 | 1 | 637 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 54 | 0 | 0 | 0 | 54 | 0 | 0 | 54 | 0 | 0 | 0 | 54 | 0 | 0 | 0 | 54 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 74 | 1 | 74 | 0 | 74 | **74** | 0 | 74 | 1 | **74** | 0 | 74 | 1 | **74** | 0 | 74 | 1 | 74 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1318 | 1 | **703** | 2 | 1320 | **704** | 30 | 1348 | 1 | **719** | 2 | 1350 | 1 | **720** | 0 | 1350 | 1 | **720** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 88 | 0 | 0 | 0 | 88 | 0 | 2 | 90 | 0 | 0 | 0 | 90 | 0 | 0 | 0 | 90 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 172 | 1 | **172** | 0 | 172 | **172** | 2 | 174 | 1 | **174** | 0 | 174 | 1 | **174** | 0 | 174 | 1 | **174** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 206 | 1 | 206 | 0 | 206 | 206 | 11 | 217 | 1 | 217 | 0 | 217 | 1 | 217 | 0 | 217 | 1 | 217 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 61 | 1 | 27 | 0 | 61 | 27 | 0 | 61 | 1 | 27 | 0 | 61 | 1 | 27 | 0 | 61 | 1 | 27 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 100 | 1 | 100 | 0 | 100 | 100 | 0 | 100 | 1 | 100 | 0 | 100 | 1 | 100 | 0 | 100 | 1 | 100 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 280 | 0 | **395** | 0 | 280 | **395** | 6 | 286 | 0 | **401** | 0 | 286 | 0 | **401** | 0 | 286 | 0 | **401** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 115 | 0 | 0 | 0 | 115 | 0 | 0 | 115 | 0 | 0 | 0 | 115 | 0 | 0 | 0 | 115 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 772 | *North-South:* | | 773 | *North-South:* | | | 788 | *North-South:* | | | 789 | *North-South:* | | | 789 |
| | | *East-West:* | | 567 | *East-West:* | | 567 | *East-West:* | | | 575 | *East-West:* | | | 575 | *East-West:* | | | 575 |
| | | *SUM:* | | 1339 | *SUM:* | | 1340 | *SUM:* | | | 1363 | *SUM:* | | | 1364 | *SUM:* | | | 1364 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.893 | | | 0.893 | | | | 0.909 | | | | 0.909 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.793 | | | 0.793 | | | | 0.809 | | | | 0.809 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | C | | | C | | | | D | | | | D | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | -0.909 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 8 | 0 | **8** | 0 | 8 | **8** | 0 | 8 | 0 | **8** | 0 | 8 | 0 | **8** | 0 | 8 | 0 | **8** |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 567 | 0 | 364 | 0 | 567 | 365 | 1 | 568 | 0 | 381 | 0 | 568 | 0 | 382 | 0 | 568 | 0 | 382 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 128 | 0 | 364 | 2 | 130 | 365 | 34 | 162 | 0 | 381 | 2 | 164 | 0 | 382 | 0 | 164 | 0 | 382 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 145 | 0 | 145 | 3 | 148 | 148 | 30 | 175 | 0 | 175 | 3 | 178 | 0 | 178 | 0 | 178 | 0 | 178 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 727 | 0 | **661** | 0 | 727 | **667** | 1 | 728 | 0 | **721** | 0 | 728 | 0 | **727** | 0 | 728 | 0 | **727** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 14 | 0 | 661 | 0 | 14 | 667 | 0 | 14 | 0 | 721 | 0 | 14 | 0 | 727 | 0 | 14 | 0 | 727 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 14 | 0 | **14** | 0 | 14 | **14** | 0 | 14 | 0 | **14** | 0 | 14 | 0 | **14** | 0 | 14 | 0 | **14** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 24 | 0 | 41 | 0 | 24 | 41 | 21 | 45 | 0 | 62 | 0 | 45 | 0 | 62 | 0 | 45 | 0 | 62 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 106 | 0 | 106 | 1 | 107 | 107 | 18 | 124 | 0 | 124 | 1 | 125 | 0 | 125 | 0 | 125 | 0 | 125 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 27 | 0 | **206** | 0 | 27 | **209** | 11 | 38 | 0 | **250** | 0 | 38 | 0 | **253** | 0 | 38 | 0 | **253** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 73 | 0 | 0 | 2 | 75 | 0 | 15 | 88 | 0 | 0 | 2 | 90 | 0 | 0 | 0 | 90 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 669 | *North-South:* | | 675 | *North-South:* | | | 729 | *North-South:* | | | 735 | *North-South:* | | | 735 |
| | | *East-West:* | | 220 | *East-West:* | | 223 | *East-West:* | | | 264 | *East-West:* | | | 267 | *East-West:* | | | 267 |
| | | *SUM:* | | 889 | *SUM:* | | 898 | *SUM:* | | | 993 | *SUM:* | | | 1002 | *SUM:* | | | 1002 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.593 | | | 0.599 | | | | 0.662 | | | | 0.668 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.493 | | | 0.499 | | | | 0.562 | | | | 0.568 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.006 | Δ*v/c* after mitigation: | -0.662 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | East-West Street: | 25th St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 3 | | | 3 | | | | 3 | | | | 3 | | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | | 0 | NB-- 0 | SB-- | | 0 | NB-- 0 | SB-- | | 0 |
| | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | | 0 | EB-- 3 | WB-- | | 0 | EB-- 0 | WB-- | | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 67 | 1 | **67** | 0 | 67 | **67** | 0 | 67 | 1 | **67** | 0 | 67 | 1 | **67** | 0 | 67 | 1 | **67** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 300 | 1 | 300 | 0 | 300 | 300 | 10 | 310 | 1 | 310 | 0 | 310 | 1 | 310 | 0 | 310 | 1 | 310 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 509 | 1 | **509** | 0 | 509 | **509** | 5 | 514 | 1 | **514** | 0 | 514 | 1 | **514** | 0 | 514 | 1 | **514** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 381 | 1 | 177 | 1 | 382 | 177 | 14 | 395 | 1 | 179 | 1 | 396 | 1 | 179 | 0 | 396 | 1 | 179 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 408 | 1 | **408** | 2 | 410 | **410** | 24 | 432 | 1 | **432** | 2 | 434 | 1 | **434** | 0 | 434 | 1 | **434** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 108 | 1 | 41 | 0 | 108 | 41 | 0 | 108 | 1 | 41 | 0 | 108 | 1 | 41 | 0 | 108 | 1 | 41 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 576 | *North-South:* | | 576 | *North-South:* | | | 581 | *North-South:* | | | 581 | *North-South:* | | | 581 |
| | | *East-West:* | | 408 | *East-West:* | | 410 | *East-West:* | | | 432 | *East-West:* | | | 434 | *East-West:* | | | 434 |
| | | *SUM:* | | 984 | *SUM:* | | 986 | *SUM:* | | | 1013 | *SUM:* | | | 1015 | *SUM:* | | | 1015 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.691 | | | 0.692 | | | | 0.711 | | | | 0.712 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.591 | | | 0.592 | | | | 0.611 | | | | 0.612 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | B | | | | B | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | Δ*v/c* after mitigation: | -0.711 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Via Cabrillo Marina | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 3 SB-- 0 EB-- 0 WB-- 0 | | | NB-- 3 SB-- 0 EB-- 0 WB-- 0 | | | NB-- 3 SB-- 0 EB-- 0 WB-- 0 | | | | NB-- 3 SB-- 0 EB-- 0 WB-- 0 | | | | NB-- 0 SB-- 0 EB-- 0 WB-- 0 | | | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 123 | 2 | **68** | 0 | 123 | **68** | 0 | 123 | 2 | **68** | 0 | 123 | 2 | **68** | 0 | 123 | 2 | **68** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 82 | 1 | 0 | 0 | 82 | 0 | 0 | 82 | 1 | 0 | 0 | 82 | 1 | 0 | 0 | 82 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 220 | 1 | **165** | 7 | 227 | **168** | 95 | 315 | 1 | **212** | 7 | 322 | 1 | **216** | 0 | 322 | 1 | **216** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 109 | 0 | 0 | 0 | 109 | 0 | 0 | 109 | 0 | 0 | 0 | 109 | 0 | 0 | 0 | 109 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 85 | 1 | **85** | 0 | 85 | **85** | 0 | 85 | 1 | **85** | 0 | 85 | 1 | **85** | 0 | 85 | 1 | **85** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 181 | 2 | 91 | 4 | 185 | 93 | 47 | 228 | 2 | 114 | 4 | 232 | 2 | 116 | 0 | 232 | 2 | 116 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 68 | *North-South:* | | 68 | *North-South:* | | | 68 | *North-South:* | | | 68 | *North-South:* | | | 68 |
| | | *East-West:* | | 250 | *East-West:* | | 253 | *East-West:* | | | 297 | *East-West:* | | | 301 | *East-West:* | | | 301 |
| | | *SUM:* | | 318 | *SUM:* | | 321 | *SUM:* | | | 365 | *SUM:* | | | 369 | *SUM:* | | | 369 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.223 | | | 0.225 | | | | 0.256 | | | | 0.259 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.123 | | | 0.125 | | | | 0.156 | | | | 0.159 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.003 | Δ*v/c* after mitigation: | -0.256 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | East-West Street: | Swinford St / SR-47 EB Ramps | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | | 4 | | | 4 | | | 4 | | | 4 | | | 4 | | | 4 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 |
| | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 273 | 2 | 150 | 3 | 276 | 152 | 64 | 337 | 2 | 185 | 3 | 340 | 2 | 187 | 0 | 340 | 2 | 187 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 557 | 1 | 319 | 11 | 568 | 325 | 65 | 622 | 1 | 352 | 11 | 633 | 1 | 357 | 0 | 633 | 1 | 357 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 81 | 0 | 0 | 0 | 81 | 0 | 0 | 81 | 0 | 0 | 0 | 81 | 0 | 0 | 0 | 81 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 35 | 1 | 35 | 0 | 35 | 35 | 0 | 35 | 1 | 35 | 0 | 35 | 1 | 35 | 0 | 35 | 1 | 35 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 162 | 2 | 81 | 1 | 163 | 82 | 16 | 178 | 2 | 89 | 1 | 179 | 2 | 90 | 0 | 179 | 2 | 90 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 105 | 1 | 0 | 0 | 105 | 0 | 0 | 105 | 1 | 0 | 0 | 105 | 1 | 0 | 0 | 105 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 224 | 1 | 224 | 0 | 224 | 224 | 0 | 224 | 1 | 224 | 0 | 224 | 1 | 224 | 0 | 224 | 1 | 224 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 215 | 0 | 545 | 0 | 215 | 555 | 0 | 215 | 0 | 631 | 0 | 215 | 0 | 641 | 0 | 215 | 0 | 641 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 874 | 1 | 0 | 21 | 895 | 0 | 172 | 1046 | 1 | 0 | 21 | 1067 | 1 | 0 | 0 | 1067 | 1 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 59 | 0 | 59 | 0 | 59 | 59 | 0 | 59 | 0 | 59 | 0 | 59 | 0 | 59 | 0 | 59 | 0 | 59 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 114 | 0 | 205 | 0 | 114 | 205 | 0 | 114 | 0 | 205 | 0 | 114 | 0 | 205 | 0 | 114 | 0 | 205 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 91 | 0 | 0 | 0 | 91 | 0 | 0 | 91 | 0 | 0 | 0 | 91 | 0 | 0 | 0 | 91 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | North-South: | | 354 | North-South: | | 360 | North-South: | | | 387 | North-South: | | | 392 | North-South: | | | 392 |
| | | East-West: | | 750 | East-West: | | 760 | East-West: | | | 836 | East-West: | | | 846 | East-West: | | | 846 |
| | | SUM: | | 1104 | SUM: | | 1120 | SUM: | | | 1223 | SUM: | | | 1238 | SUM: | | | 1238 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.803 | | | 0.815 | | | | 0.889 | | | | 0.900 | | | | 0.900 |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.703 | | | 0.715 | | | | 0.789 | | | | 0.800 | | | | 0.800 |
| LEVEL OF SERVICE (LOS): | | | | C | | | C | | | | C | | | | C | | | | C |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.011 | Δv/c after mitigation: | 0.011 |
| Significant impacted? | NO | Fully mitigated? | N/A |

| | | Scenario | Scenario | Change | Impact? |
|---|---|---|---|---|---|
| FB | | 0.554 | 0.558 | 0.004 | NO |

| FB | | |
|---|---|---|
| N-S | 387 | 387 |
| EB | 307 | 224 |
| WB | 205 | 205 |
| Sum | 899 | 816 |
| V/C | 0.654 | 0.593 |
| Less ATS | 0.554 | 0.493 |
| LOS | A | A |

| FP | | |
|---|---|---|
| N-S | 392 | 392 |
| EB | 308 | 224 |
| WB | 205 | 205 |
| Sum | 905 | 821 |
| V/C | 0.658 | 0.597 |
| Less ATS | 0.558 | 0.497 |
| LOS | A | A |

| FP Mitigation | | |
|---|---|---|
| N-S | 392 | 392 |
| EB | 308 | 224 |
| WB | 205 | 205 |
| Sum | 905 | 821 |
| V/C | 0.658 | 0.597 |
| Less ATS | 0.558 | 0.597 |
| LOS | A | A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | East-West Street: | O'Farrell St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 5 | 1 | **5** | 0 | 5 | **5** | 0 | 5 | 1 | **5** | 0 | 5 | 1 | **5** | 0 | 5 | 1 | **5** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 843 | 2 | 422 | 14 | 857 | 429 | 129 | 972 | 2 | 486 | 14 | 986 | 2 | 493 | 0 | 986 | 2 | 493 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1160 | 2 | **580** | 22 | 1182 | **591** | 189 | 1349 | 2 | **675** | 22 | 1371 | 2 | **686** | 0 | 1371 | 2 | **686** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 19 | 1 | 19 | 0 | 19 | 19 | 0 | 19 | 1 | 19 | 0 | 19 | 1 | 19 | 0 | 19 | 1 | 19 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 77 | 0 | 77 | 0 | 77 | 77 | 0 | 77 | 0 | 77 | 0 | 77 | 0 | 77 | 0 | 77 | 0 | 77 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 10 | 0 | **87** | 0 | 10 | **87** | 0 | 10 | 0 | **87** | 0 | 10 | 0 | **87** | 0 | 10 | 0 | **87** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| WESTBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 585 | *North-South:* | | 596 | *North-South:* | | | 680 | *North-South:* | | | 691 | *North-South:* | | | 691 |
| | | *East-West:* | | 87 | *East-West:* | | 87 | *East-West:* | | | 87 | *East-West:* | | | 87 | *East-West:* | | | 87 |
| | | *SUM:* | | 672 | *SUM:* | | 683 | *SUM:* | | | 767 | *SUM:* | | | 778 | *SUM:* | | | 778 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.448 | | | 0.455 | | | | 0.511 | | | | 0.519 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.348 | | | 0.355 | | | | 0.411 | | | | 0.419 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.008 | Δ*v/c* after mitigation: | -0.511 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | East-West Street: | 1st St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 21 | 1 | **21** | 0 | 21 | **21** | 0 | 21 | 1 | **21** | 0 | 21 | 1 | **21** | 0 | 21 | 1 | **21** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 776 | 1 | 391 | 14 | 790 | 398 | 28 | 804 | 1 | 408 | 14 | 818 | 1 | 415 | 0 | 818 | 1 | 415 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 6 | 0 | 0 | 0 | 6 | 0 | 5 | 11 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 11 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 22 | 1 | 22 | 0 | 22 | 22 | 108 | 130 | 1 | 130 | 0 | 130 | 1 | 130 | 0 | 130 | 1 | 130 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 958 | 2 | **479** | 22 | 980 | **490** | 80 | 1038 | 2 | **519** | 22 | 1060 | 2 | **530** | 0 | 1060 | 2 | **530** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 114 | 1 | 73 | 0 | 114 | 73 | 0 | 114 | 1 | 73 | 0 | 114 | 1 | 73 | 0 | 114 | 1 | 73 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 83 | 1 | **83** | 0 | 83 | **83** | 0 | 83 | 1 | **83** | 0 | 83 | 1 | **83** | 0 | 83 | 1 | **83** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 2 | 0 | 58 | 0 | 2 | 58 | 20 | 22 | 0 | 78 | 0 | 22 | 0 | 78 | 0 | 22 | 0 | 78 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 56 | 0 | 0 | 0 | 56 | 0 | 0 | 56 | 0 | 0 | 0 | 56 | 0 | 0 | 0 | 56 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 4 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 19 | 19 | 0 | **123** | 0 | 19 | 0 | **123** | 0 | 19 | 0 | **123** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 100 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 500 | *North-South:* | | 511 | *North-South:* | | | 540 | *North-South:* | | | 551 | *North-South:* | | | 551 |
| | | *East-West:* | | 83 | *East-West:* | | 83 | *East-West:* | | | 206 | *East-West:* | | | 206 | *East-West:* | | | 206 |
| | | *SUM:* | | 583 | *SUM:* | | 594 | *SUM:* | | | 746 | *SUM:* | | | 757 | *SUM:* | | | 757 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.409 | | | 0.417 | | | | 0.524 | | | | 0.531 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.309 | | | 0.317 | | | | 0.424 | | | | 0.431 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.007 | Δ*v/c* after mitigation: | -0.524 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | East-West Street: | 5th St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 13 | 1 | 13 | 0 | 13 | 13 | 0 | 13 | 1 | 13 | 0 | 13 | 1 | 13 | 0 | 13 | 1 | 13 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 679 | 1 | 341 | 14 | 693 | 348 | 33 | 712 | 1 | 358 | 14 | 726 | 1 | 365 | 0 | 726 | 1 | 365 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 937 | 1 | 511 | 22 | 959 | 522 | 84 | 1021 | 1 | 553 | 22 | 1043 | 1 | 564 | 0 | 1043 | 1 | 564 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 85 | 0 | 0 | 0 | 85 | 0 | 0 | 85 | 0 | 0 | 0 | 85 | 0 | 0 | 0 | 85 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 73 | 1 | 73 | 0 | 73 | 73 | 0 | 73 | 1 | 73 | 0 | 73 | 1 | 73 | 0 | 73 | 1 | 73 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 18 | 1 | 18 | 0 | 18 | 18 | 0 | 18 | 1 | 18 | 0 | 18 | 1 | 18 | 0 | 18 | 1 | 18 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 23 | 1 | 17 | 0 | 23 | 17 | 0 | 23 | 1 | 17 | 0 | 23 | 1 | 17 | 0 | 23 | 1 | 17 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 2 | 1 | 2 | 0 | 2 | 2 | 0 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 0 | 2 | 1 | 2 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 7 | 1 | 7 | 0 | 7 | 7 | 0 | 7 | 1 | 7 | 0 | 7 | 1 | 7 | 0 | 7 | 1 | 7 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 37 | 1 | 37 | 0 | 37 | 37 | 0 | 37 | 1 | 37 | 0 | 37 | 1 | 37 | 0 | 37 | 1 | 37 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 524 | North-South: | | 535 | North-South: | | | 566 | North-South: | | | 577 | North-South: | | | 577 |
| | | East-West: | | 110 | East-West: | | 110 | East-West: | | | 110 | East-West: | | | 110 | East-West: | | | 110 |
| | | SUM: | | 634 | SUM: | | 645 | SUM: | | | 676 | SUM: | | | 687 | SUM: | | | 687 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.445 | | | 0.453 | | | | 0.474 | | | | 0.482 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.345 | | | 0.353 | | | | 0.374 | | | | 0.382 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.008 | Δv/c after mitigation: | -0.474 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | East-West Street: | 6th St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 4 | | | 4 | | | 4 | | | | 4 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 3 SB-- | | 0 | NB-- 3 SB-- | | 0 | NB-- 3 SB-- | | 0 | | NB-- 3 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 3 | EB-- 0 WB-- | | 3 | EB-- 0 WB-- | | 3 | | EB-- 0 WB-- | | 3 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 12 | 1 | **12** | 0 | 12 | **12** | 0 | 12 | 1 | **12** | 0 | 12 | 1 | **12** | 0 | 12 | 1 | **12** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 604 | 1 | 302 | 14 | 618 | 309 | 33 | 637 | 1 | 319 | 14 | 651 | 1 | 326 | 0 | 651 | 1 | 326 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 772 | 2 | **386** | 22 | 794 | **397** | 84 | 856 | 2 | **428** | 22 | 878 | 2 | **439** | 0 | 878 | 2 | **439** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 97 | 1 | 20 | 0 | 97 | 20 | 0 | 97 | 1 | 20 | 0 | 97 | 1 | 20 | 0 | 97 | 1 | 20 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 155 | 1 | **155** | 0 | 155 | **155** | 0 | 155 | 1 | **155** | 0 | 155 | 1 | **155** | 0 | 155 | 1 | **155** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 3 | 0 | 20 | 0 | 3 | 20 | 0 | 3 | 0 | 20 | 0 | 3 | 0 | 20 | 0 | 3 | 0 | 20 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 398 | North-South: | | 409 | North-South: | | | 440 | North-South: | | | 451 | North-South: | | | 451 |
| | | East-West: | | 155 | East-West: | | 155 | East-West: | | | 155 | East-West: | | | 155 | East-West: | | | 155 |
| | | SUM: | | 553 | SUM: | | 564 | SUM: | | | 595 | SUM: | | | 606 | SUM: | | | 606 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.402 | | | 0.410 | | | | 0.433 | | | | 0.441 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.302 | | | 0.310 | | | | 0.333 | | | | 0.341 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.008 | Δv/c after mitigation: | -0.433 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17A | East-West Street: | 7th St | | Projection Year: | 2016 | Peak Hour: | SAT | Reviewed by: | | Project: | 2016 CD1 CB |

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | | 3 | | | | 3 | | | | 3 | | | | 3 | | | | 0 | | | |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | | 0 | | | | 0 | | | | 0 | | | | 0 | | | | 0 | | | |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 3 |
| | EB-- | 3 | WB-- | 0 | EB-- | 3 | WB-- | 0 | EB-- | 3 | WB-- | 0 | EB-- | 3 | WB-- | 0 | EB-- | 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | | 2 | | | | 2 | | | | 2 | | | | 2 | | | | 2 | | | |
| Override Capacity | | | | 0 | | | | 0 | | | | 0 | | | | 0 | | | | 0 | | | |

| MOVEMENT | | YEAR 2016 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 60 | 1 | **60** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 605 | 3 | 202 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 444 | 2 | **212** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 1 | | | | | | | | | | | | | | | | |
| | Right | 191 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 275 | 2 | **151** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 132 | 1 | 72 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | | *North-South:* | 272 | | *North-South:* | 0 | | *North-South:* | | 0 | | *North-South:* | | 0 | | *North-South:* | | 0 |
| | | | *East-West:* | 151 | | *East-West:* | 0 | | *East-West:* | | 0 | | *East-West:* | | 0 | | *East-West:* | | 0 |
| | | | *SUM:* | 423 | | *SUM:* | 0 | | *SUM:* | | 0 | | *SUM:* | | 0 | | *SUM:* | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.297 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.197 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | *Δv/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17A | East-West Street: | 7th St | | Projection Year: | 2016 | Peak Hour: | SAT | Reviewed by: | | Project: | 2016 WITH PROJECT |

| | YEAR 2016 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | |
| No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | 0 | |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | | NB-- 0 | SB-- | 0 | | NB-- 0 | SB-- | 3 | |
| | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | | EB-- 3 | WB-- | 0 | | EB-- 0 | WB-- | 0 | |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | |

| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NORTHBOUND | Left | 59 | 1 | **59** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 619 | 3 | 206 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 484 | 2 | **225** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 1 | | | | | | | | | | | | | | | | |
| | Right | 191 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 275 | 2 | **151** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 132 | 1 | 73 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | *North-South:* | | 284 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 151 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 435 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.305 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.205 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

Change in *v/c* due to project: 0.000 — *Δv/c* after mitigation: 0.000

Significant impacted? NO — Fully mitigated? N/A

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17B | East-West Street: | Sampson Way | | Projection Year: | 2016 | Peak Hour: | SAT | Reviewed by: | | Project: | 2016 CD1 CB |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| | MOVEMENT | YEAR 2016 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 15 | 1 | **15** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 212 | 2 | 106 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 107 | 2 | 54 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 551 | 1 | **285** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 484 | 2 | **266** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 122 | 1 | 115 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | *North-South:* | | 300 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 266 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 566 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.377 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.277 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17B | East-West Street: | Sampson Way | Projection Year: | 2016 | Peak Hour: | SAT | Reviewed by: | | Project: | 2016 WITH PROJECT |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | YEAR 2016 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 15 | 1 | **15** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 218 | 2 | 109 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 6 | 2 | 3 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 682 | 1 | **413** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 489 | 2 | **269** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 1 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | *North-South:* | | 428 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 269 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 697 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.465 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.365 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Miner St | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 18 | East-West Street: | 22nd St | Projection Year: | 2011 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 4 | | | 4 | | | 4 | | | | 4 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 21 | 1 | 21 | 0 | 21 | 21 | 0 | 21 | 1 | 21 | 0 | 21 | 1 | 21 | 0 | 21 | 1 | 21 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 51 | 1 | 30 | 0 | 51 | 30 | 0 | 51 | 1 | 30 | 0 | 51 | 1 | 30 | 0 | 51 | 1 | 30 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 24 | 1 | 24 | 15 | 39 | 39 | 0 | 24 | 1 | 24 | 15 | 39 | 1 | 39 | 0 | 39 | 1 | 39 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 82 | 1 | 82 | 0 | 82 | 82 | 0 | 82 | 1 | 82 | 0 | 82 | 1 | 82 | 0 | 82 | 1 | 82 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 215 | 0 | 127 | 0 | 215 | 127 | 4 | 219 | 0 | 129 | 0 | 219 | 0 | 129 | 0 | 219 | 0 | 129 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 176 | 1 | 176 | 0 | 176 | 176 | 4 | 180 | 1 | 180 | 0 | 180 | 1 | 180 | 0 | 180 | 1 | 180 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 46 | 1 | 33 | 7 | 53 | 36 | 0 | 46 | 1 | 33 | 7 | 53 | 1 | 36 | 0 | 53 | 1 | 36 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 19 | 0 | 0 | 0 | 19 | 0 | 0 | 19 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 19 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 10 | 1 | 10 | 0 | 10 | 10 | 0 | 10 | 1 | 10 | 0 | 10 | 1 | 10 | 0 | 10 | 1 | 10 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 45 | 1 | 32 | 4 | 49 | 39 | 0 | 45 | 1 | 32 | 4 | 49 | 1 | 39 | 0 | 49 | 1 | 39 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 19 | 0 | 0 | 10 | 29 | 0 | 0 | 19 | 0 | 0 | 10 | 29 | 0 | 0 | 0 | 29 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 148 | North-South: | | 148 | North-South: | | 150 | | North-South: | | 150 | | North-South: | | 150 | |
| | | East-West: | | 208 | East-West: | | 215 | East-West: | | 212 | | East-West: | | 219 | | East-West: | | 219 | |
| | | SUM: | | 356 | SUM: | | 363 | SUM: | | 362 | | SUM: | | 369 | | SUM: | | 369 | |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.259 | | | 0.264 | | | 0.263 | | | | 0.268 | | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.159 | | | 0.164 | | | 0.163 | | | | 0.168 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.005 | Δv/c after mitigation: | -0.263 |
| Significant impacted? | NO | Fully mitigated? | N/A |

**YEAR 2024**

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | East-West Street: | Summerland Av | Projection Year: | 2024 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 0 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 |
| | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| | MOVEMENT | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 112 | 1 | **112** | 0 | 112 | **112** | 0 | 112 | 1 | **112** | 0 | 112 | 1 | **112** | 0 | 112 | 1 | **112** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 465 | 1 | 240 | 1 | 466 | 241 | 0 | 465 | 1 | 240 | 1 | 466 | 1 | 241 | 0 | 466 | 1 | 241 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 15 | 0 | 0 | 0 | 15 | 0 | 0 | 15 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 15 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 13 | 1 | 13 | 0 | 13 | 13 | 0 | 13 | 1 | 13 | 0 | 13 | 1 | 13 | 0 | 13 | 1 | 13 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 379 | 1 | **273** | 7 | 386 | **277** | -1 | 378 | 1 | **273** | 7 | 385 | 1 | **276** | 0 | 385 | 1 | **276** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 167 | 0 | 0 | 0 | 167 | 0 | 0 | 167 | 0 | 0 | 0 | 167 | 0 | 0 | 0 | 167 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 421 | 1 | **421** | 0 | 421 | **421** | 0 | 421 | 1 | **421** | 0 | 421 | 1 | **421** | 0 | 421 | 1 | **421** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 5 | 0 | 59 | 0 | 5 | 59 | 0 | 5 | 0 | 59 | 0 | 5 | 0 | 59 | 0 | 5 | 0 | 59 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 54 | 0 | 0 | 0 | 54 | 0 | 0 | 54 | 0 | 0 | 0 | 54 | 0 | 0 | 0 | 54 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 392 | 2 | 216 | 0 | 392 | 216 | 0 | 392 | 2 | 216 | 0 | 392 | 2 | 216 | 0 | 392 | 2 | 216 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 146 | 0 | **440** | 0 | 146 | **440** | 0 | 146 | 0 | **440** | 0 | 146 | 0 | **440** | 0 | 146 | 0 | **440** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 294 | 0 | 0 | 0 | 294 | 0 | 0 | 294 | 0 | 0 | 0 | 294 | 0 | 0 | 0 | 294 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 385 | *North-South:* | | 389 | *North-South:* | | | 385 | *North-South:* | | | 388 | *North-South:* | | | 388 |
| | | *East-West:* | | 861 | *East-West:* | | 861 | *East-West:* | | | 861 | *East-West:* | | | 861 | *East-West:* | | | 861 |
| | | *SUM:* | | 1246 | *SUM:* | | 1250 | *SUM:* | | | 1246 | *SUM:* | | | 1249 | *SUM:* | | | 1249 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.874 | | | 0.877 | | | | 0.874 | | | | 0.876 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.774 | | | 0.777 | | | | 0.774 | | | | 0.776 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | C | | | C | | | | C | | | | C | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.002 | Δ*v/c* after mitigation: | -0.874 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | East-West Street: | I-110 Ramps | Projection Year: | 2024 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | 2 | | | 2 | | | 2 | | | | 2 | | | | 0 | | |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | | |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 1 SB-- / EB-- 0 WB-- | 0 | | NB-- 1 SB-- / EB-- 0 WB-- | 0 | | NB-- 1 SB-- / EB-- 0 WB-- | 0 | | | NB-- 1 SB-- / EB-- 0 WB-- | 0 | | | NB-- 0 SB-- / EB-- 0 WB-- | 0 | | |
| | ATSAC-1 or ATSAC+ATCS-2? | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | | |
| | Override Capacity | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | | |
| NORTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 578 | 2 | 289 | 1 | 579 | 290 | 0 | 578 | 2 | 289 | 1 | 579 | 2 | 290 | 0 | 579 | 2 | 290 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 2791 | 2 | 0 | 4 | 2795 | 0 | 0 | 2791 | 2 | 0 | 4 | 2795 | 2 | 0 | 0 | 2795 | 2 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 812 | 3 | 271 | 7 | 819 | 273 | -1 | 811 | 3 | 270 | 7 | 818 | 3 | 273 | 0 | 818 | 3 | 273 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 1503 | 2 | 525 | 17 | 1520 | 530 | 0 | 1503 | 2 | 525 | 17 | 1520 | 2 | 530 | 0 | 1520 | 2 | 530 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 71 | 0 | 525 | 0 | 71 | 530 | 0 | 71 | 0 | 525 | 0 | 71 | 0 | 530 | 0 | 71 | 0 | 530 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | CRITICAL VOLUMES | North-South: | 289 | | North-South: | 290 | | North-South: | 289 | | | North-South: | 290 | | | North-South: | 290 | | |
| | | East-West: | 525 | | East-West: | 530 | | East-West: | 525 | | | East-West: | 530 | | | East-West: | 530 | | |
| | | SUM: | 814 | | SUM: | 820 | | SUM: | 814 | | | SUM: | 820 | | | SUM: | 820 | | |
| | VOLUME/CAPACITY (V/C) RATIO: | | 0.543 | | | 0.547 | | | 0.543 | | | | 0.547 | | | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | 0.443 | | | 0.447 | | | 0.443 | | | | 0.447 | | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | A | | | A | | | A | | | | A | | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.004 | Δv/c after mitigation: | -0.543 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | East-West Street: | 1st St | Projection Year: | 2024 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 3 | | | 3 | | | | 3 | | | | 3 | | | | 3 |
| | | | 2 | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | | NB-- 0 | SB-- | 0 | | NB-- 0 | SB-- | 0 | |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | | EB-- 0 | WB-- | 0 | | EB-- 0 | WB-- | 0 | |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |

| MOVEMENT | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NORTHBOUND | Left | 12 | 1 | 12 | 0 | 12 | 12 | 0 | 12 | 1 | 12 | 0 | 12 | 1 | 12 | 0 | 12 | 1 | 12 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1733 | 2 | 580 | 5 | 1738 | 582 | 0 | 1733 | 2 | 580 | 5 | 1738 | 2 | 582 | 0 | 1738 | 2 | 582 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 109 | 1 | 109 | 0 | 109 | 109 | 0 | 109 | 1 | 109 | 0 | 109 | 1 | 109 | 0 | 109 | 1 | 109 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1405 | 2 | 602 | 24 | 1429 | 610 | -1 | 1404 | 2 | 602 | 24 | 1428 | 2 | 610 | 0 | 1428 | 2 | 610 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 402 | 0 | 0 | 0 | 402 | 0 | 0 | 402 | 0 | 0 | 0 | 402 | 0 | 0 | 0 | 402 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 1081 | 1 | 569 | 0 | 1081 | 570 | 0 | 1081 | 1 | 569 | 0 | 1081 | 1 | 570 | 0 | 1081 | 1 | 570 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 57 | 0 | 569 | 1 | 58 | 570 | 0 | 57 | 0 | 569 | 1 | 58 | 0 | 570 | 0 | 58 | 0 | 570 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 24 | 1 | 18 | 0 | 24 | 18 | 0 | 24 | 1 | 18 | 0 | 24 | 1 | 18 | 0 | 24 | 1 | 18 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 41 | 1 | 41 | 0 | 41 | 41 | 0 | 41 | 1 | 41 | 0 | 41 | 1 | 41 | 0 | 41 | 1 | 41 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 135 | 1 | 135 | 0 | 135 | 135 | 0 | 135 | 1 | 135 | 0 | 135 | 1 | 135 | 0 | 135 | 1 | 135 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 251 | 1 | 197 | 0 | 251 | 197 | 0 | 251 | 1 | 197 | 0 | 251 | 1 | 197 | 0 | 251 | 1 | 197 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | | North-South: | 689 | | North-South: | 691 | | North-South: | | 689 | | North-South: | | 691 | | North-South: | | 691 |
| | | | East-West: | 766 | | East-West: | 767 | | East-West: | | 766 | | East-West: | | 767 | | East-West: | | 767 |
| | | | SUM: | 1455 | | SUM: | 1458 | | SUM: | | 1455 | | SUM: | | 1458 | | SUM: | | 1458 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 1.021 | | | 1.023 | | | | 1.021 | | | | 1.023 | | | | 1.023 |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.921 | | | 0.923 | | | | 0.921 | | | | 0.923 | | | | 0.923 |
| LEVEL OF SERVICE (LOS): | | | | E | | | E | | | | E | | | | E | | | | E |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.002 | Δv/c after mitigation: | 0.002 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | East-West Street: | 5th St | Projection Year: | 2024 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| | MOVEMENT | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 18 | 1 | 18 | 0 | 18 | 18 | 0 | 18 | 1 | 18 | 0 | 18 | 1 | 18 | 0 | 18 | 1 | 18 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1497 | 1 | 777 | 5 | 1502 | 779 | 0 | 1497 | 1 | 777 | 5 | 1502 | 1 | 779 | 0 | 1502 | 1 | 779 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 56 | 0 | 0 | 0 | 56 | 0 | 0 | 56 | 0 | 0 | 0 | 56 | 0 | 0 | 0 | 56 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 66 | 1 | 66 | 0 | 66 | 66 | 0 | 66 | 1 | 66 | 0 | 66 | 1 | 66 | 0 | 66 | 1 | 66 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1270 | 1 | 664 | 24 | 1294 | 676 | -1 | 1269 | 1 | 663 | 24 | 1293 | 1 | 675 | 0 | 1293 | 1 | 675 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 57 | 0 | 0 | 0 | 57 | 0 | 0 | 57 | 0 | 0 | 0 | 57 | 0 | 0 | 0 | 57 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 172 | 1 | 172 | 0 | 172 | 172 | 0 | 172 | 1 | 172 | 0 | 172 | 1 | 172 | 0 | 172 | 1 | 172 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 134 | 0 | 155 | 0 | 134 | 155 | 0 | 134 | 0 | 155 | 0 | 134 | 0 | 155 | 0 | 134 | 0 | 155 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 21 | 0 | 0 | 0 | 21 | 0 | 0 | 21 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 21 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 66 | 1 | 66 | 0 | 66 | 66 | 0 | 66 | 1 | 66 | 0 | 66 | 1 | 66 | 0 | 66 | 1 | 66 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 104 | 0 | 165 | 0 | 104 | 165 | 0 | 104 | 0 | 165 | 0 | 104 | 0 | 165 | 0 | 104 | 0 | 165 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 61 | 0 | 0 | 0 | 61 | 0 | 0 | 61 | 0 | 0 | 0 | 61 | 0 | 0 | 0 | 61 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | North-South: | | 843 | North-South: | | 845 | North-South: | | | 843 | North-South: | | | 845 | North-South: | | | 845 |
| | | East-West: | | 337 | East-West: | | 337 | East-West: | | | 337 | East-West: | | | 337 | East-West: | | | 337 |
| | | SUM: | | 1180 | SUM: | | 1182 | SUM: | | | 1180 | SUM: | | | 1182 | SUM: | | | 1182 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.828 | | | 0.829 | | | | 0.828 | | | | 0.829 | | | | |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.728 | | | 0.729 | | | | 0.728 | | | | 0.729 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | C | | | C | | | | C | | | | C | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.001 | Δv/c after mitigation: | -0.828 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | East-West Street: | 7th St | Projection Year: | 2024 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 48 | 1 | 48 | 0 | 48 | 48 | 0 | 48 | 1 | 48 | 0 | 48 | 1 | 48 | 0 | 48 | 1 | 48 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1583 | 1 | 828 | 5 | 1588 | 830 | 0 | 1583 | 1 | 828 | 5 | 1588 | 1 | 830 | 0 | 1588 | 1 | 830 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 72 | 0 | 0 | 0 | 72 | 0 | 0 | 72 | 0 | 0 | 0 | 72 | 0 | 0 | 0 | 72 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 62 | 1 | 62 | 0 | 62 | 62 | 0 | 62 | 1 | 62 | 0 | 62 | 1 | 62 | 0 | 62 | 1 | 62 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1154 | 1 | 644 | 24 | 1178 | 656 | -1 | 1153 | 1 | 643 | 24 | 1177 | 1 | 655 | 0 | 1177 | 1 | 655 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 133 | 0 | 0 | 0 | 133 | 0 | 0 | 133 | 0 | 0 | 0 | 133 | 0 | 0 | 0 | 133 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 197 | 1 | 197 | 0 | 197 | 197 | 0 | 197 | 1 | 197 | 0 | 197 | 1 | 197 | 0 | 197 | 1 | 197 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 160 | 0 | 186 | 1 | 161 | 187 | 0 | 160 | 0 | 186 | 1 | 161 | 0 | 187 | 0 | 161 | 0 | 187 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 26 | 0 | 0 | 0 | 26 | 0 | 0 | 26 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 26 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 99 | 1 | 99 | 0 | 99 | 99 | 0 | 99 | 1 | 99 | 0 | 99 | 1 | 99 | 0 | 99 | 1 | 99 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 134 | 0 | 186 | 0 | 134 | 186 | 0 | 134 | 0 | 186 | 0 | 134 | 0 | 186 | 0 | 134 | 0 | 186 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 52 | 0 | 0 | 0 | 52 | 0 | 0 | 52 | 0 | 0 | 0 | 52 | 0 | 0 | 0 | 52 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 890 | North-South: | | 892 | North-South: | | | 890 | North-South: | | | 892 | North-South: | | | 892 |
| | | East-West: | | 383 | East-West: | | 383 | East-West: | | | 383 | East-West: | | | 383 | East-West: | | | 383 |
| | | SUM: | | 1273 | SUM: | | 1275 | SUM: | | | 1273 | SUM: | | | 1275 | SUM: | | | 1275 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.849 | | | 0.850 | | | | 0.849 | | | | 0.850 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.749 | | | 0.750 | | | | 0.749 | | | | 0.750 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | C | | | C | | | | C | | | | C | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.001 | Δv/c after mitigation: | -0.849 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | East-West Street: | 9th St | Projection Year: | 2024 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 139 | 1 | 139 | 1 | 140 | 140 | 0 | 139 | 1 | 139 | 1 | 140 | 1 | 140 | 0 | 140 | 1 | 140 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1676 | 1 | 870 | 5 | 1681 | 872 | 0 | 1676 | 1 | 870 | 5 | 1681 | 1 | 872 | 0 | 1681 | 1 | 872 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 63 | 0 | 0 | 0 | 63 | 0 | 0 | 63 | 0 | 0 | 0 | 63 | 0 | 0 | 0 | 63 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 50 | 1 | 50 | 0 | 50 | 50 | 0 | 50 | 1 | 50 | 0 | 50 | 1 | 50 | 0 | 50 | 1 | 50 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1080 | 1 | 597 | 24 | 1104 | 609 | -1 | 1079 | 1 | 596 | 24 | 1103 | 1 | 608 | 0 | 1103 | 1 | 608 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 113 | 0 | 0 | 0 | 113 | 0 | 0 | 113 | 0 | 0 | 0 | 113 | 0 | 0 | 0 | 113 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 232 | 1 | 232 | 0 | 232 | 232 | 0 | 232 | 1 | 232 | 0 | 232 | 1 | 232 | 0 | 232 | 1 | 232 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 296 | 1 | 296 | 3 | 299 | 299 | -1 | 295 | 1 | 295 | 3 | 298 | 1 | 298 | 0 | 298 | 1 | 298 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 49 | 1 | 0 | 3 | 52 | 0 | 0 | 49 | 1 | 0 | 3 | 52 | 1 | 0 | 0 | 52 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 80 | 1 | 80 | 0 | 80 | 80 | 0 | 80 | 1 | 80 | 0 | 80 | 1 | 80 | 0 | 80 | 1 | 80 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 245 | 0 | 278 | 1 | 246 | 279 | 0 | 245 | 0 | 278 | 1 | 246 | 0 | 279 | 0 | 246 | 0 | 279 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 33 | 0 | 0 | 0 | 33 | 0 | 0 | 33 | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 33 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 920 | North-South: | | 922 | North-South: | | | 920 | North-South: | | | 922 | North-South: | | | 922 |
| | | East-West: | | 510 | East-West: | | 511 | East-West: | | | 510 | East-West: | | | 511 | East-West: | | | 511 |
| | | SUM: | | 1430 | SUM: | | 1433 | SUM: | | | 1430 | SUM: | | | 1433 | SUM: | | | 1433 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.953 | | | 0.955 | | | | 0.953 | | | | 0.955 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.853 | | | 0.855 | | | | 0.853 | | | | 0.855 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | D | | | D | | | | D | | | | D | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.002 | Δv/c after mitigation: | -0.953 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | East-West Street: | 22nd St | Projection Year: | 2024 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| | MOVEMENT | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 5 | 0 | 5 | 0 | 5 | 5 | 0 | 5 | 0 | 5 | 0 | 5 | 0 | 5 | 0 | 5 | 0 | 5 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 698 | 0 | 419 | 0 | 698 | 429 | 0 | 698 | 0 | 418 | 0 | 698 | 0 | 429 | 0 | 698 | 0 | 429 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 129 | 0 | 419 | 21 | 150 | 429 | -1 | 128 | 0 | 418 | 21 | 149 | 0 | 429 | 0 | 149 | 0 | 429 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 140 | 0 | 140 | 25 | 165 | 165 | -1 | 139 | 0 | 139 | 25 | 164 | 0 | 164 | 0 | 164 | 0 | 164 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 523 | 0 | 550 | 0 | 523 | 550 | 0 | 523 | 0 | 550 | 0 | 523 | 0 | 550 | 0 | 523 | 0 | 550 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 27 | 0 | 0 | 0 | 27 | 0 | 0 | 27 | 0 | 0 | 0 | 27 | 0 | 0 | 0 | 27 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 19 | 0 | 19 | 0 | 19 | 19 | 0 | 19 | 0 | 19 | 0 | 19 | 0 | 19 | 0 | 19 | 0 | 19 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 52 | 0 | 72 | 0 | 52 | 72 | 0 | 52 | 0 | 72 | 0 | 52 | 0 | 72 | 0 | 52 | 0 | 72 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 84 | 0 | 84 | 4 | 88 | 88 | -1 | 83 | 0 | 83 | 4 | 87 | 0 | 87 | 0 | 87 | 0 | 87 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 48 | 0 | 242 | 0 | 48 | 251 | 0 | 48 | 0 | 241 | 0 | 48 | 0 | 250 | 0 | 48 | 0 | 250 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 110 | 0 | 0 | 5 | 115 | 0 | 0 | 110 | 0 | 0 | 5 | 115 | 0 | 0 | 0 | 115 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | North-South: | | 559 | North-South: | | 594 | North-South: | | | 557 | North-South: | | | 593 | North-South: | | | 593 |
| | | East-West: | | 261 | East-West: | | 270 | East-West: | | | 260 | East-West: | | | 269 | East-West: | | | 269 |
| | | SUM: | | 820 | SUM: | | 864 | SUM: | | | 817 | SUM: | | | 862 | SUM: | | | 862 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.547 | | | 0.576 | | | | 0.545 | | | | 0.575 | | | | |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.447 | | | 0.476 | | | | 0.445 | | | | 0.475 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.030 | Δv/c after mitigation: | -0.545 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | East-West Street: | 25th St | Projection Year: | 2024 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | | EB-- 3 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 116 | 1 | **116** | 0 | 116 | **116** | 0 | 116 | 1 | **116** | 0 | 116 | 1 | **116** | 0 | 116 | 1 | **116** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 354 | 1 | 354 | 3 | 357 | 357 | 0 | 354 | 1 | 354 | 3 | 357 | 1 | 357 | 0 | 357 | 1 | 357 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 296 | 1 | **296** | 1 | 297 | **297** | 0 | 296 | 1 | **296** | 1 | 297 | 1 | **297** | 0 | 297 | 1 | **297** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 283 | 1 | 97 | 4 | 287 | 92 | -1 | 282 | 1 | 96 | 4 | 286 | 1 | 91 | 0 | 286 | 1 | 91 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 373 | 1 | **373** | 18 | 391 | **391** | -1 | 372 | 1 | **372** | 18 | 390 | 1 | **390** | 0 | 390 | 1 | **390** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 80 | 1 | 0 | 0 | 80 | 0 | 0 | 80 | 1 | 0 | 0 | 80 | 1 | 0 | 0 | 80 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 412 | *North-South:* | | 413 | *North-South:* | | 412 | | *North-South:* | | 413 | | *North-South:* | | | 413 |
| | | *East-West:* | | 373 | *East-West:* | | 391 | *East-West:* | | 372 | | *East-West:* | | 390 | | *East-West:* | | | 390 |
| | | *SUM:* | | 785 | *SUM:* | | 804 | *SUM:* | | 784 | | *SUM:* | | 803 | | *SUM:* | | | 803 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.551 | | | 0.564 | | | 0.550 | | | | 0.564 | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.451 | | | 0.464 | | | 0.450 | | | | 0.464 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.014 | Δ*v/c* after mitigation: | -0.550 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Via Cabrillo Marina | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | East-West Street: | 22nd St | Projection Year: | 2024 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 3 SB-- | | 0 | NB-- 3 SB-- | | 0 | NB-- 3 SB-- | | 0 | | NB-- 3 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 119 | 2 | **65** | 0 | 119 | **65** | 0 | 119 | 2 | **65** | 0 | 119 | 2 | **65** | 0 | 119 | 2 | **65** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 54 | 1 | 0 | 0 | 54 | 0 | 0 | 54 | 1 | 0 | 0 | 54 | 1 | 0 | 0 | 54 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 482 | 1 | **346** | 66 | 548 | **379** | -4 | 478 | 1 | **344** | 66 | 544 | 1 | **377** | 0 | 544 | 1 | **377** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 209 | 0 | 0 | 0 | 209 | 0 | 0 | 209 | 0 | 0 | 0 | 209 | 0 | 0 | 0 | 209 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 79 | 1 | **79** | 0 | 79 | **79** | 0 | 79 | 1 | **79** | 0 | 79 | 1 | **79** | 0 | 79 | 1 | **79** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 150 | 2 | 75 | 14 | 164 | 82 | -2 | 148 | 2 | 74 | 14 | 162 | 2 | 81 | 0 | 162 | 2 | 81 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 65 | *North-South:* | | 65 | *North-South:* | | 65 | | *North-South:* | | 65 | | *North-South:* | | | 65 |
| | | *East-West:* | | 425 | *East-West:* | | 458 | *East-West:* | | 423 | | *East-West:* | | 456 | | *East-West:* | | | 456 |
| | | *SUM:* | | 490 | *SUM:* | | 523 | *SUM:* | | 488 | | *SUM:* | | 521 | | *SUM:* | | | 521 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.344 | | | 0.367 | | | 0.342 | | | | 0.366 | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.244 | | | 0.267 | | | 0.242 | | | | 0.266 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.024 | Δ*v/c* after mitigation: | -0.342 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | East-West Street: | Swinford St / SR-47 EB Ramps | Projection Year: | 2024 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 4 | | | 4 | | | 4 | | | 4 | | | 4 | | | 4 | |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 2 | |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 2 | NB-- 0 | SB-- | 2 | NB-- 0 | SB-- | 2 | NB-- 0 | SB-- | 2 | NB-- 0 | SB-- | 2 | NB-- 0 | SB-- | 0 | |
| | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | |

| | MOVEMENT | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 477 | 2 | 262 | 10 | 487 | 268 | -1 | 476 | 2 | 262 | 10 | 486 | 2 | 267 | 0 | 486 | 2 | 267 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1112 | 2 | 380 | 35 | 1147 | 391 | -6 | 1106 | 2 | 378 | 35 | 1141 | 2 | 389 | 0 | 1141 | 2 | 389 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 27 | 0 | 0 | 0 | 27 | 0 | 0 | 27 | 0 | 0 | 0 | 27 | 0 | 0 | 0 | 27 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 28 | 1 | 28 | 0 | 28 | 28 | 0 | 28 | 1 | 28 | 0 | 28 | 1 | 28 | 0 | 28 | 1 | 28 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 97 | 2 | 46 | 10 | 107 | 49 | -1 | 96 | 2 | 46 | 10 | 106 | 2 | 49 | 0 | 106 | 2 | 53 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 0 | |
| | Right | 41 | 0 | 0 | 0 | 41 | 0 | 0 | 41 | 0 | 0 | 0 | 41 | 0 | 0 | 0 | 41 | 1 | 41 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 222 | 1 | 222 | 0 | 222 | 222 | 0 | 222 | 1 | 222 | 0 | 222 | 1 | 222 | 0 | 222 | 1 | 222 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 122 | 0 | 680 | 0 | 122 | 784 | 0 | 122 | 0 | 672 | 0 | 122 | 0 | 776 | 0 | 122 | 0 | 776 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1238 | 1 | 0 | 208 | 1446 | 0 | -17 | 1221 | 1 | 0 | 208 | 1429 | 1 | 0 | 0 | 1429 | 1 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 39 | 0 | 39 | 0 | 39 | 39 | 0 | 39 | 0 | 39 | 0 | 39 | 0 | 39 | 0 | 39 | 0 | 39 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 9 | 0 | 26 | 0 | 9 | 26 | 0 | 9 | 0 | 26 | 0 | 9 | 0 | 26 | 0 | 9 | 0 | 26 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | North-South: | | 408 | North-South: | | 419 | North-South: | | | 406 | North-South: | | | 417 | North-South: | | | 417 |
| | | East-West: | | 719 | East-West: | | 823 | East-West: | | | 711 | East-West: | | | 815 | East-West: | | | 815 |
| | | SUM: | | 1127 | SUM: | | 1242 | SUM: | | | 1117 | SUM: | | | 1232 | SUM: | | | 1232 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.820 | | | 0.903 | | | | 0.812 | | | | 0.896 | | | | 0.896 |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.720 | | | 0.803 | | | | 0.712 | | | | 0.796 | | | | 0.796 |
| LEVEL OF SERVICE (LOS): | | | | C | | | D | | | | C | | | | C | | | | C |

**PROJECT IMPACT**

Change in v/c due to project: 0.084 Δv/c after mitigation: 0.084

| | Scenario | Scenario | Change | Impact? |
|---|---|---|---|---|
| FB | 0.424 | 0.466 | 0.042 | NO |

| FB | | |
|---|---|---|
| N-S | 406 | 406 |
| EB | 275 | 222 |
| WB | 39 | 39 |
| Sum | 720 | 667 |
| V/C | 0.524 | 0.485 |
| Less ATS | 0.424 | 0.385 |
| LOS | A | A |

| FP | | |
|---|---|---|
| N-S | 417 | 417 |
| EB | 322 | 222 |
| WB | 39 | 39 |
| Sum | 778 | 678 |
| V/C | 0.566 | 0.493 |
| Less ATS | 0.466 | 0.393 |
| LOS | A | A |

| FP Mitigation | | |
|---|---|---|
| N-S | 417 | 417 |
| EB | 322 | 222 |
| WB | 39 | 39 |
| Sum | 778 | 678 |
| V/C | 0.566 | 0.493 |
| Less ATS | 0.466 | 0.493 |
| LOS | A | A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | East-West Street: | O'Farrell St | Projection Year: | 2024 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 7 | 1 | 7 | 0 | 7 | 7 | 0 | 7 | 1 | 7 | 0 | 7 | 1 | 7 | 0 | 7 | 1 | 7 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1617 | 3 | 539 | 45 | 1662 | 554 | -7 | 1610 | 3 | 537 | 45 | 1655 | 3 | 552 | 0 | 1655 | 3 | 552 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1365 | 2 | 458 | 218 | 1583 | 531 | -17 | 1348 | 2 | 452 | 218 | 1566 | 2 | 525 | 0 | 1566 | 2 | 525 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 9 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 9 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 77 | 0 | 77 | 0 | 77 | 77 | 0 | 77 | 0 | 77 | 0 | 77 | 0 | 77 | 0 | 77 | 0 | 77 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 20 | 0 | 97 | 0 | 20 | 97 | 0 | 20 | 0 | 97 | 0 | 20 | 0 | 97 | 0 | 20 | 0 | 97 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 539 | North-South: | | 554 | North-South: | | 537 | | North-South: | | 552 | | North-South: | | 552 | |
| | | East-West: | | 97 | East-West: | | 97 | East-West: | | 97 | | East-West: | | 97 | | East-West: | | 97 | |
| | | SUM: | | 636 | SUM: | | 651 | SUM: | | 634 | | SUM: | | 649 | | SUM: | | 649 | |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.424 | | | 0.434 | | | 0.423 | | | | 0.433 | | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.324 | | | 0.334 | | | 0.323 | | | | 0.333 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.010 | Δv/c after mitigation: | -0.423 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | East-West Street: | 1st St | Projection Year: | 2024 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 18 | 1 | 18 | 0 | 18 | 18 | 0 | 18 | 1 | 18 | 0 | 18 | 1 | 18 | 0 | 18 | 1 | 18 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1483 | 2 | 497 | 45 | 1528 | 512 | -7 | 1476 | 2 | 495 | 45 | 1521 | 2 | 510 | 0 | 1521 | 2 | 510 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 67 | 1 | 67 | 0 | 67 | 67 | 0 | 67 | 1 | 67 | 0 | 67 | 1 | 67 | 0 | 67 | 1 | 67 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1315 | 2 | 444 | 218 | 1533 | 517 | -18 | 1297 | 2 | 438 | 218 | 1515 | 2 | 511 | 0 | 1515 | 2 | 511 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 110 | 1 | 110 | 0 | 110 | 110 | 0 | 110 | 1 | 110 | 0 | 110 | 1 | 110 | 0 | 110 | 1 | 110 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 11 | 0 | 36 | 0 | 11 | 37 | 0 | 11 | 0 | 36 | 0 | 11 | 0 | 37 | 0 | 11 | 0 | 37 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 25 | 0 | 0 | 1 | 26 | 0 | 0 | 25 | 0 | 0 | 1 | 26 | 0 | 0 | 0 | 26 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 564 | North-South: | | 579 | North-South: | | | 562 | North-South: | | | 577 | North-South: | | | 577 |
| | | East-West: | | 110 | East-West: | | 110 | East-West: | | | 110 | East-West: | | | 110 | East-West: | | | 110 |
| | | SUM: | | 674 | SUM: | | 689 | SUM: | | | 672 | SUM: | | | 687 | SUM: | | | 687 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.473 | | | 0.484 | | | | 0.472 | | | | 0.482 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.373 | | | 0.384 | | | | 0.372 | | | | 0.382 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.010 | Δv/c after mitigation: | -0.472 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | East-West Street: | 5th St | Projection Year: | 2024 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 16 | 1 | 16 | 0 | 16 | **16** | 0 | 16 | 1 | 16 | 0 | 16 | 1 | **16** | 0 | 16 | 1 | **16** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1331 | 2 | **445** | 45 | 1376 | 460 | -7 | 1324 | 2 | **442** | 45 | 1369 | 2 | 457 | 0 | 1369 | 2 | 457 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 1 | **0** | 0 | 0 | 0 | 0 | 0 | 1 | **0** | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1030 | 2 | 401 | 218 | 1248 | **473** | -18 | 1012 | 2 | 395 | 218 | 1230 | 2 | **467** | 0 | 1230 | 2 | **467** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 172 | 0 | 0 | 0 | 172 | 0 | 0 | 172 | 0 | 0 | 0 | 172 | 0 | 0 | 0 | 172 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 140 | 1 | **140** | 0 | 140 | **140** | 0 | 140 | 1 | **140** | 0 | 140 | 1 | **140** | 0 | 140 | 1 | **140** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 5 | 1 | 5 | 0 | 5 | 5 | 0 | 5 | 1 | 5 | 0 | 5 | 1 | 5 | 0 | 5 | 1 | 5 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 13 | 1 | 5 | 0 | 13 | 5 | 0 | 13 | 1 | 5 | 0 | 13 | 1 | 5 | 0 | 13 | 1 | 5 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 5 | 1 | 5 | 0 | 5 | 5 | 0 | 5 | 1 | 5 | 0 | 5 | 1 | 5 | 0 | 5 | 1 | 5 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 10 | 1 | **10** | 0 | 10 | **10** | 0 | 10 | 1 | **10** | 0 | 10 | 1 | **10** | 0 | 10 | 1 | **10** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 445 | *North-South:* | | 489 | *North-South:* | | | 442 | *North-South:* | | | 483 | *North-South:* | | | 483 |
| | | *East-West:* | | 150 | *East-West:* | | 150 | *East-West:* | | | 150 | *East-West:* | | | 150 | *East-West:* | | | 150 |
| | | *SUM:* | | 595 | *SUM:* | | 639 | *SUM:* | | | 592 | *SUM:* | | | 633 | *SUM:* | | | 633 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.418 | | | 0.448 | | | | 0.415 | | | | 0.444 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.318 | | | 0.348 | | | | 0.315 | | | | 0.344 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.029 | Δ*v/c* after mitigation: | -0.415 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | East-West Street: | 6th St | Projection Year: | 2024 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 4 | | | 4 | | | 4 | | | | 4 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 3 SB-- | | 0 | NB-- 3 SB-- | | 0 | NB-- 3 SB-- | | 0 | | NB-- 3 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 3 | EB-- 0 WB-- | | 3 | EB-- 0 WB-- | | 3 | | EB-- 0 WB-- | | 3 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 27 | 1 | 27 | 0 | 27 | **27** | 0 | 27 | 1 | 27 | 0 | 27 | 1 | **27** | 0 | 27 | 1 | **27** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1201 | 2 | **400** | 45 | 1246 | 415 | -7 | 1194 | 2 | **398** | 45 | 1239 | 2 | 413 | 0 | 1239 | 2 | 413 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 913 | 2 | 324 | 218 | 1131 | **397** | -18 | 895 | 2 | 318 | 218 | 1113 | 2 | **391** | 0 | 1113 | 2 | **391** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 59 | 0 | 0 | 0 | 59 | 0 | 0 | 59 | 0 | 0 | 0 | 59 | 0 | 0 | 0 | 59 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 52 | 1 | 52 | 0 | 52 | 52 | 0 | 52 | 1 | 52 | 0 | 52 | 1 | 52 | 0 | 52 | 1 | 52 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **77** | 0 | 0 | **77** | 0 | 0 | 0 | **77** | 0 | 0 | 0 | **77** | 0 | 0 | 0 | **77** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 77 | 0 | 0 | 0 | 77 | 0 | 0 | 77 | 0 | 0 | 0 | 77 | 0 | 0 | 0 | 77 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 400 | *North-South:* | | 424 | *North-South:* | | 398 | | *North-South:* | | 418 | | *North-South:* | | 418 | |
| | | *East-West:* | | 77 | *East-West:* | | 77 | *East-West:* | | 77 | | *East-West:* | | 77 | | *East-West:* | | 77 | |
| | | *SUM:* | | 477 | *SUM:* | | 501 | *SUM:* | | 475 | | *SUM:* | | 495 | | *SUM:* | | 495 | |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.347 | | | 0.364 | | | 0.345 | | | | 0.360 | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.247 | | | 0.264 | | | 0.245 | | | | 0.260 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.015 | Δ*v/c* after mitigation: | -0.345 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17A | East-West Street: | 7th St | | Projection Year: | 2024 | Peak Hour: | AM | Reviewed by: | | Project: | 2024 CD1 CB |

| | YEAR 2024 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | |
| No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | 0 | |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | | NB-- 0 | SB-- | 0 | | NB-- 0 | SB-- | 3 | |
| | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | | EB-- 3 | WB-- | 0 | | EB-- 0 | WB-- | 0 | |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | |

| MOVEMENT | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NORTHBOUND | Left | 28 | 1 | 28 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 1,295 | 3 | 432 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 965 | 2 | 396 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 1 | | | | | | | | | | | | | | | | |
| | Right | 222 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 244 | 2 | 134 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 34 | 1 | 6 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | | North-South: | 432 | | North-South: | 0 | | North-South: | | 0 | | North-South: | | 0 | | North-South: | | 0 |
| | | | East-West: | 134 | | East-West: | 0 | | East-West: | | 0 | | East-West: | | 0 | | East-West: | | 0 |
| | | | SUM: | 566 | | SUM: | 0 | | SUM: | | 0 | | SUM: | | 0 | | SUM: | | 0 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.397 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.297 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.000 | Δv/c after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17A | East-West Street: | 7th St | | Projection Year: | 2024 | Peak Hour: | AM | Reviewed by: | | Project: | 2024 WITH PROJECT |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 3 |
| | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | YEAR 2024 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 32 | 1 | **32** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 1,340 | 3 | 447 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 1,183 | 2 | **468** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 1 | | | | | | | | | | | | | | | | |
| | Right | 222 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 244 | 2 | **134** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 54 | 1 | 22 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | *North-South:* | | 500 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 134 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 634 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.445 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.345 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17B | East-West Street: | Sampson Way | Projection Year: | 2024 | Peak Hour: | AM | Reviewed by: | | Project: | 2024 WITH PROJECT |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| | MOVEMENT | YEAR 2024 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 3 | 1 | 3 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 167 | 2 | 84 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 343 | 2 | 172 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 894 | 1 | 231 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 1,205 | 2 | 663 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 6 | 1 | 5 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | North-South: | | 234 | North-South: | | 0 | North-South: | | | 0 | North-South: | | | 0 | North-South: | | | 0 |
| | | East-West: | | 663 | East-West: | | 0 | East-West: | | | 0 | East-West: | | | 0 | East-West: | | | 0 |
| | | SUM: | | 897 | SUM: | | 0 | SUM: | | | 0 | SUM: | | | 0 | SUM: | | | 0 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.598 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.498 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.000 | Δv/c after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17B | East-West Street: | Sampson Way | Projection Year: | 2024 | Peak Hour: | AM | Reviewed by: | | Project: | 2024 CD1 CB |

| | | YEAR 2024 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | | 2 | | | | 2 | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 3 | NB-- 0 SB-- EB-- 0 WB-- | | 3 | NB-- 0 SB-- EB-- 0 WB-- | | | 3 | NB-- 0 SB-- EB-- 0 WB-- | | | 3 | NB-- 0 SB-- EB-- 0 WB-- | | | 3 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| NORTHBOUND | Left | 3 | 1 | 3 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 147 | 2 | 74 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 245 | 2 | 123 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 754 | 1 | 107 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 1,176 | 2 | 647 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 6 | 1 | 5 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| | CRITICAL VOLUMES | North-South: | | 126 | North-South: | | 0 | North-South: | | | 0 | North-South: | | | 0 | North-South: | | | 0 |
| | | East-West: | | 647 | East-West: | | 0 | East-West: | | | 0 | East-West: | | | 0 | East-West: | | | 0 |
| | | SUM: | | 773 | SUM: | | 0 | SUM: | | | 0 | SUM: | | | 0 | SUM: | | | 0 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.515 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.415 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

Change in v/c due to project: 0.000 — Δv/c after mitigation: 0.000

Significant impacted? NO — Fully mitigated? N/A

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Miner St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 18 | East-West Street: | 22nd St | Projection Year: | 2024 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 4 | | | 4 | | | 4 | | | | 4 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 103 | 1 | **103** | 0 | 103 | 103 | 0 | 103 | 1 | **103** | 0 | 103 | 1 | 103 | 0 | 103 | 1 | 103 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 535 | 1 | 293 | 0 | 535 | **293** | 0 | 535 | 1 | 293 | 0 | 535 | 1 | **293** | 0 | 535 | 1 | **293** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 50 | 0 | 0 | 0 | 50 | 0 | 0 | 50 | 0 | 0 | 0 | 50 | 0 | 0 | 0 | 50 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 39 | 1 | 39 | 153 | 192 | **192** | 0 | 39 | 1 | 39 | 153 | 192 | 1 | **192** | 0 | 192 | 1 | **192** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 591 | 1 | **363** | 0 | 591 | 363 | 0 | 591 | 1 | **363** | 0 | 591 | 1 | 363 | 0 | 591 | 1 | 363 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 134 | 0 | 0 | 0 | 134 | 0 | 0 | 134 | 0 | 0 | 0 | 134 | 0 | 0 | 0 | 134 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 374 | 1 | **374** | 0 | 374 | **374** | 0 | 374 | 1 | **374** | 0 | 374 | 1 | **374** | 0 | 374 | 1 | **374** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 64 | 1 | 64 | 66 | 130 | 102 | 0 | 64 | 1 | 64 | 66 | 130 | 1 | 102 | 0 | 130 | 1 | 102 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 74 | 0 | 23 | 0 | 74 | 0 | 0 | 74 | 0 | 23 | 0 | 74 | 0 | 0 | 0 | 74 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 36 | 1 | 36 | 0 | 36 | 36 | 0 | 36 | 1 | 36 | 0 | 36 | 1 | 36 | 0 | 36 | 1 | 36 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 29 | 1 | **24** | 14 | 43 | **43** | 0 | 29 | 1 | **24** | 14 | 43 | 1 | **43** | 0 | 43 | 1 | **43** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 19 | 0 | 0 | 32 | 51 | 0 | 0 | 19 | 0 | 0 | 32 | 51 | 0 | 0 | 0 | 51 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 466 | *North-South:* | | 485 | *North-South:* | | 466 | | *North-South:* | | 485 | | *North-South:* | | 485 | |
| | | *East-West:* | | 398 | *East-West:* | | 417 | *East-West:* | | 398 | | *East-West:* | | 417 | | *East-West:* | | 417 | |
| | | *SUM:* | | 864 | *SUM:* | | 902 | *SUM:* | | 864 | | *SUM:* | | 902 | | *SUM:* | | 902 | |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.628 | | | 0.656 | | | 0.628 | | | | 0.656 | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.528 | | | 0.556 | | | 0.528 | | | | 0.556 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.028 | Δ*v/c* after mitigation: | -0.628 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | East-West Street: | Summerland Av | Projection Year: | 2024 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 156 | 1 | **156** | 0 | 156 | **156** | 0 | 156 | 1 | **156** | 0 | 156 | 1 | **156** | 0 | 156 | 1 | **156** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 483 | 1 | 257 | 6 | 489 | 260 | 4 | 487 | 1 | 259 | 6 | 493 | 1 | 262 | 0 | 493 | 1 | 262 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 30 | 0 | 0 | 0 | 30 | 0 | 0 | 30 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 30 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 16 | 1 | 16 | 0 | 16 | 16 | 0 | 16 | 1 | 16 | 0 | 16 | 1 | 16 | 0 | 16 | 1 | 16 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 583 | 1 | **442** | 2 | 585 | **443** | 2 | 585 | 1 | **443** | 2 | 587 | 1 | **444** | 0 | 587 | 1 | **444** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 301 | 0 | 0 | 0 | 301 | 0 | 0 | 301 | 0 | 0 | 0 | 301 | 0 | 0 | 0 | 301 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 277 | 1 | **277** | 0 | 277 | **277** | 0 | 277 | 1 | **277** | 0 | 277 | 1 | **277** | 0 | 277 | 1 | **277** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 55 | 0 | 0 | 55 | 0 | 0 | 0 | 55 | 0 | 0 | 0 | 55 | 0 | 0 | 0 | 55 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 55 | 0 | 0 | 0 | 55 | 0 | 0 | 55 | 0 | 0 | 0 | 55 | 0 | 0 | 0 | 55 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 667 | 2 | 367 | 0 | 667 | 367 | 0 | 667 | 2 | 367 | 0 | 667 | 2 | 367 | 0 | 667 | 2 | 367 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 334 | 0 | **699** | 0 | 334 | **699** | 0 | 334 | 0 | **699** | 0 | 334 | 0 | **699** | 0 | 334 | 0 | **699** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 365 | 0 | 0 | 0 | 365 | 0 | 0 | 365 | 0 | 0 | 0 | 365 | 0 | 0 | 0 | 365 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 598 | *North-South:* | | 599 | *North-South:* | | | 599 | *North-South:* | | | 600 | *North-South:* | | | 600 |
| | | *East-West:* | | 976 | *East-West:* | | 976 | *East-West:* | | | 976 | *East-West:* | | | 976 | *East-West:* | | | 976 |
| | | *SUM:* | | 1574 | *SUM:* | | 1575 | *SUM:* | | | 1575 | *SUM:* | | | 1576 | *SUM:* | | | 1576 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 1.105 | | | 1.105 | | | | 1.105 | | | | 1.106 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 1.005 | | | 1.005 | | | | 1.005 | | | | 1.006 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | E | | | F | | | | F | | | | F | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | Δ*v/c* after mitigation: | -1.105 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | East-West Street: | I-110 Ramps | Projection Year: | 2024 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 1 | SB-- | 0 | NB-- 1 | SB-- | 0 | NB-- 1 | SB-- | 0 | NB-- 1 | SB-- | 0 | NB-- 0 | SB-- | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 872 | 2 | 436 | 6 | 878 | 439 | 4 | 876 | 2 | 438 | 6 | 882 | 2 | 441 | 0 | 882 | 2 | 441 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1861 | 2 | 0 | 16 | 1877 | 0 | 7 | 1868 | 2 | 0 | 16 | 1884 | 2 | 0 | 0 | 1884 | 2 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1166 | 3 | 389 | 2 | 1168 | 389 | 2 | 1168 | 3 | 389 | 2 | 1170 | 3 | 390 | 0 | 1170 | 3 | 390 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 1724 | 2 | 612 | 3 | 1727 | 613 | 3 | 1727 | 2 | 613 | 3 | 1730 | 2 | 614 | 0 | 1730 | 2 | 614 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 113 | 0 | 612 | 0 | 113 | 613 | 0 | 113 | 0 | 613 | 0 | 113 | 0 | 614 | 0 | 113 | 0 | 614 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| CRITICAL VOLUMES | | North-South: | | 436 | North-South: | | 439 | North-South: | | | 438 | North-South: | | | 441 | North-South: | | | 441 |
| | | East-West: | | 612 | East-West: | | 613 | East-West: | | | 613 | East-West: | | | 614 | East-West: | | | 614 |
| | | SUM: | | 1048 | SUM: | | 1052 | SUM: | | | 1051 | SUM: | | | 1055 | SUM: | | | 1055 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.699 | | | 0.701 | | | | 0.701 | | | | 0.703 | | | | |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.599 | | | 0.601 | | | | 0.601 | | | | 0.603 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | B | | | | B | | | | B | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.002 | Δv/c after mitigation: | -0.701 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | East-West Street: | 1st St | Projection Year: | 2024 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| **NORTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 31 | 1 | **31** | 0 | 31 | **31** | 2 | 33 | 1 | **33** | 0 | 33 | 1 | **33** | 0 | 33 | 1 | **33** |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 1476 | 2 | 499 | 22 | 1498 | 507 | 5 | 1481 | 2 | 501 | 22 | 1503 | 2 | 508 | 0 | 1503 | 2 | 508 |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 22 | 0 | 0 | 0 | 22 | 0 | 0 | 22 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 22 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **SOUTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 178 | 1 | 178 | 0 | 178 | 178 | 2 | 180 | 1 | 180 | 0 | 180 | 1 | 180 | 0 | 180 | 1 | 180 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 1758 | 2 | **766** | 5 | 1763 | **768** | 3 | 1761 | 2 | **767** | 5 | 1766 | 2 | **769** | 0 | 1766 | 2 | **769** |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 540 | 0 | 0 | 0 | 540 | 0 | 0 | 540 | 0 | 0 | 0 | 540 | 0 | 0 | 0 | 540 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **EASTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 847 | 1 | **501** | 0 | 847 | **501** | 0 | 847 | 1 | **501** | 0 | 847 | 1 | **501** | 0 | 847 | 1 | **501** |
| Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Through | 154 | 0 | 501 | 0 | 154 | 501 | 1 | 155 | 0 | 501 | 0 | 155 | 0 | 501 | 0 | 155 | 0 | 501 |
| Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Right | 58 | 1 | 43 | 0 | 58 | 43 | 1 | 59 | 1 | 43 | 0 | 59 | 1 | 43 | 0 | 59 | 1 | 43 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **WESTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 35 | 1 | 35 | 0 | 35 | 35 | 2 | 37 | 1 | 37 | 0 | 37 | 1 | 37 | 0 | 37 | 1 | 37 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 147 | 1 | **147** | 1 | 148 | **148** | 3 | 150 | 1 | **150** | 1 | 151 | 1 | **151** | 0 | 151 | 1 | **151** |
| Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Right | 221 | 1 | 132 | 0 | 221 | 132 | 6 | 227 | 1 | 137 | 0 | 227 | 1 | 137 | 0 | 227 | 1 | 137 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | *North-South:* | | 797 | *North-South:* | | 799 | *North-South:* | | | 800 | *North-South:* | | | 802 | *North-South:* | | | 802 |
| | *East-West:* | | 648 | *East-West:* | | 649 | *East-West:* | | | 651 | *East-West:* | | | 652 | *East-West:* | | | 652 |
| | *SUM:* | | 1445 | *SUM:* | | 1448 | *SUM:* | | | 1451 | *SUM:* | | | 1454 | *SUM:* | | | 1454 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | 1.014 | | | 1.016 | | | | 1.018 | | | | 1.020 | | | | 1.020 |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.914 | | | 0.916 | | | | 0.918 | | | | 0.920 | | | | 0.920 |
| LEVEL OF SERVICE (LOS): | | | E | | | E | | | | E | | | | E | | | | E |

| Right Turns: FREE-1, NRTOR-2 or OLA-3? | EXISTING CONDITION | EXISTING PLUS PROJECT | FUTURE CONDITION W/O PROJECT | FUTURE CONDITION W/ PROJECT | FUTURE W/ PROJECT W/ MITIGATION |
|---|---|---|---|---|---|
| | NB-- 0 SB-- 0 | NB-- 0 SB-- 0 | NB-- 0 SB-- 0 | NB-- 0 SB-- 0 | NB-- 0 SB-- 0 |
| | EB-- 0 WB-- 0 | EB-- 0 WB-- 0 | EB-- 0 WB-- 0 | EB-- 0 WB-- 0 | EB-- 0 WB-- 0 |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.002 | *Δv/c* after mitigation: | 0.002 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | East-West Street: | 5th St | Projection Year: | 2024 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 23 | 1 | 23 | 0 | 23 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1380 | 1 | 710 | 22 | 1402 | 721 | 7 | 1387 | 1 | 713 | 22 | 1409 | 1 | 724 | 0 | 1409 | 1 | 724 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 39 | 0 | 0 | 0 | 39 | 0 | 0 | 39 | 0 | 0 | 0 | 39 | 0 | 0 | 0 | 39 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 120 | 1 | 120 | 0 | 120 | 120 | 0 | 120 | 1 | 120 | 0 | 120 | 1 | 120 | 0 | 120 | 1 | 120 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1358 | 1 | 719 | 5 | 1363 | 721 | 5 | 1363 | 1 | 721 | 5 | 1368 | 1 | 724 | 0 | 1368 | 1 | 724 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 79 | 0 | 0 | 0 | 79 | 0 | 0 | 79 | 0 | 0 | 0 | 79 | 0 | 0 | 0 | 79 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 112 | 1 | 112 | 0 | 112 | 112 | 0 | 112 | 1 | 112 | 0 | 112 | 1 | 112 | 0 | 112 | 1 | 112 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 124 | 0 | 142 | 0 | 124 | 142 | 0 | 124 | 0 | 142 | 0 | 124 | 0 | 142 | 0 | 124 | 0 | 142 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 18 | 0 | 0 | 0 | 18 | 0 | 0 | 18 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 18 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 49 | 1 | 49 | 0 | 49 | 49 | 0 | 49 | 1 | 49 | 0 | 49 | 1 | 49 | 0 | 49 | 1 | 49 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 93 | 0 | 179 | 0 | 93 | 179 | 0 | 93 | 0 | 179 | 0 | 93 | 0 | 179 | 0 | 93 | 0 | 179 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 86 | 0 | 0 | 0 | 86 | 0 | 0 | 86 | 0 | 0 | 0 | 86 | 0 | 0 | 0 | 86 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 830 | North-South: | | 841 | North-South: | | | 833 | North-South: | | | 844 | North-South: | | | 844 |
| | | East-West: | | 291 | East-West: | | 291 | East-West: | | | 291 | East-West: | | | 291 | East-West: | | | 291 |
| | | SUM: | | 1121 | SUM: | | 1132 | SUM: | | | 1124 | SUM: | | | 1135 | SUM: | | | 1135 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.787 | | | 0.794 | | | | 0.789 | | | | 0.796 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.687 | | | 0.694 | | | | 0.689 | | | | 0.696 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | B | | | B | | | | B | | | | B | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.007 | Δv/c after mitigation: | -0.789 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | East-West Street: | 7th St | Projection Year: | 2024 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | 2 | | | 2 | | | 2 | | | 2 | | 2 | | | | 0 | |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | 0 | | | 0 | | | 0 | | | 0 | | 0 | | | | 0 | |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | 0 | | NB-- 0 SB-- | 0 | | NB-- 0 SB-- | 0 | | | NB-- 0 SB-- | 0 | | | NB-- 0 SB-- | 0 | | |
| | | EB-- 0 WB-- | 0 | | EB-- 0 WB-- | 0 | | EB-- 0 WB-- | 0 | | | EB-- 0 WB-- | 0 | | | EB-- 0 WB-- | 0 | | |
| | ATSAC-1 or ATSAC+ATCS-2? | | 2 | | | 2 | | | 2 | | | 2 | | 2 | | | | 2 | |
| | Override Capacity | | 0 | | | 0 | | | 0 | | | 0 | | 0 | | | | 0 | |
| NORTHBOUND | Left | 49 | 1 | 49 | 0 | 49 | 49 | 2 | 51 | 1 | 51 | 0 | 51 | 1 | 51 | 0 | 51 | 1 | 51 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1364 | 1 | 712 | 22 | 1386 | 723 | 7 | 1371 | 1 | 716 | 22 | 1393 | 1 | 727 | 0 | 1393 | 1 | 727 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 60 | 0 | 0 | 0 | 60 | 0 | 0 | 60 | 0 | 0 | 0 | 60 | 0 | 0 | 0 | 60 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 72 | 1 | 72 | 0 | 72 | 72 | 0 | 72 | 1 | 72 | 0 | 72 | 1 | 72 | 0 | 72 | 1 | 72 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1283 | 1 | 699 | 5 | 1288 | 702 | 5 | 1288 | 1 | 702 | 5 | 1293 | 1 | 704 | 0 | 1293 | 1 | 704 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 115 | 0 | 0 | 0 | 115 | 0 | 0 | 115 | 0 | 0 | 0 | 115 | 0 | 0 | 0 | 115 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 171 | 1 | 171 | 0 | 171 | 171 | 0 | 171 | 1 | 171 | 0 | 171 | 1 | 171 | 0 | 171 | 1 | 171 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 183 | 0 | 228 | 0 | 183 | 228 | 0 | 183 | 0 | 229 | 0 | 183 | 0 | 229 | 0 | 183 | 0 | 229 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 45 | 0 | 0 | 0 | 45 | 0 | 1 | 46 | 0 | 0 | 0 | 46 | 0 | 0 | 0 | 46 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 72 | 1 | 72 | 0 | 72 | 72 | 0 | 72 | 1 | 72 | 0 | 72 | 1 | 72 | 0 | 72 | 1 | 72 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 172 | 0 | 244 | 1 | 173 | 245 | 0 | 172 | 0 | 244 | 1 | 173 | 0 | 245 | 0 | 173 | 0 | 245 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 72 | 0 | 0 | 0 | 72 | 0 | 0 | 72 | 0 | 0 | 0 | 72 | 0 | 0 | 0 | 72 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 784 | North-South: | | 795 | North-South: | | | 788 | North-South: | | | 799 | North-South: | | | 799 |
| | | East-West: | | 415 | East-West: | | 416 | East-West: | | | 415 | East-West: | | | 416 | East-West: | | | 416 |
| | | SUM: | | 1199 | SUM: | | 1211 | SUM: | | | 1203 | SUM: | | | 1215 | SUM: | | | 1215 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.799 | | | 0.807 | | | | 0.802 | | | | 0.810 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.699 | | | 0.707 | | | | 0.702 | | | | 0.710 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | B | | | C | | | | C | | | | C | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.008 | Δv/c after mitigation: | -0.802 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | East-West Street: | 9th St | Projection Year: | 2024 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 83 | 1 | **83** | 3 | 86 | **86** | 0 | 83 | 1 | **83** | 3 | 86 | 1 | **86** | 0 | 86 | 1 | **86** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1169 | 1 | 626 | 22 | 1191 | 637 | 9 | 1178 | 1 | 630 | 22 | 1200 | 1 | 641 | 0 | 1200 | 1 | 641 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 82 | 0 | 0 | 0 | 82 | 0 | 0 | 82 | 0 | 0 | 0 | 82 | 0 | 0 | 0 | 82 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 84 | 1 | 84 | 0 | 84 | 84 | 0 | 84 | 1 | 84 | 0 | 84 | 1 | 84 | 0 | 84 | 1 | 84 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1230 | 1 | **668** | 5 | 1235 | **670** | 4 | 1234 | 1 | **670** | 5 | 1239 | 1 | **673** | 0 | 1239 | 1 | **673** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 105 | 0 | 0 | 0 | 105 | 0 | 1 | 106 | 0 | 0 | 0 | 106 | 0 | 0 | 0 | 106 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 172 | 1 | **172** | 0 | 172 | **172** | 0 | 172 | 1 | **172** | 0 | 172 | 1 | **172** | 0 | 172 | 1 | **172** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 263 | 1 | 263 | 1 | 264 | 264 | 1 | 264 | 1 | 264 | 1 | 265 | 1 | 265 | 0 | 265 | 1 | 265 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 61 | 1 | 20 | 1 | 62 | 19 | 0 | 61 | 1 | 20 | 1 | 62 | 1 | 19 | 0 | 62 | 1 | 19 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 141 | 1 | 141 | 0 | 141 | 141 | 0 | 141 | 1 | 141 | 0 | 141 | 1 | 141 | 0 | 141 | 1 | 141 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 330 | 0 | **429** | 3 | 333 | **432** | 3 | 333 | 0 | **432** | 3 | 336 | 0 | **435** | 0 | 336 | 0 | **435** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 99 | 0 | 0 | 0 | 99 | 0 | 0 | 99 | 0 | 0 | 0 | 99 | 0 | 0 | 0 | 99 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 751 | *North-South:* | | 756 | *North-South:* | | | 753 | *North-South:* | | | 759 | *North-South:* | | | 759 |
| | | *East-West:* | | 601 | *East-West:* | | 604 | *East-West:* | | | 604 | *East-West:* | | | 607 | *East-West:* | | | 607 |
| | | *SUM:* | | 1352 | *SUM:* | | 1360 | *SUM:* | | | 1357 | *SUM:* | | | 1366 | *SUM:* | | | 1366 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.901 | | | 0.907 | | | | 0.905 | | | | 0.911 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.801 | | | 0.807 | | | | 0.805 | | | | 0.811 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | D | | | D | | | | D | | | | D | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.006 | Δ*v/c* after mitigation: | -0.905 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | East-West Street: | 22nd St | Projection Year: | 2024 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- SB-- EB-- WB-- | | 0 | | NB-- SB-- EB-- WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 4 | 0 | 4 | 0 | 4 | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 4 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 535 | 0 | 312 | 0 | 535 | 314 | 0 | 535 | 0 | 314 | 0 | 535 | 0 | 316 | 0 | 535 | 0 | 316 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 72 | 0 | 312 | 4 | 76 | 314 | 5 | 77 | 0 | 314 | 4 | 81 | 0 | 316 | 0 | 81 | 0 | 316 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 122 | 0 | 122 | 5 | 127 | 127 | 4 | 126 | 0 | 126 | 5 | 131 | 0 | 131 | 0 | 131 | 0 | 131 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 702 | 0 | 600 | 0 | 702 | 610 | 1 | 703 | 0 | 609 | 0 | 703 | 0 | 619 | 0 | 703 | 0 | 619 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 10 | 0 | 600 | 0 | 10 | 610 | 0 | 10 | 0 | 609 | 0 | 10 | 0 | 619 | 0 | 10 | 0 | 619 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 12 | 0 | 12 | 0 | 12 | 12 | 0 | 12 | 0 | 12 | 0 | 12 | 0 | 12 | 0 | 12 | 0 | 12 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 29 | 0 | 42 | 0 | 29 | 42 | 3 | 32 | 0 | 45 | 0 | 32 | 0 | 45 | 0 | 32 | 0 | 45 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 193 | 0 | 193 | 19 | 212 | 212 | 11 | 204 | 0 | 204 | 19 | 223 | 0 | 223 | 0 | 223 | 0 | 223 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 33 | 0 | 321 | 0 | 33 | 363 | 6 | 39 | 0 | 347 | 0 | 39 | 0 | 389 | 0 | 39 | 0 | 389 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 95 | 0 | 0 | 23 | 118 | 0 | 9 | 104 | 0 | 0 | 23 | 127 | 0 | 0 | 0 | 127 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 604 | North-South: | | 614 | North-South: | | | 613 | North-South: | | | 623 | North-South: | | | 623 |
| | | East-West: | | 333 | East-West: | | 375 | East-West: | | | 359 | East-West: | | | 401 | East-West: | | | 401 |
| | | SUM: | | 937 | SUM: | | 989 | SUM: | | | 972 | SUM: | | | 1024 | SUM: | | | 1024 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.625 | | | 0.659 | | | | 0.648 | | | | 0.683 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.525 | | | 0.559 | | | | 0.548 | | | | 0.583 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.035 | Δv/c after mitigation: | -0.648 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | East-West Street: | 25th St | Projection Year: | 2024 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- / EB-- 3 WB-- | | 0 | NB-- 0 SB-- / EB-- 3 WB-- | | 0 | NB-- 0 SB-- / EB-- 3 WB-- | | 0 | | NB-- 0 SB-- / EB-- 3 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 67 | 1 | **67** | 0 | 67 | **67** | 0 | 67 | 1 | **67** | 0 | 67 | 1 | **67** | 0 | 67 | 1 | **67** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 284 | 1 | 284 | 1 | 285 | 285 | 2 | 286 | 1 | 286 | 1 | 287 | 1 | 287 | 0 | 287 | 1 | 287 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 395 | 1 | **395** | 3 | 398 | **398** | 3 | 398 | 1 | **398** | 3 | 401 | 1 | **401** | 0 | 401 | 1 | **401** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 370 | 1 | 204 | 16 | 386 | 219 | 7 | 377 | 1 | 210 | 16 | 393 | 1 | 224 | 0 | 393 | 1 | 224 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 332 | 1 | **332** | 3 | 335 | **335** | 3 | 335 | 1 | **335** | 3 | 338 | 1 | **338** | 0 | 338 | 1 | **338** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 108 | 1 | 41 | 0 | 108 | 41 | 0 | 108 | 1 | 41 | 0 | 108 | 1 | 41 | 0 | 108 | 1 | 41 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 462 | *North-South:* | | 465 | *North-South:* | | | 465 | *North-South:* | | | 468 | *North-South:* | | | 468 |
| | | *East-West:* | | 332 | *East-West:* | | 335 | *East-West:* | | | 335 | *East-West:* | | | 338 | *East-West:* | | | 338 |
| | | *SUM:* | | 794 | *SUM:* | | 800 | *SUM:* | | | 800 | *SUM:* | | | 806 | *SUM:* | | | 806 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.557 | | | 0.561 | | | | 0.561 | | | | 0.566 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.457 | | | 0.461 | | | | 0.461 | | | | 0.466 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.005 | Δ*v/c* after mitigation: | -0.561 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Via Cabrillo Marina | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | East-West Street: | 22nd St | Projection Year: | 2024 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 3 SB-- 0 EB-- 0 WB-- 0 | | | NB-- 3 SB-- 0 EB-- 0 WB-- 0 | | | NB-- 3 SB-- 0 EB-- 0 WB-- 0 | | | | NB-- 3 SB-- 0 EB-- 0 WB-- 0 | | | | NB-- 0 SB-- 0 EB-- 0 WB-- 0 | | | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 196 | 2 | **108** | 0 | 196 | **108** | 0 | 196 | 2 | **108** | 0 | 196 | 2 | **108** | 0 | 196 | 2 | **108** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 105 | 1 | 26 | 0 | 105 | 26 | 0 | 105 | 1 | 26 | 0 | 105 | 1 | 26 | 0 | 105 | 1 | 26 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 267 | 1 | **215** | 13 | 280 | **221** | 11 | 278 | 1 | **220** | 13 | 291 | 1 | **227** | 0 | 291 | 1 | **227** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 162 | 0 | 0 | 0 | 162 | 0 | 0 | 162 | 0 | 0 | 0 | 162 | 0 | 0 | 0 | 162 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 79 | 1 | **79** | 0 | 79 | **79** | 0 | 79 | 1 | **79** | 0 | 79 | 1 | **79** | 0 | 79 | 1 | **79** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 409 | 2 | 205 | 59 | 468 | 234 | 26 | 435 | 2 | 218 | 59 | 494 | 2 | 247 | 0 | 494 | 2 | 247 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 108 | *North-South:* | | 108 | *North-South:* | | 108 | | *North-South:* | | 108 | | *North-South:* | | | 108 |
| | | *East-West:* | | 294 | *East-West:* | | 300 | *East-West:* | | 299 | | *East-West:* | | 306 | | *East-West:* | | | 306 |
| | | *SUM:* | | 402 | *SUM:* | | 408 | *SUM:* | | 407 | | *SUM:* | | 414 | | *SUM:* | | | 414 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.282 | | | 0.286 | | | 0.286 | | | | 0.291 | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.182 | | | 0.186 | | | 0.186 | | | | 0.191 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.005 | $\Delta v/c$ after mitigation: | -0.286 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | East-West Street: | Swinford St / SR-47 EB Ramps | Projection Year: | 2024 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| No. of Phases | | | 4 | | | 4 | | | 4 | | | | 4 | | | | 4 | |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | | EB-- 3 WB-- | | 0 | | EB-- 3 WB-- | | 0 | |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | |
| **NORTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 706 | 2 | **388** | 42 | 748 | **411** | 40 | 746 | 2 | **410** | 42 | 788 | 2 | **433** | 0 | 788 | 2 | **433** |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 1028 | 2 | 350 | 151 | 1179 | 400 | 34 | 1062 | 2 | 361 | 151 | 1213 | 2 | 412 | 0 | 1213 | 2 | 412 |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 22 | 0 | 0 | 0 | 22 | 0 | 0 | 22 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 22 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **SOUTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 12 | 1 | 12 | 0 | 12 | 12 | 0 | 12 | 1 | 12 | 0 | 12 | 1 | 12 | 0 | 12 | 1 | 12 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 166 | 2 | **80** | 2 | 168 | **81** | 1 | 167 | 2 | **81** | 2 | 169 | 2 | **81** | 0 | 169 | 2 | **85** |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 0 | |
| Right | 75 | 0 | 0 | 0 | 75 | 0 | 0 | 75 | 0 | 0 | 0 | 75 | 0 | 0 | 0 | 75 | 1 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **EASTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 254 | 1 | 254 | 0 | 254 | 254 | 0 | 254 | 1 | 254 | 0 | 254 | 1 | 254 | 0 | 254 | 1 | 254 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 13 | 0 | **824** | 0 | 13 | **844** | 0 | 13 | 0 | **832** | 0 | 13 | 0 | **851** | 0 | 13 | 0 | **851** |
| Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Right | 1635 | 1 | 0 | 39 | 1674 | 0 | 15 | 1650 | 1 | 0 | 39 | 1689 | 1 | 0 | 0 | 1689 | 1 | 0 |
| Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **WESTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 38 | 0 | 38 | 0 | 38 | 38 | 0 | 38 | 0 | 38 | 0 | 38 | 0 | 38 | 0 | 38 | 0 | 38 |
| Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Through | 31 | 0 | **44** | 0 | 31 | **44** | 0 | 31 | 0 | **44** | 0 | 31 | 0 | **44** | 0 | 31 | 0 | **44** |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 13 | 0 | 0 | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 13 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | *North-South:* | | 468 | *North-South:* | | 492 | *North-South:* | | 491 | | *North-South:* | | 514 | | *North-South:* | | 518 | |
| | *East-West:* | | 868 | *East-West:* | | 888 | *East-West:* | | 876 | | *East-West:* | | 895 | | *East-West:* | | 895 | |
| | *SUM:* | | 1336 | *SUM:* | | 1380 | *SUM:* | | 1367 | | *SUM:* | | 1409 | | *SUM:* | | 1413 | |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.972 | | | 1.004 | | | 0.994 | | | | 1.025 | | | | 1.028 | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.872 | | | 0.904 | | | 0.894 | | | | 0.925 | | | | 0.928 | |
| LEVEL OF SERVICE (LOS): | | | D | | | E | | | D | | | | E | | | | E | |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.031 | *Δv/c* after mitigation: | 0.034 |
| Significant impacted? | YES | Fully mitigated? | NO |

| | Scenario | Scenario | Change | Impact? |
|---|---|---|---|---|
| FB | 0.473 | 0.517 | 0.044 | NO |

| FB | | |
|---|---|---|
| N-S | 373 | 373 |
| EB | 371 | 254 |
| WB | 44 | 44 |
| Sum | 788 | 671 |
| **V/C** | 0.573 | 0.488 |
| Less ATS | 0.473 | 0.388 |
| LOS | A | A |

| FP | | |
|---|---|---|
| N-S | 424 | 424 |
| EB | 380 | 254 |
| WB | 44 | 44 |
| Sum | 848 | 722 |
| **V/C** | 0.617 | 0.525 |
| Less ATS | 0.517 | 0.425 |
| LOS | A | A |

| FP Mitigation | | |
|---|---|---|
| N-S | 518 | 518 |
| EB | 380 | 254 |
| WB | 44 | 44 |
| Sum | 942 | 816 |
| **V/C** | 0.685 | 0.593 |
| Less ATS | 0.585 | 0.593 |
| LOS | A | A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | East-West Street: | O'Farrell St | Projection Year: | 2024 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | | 0 | NB-- 0 SB-- | | | 0 | NB-- 0 SB-- | | | 0 |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | | 0 | EB-- 0 WB-- | | | 0 | EB-- 0 WB-- | | | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| NORTHBOUND | Left | 15 | 1 | **15** | 0 | 15 | **15** | 0 | 15 | 1 | **15** | 0 | 15 | 1 | **15** | 0 | 15 | 1 | **15** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1630 | 3 | 543 | 194 | 1824 | 608 | 74 | 1704 | 3 | 568 | 194 | 1898 | 3 | 633 | 0 | 1898 | 3 | 633 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1819 | 2 | **609** | 41 | 1860 | **623** | 17 | 1836 | 2 | **615** | 41 | 1877 | 2 | **628** | 0 | 1877 | 2 | **628** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 102 | 0 | 102 | 0 | 102 | 102 | 0 | 102 | 0 | 102 | 0 | 102 | 0 | 102 | 0 | 102 | 0 | 102 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 23 | 0 | **125** | 0 | 23 | **125** | 0 | 23 | 0 | **125** | 0 | 23 | 0 | **125** | 0 | 23 | 0 | **125** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| WESTBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 624 | *North-South:* | | 638 | *North-South:* | | | 630 | *North-South:* | | | 643 | *North-South:* | | | 643 |
| | | *East-West:* | | 125 | *East-West:* | | 125 | *East-West:* | | | 125 | *East-West:* | | | 125 | *East-West:* | | | 125 |
| | | *SUM:* | | 749 | *SUM:* | | 763 | *SUM:* | | | 755 | *SUM:* | | | 768 | *SUM:* | | | 768 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.499 | | | 0.509 | | | | 0.503 | | | | 0.512 | | | | 0.512 |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.399 | | | 0.409 | | | | 0.403 | | | | 0.412 | | | | 0.412 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.009 | *Δv/c* after mitigation: | 0.009 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | East-West Street: | 1st St | Projection Year: | 2024 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | 3 | | | 3 | | | 3 | | | | 3 | | | | 2 | | |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | 2 | | | 2 | | | 2 | | | | 2 | | | | 0 | | |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | 0 | | NB-- 0 SB-- | 0 | | NB-- 0 SB-- | 0 | | | NB-- 0 SB-- | 0 | | | NB-- 0 SB-- | 0 | | |
| | | EB-- 0 WB-- | 0 | | EB-- 0 WB-- | 0 | | EB-- 0 WB-- | 0 | | | EB-- 0 WB-- | 0 | | | EB-- 0 WB-- | 0 | | |
| | ATSAC-1 or ATSAC+ATCS-2? | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | | |
| | Override Capacity | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | | |
| NORTHBOUND | Left | 29 | 1 | 29 | 1 | 30 | 30 | 0 | 29 | 1 | 29 | 1 | 30 | 1 | 30 | 0 | 30 | 1 | 30 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1581 | 2 | 527 | 194 | 1775 | 592 | 5 | 1586 | 2 | 529 | 194 | 1780 | 2 | 594 | 0 | 1780 | 2 | 594 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 7 | 1 | 7 | 0 | 7 | 7 | 18 | 25 | 1 | 25 | 0 | 25 | 1 | 25 | 0 | 25 | 1 | 25 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1748 | 2 | 613 | 41 | 1789 | 627 | -2 | 1746 | 2 | 613 | 41 | 1787 | 2 | 626 | 0 | 1787 | 2 | 626 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 92 | 0 | 0 | 0 | 92 | 0 | 0 | 92 | 0 | 0 | 0 | 92 | 0 | 0 | 0 | 92 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 72 | 1 | 72 | 0 | 72 | 72 | 0 | 72 | 1 | 72 | 0 | 72 | 1 | 72 | 0 | 72 | 1 | 72 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 26 | 0 | 0 | 26 | 3 | 3 | 0 | 29 | 0 | 3 | 0 | 29 | 0 | 3 | 0 | 29 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 26 | 0 | 0 | 0 | 26 | 0 | 0 | 26 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 26 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 3 | 1 | 3 | 0 | 3 | 1 | 3 | 0 | 3 | 1 | 3 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 1 | 0 | 0 | 0 | 0 | 13 | 13 | 1 | 13 | 0 | 13 | 1 | 13 | 0 | 13 | 1 | 13 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 68 | 68 | 0 | 56 | 0 | 68 | 0 | 56 | 0 | 68 | 0 | 56 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | 642 | | North-South: | 657 | | North-South: | | | 642 | North-South: | | | 656 | North-South: | | | 656 |
| | | East-West: | 72 | | East-West: | 72 | | East-West: | | | 128 | East-West: | | | 128 | East-West: | | | 128 |
| | | SUM: | 714 | | SUM: | 729 | | SUM: | | | 770 | SUM: | | | 784 | SUM: | | | 784 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.501 | | | 0.512 | | | | 0.540 | | | | 0.550 | | | | 0.523 |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.401 | | | 0.412 | | | | 0.440 | | | | 0.450 | | | | 0.423 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.010 | Δv/c after mitigation: | -0.017 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | East-West Street: | 5th St | Projection Year: | 2024 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | |
| No. of Phases | | | 3 | | | 3 | | | | 3 | | | | 3 | | | | 2 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | | 0 | NB-- 0 | SB-- | | 0 | NB-- 0 | SB-- | | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | | 0 | EB-- 0 | WB-- | | 0 | EB-- 0 | WB-- | | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |

| MOVEMENT | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NORTHBOUND | Left | 31 | 1 | **31** | 0 | 31 | **31** | 0 | 31 | 1 | **31** | 0 | 31 | 1 | **31** | 0 | 31 | 1 | **31** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1331 | 2 | 445 | 194 | 1525 | 510 | 6 | 1337 | 2 | 447 | 194 | 1531 | 2 | 512 | 0 | 1531 | 2 | 512 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 2 | 1 | 2 | 0 | 2 | 2 | 0 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 0 | 2 | 1 | 2 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1602 | 2 | **575** | 41 | 1643 | **588** | 1 | 1603 | 2 | **575** | 41 | 1644 | 2 | **589** | 0 | 1644 | 2 | **822** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 0 | |
| | Right | 122 | 0 | 0 | 0 | 122 | 0 | 0 | 122 | 0 | 0 | 0 | 122 | 0 | 0 | 0 | 122 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 291 | 1 | **291** | 0 | 291 | **291** | 0 | 291 | 1 | **291** | 0 | 291 | 1 | **291** | 0 | 291 | 1 | **291** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 6 | 1 | 6 | 0 | 6 | 6 | 0 | 6 | 1 | 6 | 0 | 6 | 1 | 6 | 0 | 6 | 1 | 6 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 17 | 1 | 2 | 0 | 17 | 2 | 0 | 17 | 1 | 2 | 0 | 17 | 1 | 2 | 0 | 17 | 1 | 2 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 4 | 1 | 4 | 0 | 4 | 4 | 0 | 4 | 1 | 4 | 0 | 4 | 1 | 4 | 0 | 4 | 1 | 4 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 6 | 1 | 6 | 0 | 6 | 6 | 0 | 6 | 1 | 6 | 0 | 6 | 1 | 6 | 0 | 6 | 1 | 6 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 27 | 1 | **26** | 0 | 27 | **26** | 0 | 27 | 1 | **26** | 0 | 27 | 1 | **26** | 0 | 27 | 1 | **26** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 606 | *North-South:* | | 619 | *North-South:* | | | 606 | *North-South:* | | | 620 | *North-South:* | | | 853 |
| | | *East-West:* | | 317 | *East-West:* | | 317 | *East-West:* | | | 317 | *East-West:* | | | 317 | *East-West:* | | | 317 |
| | | *SUM:* | | 923 | *SUM:* | | 936 | *SUM:* | | | 923 | *SUM:* | | | 937 | *SUM:* | | | 1170 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.648 | | | 0.657 | | | | 0.648 | | | | 0.658 | | | | 0.780 |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.548 | | | 0.557 | | | | 0.548 | | | | 0.558 | | | | 0.680 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | B |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.010 | $\Delta v/c$ after mitigation: | 0.132 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | East-West Street: | 6th St | Projection Year: | 2024 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | | 4 | | | | 4 | | | | 4 | | | | 4 | | | 3 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | | 2 | | | | 2 | | | | 2 | | | | 2 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 3 | SB-- | 0 | NB-- | 3 | SB-- | 0 | NB-- | 3 | SB-- | 0 | NB-- | 3 | SB-- | 0 | NB-- | 0 | SB-- 0 |
| | EB-- | 0 | WB-- | 3 | EB-- | 0 | WB-- | 3 | EB-- | 0 | WB-- | 3 | EB-- | 0 | WB-- | 3 | EB-- | 0 | WB-- 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | | 2 | | | | 2 | | | | 2 | | | | 2 | | | 2 |
| Override Capacity | | | | 0 | | | | 0 | | | | 0 | | | | 0 | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 65 | 1 | **65** | 0 | 65 | **65** | 0 | 65 | 1 | **65** | 0 | 65 | 1 | **65** | 0 | 65 | 1 | **65** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 962 | 2 | 321 | 194 | 1156 | 385 | 6 | 968 | 2 | 323 | 194 | 1162 | 2 | 387 | 0 | 1162 | 2 | 387 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1174 | 2 | **434** | 41 | 1215 | **448** | 1 | 1175 | 2 | **435** | 41 | 1216 | 2 | **448** | 0 | 1216 | 2 | **448** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 129 | 0 | 0 | 0 | 129 | 0 | 0 | 129 | 0 | 0 | 0 | 129 | 0 | 0 | 0 | 129 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 93 | 1 | **93** | 0 | 93 | **93** | 0 | 93 | 1 | **93** | 0 | 93 | 1 | **93** | 0 | 93 | 1 | **93** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 57 | 0 | 0 | 57 | 0 | 0 | 0 | 57 | 0 | 0 | 0 | 57 | 0 | 0 | 0 | 57 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 57 | 0 | 0 | 0 | 57 | 0 | 0 | 57 | 0 | 0 | 0 | 57 | 0 | 0 | 0 | 57 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 499 | *North-South:* | | 513 | *North-South:* | | | 500 | *North-South:* | | | 513 | *North-South:* | | | 513 |
| | | *East-West:* | | 93 | *East-West:* | | 93 | *East-West:* | | | 93 | *East-West:* | | | 93 | *East-West:* | | | 93 |
| | | *SUM:* | | 592 | *SUM:* | | 606 | *SUM:* | | | 593 | *SUM:* | | | 606 | *SUM:* | | | 606 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.431 | | | 0.441 | | | | 0.431 | | | | 0.441 | | | | 0.425 |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.331 | | | 0.341 | | | | 0.331 | | | | 0.341 | | | | 0.325 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.010 | Δ*v/c* after mitigation: | -0.006 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17A | East-West Street: | 7th St | Projection Year: | 2024 | Peak Hour: | PM | Reviewed by: | | Project: | 2024 CD1 CB |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 3 |
| | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | YEAR 2024 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 70 | 1 | 70 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 1,277 | 3 | 426 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 1,219 | 2 | 537 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 1 | | | | | | | | | | | | | | | | |
| | Right | 392 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 250 | 2 | 138 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 56 | 1 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | | North-South: | 607 | | North-South: | 0 | | North-South: | | 0 | | North-South: | | 0 | | North-South: | | 0 |
| | | | East-West: | 138 | | East-West: | 0 | | East-West: | | 0 | | East-West: | | 0 | | East-West: | | 0 |
| | | | SUM: | 745 | | SUM: | 0 | | SUM: | | 0 | | SUM: | | 0 | | SUM: | | 0 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.523 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.423 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.000 | Δv/c after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17A | East-West Street: | 7th St | Projection Year: | 2024 | Peak Hour: | PM | Reviewed by: | | Project: | 2024 WITH PROJECT |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 3 |
| | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | YEAR 2024 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 88 | 1 | **88** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 1,492 | 3 | 497 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 1,270 | 2 | **554** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 1 | | | | | | | | | | | | | | | | |
| | Right | 392 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 250 | 2 | **138** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 60 | 1 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | *North-South:* | | 642 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 138 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 780 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.547 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.447 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17B | East-West Street: | Sampson Way | | Projection Year: | 2024 | Peak Hour: | PM | Reviewed by: | | Project: | 2024 CD1 CB |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| | MOVEMENT | YEAR 2024 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 12 | 1 | **12** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 416 | 2 | 208 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 413 | 2 | 207 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 872 | 1 | **349** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 951 | 2 | **523** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 12 | 1 | 6 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | *North-South:* | | 361 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 523 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 884 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.589 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.489 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17B | East-West Street: | Sampson Way | | Projection Year: | 2024 | Peak Hour: | PM | Reviewed by: | | Project: | 2024 WITH PROJECT |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| | MOVEMENT | YEAR 2024 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 12 | 1 | **12** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 504 | 2 | 252 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 432 | 2 | 216 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 898 | 1 | **306** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 1,076 | 2 | **592** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 12 | 1 | 6 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | *North-South:* | | 318 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 592 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 910 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.607 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.507 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Miner St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 18 | East-West Street: | 22nd St | Projection Year: | 2024 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 4 | | | 4 | | | 4 | | | | 4 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 93 | 1 | **93** | 0 | 93 | **93** | 0 | 93 | 1 | **93** | 0 | 93 | 1 | **93** | 0 | 93 | 1 | **93** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 704 | 1 | 369 | 0 | 704 | 369 | 0 | 704 | 1 | 369 | 0 | 704 | 1 | 369 | 0 | 704 | 1 | 369 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 34 | 0 | 0 | 0 | 34 | 0 | 0 | 34 | 0 | 0 | 0 | 34 | 0 | 0 | 0 | 34 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 29 | 1 | 29 | 29 | 58 | 58 | 0 | 29 | 1 | 29 | 29 | 58 | 1 | 58 | 0 | 58 | 1 | 58 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 372 | 1 | **349** | 0 | 372 | **349** | 0 | 372 | 1 | **351** | 0 | 372 | 1 | **351** | 0 | 372 | 1 | **351** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 326 | 0 | 0 | 0 | 326 | 0 | 3 | 329 | 0 | 0 | 0 | 329 | 0 | 0 | 0 | 329 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 218 | 1 | **218** | 0 | 218 | **218** | 1 | 219 | 1 | **219** | 0 | 219 | 1 | **219** | 0 | 219 | 1 | **219** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 61 | 1 | 58 | 13 | 74 | 65 | 0 | 61 | 1 | 58 | 13 | 74 | 1 | 65 | 0 | 74 | 1 | 65 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 55 | 0 | 0 | 0 | 55 | 0 | 0 | 55 | 0 | 0 | 0 | 55 | 0 | 0 | 0 | 55 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 29 | 1 | 29 | 0 | 29 | 29 | 0 | 29 | 1 | 29 | 0 | 29 | 1 | 29 | 0 | 29 | 1 | 29 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 73 | 1 | **56** | 59 | 132 | 132 | 0 | 73 | 1 | **56** | 59 | 132 | 1 | 132 | 0 | 132 | 1 | 132 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 39 | 0 | 0 | 136 | 175 | **146** | 0 | 39 | 0 | 0 | 136 | 175 | 0 | **146** | 0 | 175 | 0 | **146** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 442 | *North-South:* | | 442 | *North-South:* | | 444 | | *North-South:* | | 444 | | *North-South:* | | 444 | |
| | | *East-West:* | | 274 | *East-West:* | | 364 | *East-West:* | | 275 | | *East-West:* | | 365 | | *East-West:* | | 365 | |
| | | *SUM:* | | 716 | *SUM:* | | 806 | *SUM:* | | 719 | | *SUM:* | | 809 | | *SUM:* | | 809 | |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.521 | | | 0.586 | | | 0.523 | | | | 0.588 | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.421 | | | 0.486 | | | 0.423 | | | | 0.488 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.065 | Δ*v/c* after mitigation: | -0.523 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | East-West Street: | Summerland Av | Projection Year: | 2024 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 159 | 1 | **159** | 0 | 159 | **159** | 0 | 159 | 1 | **159** | 0 | 159 | 1 | **159** | 0 | 159 | 1 | **159** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 640 | 1 | 332 | 1 | 641 | 332 | 7 | 647 | 1 | 335 | 1 | 648 | 1 | 336 | 0 | 648 | 1 | 336 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 23 | 0 | 0 | 0 | 23 | 0 | 0 | 23 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 23 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 11 | 1 | 11 | 0 | 11 | 11 | 0 | 11 | 1 | 11 | 0 | 11 | 1 | 11 | 0 | 11 | 1 | 11 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 586 | 1 | **385** | 2 | 588 | **386** | 12 | 598 | 1 | **391** | 2 | 600 | 1 | **392** | 0 | 600 | 1 | **392** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 184 | 0 | 0 | 0 | 184 | 0 | 0 | 184 | 0 | 0 | 0 | 184 | 0 | 0 | 0 | 184 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 221 | 1 | **221** | 0 | 221 | **221** | 0 | 221 | 1 | **221** | 0 | 221 | 1 | **221** | 0 | 221 | 1 | **221** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 82 | 0 | 0 | 82 | 0 | 0 | 0 | 82 | 0 | 0 | 0 | 82 | 0 | 0 | 0 | 82 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 82 | 0 | 0 | 0 | 82 | 0 | 0 | 82 | 0 | 0 | 0 | 82 | 0 | 0 | 0 | 82 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 479 | 2 | 263 | 0 | 479 | 263 | 0 | 479 | 2 | 263 | 0 | 479 | 2 | 263 | 0 | 479 | 2 | 263 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 181 | 0 | **414** | 0 | 181 | **414** | 0 | 181 | 0 | **414** | 0 | 181 | 0 | **414** | 0 | 181 | 0 | **414** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 233 | 0 | 0 | 0 | 233 | 0 | 0 | 233 | 0 | 0 | 0 | 233 | 0 | 0 | 0 | 233 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 544 | *North-South:* | | 545 | *North-South:* | | | 550 | *North-South:* | | | 551 | *North-South:* | | | 551 |
| | | *East-West:* | | 635 | *East-West:* | | 635 | *East-West:* | | | 635 | *East-West:* | | | 635 | *East-West:* | | | 635 |
| | | *SUM:* | | 1179 | *SUM:* | | 1180 | *SUM:* | | | 1185 | *SUM:* | | | 1186 | *SUM:* | | | 1186 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.827 | | | 0.828 | | | | 0.832 | | | | 0.832 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.727 | | | 0.728 | | | | 0.732 | | | | 0.732 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | C | | | C | | | | C | | | | C | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | -0.832 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | East-West Street: | I-110 Ramps | Projection Year: | 2024 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 | |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 | |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 1 SB-- / EB-- 0 WB-- | 0 | | NB-- 1 SB-- / EB-- 0 WB-- | 0 | | NB-- 1 SB-- / EB-- 0 WB-- | 0 | | | NB-- 1 SB-- / EB-- 0 WB-- | 0 | | | NB-- 0 SB-- / EB-- 0 WB-- | 0 | | |
| | ATSAC-1 or ATSAC+ATCS-2? | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 | |
| | Override Capacity | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 | |
| NORTHBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 656 | 2 | 328 | 1 | 657 | 329 | 7 | 663 | 2 | 332 | 1 | 664 | 2 | 332 | 0 | 664 | 2 | 332 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 2109 | 2 | 0 | 2 | 2111 | 0 | 11 | 2120 | 2 | 0 | 2 | 2122 | 2 | 0 | 0 | 2122 | 2 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 996 | 3 | **332** | 2 | 998 | **333** | 12 | 1008 | 3 | **336** | 2 | 1010 | 3 | **337** | 0 | 1010 | 3 | **337** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 1570 | 2 | **560** | 4 | 1574 | **561** | 16 | 1586 | 2 | **565** | 4 | 1590 | 2 | **566** | 0 | 1590 | 2 | **566** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 109 | 0 | 560 | 0 | 109 | 561 | 0 | 109 | 0 | 565 | 0 | 109 | 0 | 566 | 0 | 109 | 0 | 566 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | CRITICAL VOLUMES | *North-South:* | 332 | | *North-South:* | 333 | | *North-South:* | | 336 | | *North-South:* | | 337 | | *North-South:* | | 337 | |
| | | *East-West:* | 560 | | *East-West:* | 561 | | *East-West:* | | 565 | | *East-West:* | | 566 | | *East-West:* | | 566 | |
| | | *SUM:* | 892 | | *SUM:* | 894 | | *SUM:* | | 901 | | *SUM:* | | 903 | | *SUM:* | | 903 | |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | 0.595 | | | 0.596 | | | | 0.601 | | | | 0.602 | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | 0.495 | | | 0.496 | | | | 0.501 | | | | 0.502 | | | | -0.100 | |
| | LEVEL OF SERVICE (LOS): | | A | | | A | | | | A | | | | A | | | | A | |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | Δ*v/c* after mitigation: | -0.601 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | East-West Street: | 1st St | Projection Year: | 2024 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | |
| No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | 3 | |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | | NB-- 0 | SB-- | 0 | | NB-- 0 | SB-- | 0 | |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | | EB-- 0 | WB-- | 0 | | EB-- 0 | WB-- | 0 | |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | |

| MOVEMENT | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NORTHBOUND | Left | 51 | 1 | **51** | 0 | 51 | **51** | 2 | 53 | 1 | **53** | 0 | 53 | 1 | **53** | 0 | 53 | 1 | **53** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1458 | 2 | 494 | 3 | 1461 | 495 | 10 | 1468 | 2 | 498 | 3 | 1471 | 2 | 499 | 0 | 1471 | 2 | 499 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 23 | 0 | 0 | 0 | 23 | 0 | 2 | 25 | 0 | 0 | 0 | 25 | 0 | 0 | 0 | 25 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 215 | 1 | 215 | 0 | 215 | 215 | 9 | 224 | 1 | 224 | 0 | 224 | 1 | 224 | 0 | 224 | 1 | 224 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1837 | 2 | **768** | 6 | 1843 | **770** | 20 | 1857 | 2 | **775** | 6 | 1863 | 2 | **777** | 0 | 1863 | 2 | **777** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 467 | 0 | 0 | 0 | 467 | 0 | 0 | 467 | 0 | 0 | 0 | 467 | 0 | 0 | 0 | 467 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 651 | 1 | **394** | 0 | 651 | **394** | 0 | 651 | 1 | **396** | 0 | 651 | 1 | **396** | 0 | 651 | 1 | **396** |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 136 | 0 | 394 | 0 | 136 | 394 | 4 | 140 | 0 | 396 | 0 | 140 | 0 | 396 | 0 | 140 | 0 | 396 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 87 | 1 | 62 | 0 | 87 | 62 | 4 | 91 | 1 | 65 | 0 | 91 | 1 | 65 | 0 | 91 | 1 | 65 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 45 | 1 | 45 | 0 | 45 | 45 | 2 | 47 | 1 | 47 | 0 | 47 | 1 | 47 | 0 | 47 | 1 | 47 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 167 | 1 | **167** | 0 | 167 | **167** | 4 | 171 | 1 | **171** | 0 | 171 | 1 | **171** | 0 | 171 | 1 | **171** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 243 | 1 | 136 | 0 | 243 | 136 | 8 | 251 | 1 | 139 | 0 | 251 | 1 | 139 | 0 | 251 | 1 | 139 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 819 | *North-South:* | | 821 | *North-South:* | | | 828 | *North-South:* | | | 830 | *North-South:* | | | 830 |
| | | *East-West:* | | 561 | *East-West:* | | 561 | *East-West:* | | | 567 | *East-West:* | | | 567 | *East-West:* | | | 567 |
| | | *SUM:* | | 1380 | *SUM:* | | 1382 | *SUM:* | | | 1395 | *SUM:* | | | 1397 | *SUM:* | | | 1397 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.968 | | | 0.970 | | | | 0.979 | | | | 0.980 | | | | 0.980 |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.868 | | | 0.870 | | | | 0.879 | | | | 0.880 | | | | 0.880 |
| LEVEL OF SERVICE (LOS): | | | | D | | | D | | | | D | | | | D | | | | D |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | *Δv/c* after mitigation: | 0.001 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | East-West Street: | 5th St | Projection Year: | 2024 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 3 | | | 3 | | | | 3 | | | | 3 | | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | | 0 | NB-- 0 | SB-- | | 0 | NB-- 0 | SB-- | | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | | 0 | EB-- 0 | WB-- | | 0 | EB-- 0 | WB-- | | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 28 | 1 | 28 | 0 | 28 | 28 | 0 | 28 | 1 | 28 | 0 | 28 | 1 | 28 | 0 | 28 | 1 | 28 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1485 | 1 | 766 | 3 | 1488 | 767 | 14 | 1499 | 1 | 773 | 3 | 1502 | 1 | 774 | 0 | 1502 | 1 | 774 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 46 | 0 | 0 | 0 | 46 | 0 | 0 | 46 | 0 | 0 | 0 | 46 | 0 | 0 | 0 | 46 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 178 | 1 | 178 | 0 | 178 | 178 | 0 | 178 | 1 | 178 | 0 | 178 | 1 | 178 | 0 | 178 | 1 | 178 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1524 | 1 | 805 | 6 | 1530 | 808 | 26 | 1550 | 1 | 818 | 6 | 1556 | 1 | 821 | 0 | 1556 | 1 | 821 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 85 | 0 | 0 | 0 | 85 | 0 | 0 | 85 | 0 | 0 | 0 | 85 | 0 | 0 | 0 | 85 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 104 | 1 | 104 | 0 | 104 | 104 | 0 | 104 | 1 | 104 | 0 | 104 | 1 | 104 | 0 | 104 | 1 | 104 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 118 | 0 | 138 | 0 | 118 | 138 | 0 | 118 | 0 | 138 | 0 | 118 | 0 | 138 | 0 | 118 | 0 | 138 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 20 | 0 | 0 | 0 | 20 | 0 | 0 | 20 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 20 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 33 | 1 | 33 | 0 | 33 | 33 | 0 | 33 | 1 | 33 | 0 | 33 | 1 | 33 | 0 | 33 | 1 | 33 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 81 | 0 | 161 | 0 | 81 | 161 | 0 | 81 | 0 | 161 | 0 | 81 | 0 | 161 | 0 | 81 | 0 | 161 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 80 | 0 | 0 | 0 | 80 | 0 | 0 | 80 | 0 | 0 | 0 | 80 | 0 | 0 | 0 | 80 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | North-South: | | 944 | North-South: | | 945 | North-South: | | | 951 | North-South: | | | 952 | North-South: | | | 952 |
| | | East-West: | | 265 | East-West: | | 265 | East-West: | | | 265 | East-West: | | | 265 | East-West: | | | 265 |
| | | SUM: | | 1209 | SUM: | | 1210 | SUM: | | | 1216 | SUM: | | | 1217 | SUM: | | | 1217 |
| VOLUME/CAPACITY (V/C) RATIO: | | | | 0.848 | | | 0.849 | | | | 0.853 | | | | 0.854 | | | | |
| V/C LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.748 | | | 0.749 | | | | 0.753 | | | | 0.754 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | C | | | C | | | | C | | | | C | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.001 | Δv/c after mitigation: | -0.853 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | East-West Street: | 7th St | Projection Year: | 2024 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 49 | 1 | 49 | 0 | 49 | 49 | 3 | 52 | 1 | 52 | 0 | 52 | 1 | 52 | 0 | 52 | 1 | 52 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1377 | 1 | 720 | 3 | 1380 | 721 | 14 | 1391 | 1 | 727 | 3 | 1394 | 1 | 728 | 0 | 1394 | 1 | 728 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 62 | 0 | 0 | 0 | 62 | 0 | 0 | 62 | 0 | 0 | 0 | 62 | 0 | 0 | 0 | 62 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 72 | 1 | 72 | 0 | 72 | 72 | 0 | 72 | 1 | 72 | 0 | 72 | 1 | 72 | 0 | 72 | 1 | 72 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1314 | 1 | 715 | 6 | 1320 | 718 | 26 | 1340 | 1 | 728 | 6 | 1346 | 1 | 731 | 0 | 1346 | 1 | 731 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 115 | 0 | 0 | 0 | 115 | 0 | 0 | 115 | 0 | 0 | 0 | 115 | 0 | 0 | 0 | 115 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 171 | 1 | 171 | 0 | 171 | 171 | 0 | 171 | 1 | 171 | 0 | 171 | 1 | 171 | 0 | 171 | 1 | 171 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 184 | 0 | 229 | 0 | 184 | 229 | 0 | 184 | 0 | 235 | 0 | 184 | 0 | 235 | 0 | 184 | 0 | 235 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 45 | 0 | 0 | 0 | 45 | 0 | 6 | 51 | 0 | 0 | 0 | 51 | 0 | 0 | 0 | 51 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 74 | 1 | 74 | 0 | 74 | 74 | 0 | 74 | 1 | 74 | 0 | 74 | 1 | 74 | 0 | 74 | 1 | 74 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 173 | 0 | 245 | 0 | 173 | 245 | 0 | 173 | 0 | 245 | 0 | 173 | 0 | 245 | 0 | 173 | 0 | 245 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 72 | 0 | 0 | 0 | 72 | 0 | 0 | 72 | 0 | 0 | 0 | 72 | 0 | 0 | 0 | 72 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 792 | North-South: | | 793 | North-South: | | | 799 | North-South: | | | 800 | North-South: | | | 800 |
| | | East-West: | | 416 | East-West: | | 416 | East-West: | | | 416 | East-West: | | | 416 | East-West: | | | 416 |
| | | SUM: | | 1208 | SUM: | | 1209 | SUM: | | | 1215 | SUM: | | | 1216 | SUM: | | | 1216 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.805 | | | 0.806 | | | | 0.810 | | | | 0.811 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.705 | | | 0.706 | | | | 0.710 | | | | 0.711 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | C | | | C | | | | C | | | | C | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.001 | Δv/c after mitigation: | -0.810 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | East-West Street: | 9th St | Projection Year: | 2024 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 75 | 1 | **75** | 0 | 75 | **75** | 0 | 75 | 1 | **75** | 0 | 75 | 1 | **75** | 0 | 75 | 1 | **75** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1361 | 1 | 712 | 3 | 1364 | 714 | 15 | 1376 | 1 | 720 | 3 | 1379 | 1 | 721 | 0 | 1379 | 1 | 721 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 63 | 0 | 0 | 0 | 63 | 0 | 0 | 63 | 0 | 0 | 0 | 63 | 0 | 0 | 0 | 63 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 76 | 1 | 76 | 0 | 76 | 76 | 0 | 76 | 1 | 76 | 0 | 76 | 1 | 76 | 0 | 76 | 1 | 76 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1369 | 1 | **732** | 6 | 1375 | **735** | 30 | 1399 | 1 | **748** | 6 | 1405 | 1 | **751** | 0 | 1405 | 1 | **751** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 94 | 0 | 0 | 0 | 94 | 0 | 2 | 96 | 0 | 0 | 0 | 96 | 0 | 0 | 0 | 96 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 178 | 1 | **178** | 0 | 178 | **178** | 2 | 180 | 1 | **180** | 0 | 180 | 1 | **180** | 0 | 180 | 1 | **180** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 216 | 1 | 216 | 1 | 217 | 217 | 11 | 227 | 1 | 227 | 1 | 228 | 1 | 228 | 0 | 228 | 1 | 228 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 65 | 1 | 28 | 1 | 66 | 29 | 0 | 65 | 1 | 28 | 1 | 66 | 1 | 29 | 0 | 66 | 1 | 29 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 114 | 1 | 114 | 0 | 114 | 114 | 0 | 114 | 1 | 114 | 0 | 114 | 1 | 114 | 0 | 114 | 1 | 114 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 296 | 0 | **421** | 0 | 296 | **421** | 6 | 302 | 0 | **427** | 0 | 302 | 0 | **427** | 0 | 302 | 0 | **427** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 125 | 0 | 0 | 0 | 125 | 0 | 0 | 125 | 0 | 0 | 0 | 125 | 0 | 0 | 0 | 125 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 807 | *North-South:* | | 810 | *North-South:* | | | 823 | *North-South:* | | | 826 | *North-South:* | | | 826 |
| | | *East-West:* | | 599 | *East-West:* | | 599 | *East-West:* | | | 607 | *East-West:* | | | 607 | *East-West:* | | | 607 |
| | | *SUM:* | | 1406 | *SUM:* | | 1409 | *SUM:* | | | 1430 | *SUM:* | | | 1433 | *SUM:* | | | 1433 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.937 | | | 0.939 | | | | 0.953 | | | | 0.955 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.837 | | | 0.839 | | | | 0.853 | | | | 0.855 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | D | | | D | | | | D | | | | D | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.002 | Δ*v/c* after mitigation: | -0.953 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | East-West Street: | 22nd St | Projection Year: | 2024 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | 0 | |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | |
| NORTHBOUND | Left | 6 | 0 | **6** | 0 | 6 | **6** | 0 | 6 | 0 | **6** | 0 | 6 | 0 | **6** | 0 | 6 | 0 | **6** |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 612 | 0 | 384 | 0 | 612 | 387 | 1 | 613 | 0 | 401 | 0 | 613 | 0 | 404 | 0 | 613 | 0 | 404 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 132 | 0 | 384 | 5 | 137 | 387 | 33 | 165 | 0 | 401 | 5 | 170 | 0 | 404 | 0 | 170 | 0 | 404 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 187 | 0 | 187 | 6 | 193 | 193 | 30 | 217 | 0 | 217 | 6 | 223 | 0 | 223 | 0 | 223 | 0 | 223 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 790 | 0 | **776** | 0 | 790 | **788** | 1 | 791 | 0 | **805** | 0 | 791 | 0 | **805** | 0 | 791 | 0 | **805** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 14 | 0 | 776 | 0 | 14 | 788 | 0 | 14 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 14 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 17 | 0 | **17** | 0 | 17 | **17** | 0 | 17 | 0 | **17** | 0 | 17 | 0 | **17** | 0 | 17 | 0 | **17** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 23 | 0 | 43 | 0 | 23 | 43 | 21 | 44 | 0 | 64 | 0 | 44 | 0 | 64 | 0 | 44 | 0 | 64 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 139 | 0 | 139 | 2 | 141 | 141 | 18 | 157 | 0 | 157 | 2 | 159 | 0 | 159 | 0 | 159 | 0 | 159 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 27 | 0 | **277** | 0 | 27 | **282** | 11 | 38 | 0 | **321** | 0 | 38 | 0 | **326** | 0 | 38 | 0 | **326** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 111 | 0 | 0 | 3 | 114 | 0 | 15 | 126 | 0 | 0 | 3 | 129 | 0 | 0 | 0 | 129 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 782 | *North-South:* | | 794 | *North-South:* | | | 811 | *North-South:* | | | 811 | *North-South:* | | | 811 |
| | | *East-West:* | | 294 | *East-West:* | | 299 | *East-West:* | | | 338 | *East-West:* | | | 343 | *East-West:* | | | 343 |
| | | *SUM:* | | 1076 | *SUM:* | | 1093 | *SUM:* | | | 1149 | *SUM:* | | | 1154 | *SUM:* | | | 1154 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.717 | | | 0.729 | | | | 0.766 | | | | 0.769 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.617 | | | 0.629 | | | | 0.666 | | | | 0.669 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | B | | | B | | | | B | | | | B | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.003 | Δ*v/c* after mitigation: | -0.766 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | East-West Street: | 25th St | Projection Year: | 2024 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | | EB-- 3 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 67 | 1 | **67** | 0 | 67 | **67** | 0 | 67 | 1 | **67** | 0 | 67 | 1 | **67** | 0 | 67 | 1 | **67** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 335 | 1 | 335 | 1 | 336 | 336 | 10 | 345 | 1 | 345 | 1 | 346 | 1 | 346 | 0 | 346 | 1 | 346 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 629 | 1 | **629** | 0 | 629 | **629** | 5 | 634 | 1 | **634** | 0 | 634 | 1 | **634** | 0 | 634 | 1 | **634** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 416 | 1 | 213 | 2 | 418 | 213 | 13 | 429 | 1 | 214 | 2 | 431 | 1 | 214 | 0 | 431 | 1 | 214 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 406 | 1 | **406** | 4 | 410 | **410** | 24 | 430 | 1 | **430** | 4 | 434 | 1 | **434** | 0 | 434 | 1 | **434** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 109 | 1 | 42 | 0 | 109 | 42 | 0 | 109 | 1 | 42 | 0 | 109 | 1 | 42 | 0 | 109 | 1 | 42 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 696 | *North-South:* | | 696 | *North-South:* | | 701 | | *North-South:* | | 701 | | *North-South:* | | 701 | |
| | | *East-West:* | | 406 | *East-West:* | | 410 | *East-West:* | | 430 | | *East-West:* | | 434 | | *East-West:* | | 434 | |
| | | *SUM:* | | 1102 | *SUM:* | | 1106 | *SUM:* | | 1131 | | *SUM:* | | 1135 | | *SUM:* | | 1135 | |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.773 | | | 0.776 | | | 0.794 | | | | 0.796 | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.673 | | | 0.676 | | | 0.694 | | | | 0.696 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | B | | | B | | | B | | | | B | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.002 | *Δv/c* after mitigation: | -0.794 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Via Cabrillo Marina | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | East-West Street: | 22nd St | Projection Year: | 2024 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 3 SB-- 0 EB-- 0 WB-- 0 | | | NB-- 3 SB-- 0 EB-- 0 WB-- 0 | | | NB-- 3 SB-- 0 EB-- 0 WB-- 0 | | | | NB-- 3 SB-- 0 EB-- 0 WB-- 0 | | | | NB-- 0 SB-- 0 EB-- 0 WB-- 0 | | | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 236 | 2 | **130** | 0 | 236 | **130** | 0 | 236 | 2 | **130** | 0 | 236 | 2 | **130** | 0 | 236 | 2 | **130** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 82 | 1 | 0 | 0 | 82 | 0 | 0 | 82 | 1 | 0 | 0 | 82 | 1 | 0 | 0 | 82 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 333 | 1 | **293** | 16 | 349 | **301** | 95 | 428 | 1 | **340** | 16 | 444 | 1 | **348** | 0 | 444 | 1 | **348** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 252 | 0 | 0 | 0 | 252 | 0 | 0 | 252 | 0 | 0 | 0 | 252 | 0 | 0 | 0 | 252 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 105 | 1 | **105** | 0 | 105 | **105** | 0 | 105 | 1 | **105** | 0 | 105 | 1 | **105** | 0 | 105 | 1 | **105** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 294 | 2 | 147 | 7 | 301 | 151 | 46 | 340 | 2 | 170 | 7 | 347 | 2 | 174 | 0 | 347 | 2 | 174 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 130 | *North-South:* | | 130 | *North-South:* | | | 130 | *North-South:* | | | 130 | *North-South:* | | | 130 |
| | | *East-West:* | | 398 | *East-West:* | | 406 | *East-West:* | | | 445 | *East-West:* | | | 453 | *East-West:* | | | 453 |
| | | *SUM:* | | 528 | *SUM:* | | 536 | *SUM:* | | | 575 | *SUM:* | | | 583 | *SUM:* | | | 583 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.371 | | | 0.376 | | | | 0.404 | | | | 0.409 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.271 | | | 0.276 | | | | 0.304 | | | | 0.309 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.005 | Δ*v/c* after mitigation: | -0.404 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | East-West Street: | Swinford St / SR-47 EB Ramps | Projection Year: | 2024 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | 4 | | | 4 | | | 4 | | | | 4 | | | | 4 | | |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | | |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | 0 | | NB-- 0 SB-- | 0 | | NB-- 0 SB-- | 0 | | | NB-- 0 SB-- | 0 | | | NB-- 0 SB-- | 0 | | |
| | | EB-- 3 WB-- | 0 | | EB-- 3 WB-- | 0 | | EB-- 3 WB-- | 0 | | | EB-- 3 WB-- | 0 | | | EB-- 3 WB-- | 0 | | |
| | ATSAC-1 or ATSAC+ATCS-2? | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | | |
| | Override Capacity | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | | |
| NORTHBOUND | Left | 608 | 2 | 334 | 5 | 613 | 337 | 59 | 667 | 2 | 367 | 5 | 672 | 2 | 370 | 0 | 672 | 2 | 370 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1088 | 2 | 390 | 19 | 1107 | 396 | 58 | 1146 | 2 | 409 | 19 | 1165 | 2 | 415 | 0 | 1165 | 2 | 415 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 81 | 0 | 0 | 0 | 81 | 0 | 0 | 81 | 0 | 0 | 0 | 81 | 0 | 0 | 0 | 81 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 35 | 1 | 35 | 0 | 35 | 35 | 0 | 35 | 1 | 35 | 0 | 35 | 1 | 35 | 0 | 35 | 1 | 35 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 209 | 2 | 102 | 2 | 211 | 103 | 16 | 225 | 2 | 107 | 2 | 227 | 2 | 108 | 0 | 227 | 2 | 114 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 0 | |
| | Right | 97 | 0 | 0 | 0 | 97 | 0 | 0 | 97 | 0 | 0 | 0 | 97 | 0 | 0 | 0 | 97 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 238 | 1 | 238 | 0 | 238 | 238 | 0 | 238 | 1 | 238 | 0 | 238 | 1 | 238 | 0 | 238 | 1 | 238 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 215 | 0 | 949 | 0 | 215 | 974 | 0 | 215 | 0 | 1029 | 0 | 215 | 0 | 1054 | 0 | 215 | 0 | 1054 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1682 | 1 | 0 | 50 | 1732 | 0 | 161 | 1843 | 1 | 0 | 50 | 1893 | 1 | 0 | 0 | 1893 | 1 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 59 | 0 | 59 | 0 | 59 | 59 | 0 | 59 | 0 | 59 | 0 | 59 | 0 | 59 | 0 | 59 | 0 | 59 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 114 | 0 | 205 | 0 | 114 | 205 | 0 | 114 | 0 | 205 | 0 | 114 | 0 | 205 | 0 | 114 | 0 | 205 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 91 | 0 | 0 | 0 | 91 | 0 | 0 | 91 | 0 | 0 | 0 | 91 | 0 | 0 | 0 | 91 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 436 | North-South: | | 440 | North-South: | | | 474 | North-South: | | | 478 | North-South: | | | 484 |
| | | East-West: | | 1154 | East-West: | | 1179 | East-West: | | | 1234 | East-West: | | | 1259 | East-West: | | | 1259 |
| | | SUM: | | 1590 | SUM: | | 1619 | SUM: | | | 1708 | SUM: | | | 1737 | SUM: | | | 1743 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 1.156 | | | 1.177 | | | | 1.242 | | | | 1.263 | | | | 1.268 |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 1.056 | | | 1.077 | | | | 1.142 | | | | 1.163 | | | | 1.168 |
| | LEVEL OF SERVICE (LOS): | | | F | | | F | | | | F | | | | F | | | | F |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.021 | Δv/c after mitigation: | 0.026 |
| Significant impacted? | YES | Fully mitigated? | NO |

| | Scenario | Scenario | Change | Impact? |
|---|---|---|---|---|
| FB | 0.696 | 0.705 | 0.009 | NO |

| FB | | |
|---|---|---|
| N-S | 444 | 444 |
| EB | 445 | 238 |
| WB | 205 | 205 |
| Sum | 1094 | 887 |
| V/C | 0.796 | 0.645 |
| Less ATS | 0.696 | 0.545 |
| LOS | B | A |

| FP | | |
|---|---|---|
| N-S | 450 | 450 |
| EB | 452 | 238 |
| WB | 205 | 205 |
| Sum | 1107 | 893 |
| V/C | 0.805 | 0.649 |
| Less ATS | 0.705 | 0.549 |
| LOS | C | A |

| FP Mitigation | | |
|---|---|---|
| N-S | 484 | 484 |
| EB | 452 | 238 |
| WB | 205 | 205 |
| Sum | 1141 | 927 |
| V/C | 0.830 | 0.674 |
| Less ATS | 0.730 | 0.674 |
| LOS | C | B |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | East-West Street: | O'Farrell St | Projection Year: | 2024 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 12 | 1 | **12** | 0 | 12 | **12** | 0 | 12 | 1 | **12** | 0 | 12 | 1 | **12** | 0 | 12 | 1 | **12** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1708 | 3 | 569 | 24 | 1732 | 577 | 117 | 1825 | 3 | 608 | 24 | 1849 | 3 | 616 | 0 | 1849 | 3 | 616 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 2038 | 2 | **686** | 53 | 2091 | **703** | 177 | 2215 | 2 | **745** | 53 | 2268 | 2 | **762** | 0 | 2268 | 2 | **762** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 19 | 0 | 0 | 0 | 19 | 0 | 0 | 19 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 19 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 78 | 0 | 78 | 0 | 78 | 78 | 0 | 78 | 0 | 78 | 0 | 78 | 0 | 78 | 0 | 78 | 0 | 78 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 18 | 0 | **96** | 0 | 18 | **96** | 0 | 18 | 0 | **96** | 0 | 18 | 0 | **96** | 0 | 18 | 0 | **96** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| WESTBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 698 | *North-South:* | | 715 | *North-South:* | | 757 | | *North-South:* | | 774 | | *North-South:* | | 774 | |
| | | *East-West:* | | 96 | *East-West:* | | 96 | *East-West:* | | 96 | | *East-West:* | | 96 | | *East-West:* | | 96 | |
| | | *SUM:* | | 794 | *SUM:* | | 811 | *SUM:* | | 853 | | *SUM:* | | 870 | | *SUM:* | | 870 | |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.529 | | | 0.541 | | | 0.569 | | | | 0.580 | | | | 0.580 | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.429 | | | 0.441 | | | 0.469 | | | | 0.480 | | | | 0.480 | |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | A | |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.011 | *Δv/c* after mitigation: | 0.011 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | East-West Street: | 1st St | Projection Year: | 2024 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 45 | 1 | **45** | 0 | 45 | **45** | 0 | 45 | 1 | **45** | 0 | 45 | 1 | **45** | 0 | 45 | 1 | **45** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1663 | 2 | 556 | 24 | 1687 | 564 | 28 | 1691 | 2 | 567 | 24 | 1715 | 2 | 575 | 0 | 1715 | 2 | 575 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 6 | 0 | 0 | 0 | 6 | 0 | 4 | 10 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 10 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 22 | 1 | 22 | 0 | 22 | 22 | 96 | 118 | 1 | 118 | 0 | 118 | 1 | 118 | 0 | 118 | 1 | 118 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1912 | 2 | **676** | 53 | 1965 | **693** | 80 | 1992 | 2 | **702** | 53 | 2045 | 2 | **720** | 0 | 2045 | 2 | **720** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 115 | 0 | 0 | 0 | 115 | 0 | 0 | 115 | 0 | 0 | 0 | 115 | 0 | 0 | 0 | 115 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 54 | 1 | 54 | 0 | 54 | 54 | 0 | 54 | 1 | 54 | 0 | 54 | 1 | 54 | 0 | 54 | 1 | 54 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 2 | 0 | **64** | 0 | 2 | **64** | 18 | 20 | 0 | **82** | 0 | 20 | 0 | **82** | 0 | 20 | 0 | **82** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 62 | 0 | 0 | 0 | 62 | 0 | 0 | 62 | 0 | 0 | 0 | 62 | 0 | 0 | 0 | 62 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 4 | 1 | 4 | 0 | 4 | 1 | 4 | 0 | 4 | 1 | **4** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 1 | **0** | 0 | 0 | **0** | 17 | 17 | 1 | 17 | 0 | 17 | 1 | 17 | 0 | 17 | 1 | 17 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 88 | 88 | 0 | **29** | 0 | 88 | 0 | **29** | 0 | 88 | 0 | 29 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 721 | *North-South:* | | 738 | *North-South:* | | | 747 | *North-South:* | | | 765 | *North-South:* | | | 765 |
| | | *East-West:* | | 64 | *East-West:* | | 64 | *East-West:* | | | 111 | *East-West:* | | | 111 | *East-West:* | | | 86 |
| | | *SUM:* | | 785 | *SUM:* | | 802 | *SUM:* | | | 858 | *SUM:* | | | 876 | *SUM:* | | | 851 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.551 | | | 0.563 | | | | 0.602 | | | | 0.615 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.451 | | | 0.463 | | | | 0.502 | | | | 0.515 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.013 | Δ*v/c* after mitigation: | -0.602 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | East-West Street: | 5th St | Projection Year: | 2024 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 16 | 1 | **16** | 0 | 16 | **16** | 0 | 16 | 1 | **16** | 0 | 16 | 1 | **16** | 0 | 16 | 1 | **16** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1700 | 2 | 568 | 24 | 1724 | 576 | 32 | 1732 | 2 | 579 | 24 | 1756 | 2 | 587 | 0 | 1756 | 2 | 587 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1939 | 2 | **674** | 53 | 1992 | **692** | 84 | 2023 | 2 | **702** | 53 | 2076 | 2 | **720** | 0 | 2076 | 2 | **720** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 84 | 0 | 0 | 0 | 84 | 0 | 0 | 84 | 0 | 0 | 0 | 84 | 0 | 0 | 0 | 84 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 73 | 1 | **73** | 0 | 73 | **73** | 0 | 73 | 1 | **73** | 0 | 73 | 1 | **73** | 0 | 73 | 1 | **73** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 18 | 1 | 18 | 0 | 18 | 18 | 0 | 18 | 1 | 18 | 0 | 18 | 1 | 18 | 0 | 18 | 1 | 18 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 23 | 1 | 15 | 0 | 23 | 15 | 0 | 23 | 1 | 15 | 0 | 23 | 1 | 15 | 0 | 23 | 1 | 15 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 2 | 1 | 2 | 0 | 2 | 2 | 0 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 0 | 2 | 1 | 2 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 7 | 1 | 7 | 0 | 7 | 7 | 0 | 7 | 1 | 7 | 0 | 7 | 1 | 7 | 0 | 7 | 1 | 7 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 36 | 1 | **36** | 0 | 36 | **36** | 0 | 36 | 1 | **36** | 0 | 36 | 1 | **36** | 0 | 36 | 1 | **36** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 690 | *North-South:* | | 708 | *North-South:* | | | 718 | *North-South:* | | | 736 | *North-South:* | | | 736 |
| | | *East-West:* | | 109 | *East-West:* | | 109 | *East-West:* | | | 109 | *East-West:* | | | 109 | *East-West:* | | | 109 |
| | | *SUM:* | | 799 | *SUM:* | | 817 | *SUM:* | | | 827 | *SUM:* | | | 845 | *SUM:* | | | 845 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.561 | | | 0.573 | | | | 0.580 | | | | 0.593 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.461 | | | 0.473 | | | | 0.480 | | | | 0.493 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.013 | Δ*v/c* after mitigation: | -0.580 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | East-West Street: | 6th St | Projection Year: | 2024 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 4 | | | 4 | | | 4 | | | 4 | | | 4 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 3 | SB-- 0 | NB-- | 3 | SB-- 0 | NB-- | 3 | SB-- 0 | NB-- | 3 | SB-- 0 | NB-- | 3 | SB-- 0 | NB-- | 0 | SB-- 0 |
| | EB-- | 0 | WB-- 3 | EB-- | 0 | WB-- 3 | EB-- | 0 | WB-- 3 | EB-- | 0 | WB-- 3 | EB-- | 0 | WB-- 3 | EB-- | 0 | WB-- 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 84 | 1 | **84** | 0 | 84 | **84** | 0 | 84 | 1 | **84** | 0 | 84 | 1 | **84** | 0 | 84 | 1 | **84** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 948 | 2 | 316 | 24 | 972 | 324 | 32 | 980 | 2 | 327 | 24 | 1004 | 2 | 335 | 0 | 1004 | 2 | 335 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1058 | 2 | **395** | 53 | 1111 | **413** | 84 | 1142 | 2 | **423** | 53 | 1195 | 2 | **441** | 0 | 1195 | 2 | **441** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 127 | 0 | 0 | 0 | 127 | 0 | 0 | 127 | 0 | 0 | 0 | 127 | 0 | 0 | 0 | 127 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 167 | 1 | **167** | 0 | 167 | **167** | 0 | 167 | 1 | **167** | 0 | 167 | 1 | **167** | 0 | 167 | 1 | **167** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 76 | 0 | 0 | 76 | 0 | 0 | 0 | 76 | 0 | 0 | 0 | 76 | 0 | 0 | 0 | 76 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 76 | 0 | 0 | 0 | 76 | 0 | 0 | 76 | 0 | 0 | 0 | 76 | 0 | 0 | 0 | 76 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 479 | *North-South:* | | 497 | *North-South:* | | | 507 | *North-South:* | | | 525 | *North-South:* | | | 525 |
| | | *East-West:* | | 167 | *East-West:* | | 167 | *East-West:* | | | 167 | *East-West:* | | | 167 | *East-West:* | | | 167 |
| | | *SUM:* | | 646 | *SUM:* | | 664 | *SUM:* | | | 674 | *SUM:* | | | 692 | *SUM:* | | | 692 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.470 | | | 0.483 | | | | 0.490 | | | | 0.503 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.370 | | | 0.383 | | | | 0.390 | | | | 0.403 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.013 | Δ*v/c* after mitigation: | -0.490 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17A | East-West Street: | 7th St | Projection Year: | 2024 | Peak Hour: | SAT | Reviewed by: | | Project: | 2024 CD1 CB |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 3 |
| | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | YEAR 2024 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 149 | 1 | **149** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 1,723 | 3 | 574 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 1,467 | 2 | **558** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 1 | | | | | | | | | | | | | | | | |
| | Right | 207 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 255 | 2 | **140** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 203 | 1 | 54 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | *North-South:* | | 707 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 140 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 847 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.594 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.494 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17A | East-West Street: | 7th St | Projection Year: | 2024 | Peak Hour: | SAT | Reviewed by: | | Project: | 2024 WITH PROJECT |

| | YEAR 2024 CONDITIONS | EXISTING PLUS PROJECT | FUTURE CONDITION W/O PROJECT | FUTURE CONDITION W/ PROJECT | FUTURE W/ PROJECT W/ MITIGATION |
|---|---|---|---|---|---|
| No. of Phases | 3 | 3 | 3 | 3 | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | 0 | 0 | 0 | 0 | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- 0<br>EB-- 3 WB-- 0 | NB-- 0 SB-- 0<br>EB-- 3 WB-- 0 | NB-- 0 SB-- 0<br>EB-- 3 WB-- 0 | NB-- 0 SB-- 0<br>EB-- 3 WB-- 0 | NB-- 0 SB-- 3<br>EB-- 0 WB-- 0 |
| ATSAC-1 or ATSAC+ATCS-2? | 2 | 2 | 2 | 2 | 2 |
| Override Capacity | 0 | 0 | 0 | 0 | 0 |

| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NORTHBOUND | Left | 151 | 1 | **151** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 1,780 | 3 | 593 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 1,586 | 2 | **598** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 1 | | | | | | | | | | | | | | | | |
| | Right | 207 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 255 | 2 | **140** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 208 | 1 | 57 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| | CRITICAL VOLUMES | *North-South:* | | 749 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 140 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 889 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.624 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.524 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

Change in *v/c* due to project: 0.000 — $\Delta v/c$ after mitigation: 0.000

Significant impacted? NO — Fully mitigated? N/A

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17B | East-West Street: | Sampson Way | Projection Year: | 2024 | Peak Hour: | SAT | Reviewed by: | | Project: | 2024 CD1 CB |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| | MOVEMENT | YEAR 2024 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 29 | 1 | **29** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 801 | 2 | 401 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 753 | 2 | **377** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 983 | 1 | 376 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 1,104 | 2 | **607** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 120 | 1 | 106 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | *North-South:* | | 406 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 607 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 1013 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.675 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.575 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Miner St | Year of Count: | 2024 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 18 | East-West Street: | 22nd St | Projection Year: | 2024 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 4 | | | 4 | | | 4 | | | | 4 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 223 | 1 | 223 | 0 | 223 | 223 | 0 | 223 | 1 | 223 | 0 | 223 | 1 | 223 | 0 | 223 | 1 | 223 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 847 | 1 | 471 | 0 | 847 | 471 | 0 | 847 | 1 | 471 | 0 | 847 | 1 | 471 | 0 | 847 | 1 | 471 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 94 | 0 | 0 | 0 | 94 | 0 | 0 | 94 | 0 | 0 | 0 | 94 | 0 | 0 | 0 | 94 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 30 | 1 | 30 | 37 | 67 | 67 | 0 | 30 | 1 | 30 | 37 | 67 | 1 | 67 | 0 | 67 | 1 | 67 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 949 | 1 | 600 | 0 | 949 | 600 | 0 | 949 | 1 | 601 | 0 | 949 | 1 | 601 | 0 | 949 | 1 | 601 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 250 | 0 | 0 | 0 | 250 | 0 | 3 | 253 | 0 | 0 | 0 | 253 | 0 | 0 | 0 | 253 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 187 | 1 | 187 | 0 | 187 | 187 | 4 | 191 | 1 | 191 | 0 | 191 | 1 | 191 | 0 | 191 | 1 | 191 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 85 | 1 | 85 | 16 | 101 | 101 | 0 | 85 | 1 | 85 | 16 | 101 | 1 | 101 | 0 | 101 | 1 | 101 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 129 | 0 | 18 | 0 | 129 | 18 | 0 | 129 | 0 | 18 | 0 | 129 | 0 | 18 | 0 | 129 | 0 | 18 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 83 | 1 | 83 | 0 | 83 | 83 | 0 | 83 | 1 | 83 | 0 | 83 | 1 | 83 | 0 | 83 | 1 | 83 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 82 | 1 | 53 | 7 | 89 | 65 | 0 | 82 | 1 | 53 | 7 | 89 | 1 | 65 | 0 | 89 | 1 | 65 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 24 | 0 | 0 | 17 | 41 | 0 | 0 | 24 | 0 | 0 | 17 | 41 | 0 | 0 | 0 | 41 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 823 | North-South: | | 823 | North-South: | | 824 | | North-South: | | 824 | | North-South: | | | 824 |
| | | East-West: | | 240 | East-West: | | 252 | East-West: | | 244 | | East-West: | | 256 | | East-West: | | | 256 |
| | | SUM: | | 1063 | SUM: | | 1075 | SUM: | | 1068 | | SUM: | | 1080 | | SUM: | | | 1080 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.773 | | | 0.782 | | | 0.777 | | | | 0.785 | | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.673 | | | 0.682 | | | 0.677 | | | | 0.685 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | B | | | B | | | B | | | | B | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in v/c due to project: | 0.008 | Δv/c after mitigation: | -0.777 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17B | East-West Street: | Sampson Way | | Projection Year: | 2024 | Peak Hour: | SAT | Reviewed by: | | Project: | 2024 WITH PROJECT |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| | MOVEMENT | YEAR 2024 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 29 | 1 | **29** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 812 | 2 | 406 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 777 | 2 | 389 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 1,017 | 1 | **402** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 1,119 | 2 | **615** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 120 | 1 | 106 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | *North-South:* | | 431 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 615 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 1046 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.697 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.597 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

**YEAR 2042**

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | East-West Street: | I-110 Ramps | Projection Year: | 2042 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 1 | SB-- | 0 | NB-- 1 | SB-- | 0 | NB-- 1 | SB-- | 0 | NB-- 1 | SB-- | 0 | NB-- 0 | SB-- | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| | MOVEMENT | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 616 | 2 | **308** | 1 | 617 | **309** | 0 | 616 | 2 | **308** | 1 | 617 | 2 | **309** | 0 | 617 | 2 | **309** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 2805 | 2 | 0 | 4 | 2809 | 0 | 0 | 2805 | 2 | 0 | 4 | 2809 | 2 | 0 | 0 | 2809 | 2 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 828 | 3 | 276 | 7 | 835 | 278 | -1 | 827 | 3 | 276 | 7 | 834 | 3 | 278 | 0 | 834 | 3 | 278 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 1659 | 2 | **578** | 17 | 1676 | **584** | 0 | 1659 | 2 | **578** | 17 | 1676 | 2 | **584** | 0 | 1676 | 2 | **584** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 76 | 0 | 578 | 0 | 76 | 584 | 0 | 76 | 0 | 578 | 0 | 76 | 0 | 584 | 0 | 76 | 0 | 584 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| CRITICAL VOLUMES | | *North-South:* | | 308 | *North-South:* | | 309 | *North-South:* | | | 308 | *North-South:* | | | 309 | *North-South:* | | | 309 |
| | | *East-West:* | | 578 | *East-West:* | | 584 | *East-West:* | | | 578 | *East-West:* | | | 584 | *East-West:* | | | 584 |
| | | *SUM:* | | 886 | *SUM:* | | 893 | *SUM:* | | | 886 | *SUM:* | | | 893 | *SUM:* | | | 893 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.591 | | | 0.595 | | | | 0.591 | | | | 0.595 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.491 | | | 0.495 | | | | 0.491 | | | | 0.495 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.004 | Δ*v/c* after mitigation: | -0.591 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | East-West Street: | Summerland Av | Projection Year: | 2042 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 0 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 112 | 1 | **112** | 0 | 112 | **112** | 0 | 112 | 1 | **112** | 0 | 112 | 1 | **112** | 0 | 112 | 1 | **112** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 506 | 1 | 261 | 1 | 507 | 261 | 0 | 506 | 1 | 261 | 1 | 507 | 1 | 261 | 0 | 507 | 1 | 261 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 15 | 0 | 0 | 0 | 15 | 0 | 0 | 15 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 15 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 13 | 1 | 13 | 0 | 13 | 13 | 0 | 13 | 1 | 13 | 0 | 13 | 1 | 13 | 0 | 13 | 1 | 13 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 404 | 1 | **291** | 7 | 411 | **294** | -1 | 403 | 1 | **290** | 7 | 410 | 1 | **294** | 0 | 410 | 1 | **294** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 177 | 0 | 0 | 0 | 177 | 0 | 0 | 177 | 0 | 0 | 0 | 177 | 0 | 0 | 0 | 177 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 423 | 1 | **423** | 0 | 423 | **423** | 0 | 423 | 1 | **423** | 0 | 423 | 1 | **423** | 0 | 423 | 1 | **423** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 5 | 0 | 59 | 0 | 5 | 59 | 0 | 5 | 0 | 59 | 0 | 5 | 0 | 59 | 0 | 5 | 0 | 59 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 54 | 0 | 0 | 0 | 54 | 0 | 0 | 54 | 0 | 0 | 0 | 54 | 0 | 0 | 0 | 54 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 391 | 2 | 215 | 0 | 391 | 215 | 0 | 391 | 2 | 215 | 0 | 391 | 2 | 215 | 0 | 391 | 2 | 215 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 146 | 0 | **458** | 0 | 146 | **458** | 0 | 146 | 0 | **458** | 0 | 146 | 0 | **458** | 0 | 146 | 0 | **458** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 312 | 0 | 0 | 0 | 312 | 0 | 0 | 312 | 0 | 0 | 0 | 312 | 0 | 0 | 0 | 312 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 403 | *North-South:* | | 406 | *North-South:* | | | 402 | *North-South:* | | | 406 | *North-South:* | | | 406 |
| | | *East-West:* | | 881 | *East-West:* | | 881 | *East-West:* | | | 881 | *East-West:* | | | 881 | *East-West:* | | | 881 |
| | | *SUM:* | | 1284 | *SUM:* | | 1287 | *SUM:* | | | 1283 | *SUM:* | | | 1287 | *SUM:* | | | 1287 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.901 | | | 0.903 | | | | 0.900 | | | | 0.903 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | **0.801** | | | **0.803** | | | | **0.800** | | | | **0.803** | | | | **-0.100** |
| LEVEL OF SERVICE (LOS): | | | | **D** | | | **D** | | | | **C** | | | | **D** | | | | **A** |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.003 | Δ*v/c* after mitigation: | -0.900 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | East-West Street: | 1st St | Projection Year: | 2042 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| **NORTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 12 | 1 | 12 | 0 | 12 | 12 | 0 | 12 | 1 | 12 | 0 | 12 | 1 | 12 | 0 | 12 | 1 | 12 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 1804 | 2 | **604** | 5 | 1809 | **606** | 0 | 1804 | 2 | **604** | 5 | 1809 | 2 | **606** | 0 | 1809 | 2 | **606** |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **SOUTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 198 | 1 | **198** | 0 | 198 | **198** | 0 | 198 | 1 | **198** | 0 | 198 | 1 | **198** | 0 | 198 | 1 | **198** |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 1402 | 2 | 624 | 24 | 1426 | 632 | -1 | 1401 | 2 | 624 | 24 | 1425 | 2 | 632 | 0 | 1425 | 2 | 632 |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 471 | 0 | 0 | 0 | 471 | 0 | 0 | 471 | 0 | 0 | 0 | 471 | 0 | 0 | 0 | 471 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **EASTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 1066 | 1 | **562** | 0 | 1066 | **563** | 0 | 1066 | 1 | **562** | 0 | 1066 | 1 | **563** | 0 | 1066 | 1 | **563** |
| Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Through | 58 | 0 | 562 | 1 | 59 | 563 | 0 | 58 | 0 | 562 | 1 | 59 | 0 | 563 | 0 | 59 | 0 | 563 |
| Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Right | 24 | 1 | 18 | 0 | 24 | 18 | 0 | 24 | 1 | 18 | 0 | 24 | 1 | 18 | 0 | 24 | 1 | 18 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **WESTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 41 | 1 | 41 | 0 | 41 | 41 | 0 | 41 | 1 | 41 | 0 | 41 | 1 | 41 | 0 | 41 | 1 | 41 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 136 | 1 | 136 | 0 | 136 | 136 | 0 | 136 | 1 | 136 | 0 | 136 | 1 | 136 | 0 | 136 | 1 | 136 |
| Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Right | 389 | 1 | **290** | 0 | 389 | **290** | 0 | 389 | 1 | **290** | 0 | 389 | 1 | **290** | 0 | 389 | 1 | **290** |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | *North-South:* | | 802 | *North-South:* | | 804 | *North-South:* | | | 802 | *North-South:* | | | 804 | *North-South:* | | | 804 |
| | *East-West:* | | 852 | *East-West:* | | 853 | *East-West:* | | | 852 | *East-West:* | | | 853 | *East-West:* | | | 853 |
| | *SUM:* | | 1654 | *SUM:* | | 1657 | *SUM:* | | | 1654 | *SUM:* | | | 1657 | *SUM:* | | | 1657 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | 1.161 | | | 1.163 | | | | 1.161 | | | | 1.163 | | | | 1.163 |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 1.061 | | | 1.063 | | | | 1.061 | | | | 1.063 | | | | 1.063 |
| LEVEL OF SERVICE (LOS): | | | F | | | F | | | | F | | | | F | | | | F |

| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2 | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | *NB--* | 0 | *SB--* 0 | *NB--* | 0 | *SB--* 0 | *NB--* | 0 | *SB--* 0 | | *NB--* | 0 | *SB--* 0 | | *NB--* | 0 | *SB--* 0 | |
| | *EB--* | 0 | *WB--* 0 | *EB--* | 0 | *WB--* 0 | *EB--* | 0 | *WB--* 0 | | *EB--* | 0 | *WB--* 0 | | *EB--* | 0 | *WB--* 0 | |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |

## PROJECT IMPACT

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.002 | *Δv/c* after mitigation: | 0.002 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | East-West Street: | 5th St | Projection Year: | 2042 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| **NORTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 18 | 1 | 18 | 0 | 18 | 18 | 0 | 18 | 1 | 18 | 0 | 18 | 1 | 18 | 0 | 18 | 1 | 18 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 1510 | 1 | **783** | 5 | 1515 | **786** | 0 | 1510 | 1 | **783** | 5 | 1515 | 1 | **786** | 0 | 1515 | 1 | **786** |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 56 | 0 | 0 | 0 | 56 | 0 | 0 | 56 | 0 | 0 | 0 | 56 | 0 | 0 | 0 | 56 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **SOUTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 67 | 1 | **67** | 0 | 67 | **67** | 0 | 67 | 1 | **67** | 0 | 67 | 1 | **67** | 0 | 67 | 1 | **67** |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 1297 | 1 | 678 | 24 | 1321 | 690 | -1 | 1296 | 1 | 677 | 24 | 1320 | 1 | 689 | 0 | 1320 | 1 | 689 |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 58 | 0 | 0 | 0 | 58 | 0 | 0 | 58 | 0 | 0 | 0 | 58 | 0 | 0 | 0 | 58 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **EASTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 173 | 1 | **173** | 0 | 173 | **173** | 0 | 173 | 1 | **173** | 0 | 173 | 1 | **173** | 0 | 173 | 1 | **173** |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 134 | 0 | 155 | 0 | 134 | 155 | 0 | 134 | 0 | 155 | 0 | 134 | 0 | 155 | 0 | 134 | 0 | 155 |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 21 | 0 | 0 | 0 | 21 | 0 | 0 | 21 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 21 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **WESTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 65 | 1 | 65 | 0 | 65 | 65 | 0 | 65 | 1 | 65 | 0 | 65 | 1 | 65 | 0 | 65 | 1 | 65 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 104 | 0 | **166** | 0 | 104 | **166** | 0 | 104 | 0 | **166** | 0 | 104 | 0 | **166** | 0 | 104 | 0 | **166** |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 62 | 0 | 0 | 0 | 62 | 0 | 0 | 62 | 0 | 0 | 0 | 62 | 0 | 0 | 0 | 62 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | *North-South:* | | 850 | *North-South:* | | 853 | *North-South:* | | | 850 | *North-South:* | | | 853 | *North-South:* | | | 853 |
| | *East-West:* | | 339 | *East-West:* | | 339 | *East-West:* | | | 339 | *East-West:* | | | 339 | *East-West:* | | | 339 |
| | *SUM:* | | 1189 | *SUM:* | | 1192 | *SUM:* | | | 1189 | *SUM:* | | | 1192 | *SUM:* | | | 1192 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.834 | | | 0.836 | | | | 0.834 | | | | 0.836 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.734 | | | 0.736 | | | | 0.734 | | | | 0.736 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | C | | | C | | | | C | | | | C | | | | A |

| | | | |
|---|---|---|---|
| | | **PROJECT IMPACT** | |
| Change in *v/c* due to project: | 0.002 | $\Delta v/c$ after mitigation: | -0.834 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | East-West Street: | 7th St | Projection Year: | 2042 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 50 | 1 | 50 | 0 | 50 | 50 | 0 | 50 | 1 | 50 | 0 | 50 | 1 | 50 | 0 | 50 | 1 | 50 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1628 | 1 | 852 | 5 | 1633 | 855 | 0 | 1628 | 1 | 852 | 5 | 1633 | 1 | 855 | 0 | 1633 | 1 | 855 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 76 | 0 | 0 | 0 | 76 | 0 | 0 | 76 | 0 | 0 | 0 | 76 | 0 | 0 | 0 | 76 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 65 | 1 | 65 | 0 | 65 | 65 | 0 | 65 | 1 | 65 | 0 | 65 | 1 | 65 | 0 | 65 | 1 | 65 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1220 | 1 | 679 | 24 | 1244 | 691 | -1 | 1219 | 1 | 679 | 24 | 1243 | 1 | 691 | 0 | 1243 | 1 | 691 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 138 | 0 | 0 | 0 | 138 | 0 | 0 | 138 | 0 | 0 | 0 | 138 | 0 | 0 | 0 | 138 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 197 | 1 | 197 | 0 | 197 | 197 | 0 | 197 | 1 | 197 | 0 | 197 | 1 | 197 | 0 | 197 | 1 | 197 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 160 | 0 | 186 | 1 | 161 | 187 | 0 | 160 | 0 | 186 | 1 | 161 | 0 | 187 | 0 | 161 | 0 | 187 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 26 | 0 | 0 | 0 | 26 | 0 | 0 | 26 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 26 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 100 | 1 | 100 | 0 | 100 | 100 | 0 | 100 | 1 | 100 | 0 | 100 | 1 | 100 | 0 | 100 | 1 | 100 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 133 | 0 | 185 | 0 | 133 | 185 | 0 | 133 | 0 | 185 | 0 | 133 | 0 | 185 | 0 | 133 | 0 | 185 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 52 | 0 | 0 | 0 | 52 | 0 | 0 | 52 | 0 | 0 | 0 | 52 | 0 | 0 | 0 | 52 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 917 | North-South: | | 920 | North-South: | | | 917 | North-South: | | | 920 | North-South: | | | 920 |
| | | East-West: | | 382 | East-West: | | 382 | East-West: | | | 382 | East-West: | | | 382 | East-West: | | | 382 |
| | | SUM: | | 1299 | SUM: | | 1302 | SUM: | | | 1299 | SUM: | | | 1302 | SUM: | | | 1302 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.866 | | | 0.868 | | | | 0.866 | | | | 0.868 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.766 | | | 0.768 | | | | 0.766 | | | | 0.768 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | C | | | C | | | | C | | | | C | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.002 | Δ*v/c* after mitigation: | -0.866 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | East-West Street: | 9th St | Projection Year: | 2042 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 145 | 1 | 145 | 1 | 146 | 146 | 0 | 145 | 1 | 145 | 1 | 146 | 1 | 146 | 0 | 146 | 1 | 146 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1733 | 1 | **900** | 5 | 1738 | **903** | 0 | 1733 | 1 | **900** | 5 | 1738 | 1 | **903** | 0 | 1738 | 1 | **903** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 67 | 0 | 0 | 0 | 67 | 0 | 0 | 67 | 0 | 0 | 0 | 67 | 0 | 0 | 0 | 67 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 54 | 1 | **54** | 0 | 54 | **54** | 0 | 54 | 1 | **54** | 0 | 54 | 1 | **54** | 0 | 54 | 1 | **54** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1142 | 1 | 628 | 24 | 1166 | 640 | -1 | 1141 | 1 | 627 | 24 | 1165 | 1 | 639 | 0 | 1165 | 1 | 639 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 113 | 0 | 0 | 0 | 113 | 0 | 0 | 113 | 0 | 0 | 0 | 113 | 0 | 0 | 0 | 113 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 232 | 1 | **232** | 0 | 232 | **232** | 0 | 232 | 1 | **232** | 0 | 232 | 1 | **232** | 0 | 232 | 1 | **232** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 297 | 1 | 297 | 3 | 300 | 300 | -1 | 296 | 1 | 296 | 3 | 299 | 1 | 299 | 0 | 299 | 1 | 299 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 50 | 1 | 0 | 3 | 53 | 0 | 0 | 50 | 1 | 0 | 3 | 53 | 1 | 0 | 0 | 53 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 83 | 1 | 83 | 0 | 83 | 83 | 0 | 83 | 1 | 83 | 0 | 83 | 1 | 83 | 0 | 83 | 1 | 83 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 248 | 0 | **282** | 1 | 249 | **283** | 0 | 248 | 0 | **282** | 1 | 249 | 0 | **283** | 0 | 249 | 0 | **283** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 34 | 0 | 0 | 0 | 34 | 0 | 0 | 34 | 0 | 0 | 0 | 34 | 0 | 0 | 0 | 34 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 954 | *North-South:* | | 957 | *North-South:* | | | 954 | *North-South:* | | | 957 | *North-South:* | | | 957 |
| | | *East-West:* | | 514 | *East-West:* | | 515 | *East-West:* | | | 514 | *East-West:* | | | 515 | *East-West:* | | | 515 |
| | | *SUM:* | | 1468 | *SUM:* | | 1472 | *SUM:* | | | 1468 | *SUM:* | | | 1472 | *SUM:* | | | 1472 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.979 | | | 0.981 | | | | 0.979 | | | | 0.981 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | **0.879** | | | **0.881** | | | | **0.879** | | | | **0.881** | | | | **-0.100** |
| | LEVEL OF SERVICE (LOS): | | | **D** | | | **D** | | | | **D** | | | | **D** | | | | **A** |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.002 | Δ*v/c* after mitigation: | -0.979 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | East-West Street: | 22nd St | Projection Year: | 2042 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 5 | 0 | **5** | 0 | 5 | 5 | 0 | 5 | 0 | **5** | 0 | 5 | 0 | 5 | 0 | 5 | 0 | 5 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 691 | 0 | 421 | 0 | 691 | **432** | 0 | 691 | 0 | 421 | 0 | 691 | 0 | **431** | 0 | 691 | 0 | **431** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 141 | 0 | 421 | 21 | 162 | 432 | -1 | 140 | 0 | 421 | 21 | 161 | 0 | 431 | 0 | 161 | 0 | 431 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 157 | 0 | 157 | 25 | 182 | **182** | -1 | 156 | 0 | 156 | 25 | 181 | 0 | **181** | 0 | 181 | 0 | **181** |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 546 | 0 | **573** | 0 | 546 | 573 | 0 | 546 | 0 | **573** | 0 | 546 | 0 | 573 | 0 | 546 | 0 | 573 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 27 | 0 | 0 | 0 | 27 | 0 | 0 | 27 | 0 | 0 | 0 | 27 | 0 | 0 | 0 | 27 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 19 | 0 | **19** | 0 | 19 | **19** | 0 | 19 | 0 | **19** | 0 | 19 | 0 | **19** | 0 | 19 | 0 | **19** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 52 | 0 | 72 | 0 | 52 | 72 | 0 | 52 | 0 | 72 | 0 | 52 | 0 | 72 | 0 | 52 | 0 | 72 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 88 | 0 | 88 | 4 | 92 | 92 | -1 | 87 | 0 | 87 | 4 | 91 | 0 | 91 | 0 | 91 | 0 | 91 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 48 | 0 | **261** | 0 | 48 | **270** | 0 | 48 | 0 | **260** | 0 | 48 | 0 | **269** | 0 | 48 | 0 | **269** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 125 | 0 | 0 | 5 | 130 | 0 | 0 | 125 | 0 | 0 | 5 | 130 | 0 | 0 | 0 | 130 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 578 | *North-South:* | | 614 | *North-South:* | | | 578 | *North-South:* | | | 612 | *North-South:* | | | 612 |
| | | *East-West:* | | 280 | *East-West:* | | 289 | *East-West:* | | | 279 | *East-West:* | | | 288 | *East-West:* | | | 288 |
| | | *SUM:* | | 858 | *SUM:* | | 903 | *SUM:* | | | 857 | *SUM:* | | | 900 | *SUM:* | | | 900 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.572 | | | 0.602 | | | | 0.571 | | | | 0.600 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.472 | | | 0.502 | | | | 0.471 | | | | 0.500 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.029 | Δ*v/c* after mitigation: | -0.571 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | East-West Street: | 25th St | Projection Year: | 2042 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | | EB-- 3 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 116 | 1 | **116** | 0 | 116 | **116** | 0 | 116 | 1 | **116** | 0 | 116 | 1 | **116** | 0 | 116 | 1 | **116** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 365 | 1 | 365 | 3 | 368 | 368 | 0 | 365 | 1 | 365 | 3 | 368 | 1 | 368 | 0 | 368 | 1 | 368 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 326 | 1 | **326** | 1 | 327 | **327** | 0 | 326 | 1 | **326** | 1 | 327 | 1 | **327** | 0 | 327 | 1 | **327** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 294 | 1 | 101 | 4 | 298 | 96 | -1 | 293 | 1 | 101 | 4 | 297 | 1 | 96 | 0 | 297 | 1 | 96 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 386 | 1 | **386** | 18 | 404 | **404** | -1 | 385 | 1 | **385** | 18 | 403 | 1 | **403** | 0 | 403 | 1 | **403** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 79 | 1 | 0 | 0 | 79 | 0 | 0 | 79 | 1 | 0 | 0 | 79 | 1 | 0 | 0 | 79 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 442 | *North-South:* | | 443 | *North-South:* | | 442 | | *North-South:* | | 443 | | *North-South:* | | 443 | |
| | | *East-West:* | | 386 | *East-West:* | | 404 | *East-West:* | | 385 | | *East-West:* | | 403 | | *East-West:* | | 403 | |
| | | *SUM:* | | 828 | *SUM:* | | 847 | *SUM:* | | 827 | | *SUM:* | | 846 | | *SUM:* | | 846 | |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.581 | | | 0.594 | | | 0.580 | | | | 0.594 | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.481 | | | 0.494 | | | 0.480 | | | | 0.494 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.014 | Δ*v/c* after mitigation: | -0.580 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Via Cabrillo Marina | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | East-West Street: | 22nd St | Projection Year: | 2042 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 118 | 2 | **65** | 0 | 118 | **65** | 0 | 118 | 2 | **65** | 0 | 118 | 2 | **65** | 0 | 118 | 2 | **65** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 55 | 1 | 0 | 0 | 55 | 0 | 0 | 55 | 1 | 0 | 0 | 55 | 1 | 0 | 0 | 55 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 528 | 1 | **369** | 66 | 594 | **402** | -4 | 524 | 1 | **367** | 66 | 590 | 1 | **400** | 0 | 590 | 1 | **400** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 209 | 0 | 0 | 0 | 209 | 0 | 0 | 209 | 0 | 0 | 0 | 209 | 0 | 0 | 0 | 209 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 80 | 1 | **80** | 0 | 80 | **80** | 0 | 80 | 1 | **80** | 0 | 80 | 1 | **80** | 0 | 80 | 1 | **80** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 171 | 2 | 86 | 14 | 185 | 93 | -2 | 169 | 2 | 85 | 14 | 183 | 2 | 92 | 0 | 183 | 2 | 92 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 65 | *North-South:* | | 65 | *North-South:* | | 65 | | *North-South:* | | 65 | | *North-South:* | | | 65 |
| | | *East-West:* | | 449 | *East-West:* | | 482 | *East-West:* | | 447 | | *East-West:* | | 480 | | *East-West:* | | | 480 |
| | | *SUM:* | | 514 | *SUM:* | | 547 | *SUM:* | | 512 | | *SUM:* | | 545 | | *SUM:* | | | 545 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.361 | | | 0.384 | | | 0.359 | | | | 0.382 | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.261 | | | 0.284 | | | 0.259 | | | | 0.282 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | A | | | | A | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.023 | Δ*v/c* after mitigation: | -0.359 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | East-West Street: | Swinford St / SR-47 EB Ramps | Projection Year: | 2042 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 4 | | | 4 | | | 4 | | | 4 | | | 4 | | | 4 | |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | |
| | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | |

| | MOVEMENT | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 528 | 1 | 528 | 10 | 538 | 538 | -1 | 527 | 1 | 527 | 10 | 537 | 1 | 537 | 0 | 537 | 1 | **537** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1328 | 2 | **664** | 35 | 1363 | **682** | -6 | 1322 | 2 | **661** | 35 | 1357 | 2 | **679** | 0 | 1357 | 2 | 461 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 1 | |
| | Right | 27 | 0 | 0 | 0 | 27 | 0 | 0 | 27 | 0 | 0 | 0 | 27 | 0 | 0 | 0 | 27 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 28 | 0 | **0** | 0 | 28 | **0** | 0 | 28 | 0 | **0** | 0 | 28 | 0 | **0** | 0 | 28 | 1 | 28 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 114 | 1 | 78 | 10 | 124 | 83 | -1 | 113 | 1 | 77 | 10 | 123 | 1 | 82 | 0 | 123 | 2 | **62** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 0 | |
| | Right | 41 | 0 | 0 | 0 | 41 | 0 | 0 | 41 | 0 | 0 | 0 | 41 | 0 | 0 | 0 | 41 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 264 | 0 | 0 | 0 | 264 | 0 | 0 | 264 | 0 | 0 | 0 | 264 | 0 | 0 | 0 | 264 | 1 | 264 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 122 | 0 | **0** | 0 | 122 | **0** | 0 | 122 | 0 | **0** | 0 | 122 | 0 | **0** | 0 | 122 | 0 | **847** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1381 | 0 | 0 | 208 | 1589 | 0 | -17 | 1364 | 0 | 0 | 208 | 1572 | 0 | 0 | 0 | 1572 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 39 | 0 | 0 | 0 | 39 | 0 | 0 | 39 | 0 | 0 | 0 | 39 | 0 | 0 | 0 | 39 | 0 | **39** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 1 | |
| | Through | 9 | 0 | **0** | 0 | 9 | **0** | 0 | 9 | 0 | **0** | 0 | 9 | 0 | **0** | 0 | 9 | 0 | 26 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 1 | |
| | Right | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 664 | *North-South:* | | 682 | *North-South:* | | | 661 | *North-South:* | | | 679 | *North-South:* | | | 599 |
| | | *East-West:* | | 0 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 886 |
| | | *SUM:* | | 664 | *SUM:* | | 682 | *SUM:* | | | 661 | *SUM:* | | | 679 | *SUM:* | | | 1485 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.483 | | | 0.496 | | | | 0.481 | | | | 0.494 | | | | 1.080 |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.383 | | | 0.396 | | | | 0.381 | | | | 0.394 | | | | 0.980 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | E |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.013 | *Δv/c* after mitigation: | 0.599 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | East-West Street: | O'Farrell St | Projection Year: | 2042 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | 2 | | | 2 | | | 2 | | | | 2 | | | | 0 | | |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | | |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | 0 | | NB-- 0 SB-- EB-- 0 WB-- | 0 | | NB-- 0 SB-- EB-- 0 WB-- | 0 | | | NB-- 0 SB-- EB-- 0 WB-- | 0 | | | NB-- 0 SB-- EB-- 0 WB-- | 0 | | |
| | ATSAC-1 or ATSAC+ATCS-2? | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | | |
| | Override Capacity | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | | |
| NORTHBOUND | Left | 7 | 2 | 4 | 0 | 7 | 4 | 0 | 7 | 2 | 4 | 0 | 7 | 2 | 4 | 0 | 7 | 2 | 4 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1894 | 2 | **631** | 45 | 1939 | **646** | -7 | 1887 | 2 | **629** | 45 | 1932 | 2 | **644** | 0 | 1932 | 2 | **644** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 1 | **0** | 0 | 0 | **0** | 0 | 0 | 1 | **0** | 0 | 0 | 1 | **0** | 0 | 0 | 1 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1545 | 2 | 518 | 218 | 1763 | 591 | -17 | 1528 | 2 | 512 | 218 | 1746 | 2 | 585 | 0 | 1746 | 2 | 585 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 9 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 9 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 80 | 1 | 40 | 0 | 80 | 40 | 0 | 80 | 1 | 40 | 0 | 80 | 1 | 40 | 0 | 80 | 1 | 40 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **40** | 0 | 0 | **40** | 0 | 0 | 0 | **40** | 0 | 0 | 0 | **40** | 0 | 0 | 0 | **40** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 18 | 1 | 16 | 0 | 18 | 16 | 0 | 18 | 1 | 16 | 0 | 18 | 1 | 16 | 0 | 18 | 1 | 16 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | 631 | | *North-South:* | 646 | | *North-South:* | | | 629 | *North-South:* | | | 644 | *North-South:* | | | 644 |
| | | *East-West:* | 40 | | *East-West:* | 40 | | *East-West:* | | | 40 | *East-West:* | | | 40 | *East-West:* | | | 40 |
| | | *SUM:* | 671 | | *SUM:* | 686 | | *SUM:* | | | 669 | *SUM:* | | | 684 | *SUM:* | | | 684 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | 0.447 | | | 0.457 | | | | | 0.446 | | | | 0.456 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | **0.347** | | | **0.357** | | | | | **0.346** | | | | **0.356** | | | | **-0.100** |
| | LEVEL OF SERVICE (LOS): | | **A** | | | **A** | | | | | **A** | | | | **A** | | | | **A** |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.010 | Δ*v/c* after mitigation: | -0.446 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | East-West Street: | 1st St | Projection Year: | 2042 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 4 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 19 | 1 | 19 | 0 | 19 | **19** | 0 | 19 | 1 | 19 | 0 | 19 | 1 | **19** | 0 | 19 | 1 | 19 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1650 | 3 | **550** | 45 | 1695 | 565 | -7 | 1643 | 3 | **548** | 45 | 1688 | 3 | 563 | 0 | 1688 | 2 | **844** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 67 | 0 | **0** | 0 | 67 | 0 | 0 | 67 | 0 | **0** | 0 | 67 | 0 | 0 | 0 | 67 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1531 | 2 | 516 | 218 | 1749 | **589** | -18 | 1513 | 2 | 510 | 218 | 1731 | 2 | **583** | 0 | 1731 | 3 | 437 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 17 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 110 | 0 | 110 | 0 | 110 | 110 | 0 | 110 | 0 | 110 | 0 | 110 | 0 | 110 | 0 | 110 | 0 | 110 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 11 | 0 | 0 | 0 | 11 | 0 | 0 | 11 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 11 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 24 | 0 | **134** | 1 | 25 | **135** | 0 | 24 | 0 | **134** | 1 | 25 | 0 | **135** | 0 | 25 | 0 | **135** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| WESTBOUND | Left | 4 | 0 | 4 | 0 | 4 | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 4 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 110 | 0 | **222** | 0 | 110 | **222** | 0 | 110 | 0 | **222** | 0 | 110 | 0 | **222** | 0 | 110 | 0 | **222** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 108 | 0 | 0 | 0 | 108 | 0 | 0 | 108 | 0 | 0 | 0 | 108 | 0 | 0 | 0 | 108 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 550 | *North-South:* | | 608 | *North-South:* | | | 548 | *North-South:* | | | 602 | *North-South:* | | | 844 |
| | | *East-West:* | | 356 | *East-West:* | | 357 | *East-West:* | | | 356 | *East-West:* | | | 357 | *East-West:* | | | 357 |
| | | *SUM:* | | 906 | *SUM:* | | 965 | *SUM:* | | | 904 | *SUM:* | | | 959 | *SUM:* | | | 1201 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.636 | | | 0.677 | | | | 0.634 | | | | 0.673 | | | | 0.873 |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | **0.536** | | | **0.577** | | | | **0.534** | | | | **0.573** | | | | **0.773** |
| | LEVEL OF SERVICE (LOS): | | | **A** | | | **A** | | | | **A** | | | | **A** | | | | **C** |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.039 | Δ*v/c* after mitigation: | 0.239 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | East-West Street: | 5th St | Projection Year: | 2042 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | 3 | 3 | | 3 | 3 | | 3 | 3 | 3 | | 3 | 3 | 3 | | 3 | 3 | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | 0 | 0 | NB-- 0 SB-- EB-- 0 WB-- | 0 | 0 | NB-- 0 SB-- EB-- 0 WB-- | 0 | 0 | 0 | NB-- 0 SB-- EB-- 0 WB-- | 0 | 0 | 0 | NB-- 0 SB-- EB-- 0 WB-- | 0 | 0 | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | 2 | 2 | | 2 | 2 | | 2 | 2 | 2 | | 2 | 2 | 2 | | 2 | 2 | 2 |
| | Override Capacity | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 |
| NORTHBOUND | Left | 16 | 1 | 16 | 0 | 16 | **16** | 0 | 16 | 1 | 16 | 0 | 16 | 1 | **16** | 0 | 16 | 1 | **16** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1536 | 3 | **512** | 45 | 1581 | 527 | -7 | 1529 | 3 | **510** | 45 | 1574 | 3 | 525 | 0 | 1574 | 3 | 525 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1243 | 2 | 474 | 218 | 1461 | **546** | -18 | 1225 | 2 | 468 | 218 | 1443 | 2 | **540** | 0 | 1443 | 2 | **540** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 178 | 0 | 0 | 0 | 178 | 0 | 0 | 178 | 0 | 0 | 0 | 178 | 0 | 0 | 0 | 178 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 139 | 1 | **139** | 0 | 139 | **139** | 0 | 139 | 1 | **139** | 0 | 139 | 1 | **139** | 0 | 139 | 1 | **139** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 13 | 1 | 5 | 0 | 13 | 5 | 0 | 13 | 1 | 5 | 0 | 13 | 1 | 5 | 0 | 13 | 1 | 5 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1 | 1 | **1** | 0 | 1 | **1** | 0 | 1 | 1 | **1** | 0 | 1 | 1 | **1** | 0 | 1 | 1 | **1** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | 512 | | *North-South:* | 562 | | *North-South:* | 510 | | | *North-South:* | 556 | | | *North-South:* | 556 | | |
| | | *East-West:* | 140 | | *East-West:* | 140 | | *East-West:* | 140 | | | *East-West:* | 140 | | | *East-West:* | 140 | | |
| | | *SUM:* | 652 | | *SUM:* | 702 | | *SUM:* | 650 | | | *SUM:* | 696 | | | *SUM:* | 696 | | |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | 0.458 | | | 0.493 | | | 0.456 | | | | 0.488 | | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | 0.358 | | | 0.393 | | | 0.356 | | | | 0.388 | | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | A | | | A | | | A | | | | A | | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.032 | Δ*v/c* after mitigation: | -0.456 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | East-West Street: | 6th St | Projection Year: | 2042 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 4 | | | 4 | | | 4 | | | 4 | | | 4 | | | 4 | |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 3 | SB-- 0 | NB-- | 3 | SB-- 0 | NB-- | 3 | SB-- 0 | NB-- | 3 | SB-- 0 | NB-- | 3 | SB-- 0 | NB-- | 0 | SB-- 0 |
| | EB-- | 0 | WB-- 3 | EB-- | 0 | WB-- 3 | EB-- | 0 | WB-- 3 | EB-- | 0 | WB-- 3 | EB-- | 0 | WB-- 0 | EB-- | 0 | WB-- 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 10 | 1 | 10 | 0 | 10 | **10** | 0 | 10 | 1 | 10 | 0 | 10 | 1 | **10** | 0 | 10 | 1 | 10 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1635 | 2 | **545** | 45 | 1680 | 560 | -7 | 1628 | 2 | **543** | 45 | 1673 | 2 | 558 | 0 | 1673 | 2 | **558** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 1 | **0** | 0 | 0 | 0 | 0 | 0 | 1 | **0** | 0 | 0 | 1 | 0 | 0 | 0 | 1 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1456 | 2 | 511 | 218 | 1674 | **583** | -18 | 1438 | 2 | 505 | 218 | 1656 | 2 | **577** | 0 | 1656 | 3 | 433 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 76 | 0 | 0 | 0 | 76 | 0 | 0 | 76 | 0 | 0 | 0 | 76 | 0 | 0 | 0 | 76 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 107 | 1 | **107** | 0 | 107 | **107** | 0 | 107 | 1 | **107** | 0 | 107 | 1 | **107** | 0 | 107 | 1 | **107** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 31 | 1 | 26 | 0 | 31 | 26 | 0 | 31 | 1 | 26 | 0 | 31 | 1 | 26 | 0 | 31 | 1 | 26 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | | *North-South:* | 545 | | *North-South:* | 593 | | *North-South:* | | 543 | | *North-South:* | | 587 | | *North-South:* | | 558 |
| | | | *East-West:* | 107 | | *East-West:* | 107 | | *East-West:* | | 107 | | *East-West:* | | 107 | | *East-West:* | | 107 |
| | | | *SUM:* | 652 | | *SUM:* | 700 | | *SUM:* | | 650 | | *SUM:* | | 694 | | *SUM:* | | 665 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.474 | | | 0.509 | | | | 0.473 | | | | 0.505 | | | | 0.484 |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | **0.374** | | | **0.409** | | | | **0.373** | | | | **0.405** | | | | **0.384** |
| LEVEL OF SERVICE (LOS): | | | | **A** | | | **A** | | | | **A** | | | | **A** | | | | **A** |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.032 | *Δv/c* after mitigation: | 0.011 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17A | East-West Street: | 7th St | Projection Year: | 2042 | Peak Hour: | AM | Reviewed by: | | Project: | CD1 2042 CB |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 3 |
| | EB-- | 3 | WB-- | 0 | EB-- | 3 | WB-- | 0 | EB-- | 3 | WB-- | 0 | EB-- | 3 | WB-- | 0 | EB-- | 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | | 2 | | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| Override Capacity | | | | 0 | | | | 0 | | | | 0 | | | | 0 | | | | 0 |

| MOVEMENT | | YEAR 2042 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 52 | 1 | **52** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 1,510 | 3 | 503 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 1,232 | 2 | **485** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 1 | | | | | | | | | | | | | | | | |
| | Right | 224 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 261 | 2 | **144** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 67 | 1 | 15 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | *North-South:* | | 537 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 144 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 681 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.478 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.378 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17A | East-West Street: | 7th St | | Projection Year: | 2042 | Peak Hour: | AM | Reviewed by: | | Project: | 2042 WITH PROJECT |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 3 | | | | 3 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- 0 | NB-- | 0 | SB-- | 0 |
| | EB-- | 3 | WB-- 0 | EB-- | 3 | WB-- 0 | EB-- | 3 | WB-- 0 | EB-- | 3 | WB-- 0 | EB-- | 3 | WB-- 0 | EB-- | 3 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | 0 |

| | MOVEMENT | YEAR 2042 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 56 | 1 | **56** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 1,555 | 3 | 518 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 1,450 | 2 | **558** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 1 | | | | | | | | | | | | | | | | |
| | Right | 224 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 261 | 2 | **144** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 87 | 1 | 31 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | *North-South:* | | 614 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 144 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 758 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.532 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | 0.000 |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.432 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17B | East-West Street: | Sampson Way | | Projection Year: | 2042 | Peak Hour: | AM | Reviewed by: | | Project: | CD1 2042 CB |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| | MOVEMENT | YEAR 2042 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 13 | 1 | **13** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 233 | 2 | 117 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 389 | 2 | **195** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 910 | 1 | 179 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 1,329 | 2 | **731** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 23 | 1 | 17 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | *North-South:* | | 208 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 731 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 939 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.626 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.526 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17B | East-West Street: | Sampson Way | | Projection Year: | 2042 | Peak Hour: | AM | Reviewed by: | | Project: | 2042 WITH PROJECT |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | YEAR 2042 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 13 | 1 | **13** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 253 | 2 | 127 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 487 | 2 | 244 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 1,050 | 1 | **303** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 1,358 | 2 | **747** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 23 | 1 | 17 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | *North-South:* | | 316 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 747 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 1063 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.709 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.609 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | B | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Miner St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 18 | East-West Street: | 22nd St | Projection Year: | 2042 | Peak Hour: | AM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 4 | | | 4 | | | 4 | | | | 4 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 115 | 1 | **115** | 0 | 115 | 115 | 0 | 115 | 1 | **115** | 0 | 115 | 1 | 115 | 0 | 115 | 1 | 115 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 647 | 1 | 355 | 0 | 647 | **355** | 0 | 647 | 1 | 355 | 0 | 647 | 1 | **355** | 0 | 647 | 1 | **355** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 63 | 0 | 0 | 0 | 63 | 0 | 0 | 63 | 0 | 0 | 0 | 63 | 0 | 0 | 0 | 63 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 47 | 1 | 47 | 153 | 200 | **200** | 0 | 47 | 1 | 47 | 153 | 200 | 1 | **200** | 0 | 200 | 1 | **200** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 635 | 1 | **385** | 0 | 635 | 385 | 0 | 635 | 1 | **385** | 0 | 635 | 1 | 385 | 0 | 635 | 1 | 385 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 134 | 0 | 0 | 0 | 134 | 0 | 0 | 134 | 0 | 0 | 0 | 134 | 0 | 0 | 0 | 134 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 374 | 1 | **374** | 0 | 374 | **374** | 0 | 374 | 1 | **374** | 0 | 374 | 1 | **374** | 0 | 374 | 1 | **374** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 102 | 1 | 90 | 66 | 168 | 123 | 0 | 102 | 1 | 90 | 66 | 168 | 1 | 123 | 0 | 168 | 1 | 123 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 78 | 0 | 0 | 0 | 78 | 0 | 0 | 78 | 0 | 0 | 0 | 78 | 0 | 0 | 0 | 78 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 39 | 1 | 39 | 0 | 39 | 39 | 0 | 39 | 1 | 39 | 0 | 39 | 1 | 39 | 0 | 39 | 1 | 39 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 37 | 1 | **29** | 14 | 51 | **51** | 0 | 37 | 1 | **29** | 14 | 51 | 1 | **51** | 0 | 51 | 1 | **51** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 21 | 0 | 0 | 32 | 53 | 0 | 0 | 21 | 0 | 0 | 32 | 53 | 0 | 0 | 0 | 53 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 500 | *North-South:* | | 555 | *North-South:* | | | 500 | *North-South:* | | | 555 | *North-South:* | | | 555 |
| | | *East-West:* | | 403 | *East-West:* | | 425 | *East-West:* | | | 403 | *East-West:* | | | 425 | *East-West:* | | | 425 |
| | | *SUM:* | | 903 | *SUM:* | | 980 | *SUM:* | | | 903 | *SUM:* | | | 980 | *SUM:* | | | 980 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.657 | | | 0.713 | | | | 0.657 | | | | 0.713 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.557 | | | 0.613 | | | | 0.557 | | | | 0.613 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | B | | | | A | | | | B | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.056 | Δ*v/c* after mitigation: | -0.657 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | East-West Street: | Summerland Av | Projection Year: | 2042 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 160 | 1 | **160** | 0 | 160 | **160** | 0 | 160 | 1 | **160** | 0 | 160 | 1 | **160** | 0 | 160 | 1 | **160** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 546 | 1 | 288 | 6 | 552 | 291 | 4 | 550 | 1 | 290 | 6 | 556 | 1 | 293 | 0 | 556 | 1 | 293 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 29 | 0 | 0 | 0 | 29 | 0 | 0 | 29 | 0 | 0 | 0 | 29 | 0 | 0 | 0 | 29 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 16 | 1 | 16 | 0 | 16 | 16 | 0 | 16 | 1 | 16 | 0 | 16 | 1 | 16 | 0 | 16 | 1 | 16 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 668 | 1 | **500** | 2 | 670 | **501** | 2 | 670 | 1 | **501** | 2 | 672 | 1 | **502** | 0 | 672 | 1 | **502** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 331 | 0 | 0 | 0 | 331 | 0 | 0 | 331 | 0 | 0 | 0 | 331 | 0 | 0 | 0 | 331 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 276 | 1 | **276** | 0 | 276 | **276** | 0 | 276 | 1 | **276** | 0 | 276 | 1 | **276** | 0 | 276 | 1 | **276** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 53 | 0 | 0 | 53 | 0 | 0 | 0 | 53 | 0 | 0 | 0 | 53 | 0 | 0 | 0 | 53 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 53 | 0 | 0 | 0 | 53 | 0 | 0 | 53 | 0 | 0 | 0 | 53 | 0 | 0 | 0 | 53 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 683 | 2 | 376 | 0 | 683 | 376 | 0 | 683 | 2 | 376 | 0 | 683 | 2 | 376 | 0 | 683 | 2 | 376 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 327 | 0 | **721** | 0 | 327 | **721** | 0 | 327 | 0 | **721** | 0 | 327 | 0 | **721** | 0 | 327 | 0 | **721** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 394 | 0 | 0 | 0 | 394 | 0 | 0 | 394 | 0 | 0 | 0 | 394 | 0 | 0 | 0 | 394 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 660 | *North-South:* | | 661 | *North-South:* | | | 661 | *North-South:* | | | 662 | *North-South:* | | | 662 |
| | | *East-West:* | | 997 | *East-West:* | | 997 | *East-West:* | | | 997 | *East-West:* | | | 997 | *East-West:* | | | 997 |
| | | *SUM:* | | 1657 | *SUM:* | | 1658 | *SUM:* | | | 1658 | *SUM:* | | | 1659 | *SUM:* | | | 1659 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 1.163 | | | 1.164 | | | | 1.164 | | | | 1.164 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 1.063 | | | 1.064 | | | | 1.064 | | | | 1.064 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | F | | | F | | | | F | | | | F | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | -1.164 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | East-West Street: | I-110 Ramps | Projection Year: | 2042 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | 2 | | | 2 | | | 2 | | | | 2 | | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | 0 | | | 0 | | | 0 | | | | 0 | | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 1 SB-- EB-- 0 WB-- | 0 | | NB-- 1 SB-- EB-- 0 WB-- | 0 | | NB-- 1 SB-- EB-- 0 WB-- | 0 | | | NB-- 1 SB-- EB-- 0 WB-- | 0 | | | NB-- 0 SB-- EB-- 0 WB-- | 0 | | |
| | ATSAC-1 or ATSAC+ATCS-2? | | 2 | | | 2 | | | 2 | | | | 2 | | | | | | 2 |
| | Override Capacity | | 0 | | | 0 | | | 0 | | | | 0 | | | | | | 0 |
| NORTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 925 | 2 | **463** | 6 | 931 | **466** | 4 | 929 | 2 | **465** | 6 | 935 | 2 | **468** | 0 | 935 | 2 | **468** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1926 | 2 | 0 | 16 | 1942 | 0 | 7 | 1933 | 2 | 0 | 16 | 1949 | 2 | 0 | 0 | 1949 | 2 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1173 | 3 | 391 | 2 | 1175 | 392 | 2 | 1175 | 3 | 392 | 2 | 1177 | 3 | 392 | 0 | 1177 | 3 | 392 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 1761 | 2 | **626** | 3 | 1764 | **627** | 3 | 1764 | 2 | **627** | 3 | 1767 | 2 | **628** | 0 | 1767 | 2 | **628** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 116 | 0 | 626 | 0 | 116 | 627 | 0 | 116 | 0 | 627 | 0 | 116 | 0 | 628 | 0 | 116 | 0 | 628 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | CRITICAL VOLUMES | *North-South:* | 463 | | *North-South:* | 466 | | *North-South:* | | | 465 | *North-South:* | | | 468 | *North-South:* | | | 468 |
| | | *East-West:* | 626 | | *East-West:* | 627 | | *East-West:* | | | 627 | *East-West:* | | | 628 | *East-West:* | | | 628 |
| | | *SUM:* | 1089 | | *SUM:* | 1093 | | *SUM:* | | | 1092 | *SUM:* | | | 1096 | *SUM:* | | | 1096 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | 0.726 | | | 0.729 | | | | | 0.728 | | | | 0.731 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | 0.626 | | | 0.629 | | | | | 0.628 | | | | 0.631 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | B | | | B | | | | | B | | | | B | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.003 | Δ*v/c* after mitigation: | -0.728 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | East-West Street: | 1st St | Projection Year: | 2042 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 3 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 31 | 1 | **31** | 0 | 31 | **31** | 2 | 33 | 1 | **33** | 0 | 33 | 1 | **33** | 0 | 33 | 1 | **33** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1543 | 2 | 522 | 22 | 1565 | 529 | 5 | 1548 | 2 | 524 | 22 | 1570 | 2 | 531 | 0 | 1570 | 2 | 531 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 23 | 0 | 0 | 0 | 23 | 0 | 0 | 23 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 23 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 227 | 1 | 227 | 0 | 227 | 227 | 2 | 229 | 1 | 229 | 0 | 229 | 1 | 229 | 0 | 229 | 1 | 229 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1767 | 2 | **772** | 5 | 1772 | **773** | 3 | 1770 | 2 | **773** | 5 | 1775 | 2 | **774** | 0 | 1775 | 2 | **774** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 548 | 0 | 0 | 0 | 548 | 0 | 0 | 548 | 0 | 0 | 0 | 548 | 0 | 0 | 0 | 548 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 841 | 1 | **500** | 0 | 841 | **500** | 0 | 841 | 1 | **500** | 0 | 841 | 1 | **500** | 0 | 841 | 1 | **500** |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 158 | 0 | 500 | 0 | 158 | 500 | 1 | 159 | 0 | 500 | 0 | 159 | 0 | 500 | 0 | 159 | 0 | 500 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 58 | 1 | 43 | 0 | 58 | 43 | 1 | 59 | 1 | 43 | 0 | 59 | 1 | 43 | 0 | 59 | 1 | 43 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 35 | 1 | 35 | 0 | 35 | 35 | 2 | 37 | 1 | 37 | 0 | 37 | 1 | 37 | 0 | 37 | 1 | 37 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 151 | 1 | 151 | 1 | 152 | 152 | 3 | 154 | 1 | 154 | 1 | 155 | 1 | 155 | 0 | 155 | 1 | 155 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 269 | 1 | **156** | 0 | 269 | **156** | 6 | 275 | 1 | **161** | 0 | 275 | 1 | **161** | 0 | 275 | 1 | **161** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 803 | *North-South:* | | 804 | *North-South:* | | | 806 | *North-South:* | | | 807 | *North-South:* | | | 807 |
| | | *East-West:* | | 656 | *East-West:* | | 656 | *East-West:* | | | 661 | *East-West:* | | | 661 | *East-West:* | | | 661 |
| | | *SUM:* | | 1459 | *SUM:* | | 1460 | *SUM:* | | | 1467 | *SUM:* | | | 1468 | *SUM:* | | | 1468 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 1.024 | | | 1.025 | | | | 1.029 | | | | 1.030 | | | | 1.030 |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | **0.924** | | | **0.925** | | | | **0.929** | | | | **0.930** | | | | **0.930** |
| | LEVEL OF SERVICE (LOS): | | | **E** | | | **E** | | | | **E** | | | | **E** | | | | **E** |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | Δ*v/c* after mitigation: | 0.001 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | East-West Street: | 5th St | Projection Year: | 2042 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 23 | 1 | 23 | 0 | 23 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 | 0 | 23 | 1 | 23 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1395 | 1 | 719 | 22 | 1417 | 730 | 7 | 1402 | 1 | 723 | 22 | 1424 | 1 | 734 | 0 | 1424 | 1 | 734 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 43 | 0 | 0 | 0 | 43 | 0 | 0 | 43 | 0 | 0 | 0 | 43 | 0 | 0 | 0 | 43 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 143 | 1 | 143 | 0 | 143 | 143 | 0 | 143 | 1 | 143 | 0 | 143 | 1 | 143 | 0 | 143 | 1 | 143 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1367 | 1 | 725 | 5 | 1372 | 727 | 5 | 1372 | 1 | 727 | 5 | 1377 | 1 | 730 | 0 | 1377 | 1 | 730 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 82 | 0 | 0 | 0 | 82 | 0 | 0 | 82 | 0 | 0 | 0 | 82 | 0 | 0 | 0 | 82 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 112 | 1 | 112 | 0 | 112 | 112 | 0 | 112 | 1 | 112 | 0 | 112 | 1 | 112 | 0 | 112 | 1 | 112 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 131 | 0 | 149 | 0 | 131 | 149 | 0 | 131 | 0 | 149 | 0 | 131 | 0 | 149 | 0 | 131 | 0 | 149 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 18 | 0 | 0 | 0 | 18 | 0 | 0 | 18 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 18 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 49 | 1 | 49 | 0 | 49 | 49 | 0 | 49 | 1 | 49 | 0 | 49 | 1 | 49 | 0 | 49 | 1 | 49 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 93 | 0 | 183 | 0 | 93 | 183 | 0 | 93 | 0 | 183 | 0 | 93 | 0 | 183 | 0 | 93 | 0 | 183 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 90 | 0 | 0 | 0 | 90 | 0 | 0 | 90 | 0 | 0 | 0 | 90 | 0 | 0 | 0 | 90 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 862 | North-South: | | 873 | North-South: | | | 866 | North-South: | | | 877 | North-South: | | | 877 |
| | | East-West: | | 295 | East-West: | | 295 | East-West: | | | 295 | East-West: | | | 295 | East-West: | | | 295 |
| | | SUM: | | 1157 | SUM: | | 1168 | SUM: | | | 1161 | SUM: | | | 1172 | SUM: | | | 1172 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.812 | | | 0.820 | | | | 0.815 | | | | 0.822 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.712 | | | 0.720 | | | | 0.715 | | | | 0.722 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | C | | | C | | | | C | | | | C | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.007 | Δ*v/c* after mitigation: | -0.815 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | East-West Street: | 7th St | Projection Year: | 2042 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| **NORTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 51 | 1 | 51 | 0 | 51 | 51 | 2 | 53 | 1 | 53 | 0 | 53 | 1 | 53 | 0 | 53 | 1 | 53 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 1420 | 1 | **742** | 22 | 1442 | **753** | 7 | 1427 | 1 | **745** | 22 | 1449 | 1 | **756** | 0 | 1449 | 1 | **756** |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 63 | 0 | 0 | 0 | 63 | 0 | 0 | 63 | 0 | 0 | 0 | 63 | 0 | 0 | 0 | 63 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **SOUTHBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 72 | 1 | **72** | 0 | 72 | **72** | 0 | 72 | 1 | **72** | 0 | 72 | 1 | **72** | 0 | 72 | 1 | **72** |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 1329 | 1 | 723 | 5 | 1334 | 725 | 5 | 1334 | 1 | 725 | 5 | 1339 | 1 | 728 | 0 | 1339 | 1 | 728 |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 116 | 0 | 0 | 0 | 116 | 0 | 0 | 116 | 0 | 0 | 0 | 116 | 0 | 0 | 0 | 116 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **EASTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 172 | 1 | **172** | 0 | 172 | **172** | 0 | 172 | 1 | **172** | 0 | 172 | 1 | **172** | 0 | 172 | 1 | **172** |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 188 | 0 | 235 | 0 | 188 | 235 | 0 | 188 | 0 | 236 | 0 | 188 | 0 | 236 | 0 | 188 | 0 | 236 |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 47 | 0 | 0 | 0 | 47 | 0 | 1 | 48 | 0 | 0 | 0 | 48 | 0 | 0 | 0 | 48 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| **WESTBOUND** | | | | | | | | | | | | | | | | | | |
| Left | 75 | 1 | 75 | 0 | 75 | 75 | 0 | 75 | 1 | 75 | 0 | 75 | 1 | 75 | 0 | 75 | 1 | 75 |
| Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Through | 176 | 0 | **248** | 1 | 177 | **249** | 0 | 176 | 0 | **248** | 1 | 177 | 0 | **249** | 0 | 177 | 0 | **249** |
| Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| Right | 72 | 0 | 0 | 0 | 72 | 0 | 0 | 72 | 0 | 0 | 0 | 72 | 0 | 0 | 0 | 72 | 0 | 0 |
| Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | *North-South:* | | 814 | *North-South:* | | 825 | *North-South:* | | | 817 | *North-South:* | | | 828 | *North-South:* | | | 828 |
| | *East-West:* | | 420 | *East-West:* | | 421 | *East-West:* | | | 420 | *East-West:* | | | 421 | *East-West:* | | | 421 |
| | *SUM:* | | 1234 | *SUM:* | | 1246 | *SUM:* | | | 1237 | *SUM:* | | | 1249 | *SUM:* | | | 1249 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.823 | | | 0.831 | | | | 0.825 | | | | 0.833 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.723 | | | 0.731 | | | | 0.725 | | | | 0.733 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | C | | | C | | | | C | | | | C | | | | A |

| | | | |
|---|---|---|---|
| | | **PROJECT IMPACT** | |
| Change in *v/c* due to project: | 0.008 | $\Delta v/c$ after mitigation: | -0.825 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | East-West Street: | 9th St | Projection Year: | 2042 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 88 | 1 | **88** | 3 | 91 | **91** | 0 | 88 | 1 | **88** | 3 | 91 | 1 | **91** | 0 | 91 | 1 | **91** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1210 | 1 | 646 | 22 | 1232 | 657 | 9 | 1219 | 1 | 651 | 22 | 1241 | 1 | 662 | 0 | 1241 | 1 | 662 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 82 | 0 | 0 | 0 | 82 | 0 | 0 | 82 | 0 | 0 | 0 | 82 | 0 | 0 | 0 | 82 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 86 | 1 | 86 | 0 | 86 | 86 | 0 | 86 | 1 | 86 | 0 | 86 | 1 | 86 | 0 | 86 | 1 | 86 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1277 | 1 | **692** | 5 | 1282 | **694** | 4 | 1281 | 1 | **694** | 5 | 1286 | 1 | **697** | 0 | 1286 | 1 | **697** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 106 | 0 | 0 | 0 | 106 | 0 | 1 | 107 | 0 | 0 | 0 | 107 | 0 | 0 | 0 | 107 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 172 | 1 | **172** | 0 | 172 | **172** | 0 | 172 | 1 | **172** | 0 | 172 | 1 | **172** | 0 | 172 | 1 | **172** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 263 | 1 | 263 | 1 | 264 | 264 | 1 | 264 | 1 | 264 | 1 | 265 | 1 | 265 | 0 | 265 | 1 | 265 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 63 | 1 | 19 | 1 | 64 | 19 | 0 | 63 | 1 | 19 | 1 | 64 | 1 | 19 | 0 | 64 | 1 | 19 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 141 | 1 | 141 | 0 | 141 | 141 | 0 | 141 | 1 | 141 | 0 | 141 | 1 | 141 | 0 | 141 | 1 | 141 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 337 | 0 | **437** | 3 | 340 | **440** | 3 | 340 | 0 | **440** | 3 | 343 | 0 | **443** | 0 | 343 | 0 | **443** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 100 | 0 | 0 | 0 | 100 | 0 | 0 | 100 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 100 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 780 | *North-South:* | | 785 | *North-South:* | | | 782 | *North-South:* | | | 788 | *North-South:* | | | 788 |
| | | *East-West:* | | 609 | *East-West:* | | 612 | *East-West:* | | | 612 | *East-West:* | | | 615 | *East-West:* | | | 615 |
| | | *SUM:* | | 1389 | *SUM:* | | 1397 | *SUM:* | | | 1394 | *SUM:* | | | 1403 | *SUM:* | | | 1403 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.926 | | | 0.931 | | | | 0.929 | | | | 0.935 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | **0.826** | | | **0.831** | | | | **0.829** | | | | **0.835** | | | | **-0.100** |
| | LEVEL OF SERVICE (LOS): | | | **D** | | | **D** | | | | **D** | | | | **D** | | | | **A** |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.006 | Δ*v/c* after mitigation: | -0.929 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | East-West Street: | 22nd St | Projection Year: | 2042 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 4 | 0 | **4** | 0 | 4 | **4** | 0 | 4 | 0 | **4** | 0 | 4 | 0 | **4** | 0 | 4 | 0 | **4** |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 559 | 0 | 328 | 0 | 559 | 330 | 0 | 559 | 0 | 331 | 0 | 559 | 0 | 333 | 0 | 559 | 0 | 333 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 81 | 0 | 328 | 4 | 85 | 330 | 5 | 86 | 0 | 331 | 4 | 90 | 0 | 333 | 0 | 90 | 0 | 333 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 127 | 0 | 127 | 5 | 132 | 132 | 4 | 131 | 0 | 131 | 5 | 136 | 0 | 136 | 0 | 136 | 0 | 136 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 707 | 0 | **612** | 0 | 707 | **622** | 1 | 708 | 0 | **621** | 0 | 708 | 0 | **631** | 0 | 708 | 0 | **631** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 9 | 0 | 612 | 0 | 9 | 622 | 0 | 9 | 0 | 621 | 0 | 9 | 0 | 631 | 0 | 9 | 0 | 631 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 11 | 0 | **11** | 0 | 11 | **11** | 0 | 11 | 0 | **11** | 0 | 11 | 0 | **11** | 0 | 11 | 0 | **11** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 29 | 0 | 41 | 0 | 29 | 41 | 3 | 32 | 0 | 44 | 0 | 32 | 0 | 44 | 0 | 32 | 0 | 44 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 225 | 0 | 225 | 19 | 244 | 244 | 11 | 236 | 0 | 236 | 19 | 255 | 0 | 255 | 0 | 255 | 0 | 255 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 33 | 0 | **371** | 0 | 33 | **413** | 6 | 39 | 0 | **397** | 0 | 39 | 0 | **439** | 0 | 39 | 0 | **439** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 113 | 0 | 0 | 23 | 136 | 0 | 9 | 122 | 0 | 0 | 23 | 145 | 0 | 0 | 0 | 145 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 616 | *North-South:* | | 626 | *North-South:* | | | 625 | *North-South:* | | | 635 | *North-South:* | | | 635 |
| | | *East-West:* | | 382 | *East-West:* | | 424 | *East-West:* | | | 408 | *East-West:* | | | 450 | *East-West:* | | | 450 |
| | | *SUM:* | | 998 | *SUM:* | | 1050 | *SUM:* | | | 1033 | *SUM:* | | | 1085 | *SUM:* | | | 1085 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.665 | | | 0.700 | | | | 0.689 | | | | 0.723 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.565 | | | 0.600 | | | | 0.589 | | | | 0.623 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | B | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.034 | Δ*v/c* after mitigation: | -0.689 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | East-West Street: | 25th St | Projection Year: | 2042 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | | EB-- 3 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 67 | 1 | **67** | 0 | 67 | **67** | 0 | 67 | 1 | **67** | 0 | 67 | 1 | **67** | 0 | 67 | 1 | **67** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 318 | 1 | 318 | 1 | 319 | 319 | 2 | 320 | 1 | 320 | 1 | 321 | 1 | 321 | 0 | 321 | 1 | 321 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 430 | 1 | **430** | 3 | 433 | **433** | 3 | 433 | 1 | **433** | 3 | 436 | 1 | **436** | 0 | 436 | 1 | **436** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 388 | 1 | 217 | 16 | 404 | 231 | 7 | 395 | 1 | 222 | 16 | 411 | 1 | 237 | 0 | 411 | 1 | 237 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 343 | 1 | **343** | 3 | 346 | **346** | 3 | 346 | 1 | **346** | 3 | 349 | 1 | **349** | 0 | 349 | 1 | **349** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 108 | 1 | 41 | 0 | 108 | 41 | 0 | 108 | 1 | 41 | 0 | 108 | 1 | 41 | 0 | 108 | 1 | 41 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 497 | *North-South:* | | 500 | *North-South:* | | | 500 | *North-South:* | | | 503 | *North-South:* | | | 503 |
| | | *East-West:* | | 343 | *East-West:* | | 346 | *East-West:* | | | 346 | *East-West:* | | | 349 | *East-West:* | | | 349 |
| | | *SUM:* | | 840 | *SUM:* | | 846 | *SUM:* | | | 846 | *SUM:* | | | 852 | *SUM:* | | | 852 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.589 | | | 0.594 | | | | 0.594 | | | | 0.598 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.489 | | | 0.494 | | | | 0.494 | | | | 0.498 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.004 | Δ*v/c* after mitigation: | -0.594 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Via Cabrillo Marina | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | East-West Street: | 22nd St | Projection Year: | 2042 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 191 | 2 | **105** | 0 | 191 | **105** | 0 | 191 | 2 | **105** | 0 | 191 | 2 | **105** | 0 | 191 | 2 | **105** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 105 | 1 | 21 | 0 | 105 | 21 | 0 | 105 | 1 | 21 | 0 | 105 | 1 | 21 | 0 | 105 | 1 | 21 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 276 | 1 | **215** | 13 | 289 | **222** | 11 | 287 | 1 | **221** | 13 | 300 | 1 | **227** | 0 | 300 | 1 | **227** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 154 | 0 | 0 | 0 | 154 | 0 | 0 | 154 | 0 | 0 | 0 | 154 | 0 | 0 | 0 | 154 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 84 | 1 | **84** | 0 | 84 | **84** | 0 | 84 | 1 | **84** | 0 | 84 | 1 | **84** | 0 | 84 | 1 | **84** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 461 | 2 | 231 | 59 | 520 | 260 | 26 | 487 | 2 | 244 | 59 | 546 | 2 | 273 | 0 | 546 | 2 | 273 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 105 | *North-South:* | | 105 | *North-South:* | | | 105 | *North-South:* | | | 105 | *North-South:* | | | 105 |
| | | *East-West:* | | 299 | *East-West:* | | 306 | *East-West:* | | | 305 | *East-West:* | | | 311 | *East-West:* | | | 311 |
| | | *SUM:* | | 404 | *SUM:* | | 411 | *SUM:* | | | 410 | *SUM:* | | | 416 | *SUM:* | | | 416 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.284 | | | 0.288 | | | | 0.288 | | | | 0.292 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.184 | | | 0.188 | | | | 0.188 | | | | 0.192 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.004 | Δ*v/c* after mitigation: | -0.288 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | East-West Street: | Swinford St / SR-47 EB Ramps | Projection Year: | 2042 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 4 | | | 4 | | | 4 | | | | 4 | | | | | 4 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | | EB-- 3 WB-- | | 0 | | EB-- 3 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 779 | 2 | **428** | 42 | 821 | **452** | 40 | 819 | 2 | **450** | 42 | 861 | 2 | **474** | 0 | 861 | 2 | **474** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1224 | 2 | 415 | 151 | 1375 | 466 | 34 | 1258 | 2 | 427 | 151 | 1409 | 2 | 477 | 0 | 1409 | 2 | 477 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 22 | 0 | 0 | 0 | 22 | 0 | 0 | 22 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 22 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 12 | 1 | 12 | 0 | 12 | 12 | 0 | 12 | 1 | 12 | 0 | 12 | 1 | 12 | 0 | 12 | 1 | 12 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 180 | 2 | **85** | 2 | 182 | **86** | 1 | 181 | 2 | **86** | 2 | 183 | 2 | **86** | 0 | 183 | 2 | **92** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 0 | |
| | Right | 76 | 0 | 0 | 0 | 76 | 0 | 0 | 76 | 0 | 0 | 0 | 76 | 0 | 0 | 0 | 76 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 271 | 1 | 271 | 0 | 271 | 271 | 0 | 271 | 1 | 271 | 0 | 271 | 1 | 271 | 0 | 271 | 1 | 271 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 13 | 0 | **883** | 0 | 13 | **903** | 0 | 13 | 0 | **891** | 0 | 13 | 0 | **910** | 0 | 13 | 0 | **910** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1753 | 1 | 0 | 39 | 1792 | 0 | 15 | 1768 | 1 | 0 | 39 | 1807 | 1 | 0 | 0 | 1807 | 1 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 38 | 0 | 38 | 0 | 38 | 38 | 0 | 38 | 0 | 38 | 0 | 38 | 0 | 38 | 0 | 38 | 0 | 38 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 31 | 0 | **44** | 0 | 31 | **44** | 0 | 31 | 0 | **44** | 0 | 31 | 0 | **44** | 0 | 31 | 0 | **44** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 13 | 0 | 0 | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 13 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 513 | *North-South:* | | 538 | *North-South:* | | | 536 | *North-South:* | | | 560 | *North-South:* | | | 566 |
| | | *East-West:* | | 927 | *East-West:* | | 947 | *East-West:* | | | 935 | *East-West:* | | | 954 | *East-West:* | | | 954 |
| | | *SUM:* | | 1440 | *SUM:* | | 1485 | *SUM:* | | | 1471 | *SUM:* | | | 1514 | *SUM:* | | | 1520 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 1.047 | | | 1.080 | | | | 1.070 | | | | 1.101 | | | | 1.105 |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | **0.947** | | | **0.980** | | | | **0.970** | | | | **1.001** | | | | **1.005** |
| | LEVEL OF SERVICE (LOS): | | | **E** | | | **E** | | | | **E** | | | | **E** | | | | **F** |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.031 | Δ*v/c* after mitigation: | 0.035 |
| Significant impacted? | YES | Fully mitigated? | NO |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | East-West Street: | O'Farrell St | Projection Year: | 2042 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 14 | 1 | **14** | 0 | 14 | 14 | 0 | 14 | 1 | **14** | 0 | 14 | 1 | 14 | 0 | 14 | 1 | 14 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1888 | 3 | 629 | 194 | 2082 | **694** | 74 | 1962 | 3 | 654 | 194 | 2156 | 3 | **719** | 0 | 2156 | 3 | **719** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1961 | 2 | **656** | 41 | 2002 | 670 | 17 | 1978 | 2 | **662** | 41 | 2019 | 2 | 676 | 0 | 2019 | 2 | 676 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 8 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 103 | 0 | 103 | 0 | 103 | 103 | 0 | 103 | 0 | 103 | 0 | 103 | 0 | 103 | 0 | 103 | 0 | 103 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 18 | 0 | **121** | 0 | 18 | **121** | 0 | 18 | 0 | **121** | 0 | 18 | 0 | **121** | 0 | 18 | 0 | **121** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| WESTBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 670 | *North-South:* | | 694 | *North-South:* | | | 676 | *North-South:* | | | 719 | *North-South:* | | | 719 |
| | | *East-West:* | | 121 | *East-West:* | | 121 | *East-West:* | | | 121 | *East-West:* | | | 121 | *East-West:* | | | 121 |
| | | *SUM:* | | 791 | *SUM:* | | 815 | *SUM:* | | | 797 | *SUM:* | | | 840 | *SUM:* | | | 840 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.527 | | | 0.543 | | | | 0.531 | | | | 0.560 | | | | 0.560 |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | **0.427** | | | **0.443** | | | | **0.431** | | | | **0.460** | | | | **0.460** |
| | LEVEL OF SERVICE (LOS): | | | **A** | | | **A** | | | | **A** | | | | **A** | | | | **A** |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.029 | Δ*v/c* after mitigation: | 0.029 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | East-West Street: | 1st St | Projection Year: | 2042 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 4 | | | | |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | | |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 |
| | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | | 2 | | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| Override Capacity | | | | 0 | | | | 0 | | | | 0 | | | | 0 | | | | 0 |

| | MOVEMENT | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 32 | 1 | **32** | 1 | 33 | **33** | 0 | 32 | 1 | **32** | 1 | 33 | 1 | **33** | 0 | 33 | 1 | 33 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1796 | 2 | 599 | 194 | 1990 | 664 | 5 | 1801 | 2 | 601 | 194 | 1995 | 2 | 666 | 0 | 1995 | 2 | **666** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 7 | 1 | 7 | 0 | 7 | 7 | 18 | 25 | 1 | 25 | 0 | 25 | 1 | 25 | 0 | 25 | 1 | **25** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1873 | 2 | **661** | 41 | 1914 | **675** | -2 | 1871 | 2 | **661** | 41 | 1912 | 2 | **674** | 0 | 1912 | 3 | 506 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 111 | 0 | 0 | 0 | 111 | 0 | 0 | 111 | 0 | 0 | 0 | 111 | 0 | 0 | 0 | 111 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 80 | 1 | **80** | 0 | 80 | **80** | 0 | 80 | 1 | **80** | 0 | 80 | 1 | **80** | 0 | 80 | 1 | **80** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 26 | 0 | 0 | 26 | 3 | 3 | 0 | 29 | 0 | 3 | 0 | 29 | 0 | 3 | 0 | 29 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 26 | 0 | 0 | 0 | 26 | 0 | 0 | 26 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 26 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 2 | 0 | 2 | 0 | 2 | 2 | 3 | 5 | 0 | 5 | 0 | 5 | 0 | 5 | 0 | 5 | 0 | 5 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 26 | 0 | **61** | 0 | 26 | **61** | 13 | 39 | 0 | **145** | 0 | 39 | 0 | **145** | 0 | 39 | 0 | **145** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 33 | 0 | 0 | 0 | 33 | 0 | 68 | 101 | 0 | 0 | 0 | 101 | 0 | 0 | 0 | 101 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 693 | *North-South:* | | 708 | *North-South:* | | | 693 | *North-South:* | | | 707 | *North-South:* | | | 691 |
| | | *East-West:* | | 141 | *East-West:* | | 141 | *East-West:* | | | 225 | *East-West:* | | | 225 | *East-West:* | | | 225 |
| | | *SUM:* | | 834 | *SUM:* | | 849 | *SUM:* | | | 918 | *SUM:* | | | 932 | *SUM:* | | | 916 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.585 | | | 0.596 | | | | 0.644 | | | | 0.654 | | | | 0.666 |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | **0.485** | | | **0.496** | | | | **0.544** | | | | **0.554** | | | | **0.566** |
| LEVEL OF SERVICE (LOS): | | | | **A** | | | **A** | | | | **A** | | | | **A** | | | | **A** |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.010 | *Δv/c* after mitigation: | 0.022 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | East-West Street: | 5th St | Projection Year: | 2042 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | 3 | | | 3 | | | 3 | | | | 3 | | | | 2 | | |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | | |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | 0 | | NB-- 0 SB-- | 0 | | NB-- 0 SB-- | 0 | | | NB-- 0 SB-- | 0 | | | NB-- 0 SB-- | 0 | | |
| | | EB-- 0 WB-- | 0 | | EB-- 0 WB-- | 0 | | EB-- 0 WB-- | 0 | | | EB-- 0 WB-- | 0 | | | EB-- 0 WB-- | 0 | | |
| | ATSAC-1 or ATSAC+ATCS-2? | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | | |
| | Override Capacity | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | | |
| NORTHBOUND | Left | 31 | 1 | **31** | 0 | 31 | **31** | 0 | 31 | 1 | **31** | 0 | 31 | 1 | **31** | 0 | 31 | 1 | **31** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1562 | 2 | 522 | 194 | 1756 | 587 | 6 | 1568 | 2 | 524 | 194 | 1762 | 2 | 589 | 0 | 1762 | 2 | 589 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 2 | 1 | 2 | 0 | 2 | 2 | 0 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 0 | 2 | 1 | 2 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1735 | 2 | **619** | 41 | 1776 | **632** | 1 | 1736 | 2 | **619** | 41 | 1777 | 2 | **633** | 0 | 1777 | 2 | **889** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 0 | |
| | Right | 121 | 0 | 0 | 0 | 121 | 0 | 0 | 121 | 0 | 0 | 0 | 121 | 0 | 0 | 0 | 121 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 292 | 1 | **292** | 0 | 292 | **292** | 0 | 292 | 1 | **292** | 0 | 292 | 1 | **292** | 0 | 292 | 1 | **292** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 2 | 1 | 2 | 0 | 2 | 2 | 0 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 0 | 2 | 1 | 2 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 17 | 1 | 2 | 0 | 17 | 2 | 0 | 17 | 1 | 2 | 0 | 17 | 1 | 2 | 0 | 17 | 1 | 2 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 3 | 1 | 3 | 0 | 3 | 3 | 0 | 3 | 1 | 3 | 0 | 3 | 1 | 3 | 0 | 3 | 1 | 3 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 15 | 1 | **14** | 0 | 15 | **14** | 0 | 15 | 1 | **14** | 0 | 15 | 1 | **14** | 0 | 15 | 1 | **14** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | 650 | | *North-South:* | 663 | | *North-South:* | 650 | | | *North-South:* | 664 | | | *North-South:* | 920 | | |
| | | *East-West:* | 306 | | *East-West:* | 306 | | *East-West:* | 306 | | | *East-West:* | 306 | | | *East-West:* | 306 | | |
| | | *SUM:* | 956 | | *SUM:* | 969 | | *SUM:* | 956 | | | *SUM:* | 970 | | | *SUM:* | 1226 | | |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | 0.671 | | | 0.680 | | | 0.671 | | | | 0.681 | | | | 0.817 | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | **0.571** | | | **0.580** | | | **0.571** | | | | **0.581** | | | | **0.717** | | |
| | LEVEL OF SERVICE (LOS): | | **A** | | | **A** | | | **A** | | | | **A** | | | | **C** | | |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.010 | $\Delta v/c$ after mitigation: | 0.146 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | East-West Street: | 6th St | Projection Year: | 2042 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 4 | | | 4 | | | 4 | | | 4 | | | 4 | | | | 4 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | | 2 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 3 | SB-- 0 | NB-- | 3 | SB-- 0 | NB-- | 3 | SB-- 0 | NB-- | 3 | SB-- 0 | NB-- | 3 | SB-- 0 | NB-- | 0 | SB-- 0 |
| | EB-- | 0 | WB-- 3 | EB-- | 0 | WB-- 3 | EB-- | 0 | WB-- 3 | EB-- | 0 | WB-- 3 | EB-- | 0 | WB-- 3 | EB-- | 0 | WB-- 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 | | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 63 | 1 | **63** | 0 | 63 | **63** | 0 | 63 | 1 | **63** | 0 | 63 | 1 | **63** | 0 | 63 | 1 | 63 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1673 | 2 | 558 | 194 | 1867 | 622 | 6 | 1679 | 2 | 560 | 194 | 1873 | 2 | 624 | 0 | 1873 | 2 | **624** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1851 | 2 | **661** | 41 | 1892 | **675** | 1 | 1852 | 2 | **661** | 41 | 1893 | 2 | **675** | 0 | 1893 | 3 | 506 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 132 | 0 | 0 | 0 | 132 | 0 | 0 | 132 | 0 | 0 | 0 | 132 | 0 | 0 | 0 | 132 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 99 | 1 | **99** | 0 | 99 | **99** | 0 | 99 | 1 | **99** | 0 | 99 | 1 | **99** | 0 | 99 | 1 | **99** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 57 | 0 | 0 | 57 | 0 | 0 | 0 | 57 | 0 | 0 | 0 | 57 | 0 | 0 | 0 | 57 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 57 | 0 | 0 | 0 | 57 | 0 | 0 | 57 | 0 | 0 | 0 | 57 | 0 | 0 | 0 | 57 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | | *North-South:* | 724 | | *North-South:* | 738 | | *North-South:* | | 724 | | *North-South:* | | 738 | | *North-South:* | | 624 |
| | | | *East-West:* | 99 | | *East-West:* | 99 | | *East-West:* | | 99 | | *East-West:* | | 99 | | *East-West:* | | 99 |
| | | | *SUM:* | 823 | | *SUM:* | 837 | | *SUM:* | | 823 | | *SUM:* | | 837 | | *SUM:* | | 723 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.599 | | | 0.609 | | | | 0.599 | | | | 0.609 | | | | 0.526 |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | **0.499** | | | **0.509** | | | | **0.499** | | | | **0.509** | | | | **0.426** |
| LEVEL OF SERVICE (LOS): | | | | **A** | | | **A** | | | | **A** | | | | **A** | | | | **A** |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.010 | *Δv/c* after mitigation: | -0.073 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17A | East-West Street: | 7th St | | Projection Year: | 2042 | Peak Hour: | PM | Reviewed by: | | Project: | CD1 2042 CB |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 3 |
| | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | YEAR 2042 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 127 | 1 | **127** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 1,593 | 3 | 531 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 1,492 | 2 | **636** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 1 | | | | | | | | | | | | | | | | |
| | Right | 416 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 253 | 2 | **139** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 105 | 1 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | *North-South:* | | 763 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 139 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 902 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.633 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.533 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17A | East-West Street: | 7th St | Projection Year: | 2042 | Peak Hour: | PM | Reviewed by: | | Project: | 2042 WITH PROJECT |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 3 |
| | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | YEAR 2042 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 145 | 1 | **145** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 1,788 | 3 | 596 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 1,533 | 2 | **650** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 1 | | | | | | | | | | | | | | | | |
| | Right | 416 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 253 | 2 | **139** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 109 | 1 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | *North-South:* | | 795 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 139 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 934 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.655 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.555 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17B | East-West Street: | Sampson Way | Projection Year: | 2042 | Peak Hour: | PM | Reviewed by: | | Project: | CD1 2042 CB |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- | SB-- | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | YEAR 2042 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 38 | 1 | **38** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 563 | 2 | 282 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 514 | 2 | 257 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 1,083 | 1 | **447** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 1,157 | 2 | **636** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 52 | 1 | 33 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | *North-South:* | | 485 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 636 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 1121 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.747 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.647 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | B | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17B | East-West Street: | Sampson Way | | Projection Year: | 2042 | Peak Hour: | PM | Reviewed by: | | Project: | 2042 WITH PROJECT |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- | 0 | SB-- | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- | 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| | MOVEMENT | YEAR 2042 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 38 | 1 | **38** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 651 | 2 | 326 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 533 | 2 | 267 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 1,109 | 1 | **404** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 1,282 | 2 | **705** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 52 | 1 | 33 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | *North-South:* | | 442 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 705 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 1147 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.765 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.665 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | B | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Miner St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 18 | East-West Street: | 22nd St | Projection Year: | 2042 | Peak Hour: | PM | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 4 | | | 4 | | | 4 | | | | 4 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 95 | 1 | **95** | 0 | 95 | **95** | 0 | 95 | 1 | **95** | 0 | 95 | 1 | **95** | 0 | 95 | 1 | **95** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 710 | 1 | 373 | 0 | 710 | 373 | 0 | 710 | 1 | 373 | 0 | 710 | 1 | 373 | 0 | 710 | 1 | 373 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 35 | 0 | 0 | 0 | 35 | 0 | 0 | 35 | 0 | 0 | 0 | 35 | 0 | 0 | 0 | 35 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 31 | 1 | 31 | 29 | 60 | 60 | 0 | 31 | 1 | 31 | 29 | 60 | 1 | 60 | 0 | 60 | 1 | 60 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 404 | 1 | **370** | 0 | 404 | **370** | 0 | 404 | 1 | **371** | 0 | 404 | 1 | **371** | 0 | 404 | 1 | **371** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 335 | 0 | 0 | 0 | 335 | 0 | 3 | 338 | 0 | 0 | 0 | 338 | 0 | 0 | 0 | 338 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 219 | 1 | **219** | 0 | 219 | **219** | 1 | 220 | 1 | **220** | 0 | 220 | 1 | **220** | 0 | 220 | 1 | **220** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 67 | 1 | 63 | 13 | 80 | 70 | 0 | 67 | 1 | 63 | 13 | 80 | 1 | 70 | 0 | 80 | 1 | 70 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 59 | 0 | 0 | 0 | 59 | 0 | 0 | 59 | 0 | 0 | 0 | 59 | 0 | 0 | 0 | 59 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 32 | 1 | 32 | 0 | 32 | 32 | 0 | 32 | 1 | 32 | 0 | 32 | 1 | 32 | 0 | 32 | 1 | 32 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 112 | 1 | **80** | 59 | 171 | **171** | 0 | 112 | 1 | **80** | 59 | 171 | 1 | **171** | 0 | 171 | 1 | **171** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 48 | 0 | 0 | 136 | 184 | 154 | 0 | 48 | 0 | 0 | 136 | 184 | 0 | 154 | 0 | 184 | 0 | 154 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 465 | *North-South:* | | 465 | *North-South:* | | | 466 | *North-South:* | | | 466 | *North-South:* | | | 466 |
| | | *East-West:* | | 299 | *East-West:* | | 390 | *East-West:* | | | 300 | *East-West:* | | | 391 | *East-West:* | | | 391 |
| | | *SUM:* | | 764 | *SUM:* | | 855 | *SUM:* | | | 766 | *SUM:* | | | 857 | *SUM:* | | | 857 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.556 | | | 0.622 | | | | 0.557 | | | | 0.623 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | **0.456** | | | **0.522** | | | | **0.457** | | | | **0.523** | | | | **-0.100** |
| | LEVEL OF SERVICE (LOS): | | | **A** | | | **A** | | | | **A** | | | | **A** | | | | **A** |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.066 | Δ*v/c* after mitigation: | -0.557 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | East-West Street: | Summerland Av | Projection Year: | 2042 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 162 | 1 | **162** | 0 | 162 | **162** | 0 | 162 | 1 | **162** | 0 | 162 | 1 | **162** | 0 | 162 | 1 | **162** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 737 | 1 | 380 | 1 | 738 | 380 | 7 | 744 | 1 | 383 | 1 | 745 | 1 | 384 | 0 | 745 | 1 | 384 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 22 | 0 | 0 | 0 | 22 | 0 | 0 | 22 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 22 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 11 | 1 | 11 | 0 | 11 | 11 | 0 | 11 | 1 | 11 | 0 | 11 | 1 | 11 | 0 | 11 | 1 | 11 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 692 | 1 | **447** | 2 | 694 | **448** | 12 | 704 | 1 | **453** | 2 | 706 | 1 | **454** | 0 | 706 | 1 | **454** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 202 | 0 | 0 | 0 | 202 | 0 | 0 | 202 | 0 | 0 | 0 | 202 | 0 | 0 | 0 | 202 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 220 | 1 | **220** | 0 | 220 | **220** | 0 | 220 | 1 | **220** | 0 | 220 | 1 | **220** | 0 | 220 | 1 | **220** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 77 | 0 | 0 | 77 | 0 | 0 | 0 | 77 | 0 | 0 | 0 | 77 | 0 | 0 | 0 | 77 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 77 | 0 | 0 | 0 | 77 | 0 | 0 | 77 | 0 | 0 | 0 | 77 | 0 | 0 | 0 | 77 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 494 | 2 | 272 | 0 | 494 | 272 | 0 | 494 | 2 | 272 | 0 | 494 | 2 | 272 | 0 | 494 | 2 | 272 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 177 | 0 | **428** | 0 | 177 | **428** | 0 | 177 | 0 | **428** | 0 | 177 | 0 | **428** | 0 | 177 | 0 | **428** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 251 | 0 | 0 | 0 | 251 | 0 | 0 | 251 | 0 | 0 | 0 | 251 | 0 | 0 | 0 | 251 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 609 | *North-South:* | | 610 | *North-South:* | | | 615 | *North-South:* | | | 616 | *North-South:* | | | 616 |
| | | *East-West:* | | 648 | *East-West:* | | 648 | *East-West:* | | | 648 | *East-West:* | | | 648 | *East-West:* | | | 648 |
| | | *SUM:* | | 1257 | *SUM:* | | 1258 | *SUM:* | | | 1263 | *SUM:* | | | 1264 | *SUM:* | | | 1264 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.882 | | | 0.883 | | | | 0.886 | | | | 0.887 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | **0.782** | | | **0.783** | | | | **0.786** | | | | **0.787** | | | | **-0.100** |
| | LEVEL OF SERVICE (LOS): | | | **C** | | | **C** | | | | **C** | | | | **C** | | | | **A** |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | Δ*v/c* after mitigation: | -0.886 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | East-West Street: | I-110 Ramps | Projection Year: | 2042 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 1 | SB-- | 0 | NB-- 1 | SB-- | 0 | NB-- 1 | SB-- | 0 | NB-- 1 | SB-- | 0 | NB-- 0 | SB-- | 0 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 712 | 2 | **356** | 1 | 713 | **357** | 7 | 719 | 2 | **360** | 1 | 720 | 2 | **360** | 0 | 720 | 2 | **360** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 2226 | 2 | 0 | 2 | 2228 | 0 | 11 | 2237 | 2 | 0 | 2 | 2239 | 2 | 0 | 0 | 2239 | 2 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1028 | 3 | 343 | 2 | 1030 | 343 | 12 | 1040 | 3 | 347 | 2 | 1042 | 3 | 347 | 0 | 1042 | 3 | 347 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 1705 | 2 | **606** | 4 | 1709 | **607** | 16 | 1721 | 2 | **611** | 4 | 1725 | 2 | **612** | 0 | 1725 | 2 | **612** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 112 | 0 | 606 | 0 | 112 | 607 | 0 | 112 | 0 | 611 | 0 | 112 | 0 | 612 | 0 | 112 | 0 | 612 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| CRITICAL VOLUMES | | *North-South:* | | 356 | *North-South:* | | 357 | *North-South:* | | | 360 | *North-South:* | | | 360 | *North-South:* | | | 360 |
| | | *East-West:* | | 606 | *East-West:* | | 607 | *East-West:* | | | 611 | *East-West:* | | | 612 | *East-West:* | | | 612 |
| | | *SUM:* | | 962 | *SUM:* | | 964 | *SUM:* | | | 971 | *SUM:* | | | 972 | *SUM:* | | | 972 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.641 | | | 0.643 | | | | 0.647 | | | | 0.648 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.541 | | | 0.543 | | | | 0.547 | | | | 0.548 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | Δ*v/c* after mitigation: | -0.647 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | East-West Street: | 1st St | Projection Year: | 2042 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 3 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 51 | 1 | 51 | 0 | 51 | 51 | 2 | 53 | 1 | 53 | 0 | 53 | 1 | 53 | 0 | 53 | 1 | 53 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1538 | 2 | **521** | 3 | 1541 | **522** | 10 | 1548 | 2 | **525** | 3 | 1551 | 2 | **526** | 0 | 1551 | 2 | **526** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 24 | 0 | 0 | 0 | 24 | 0 | 2 | 26 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 26 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 364 | 1 | **364** | 0 | 364 | **364** | 9 | 373 | 1 | **373** | 0 | 373 | 1 | **373** | 0 | 373 | 1 | **373** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1876 | 2 | 783 | 6 | 1882 | 785 | 20 | 1896 | 2 | 790 | 6 | 1902 | 2 | 792 | 0 | 1902 | 2 | 792 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 474 | 0 | 0 | 0 | 474 | 0 | 0 | 474 | 0 | 0 | 0 | 474 | 0 | 0 | 0 | 474 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 647 | 1 | **394** | 0 | 647 | **394** | 0 | 647 | 1 | **396** | 0 | 647 | 1 | **396** | 0 | 647 | 1 | **396** |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 140 | 0 | 394 | 0 | 140 | 394 | 4 | 144 | 0 | 396 | 0 | 144 | 0 | 396 | 0 | 144 | 0 | 396 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 87 | 1 | 62 | 0 | 87 | 62 | 4 | 91 | 1 | 65 | 0 | 91 | 1 | 65 | 0 | 91 | 1 | 65 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 45 | 1 | 45 | 0 | 45 | 45 | 2 | 47 | 1 | 47 | 0 | 47 | 1 | 47 | 0 | 47 | 1 | 47 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 171 | 1 | **171** | 0 | 171 | **171** | 4 | 175 | 1 | **175** | 0 | 175 | 1 | **175** | 0 | 175 | 1 | **175** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 345 | 1 | 163 | 0 | 345 | 163 | 8 | 353 | 1 | 167 | 0 | 353 | 1 | 167 | 0 | 353 | 1 | 167 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 885 | *North-South:* | | 886 | *North-South:* | | | 898 | *North-South:* | | | 899 | *North-South:* | | | 899 |
| | | *East-West:* | | 565 | *East-West:* | | 565 | *East-West:* | | | 571 | *East-West:* | | | 571 | *East-West:* | | | 571 |
| | | *SUM:* | | 1450 | *SUM:* | | 1451 | *SUM:* | | | 1469 | *SUM:* | | | 1470 | *SUM:* | | | 1470 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 1.018 | | | 1.018 | | | | 1.031 | | | | 1.032 | | | | 1.032 |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | **0.918** | | | **0.918** | | | | **0.931** | | | | **0.932** | | | | **0.932** |
| | LEVEL OF SERVICE (LOS): | | | **E** | | | **E** | | | | **E** | | | | **E** | | | | **E** |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | $\Delta v/c$ after mitigation: | 0.001 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | East-West Street: | 5th St | Projection Year: | 2042 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 28 | 1 | 28 | 0 | 28 | 28 | 0 | 28 | 1 | 28 | 0 | 28 | 1 | 28 | 0 | 28 | 1 | 28 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1516 | 1 | 783 | 3 | 1519 | 785 | 14 | 1530 | 1 | 790 | 3 | 1533 | 1 | 792 | 0 | 1533 | 1 | 792 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 50 | 0 | 0 | 0 | 50 | 0 | 0 | 50 | 0 | 0 | 0 | 50 | 0 | 0 | 0 | 50 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 216 | 1 | 216 | 0 | 216 | 216 | 0 | 216 | 1 | 216 | 0 | 216 | 1 | 216 | 0 | 216 | 1 | 216 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1561 | 1 | 825 | 6 | 1567 | 828 | 26 | 1587 | 1 | 838 | 6 | 1593 | 1 | 841 | 0 | 1593 | 1 | 841 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 89 | 0 | 0 | 0 | 89 | 0 | 0 | 89 | 0 | 0 | 0 | 89 | 0 | 0 | 0 | 89 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 104 | 1 | 104 | 0 | 104 | 104 | 0 | 104 | 1 | 104 | 0 | 104 | 1 | 104 | 0 | 104 | 1 | 104 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 125 | 0 | 145 | 0 | 125 | 145 | 0 | 125 | 0 | 145 | 0 | 125 | 0 | 145 | 0 | 125 | 0 | 145 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 20 | 0 | 0 | 0 | 20 | 0 | 0 | 20 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 20 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 33 | 1 | 33 | 0 | 33 | 33 | 0 | 33 | 1 | 33 | 0 | 33 | 1 | 33 | 0 | 33 | 1 | 33 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 81 | 0 | 164 | 0 | 81 | 164 | 0 | 81 | 0 | 164 | 0 | 81 | 0 | 164 | 0 | 81 | 0 | 164 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 83 | 0 | 0 | 0 | 83 | 0 | 0 | 83 | 0 | 0 | 0 | 83 | 0 | 0 | 0 | 83 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | North-South: | | 999 | North-South: | | 1001 | North-South: | | | 1006 | North-South: | | | 1008 | North-South: | | | 1008 |
| | | East-West: | | 268 | East-West: | | 268 | East-West: | | | 268 | East-West: | | | 268 | East-West: | | | 268 |
| | | SUM: | | 1267 | SUM: | | 1269 | SUM: | | | 1274 | SUM: | | | 1276 | SUM: | | | 1276 |
| | VOLUME/CAPACITY (V/C) RATIO: | | | 0.889 | | | 0.891 | | | | 0.894 | | | | 0.895 | | | | |
| | V/C LESS ATSAC/ATCS ADJUSTMENT: | | | 0.789 | | | 0.791 | | | | 0.794 | | | | 0.795 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | C | | | C | | | | C | | | | C | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | Δ*v/c* after mitigation: | -0.894 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | East-West Street: | 7th St | Projection Year: | 2042 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 51 | 1 | 51 | 0 | 51 | 51 | 3 | 54 | 1 | 54 | 0 | 54 | 1 | 54 | 0 | 54 | 1 | 54 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1447 | 1 | **756** | 3 | 1450 | **758** | 14 | 1461 | 1 | **763** | 3 | 1464 | 1 | **765** | 0 | 1464 | 1 | **765** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 65 | 0 | 0 | 0 | 65 | 0 | 0 | 65 | 0 | 0 | 0 | 65 | 0 | 0 | 0 | 65 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 72 | 1 | **72** | 0 | 72 | **72** | 0 | 72 | 1 | **72** | 0 | 72 | 1 | **72** | 0 | 72 | 1 | **72** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1387 | 1 | 752 | 6 | 1393 | 755 | 26 | 1413 | 1 | 765 | 6 | 1419 | 1 | 768 | 0 | 1419 | 1 | 768 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 116 | 0 | 0 | 0 | 116 | 0 | 0 | 116 | 0 | 0 | 0 | 116 | 0 | 0 | 0 | 116 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 172 | 1 | **172** | 0 | 172 | **172** | 0 | 172 | 1 | **172** | 0 | 172 | 1 | **172** | 0 | 172 | 1 | **172** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 189 | 0 | 236 | 0 | 189 | 236 | 0 | 189 | 0 | 242 | 0 | 189 | 0 | 242 | 0 | 189 | 0 | 242 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 47 | 0 | 0 | 0 | 47 | 0 | 6 | 53 | 0 | 0 | 0 | 53 | 0 | 0 | 0 | 53 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 77 | 1 | 77 | 0 | 77 | 77 | 0 | 77 | 1 | 77 | 0 | 77 | 1 | 77 | 0 | 77 | 1 | 77 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 176 | 0 | **248** | 0 | 176 | **248** | 0 | 176 | 0 | **248** | 0 | 176 | 0 | **248** | 0 | 176 | 0 | **248** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 72 | 0 | 0 | 0 | 72 | 0 | 0 | 72 | 0 | 0 | 0 | 72 | 0 | 0 | 0 | 72 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 828 | *North-South:* | | 830 | *North-South:* | | | 835 | *North-South:* | | | 837 | *North-South:* | | | 837 |
| | | *East-West:* | | 420 | *East-West:* | | 420 | *East-West:* | | | 420 | *East-West:* | | | 420 | *East-West:* | | | 420 |
| | | *SUM:* | | 1248 | *SUM:* | | 1250 | *SUM:* | | | 1255 | *SUM:* | | | 1257 | *SUM:* | | | 1257 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.832 | | | 0.833 | | | | 0.837 | | | | 0.838 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | **0.732** | | | **0.733** | | | | **0.737** | | | | **0.738** | | | | **-0.100** |
| | LEVEL OF SERVICE (LOS): | | | **C** | | | **C** | | | | **C** | | | | **C** | | | | **A** |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.001 | Δ*v/c* after mitigation: | -0.837 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | East-West Street: | 9th St | Projection Year: | 2042 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 77 | 1 | **77** | 0 | 77 | **77** | 0 | 77 | 1 | **77** | 0 | 77 | 1 | **77** | 0 | 77 | 1 | **77** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1399 | 1 | 731 | 3 | 1402 | 733 | 15 | 1414 | 1 | 739 | 3 | 1417 | 1 | 740 | 0 | 1417 | 1 | 740 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 63 | 0 | 0 | 0 | 63 | 0 | 0 | 63 | 0 | 0 | 0 | 63 | 0 | 0 | 0 | 63 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 97 | 1 | 97 | 0 | 97 | 97 | 0 | 97 | 1 | 97 | 0 | 97 | 1 | 97 | 0 | 97 | 1 | 97 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1424 | 1 | **759** | 6 | 1430 | **762** | 30 | 1454 | 1 | **775** | 6 | 1460 | 1 | **778** | 0 | 1460 | 1 | **778** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 94 | 0 | 0 | 0 | 94 | 0 | 2 | 96 | 0 | 0 | 0 | 96 | 0 | 0 | 0 | 96 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 179 | 1 | **179** | 0 | 179 | **179** | 2 | 181 | 1 | **181** | 0 | 181 | 1 | **181** | 0 | 181 | 1 | **181** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 221 | 1 | 221 | 1 | 222 | 222 | 11 | 232 | 1 | 232 | 1 | 233 | 1 | 233 | 0 | 233 | 1 | 233 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 66 | 1 | 28 | 1 | 67 | 29 | 0 | 66 | 1 | 28 | 1 | 67 | 1 | 29 | 0 | 67 | 1 | 29 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 114 | 1 | 114 | 0 | 114 | 114 | 0 | 114 | 1 | 114 | 0 | 114 | 1 | 114 | 0 | 114 | 1 | 114 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 303 | 0 | **447** | 0 | 303 | **447** | 6 | 309 | 0 | **453** | 0 | 309 | 0 | **453** | 0 | 309 | 0 | **453** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 144 | 0 | 0 | 0 | 144 | 0 | 0 | 144 | 0 | 0 | 0 | 144 | 0 | 0 | 0 | 144 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 836 | *North-South:* | | 839 | *North-South:* | | | 852 | *North-South:* | | | 855 | *North-South:* | | | 855 |
| | | *East-West:* | | 626 | *East-West:* | | 626 | *East-West:* | | | 634 | *East-West:* | | | 634 | *East-West:* | | | 634 |
| | | *SUM:* | | 1462 | *SUM:* | | 1465 | *SUM:* | | | 1486 | *SUM:* | | | 1489 | *SUM:* | | | 1489 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.975 | | | 0.977 | | | | 0.991 | | | | 0.993 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | **0.875** | | | **0.877** | | | | **0.891** | | | | **0.893** | | | | **-0.100** |
| | LEVEL OF SERVICE (LOS): | | | **D** | | | **D** | | | | **D** | | | | **D** | | | | **A** |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.002 | Δ*v/c* after mitigation: | -0.991 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | East-West Street: | 22nd St | Projection Year: | 2042 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 6 | 0 | **6** | 0 | 6 | **6** | 0 | 6 | 0 | **6** | 0 | 6 | 0 | **6** | 0 | 6 | 0 | **6** |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 639 | 0 | 405 | 0 | 639 | 408 | 1 | 640 | 0 | 422 | 0 | 640 | 0 | 425 | 0 | 640 | 0 | 425 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 147 | 0 | 405 | 5 | 152 | 408 | 33 | 180 | 0 | 422 | 5 | 185 | 0 | 425 | 0 | 185 | 0 | 425 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 197 | 0 | 197 | 6 | 203 | 203 | 30 | 227 | 0 | 227 | 6 | 233 | 0 | 233 | 0 | 233 | 0 | 233 |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 796 | 0 | **799** | 0 | 796 | **809** | 1 | 797 | 0 | **810** | 0 | 797 | 0 | **810** | 0 | 797 | 0 | **810** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 13 | 0 | 799 | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 13 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 15 | 0 | **15** | 0 | 15 | **15** | 0 | 15 | 0 | **15** | 0 | 15 | 0 | **15** | 0 | 15 | 0 | **15** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 23 | 0 | 41 | 0 | 23 | 41 | 21 | 44 | 0 | 62 | 0 | 44 | 0 | 62 | 0 | 44 | 0 | 62 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 156 | 0 | 156 | 2 | 158 | 158 | 18 | 174 | 0 | 174 | 2 | 176 | 0 | 176 | 0 | 176 | 0 | 176 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 27 | 0 | **306** | 0 | 27 | **311** | 11 | 38 | 0 | **350** | 0 | 38 | 0 | **355** | 0 | 38 | 0 | **355** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 123 | 0 | 0 | 3 | 126 | 0 | 15 | 138 | 0 | 0 | 3 | 141 | 0 | 0 | 0 | 141 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 805 | *North-South:* | | 815 | *North-South:* | | | 816 | *North-South:* | | | 816 | *North-South:* | | | 816 |
| | | *East-West:* | | 321 | *East-West:* | | 326 | *East-West:* | | | 365 | *East-West:* | | | 370 | *East-West:* | | | 370 |
| | | *SUM:* | | 1126 | *SUM:* | | 1141 | *SUM:* | | | 1181 | *SUM:* | | | 1186 | *SUM:* | | | 1186 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.751 | | | 0.761 | | | | 0.787 | | | | 0.791 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.651 | | | 0.661 | | | | 0.687 | | | | 0.691 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | B | | | B | | | | B | | | | B | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.004 | Δ*v/c* after mitigation: | -0.787 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Gaffey St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | East-West Street: | 25th St | Projection Year: | 2042 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | | NB-- 0 SB-- | | 0 | |
| | | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | | EB-- 3 WB-- | | 0 | | EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 67 | 1 | **67** | 0 | 67 | **67** | 0 | 67 | 1 | **67** | 0 | 67 | 1 | **67** | 0 | 67 | 1 | **67** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 374 | 1 | 374 | 1 | 375 | 375 | 10 | 384 | 1 | 384 | 1 | 385 | 1 | 385 | 0 | 385 | 1 | 385 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 683 | 1 | **683** | 0 | 683 | **683** | 5 | 688 | 1 | **688** | 0 | 688 | 1 | **688** | 0 | 688 | 1 | **688** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 426 | 1 | 215 | 2 | 428 | 215 | 13 | 439 | 1 | 216 | 2 | 441 | 1 | 216 | 0 | 441 | 1 | 216 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 422 | 1 | **422** | 4 | 426 | **426** | 24 | 446 | 1 | **446** | 4 | 450 | 1 | **450** | 0 | 450 | 1 | **450** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 109 | 1 | 42 | 0 | 109 | 42 | 0 | 109 | 1 | 42 | 0 | 109 | 1 | 42 | 0 | 109 | 1 | 42 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 750 | *North-South:* | | 750 | *North-South:* | | 755 | | *North-South:* | | 755 | | *North-South:* | | 755 | |
| | | *East-West:* | | 422 | *East-West:* | | 426 | *East-West:* | | 446 | | *East-West:* | | 450 | | *East-West:* | | 450 | |
| | | *SUM:* | | 1172 | *SUM:* | | 1176 | *SUM:* | | 1201 | | *SUM:* | | 1205 | | *SUM:* | | 1205 | |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.822 | | | 0.825 | | | 0.843 | | | | 0.846 | | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.722 | | | 0.725 | | | 0.743 | | | | 0.746 | | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | C | | | C | | | C | | | | C | | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.003 | Δ*v/c* after mitigation: | -0.843 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Via Cabrillo Marina | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | East-West Street: | 22nd St | Projection Year: | 2042 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | | NB-- 3 SB-- / EB-- 0 WB-- | | 0 | | NB-- 0 SB-- / EB-- 0 WB-- | | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 230 | 2 | **127** | 0 | 230 | **127** | 0 | 230 | 2 | **127** | 0 | 230 | 2 | **127** | 0 | 230 | 2 | **127** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 82 | 1 | 0 | 0 | 82 | 0 | 0 | 82 | 1 | 0 | 0 | 82 | 1 | 0 | 0 | 82 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 354 | 1 | **297** | 16 | 370 | **305** | 95 | 449 | 1 | **345** | 16 | 465 | 1 | **353** | 0 | 465 | 1 | **353** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 240 | 0 | 0 | 0 | 240 | 0 | 0 | 240 | 0 | 0 | 0 | 240 | 0 | 0 | 0 | 240 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 112 | 1 | **112** | 0 | 112 | **112** | 0 | 112 | 1 | **112** | 0 | 112 | 1 | **112** | 0 | 112 | 1 | **112** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 316 | 2 | 158 | 7 | 323 | 162 | 46 | 362 | 2 | 181 | 7 | 369 | 2 | 185 | 0 | 369 | 2 | 185 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 127 | *North-South:* | | 127 | *North-South:* | | | 127 | *North-South:* | | | 127 | *North-South:* | | | 127 |
| | | *East-West:* | | 409 | *East-West:* | | 417 | *East-West:* | | | 457 | *East-West:* | | | 465 | *East-West:* | | | 465 |
| | | *SUM:* | | 536 | *SUM:* | | 544 | *SUM:* | | | 584 | *SUM:* | | | 592 | *SUM:* | | | 592 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.376 | | | 0.382 | | | | 0.410 | | | | 0.415 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | **0.276** | | | **0.282** | | | | **0.310** | | | | **0.315** | | | | **-0.100** |
| | LEVEL OF SERVICE (LOS): | | | **A** | | | **A** | | | | **A** | | | | **A** | | | | **A** |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.005 | Δ*v/c* after mitigation: | -0.410 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | East-West Street: | Swinford St / SR-47 EB Ramps | Projection Year: | 2042 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 4 | | | 4 | | | 4 | | | 4 | | | 3 | | | | |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 | | | | |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 | NB-- | 0 | SB-- | 0 |
| | EB-- | 3 | WB-- | 0 | EB-- | 3 | WB-- | 0 | EB-- | 3 | WB-- | 0 | EB-- | 3 | WB-- | 0 | EB-- | 3 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | | 2 | | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| Override Capacity | | | | 0 | | | | 0 | | | | 0 | | | | 0 | | | | 0 |

| | MOVEMENT | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 669 | 2 | 368 | 5 | 674 | 371 | 59 | 728 | 2 | **400** | 5 | 733 | 2 | **403** | 0 | 733 | 2 | **403** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1272 | 2 | **451** | 19 | 1291 | **457** | 58 | 1330 | 2 | 470 | 19 | 1349 | 2 | 477 | 0 | 1349 | 2 | 477 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 81 | 0 | 0 | 0 | 81 | 0 | 0 | 81 | 0 | 0 | 0 | 81 | 0 | 0 | 0 | 81 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 35 | 1 | **35** | 0 | 35 | **35** | 0 | 35 | 1 | 35 | 0 | 35 | 1 | 35 | 0 | 35 | 1 | 35 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 230 | 2 | 109 | 2 | 232 | 110 | 16 | 246 | 2 | **115** | 2 | 248 | 2 | **115** | 0 | 248 | 2 | **124** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 0 | |
| | Right | 98 | 0 | 0 | 0 | 98 | 0 | 0 | 98 | 0 | 0 | 0 | 98 | 0 | 0 | 0 | 98 | 1 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 254 | 1 | 254 | 0 | 254 | 254 | 0 | 254 | 1 | 254 | 0 | 254 | 1 | 254 | 0 | 254 | 1 | 254 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 215 | 0 | **1007** | 0 | 215 | **1032** | 0 | 215 | 0 | **1087** | 0 | 215 | 0 | **1112** | 0 | 215 | 0 | **1112** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 1798 | 1 | 0 | 50 | 1848 | 0 | 161 | 1959 | 1 | 0 | 50 | 2009 | 1 | 0 | 0 | 2009 | 1 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 59 | 0 | 59 | 0 | 59 | 59 | 0 | 59 | 0 | 59 | 0 | 59 | 0 | 59 | 0 | 59 | 0 | **59** |
| | Left-Through | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Through | 114 | 0 | **205** | 0 | 114 | **205** | 0 | 114 | 0 | **205** | 0 | 114 | 0 | **205** | 0 | 114 | 0 | 205 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 91 | 0 | 0 | 0 | 91 | 0 | 0 | 91 | 0 | 0 | 0 | 91 | 0 | 0 | 0 | 91 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| CRITICAL VOLUMES | | *North-South:* | | 486 | *North-South:* | | 492 | *North-South:* | | | 515 | *North-South:* | | | 518 | *North-South:* | | | 527 |
| | | *East-West:* | | 1212 | *East-West:* | | 1237 | *East-West:* | | | 1292 | *East-West:* | | | 1317 | *East-West:* | | | 1171 |
| | | *SUM:* | | 1698 | *SUM:* | | 1729 | *SUM:* | | | 1807 | *SUM:* | | | 1835 | *SUM:* | | | 1698 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 1.235 | | | 1.257 | | | | 1.314 | | | | 1.335 | | | | 1.192 |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 1.135 | | | 1.157 | | | | 1.214 | | | | 1.235 | | | | 1.092 |
| LEVEL OF SERVICE (LOS): | | | | F | | | F | | | | F | | | | F | | | | F |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.021 | *Δv/c* after mitigation: | -0.122 |
| Significant impacted? | YES | Fully mitigated? | YES |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | East-West Street: | O'Farrell St | Projection Year: | 2042 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 12 | 1 | **12** | 0 | 12 | **12** | 0 | 12 | 1 | **12** | 0 | 12 | 1 | **12** | 0 | 12 | 1 | **12** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1950 | 3 | 650 | 24 | 1974 | 658 | 117 | 2067 | 3 | 689 | 24 | 2091 | 3 | 697 | 0 | 2091 | 3 | 697 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 2193 | 2 | **737** | 53 | 2246 | **755** | 177 | 2370 | 2 | **796** | 53 | 2423 | 2 | **814** | 0 | 2423 | 2 | **814** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 19 | 0 | 0 | 0 | 19 | 0 | 0 | 19 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 19 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 79 | 0 | 79 | 0 | 79 | 79 | 0 | 79 | 0 | 79 | 0 | 79 | 0 | 79 | 0 | 79 | 0 | 79 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 11 | 0 | **90** | 0 | 11 | **90** | 0 | 11 | 0 | **90** | 0 | 11 | 0 | **90** | 0 | 11 | 0 | **90** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| WESTBOUND | Left | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 749 | *North-South:* | | 767 | *North-South:* | | | 808 | *North-South:* | | | 826 | *North-South:* | | | 826 |
| | | *East-West:* | | 90 | *East-West:* | | 90 | *East-West:* | | | 90 | *East-West:* | | | 90 | *East-West:* | | | 90 |
| | | *SUM:* | | 839 | *SUM:* | | 857 | *SUM:* | | | 898 | *SUM:* | | | 916 | *SUM:* | | | 916 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.559 | | | 0.571 | | | | 0.599 | | | | 0.611 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.459 | | | 0.471 | | | | 0.499 | | | | 0.511 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.012 | Δ*v/c* after mitigation: | -0.599 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | East-West Street: | 1st St | Projection Year: | 2042 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | 3 | | | | 3 | | | | | 4 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 50 | 1 | **50** | 0 | 50 | **50** | 0 | 50 | 1 | **50** | 0 | 50 | 1 | **50** | 0 | 50 | 1 | **50** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1821 | 2 | 609 | 24 | 1845 | 617 | 28 | 1849 | 2 | 620 | 24 | 1873 | 2 | 628 | 0 | 1873 | 2 | 628 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 6 | 0 | 0 | 0 | 6 | 0 | 4 | 10 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 10 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 22 | 1 | 22 | 0 | 22 | 22 | 96 | 118 | 1 | 118 | 0 | 118 | 1 | 118 | 0 | 118 | 1 | 118 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 2110 | 2 | **750** | 53 | 2163 | **767** | 80 | 2190 | 2 | **776** | 53 | 2243 | 2 | **794** | 0 | 2243 | 3 | **748** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 0 | |
| | Right | 139 | 0 | 0 | 0 | 139 | 0 | 0 | 139 | 0 | 0 | 0 | 139 | 0 | 0 | 0 | 139 | 1 | 108 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 62 | 1 | 62 | 0 | 62 | 62 | 0 | 62 | 1 | 62 | 0 | 62 | 1 | 62 | 0 | 62 | 1 | 62 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 2 | 0 | **64** | 0 | 2 | **64** | 18 | 20 | 0 | **82** | 0 | 20 | 0 | **82** | 0 | 20 | 0 | **82** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 62 | 0 | 0 | 0 | 62 | 0 | 0 | 62 | 0 | 0 | 0 | 62 | 0 | 0 | 0 | 62 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 3 | 0 | 3 | 0 | 3 | 3 | 4 | 7 | 0 | 7 | 0 | 7 | 0 | 7 | 0 | 7 | 0 | 7 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 26 | 0 | **62** | 0 | 26 | **62** | 17 | 43 | 0 | **171** | 0 | 43 | 0 | **171** | 0 | 43 | 0 | **171** |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 33 | 0 | 0 | 0 | 33 | 0 | 88 | 121 | 0 | 0 | 0 | 121 | 0 | 0 | 0 | 121 | 0 | 0 |
| | Left-Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 800 | *North-South:* | | 817 | *North-South:* | | | 826 | *North-South:* | | | 844 | *North-South:* | | | 798 |
| | | *East-West:* | | 126 | *East-West:* | | 126 | *East-West:* | | | 253 | *East-West:* | | | 253 | *East-West:* | | | 253 |
| | | *SUM:* | | 926 | *SUM:* | | 943 | *SUM:* | | | 1079 | *SUM:* | | | 1097 | *SUM:* | | | 1051 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.650 | | | 0.662 | | | | 0.757 | | | | 0.770 | | | | 0.764 |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.550 | | | 0.562 | | | | 0.657 | | | | 0.670 | | | | 0.664 |
| | LEVEL OF SERVICE (LOS): | | | A | | | A | | | | B | | | | B | | | | B |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.013 | Δ*v/c* after mitigation: | 0.007 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | East-West Street: | 5th St | Projection Year: | 2042 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | 3 | | | 3 | | | 3 | | | | 3 | | | | 0 | | |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | | |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | 0 | | NB-- 0 SB-- EB-- 0 WB-- | 0 | | NB-- 0 SB-- EB-- 0 WB-- | 0 | | | NB-- 0 SB-- EB-- 0 WB-- | 0 | | | NB-- 0 SB-- EB-- 0 WB-- | 0 | | |
| | ATSAC-1 or ATSAC+ATCS-2? | | 2 | | | 2 | | | 2 | | | | 2 | | | | 2 | | |
| | Override Capacity | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | | |
| NORTHBOUND | Left | 16 | 1 | **16** | 0 | 16 | **16** | 0 | 16 | 1 | **16** | 0 | 16 | 1 | **16** | 0 | 16 | 1 | **16** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1896 | 2 | 633 | 24 | 1920 | 641 | 32 | 1928 | 2 | 643 | 24 | 1952 | 2 | 651 | 0 | 1952 | 2 | 651 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 2149 | 2 | **745** | 53 | 2202 | **763** | 84 | 2233 | 2 | **773** | 53 | 2286 | 2 | **791** | 0 | 2286 | 2 | **791** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 86 | 0 | 0 | 0 | 86 | 0 | 0 | 86 | 0 | 0 | 0 | 86 | 0 | 0 | 0 | 86 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 73 | 1 | **73** | 0 | 73 | **73** | 0 | 73 | 1 | **73** | 0 | 73 | 1 | **73** | 0 | 73 | 1 | **73** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 23 | 1 | 15 | 0 | 23 | 15 | 0 | 23 | 1 | 15 | 0 | 23 | 1 | 15 | 0 | 23 | 1 | 15 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| | Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Right | 19 | 1 | **19** | 0 | 19 | **19** | 0 | 19 | 1 | **19** | 0 | 19 | 1 | **19** | 0 | 19 | 1 | **19** |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | 761 | | *North-South:* | 779 | | *North-South:* | | | 789 | *North-South:* | | | 807 | *North-South:* | | | 807 |
| | | *East-West:* | 92 | | *East-West:* | 92 | | *East-West:* | | | 92 | *East-West:* | | | 92 | *East-West:* | | | 92 |
| | | *SUM:* | 853 | | *SUM:* | 871 | | *SUM:* | | | 881 | *SUM:* | | | 899 | *SUM:* | | | 899 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | 0.599 | | | 0.611 | | | | | 0.618 | | | | 0.631 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | **0.499** | | | **0.511** | | | | | **0.518** | | | | **0.531** | | | | **-0.100** |
| | LEVEL OF SERVICE (LOS): | | **A** | | | **A** | | | | | **A** | | | | **A** | | | | **A** |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.013 | Δ*v/c* after mitigation: | -0.618 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Bl | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | East-West Street: | 6th St | Projection Year: | 2042 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 4 | | | 4 | | | 4 | | | | 4 | | | | | 4 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 3 SB-- | | 0 | NB-- 3 SB-- | | 0 | NB-- 3 SB-- | | | 0 | NB-- 3 SB-- | | | 0 | NB-- 0 SB-- | | | 0 |
| | | EB-- 0 WB-- | | 3 | EB-- 0 WB-- | | 3 | EB-- 0 WB-- | | | 3 | EB-- 0 WB-- | | | 3 | EB-- 0 WB-- | | | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| NORTHBOUND | Left | 81 | 1 | **81** | 0 | 81 | **81** | 0 | 81 | 1 | **81** | 0 | 81 | 1 | **81** | 0 | 81 | 1 | **81** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 2218 | 2 | 739 | 24 | 2242 | 747 | 32 | 2250 | 2 | 750 | 24 | 2274 | 2 | 758 | 0 | 2274 | 2 | 758 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 2306 | 2 | **812** | 53 | 2359 | **829** | 84 | 2390 | 2 | **840** | 53 | 2443 | 2 | **857** | 0 | 2443 | 3 | **814** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 0 | |
| | Right | 129 | 0 | 0 | 0 | 129 | 0 | 0 | 129 | 0 | 0 | 0 | 129 | 0 | 0 | 0 | 129 | 1 | 40 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 178 | 1 | **178** | 0 | 178 | **178** | 0 | 178 | 1 | **178** | 0 | 178 | 1 | **178** | 0 | 178 | 1 | **178** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | 76 | 0 | 0 | 76 | 0 | 0 | 0 | 76 | 0 | 0 | 0 | 76 | 0 | 0 | 0 | 76 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 76 | 0 | 0 | 0 | 76 | 0 | 0 | 76 | 0 | 0 | 0 | 76 | 0 | 0 | 0 | 76 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 0 | 0 | **0** | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 893 | *North-South:* | | 910 | *North-South:* | | | 921 | *North-South:* | | | 938 | *North-South:* | | | 895 |
| | | *East-West:* | | 178 | *East-West:* | | 178 | *East-West:* | | | 178 | *East-West:* | | | 178 | *East-West:* | | | 178 |
| | | *SUM:* | | 1071 | *SUM:* | | 1088 | *SUM:* | | | 1099 | *SUM:* | | | 1116 | *SUM:* | | | 1073 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.779 | | | 0.791 | | | | 0.799 | | | | 0.812 | | | | 0.780 |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | **0.679** | | | **0.691** | | | | **0.699** | | | | **0.712** | | | | **0.680** |
| | LEVEL OF SERVICE (LOS): | | | **B** | | | **B** | | | | **B** | | | | **C** | | | | **B** |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.013 | Δ*v/c* after mitigation: | -0.019 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17A | East-West Street: | 7th St | Projection Year: | 2042 | Peak Hour: | SAT | Reviewed by: | | Project: | CD1 2042 CB |

| | | YEAR 2042 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 3 | | | 3 | | | | 3 | | | | 3 | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | 0 | NB-- 0 SB-- | | | 0 | NB-- 0 SB-- | | | 0 | NB-- 0 SB-- | | | 3 |
| | | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | 0 | EB-- 3 WB-- | | | 0 | EB-- 3 WB-- | | | 0 | EB-- 0 WB-- | | | 0 |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | | 2 | | | | 2 | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| NORTHBOUND | Left | 353 | 1 | **353** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 2,285 | 3 | 762 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 2,136 | 2 | **785** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 1 | | | | | | | | | | | | | | | | |
| | Right | 219 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 259 | 2 | 142 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 501 | 1 | **148** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | **0** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| | CRITICAL VOLUMES | *North-South:* | | 1138 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 148 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 1286 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.902 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | 0.802 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| | LEVEL OF SERVICE (LOS): | | | D | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | *Δv/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17A | East-West Street: | 7th St | Projection Year: | 2042 | Peak Hour: | SAT | Reviewed by: | | Project: | 2042 WITH PROJECT |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 3 | | | 3 | | | 3 | | | 3 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 0 | NB-- 0 | SB-- | 3 |
| | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 3 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | YEAR 2042 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 355 | 1 | **355** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 2,309 | 3 | 770 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 2,189 | 2 | **803** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 1 | | | | | | | | | | | | | | | | |
| | Right | 219 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 259 | 2 | 142 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 506 | 1 | **151** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | **0** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | *North-South:* | | 1158 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 151 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 1309 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.919 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.819 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | D | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17B | East-West Street: | Sampson Way | | Projection Year: | 2042 | Peak Hour: | SAT | Reviewed by: | | Project: | CD1 2042 CB |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| | MOVEMENT | YEAR 2042 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 67 | 1 | **67** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 1,310 | 2 | 655 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 1,319 | 2 | **660** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 1,318 | 1 | 588 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 1,328 | 2 | **730** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 258 | 1 | 225 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | *North-South:* | | 727 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 730 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 1457 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.971 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.871 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | D | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Worksheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Harbor Blvd | Year of Count: | 2011 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17B | East-West Street: | Sampson Way | Projection Year: | 2042 | Peak Hour: | SAT | Reviewed by: | | Project: | 2042 WITH PROJECT |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Phases | | | 2 | | | 2 | | | 2 | | | 2 | | | 0 |
| Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |
| Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 | NB-- 0 | SB-- | 3 |
| | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 | EB-- 0 | WB-- | 0 |
| ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | 2 | | | 2 |
| Override Capacity | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 |

| MOVEMENT | | YEAR 2042 CONDITIONS | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| NORTHBOUND | Left | 67 | 1 | **67** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 1,321 | 2 | 661 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| SOUTHBOUND | Left | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 1,343 | 2 | **672** | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 1,352 | 1 | 613 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| EASTBOUND | Left | 1,343 | 2 | **739** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 258 | 1 | 225 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| WESTBOUND | Left | 0 | 0 | 0 | | | **0** | | | | **0** | | | | **0** | | | | **0** |
| | Left-Through | | 0 | | | | | | | | | | | | | | | | |
| | Through | 0 | 0 | **0** | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Right | 0 | 0 | 0 | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| | Left-Through-Right | | 0 | | | | | | | | | | | | | | | | |
| | Left-Right | | 0 | | | | | | | | | | | | | | | | |
| CRITICAL VOLUMES | | *North-South:* | | 739 | *North-South:* | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 | *North-South:* | | | 0 |
| | | *East-West:* | | 739 | *East-West:* | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 | *East-West:* | | | 0 |
| | | *SUM:* | | 1478 | *SUM:* | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 | *SUM:* | | | 0 |
| VOLUME/CAPACITY *(V/C)* RATIO: | | | | 0.985 | | | 0.000 | | | | 0.000 | | | | 0.000 | | | | |
| *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | | 0.885 | | | -0.100 | | | | -0.100 | | | | -0.100 | | | | -0.100 |
| LEVEL OF SERVICE (LOS): | | | | D | | | A | | | | A | | | | A | | | | A |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.000 | Δ*v/c* after mitigation: | 0.000 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# Level of Service Workheet
## (Circular 212 Method)

| I/S #: | North-South Street: | Miner St | Year of Count: | 2042 | Ambient Growth: (%): | 0 | Conducted by: | | Date: | |
|---|---|---|---|---|---|---|---|---|---|---|
| 18 | East-West Street: | 22nd St | Projection Year: | 2042 | Peak Hour: | WK | Reviewed by: | | Project: | |

| | | EXISTING CONDITION | | | EXISTING PLUS PROJECT | | | FUTURE CONDITION W/O PROJECT | | | | FUTURE CONDITION W/ PROJECT | | | | FUTURE W/ PROJECT W/ MITIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOVEMENT | Volume | No. of Lanes | Lane Volume | Project Traffic | Total Volume | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume | Added Volume | Total Volume | No. of Lanes | Lane Volume |
| | No. of Phases | | | 4 | | | 4 | | | 4 | | | | 4 | | | | | 0 |
| | Opposed Ø'ing: N/S-1, E/W-2 or Both-3? | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| | Right Turns: FREE-1, NRTOR-2 or OLA-3? | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | | NB-- 0 SB-- EB-- 0 WB-- | | 0 | |
| | ATSAC-1 or ATSAC+ATCS-2? | | | 2 | | | 2 | | | 2 | | | | 2 | | | | | 2 |
| | Override Capacity | | | 0 | | | 0 | | | 0 | | | | 0 | | | | | 0 |
| NORTHBOUND | Left | 232 | 1 | **232** | 0 | 232 | **232** | 0 | 232 | 1 | **232** | 0 | 232 | 1 | **232** | 0 | 232 | 1 | **232** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 912 | 1 | 507 | 0 | 912 | 507 | 0 | 912 | 1 | 507 | 0 | 912 | 1 | 507 | 0 | 912 | 1 | 507 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 102 | 0 | 0 | 0 | 102 | 0 | 0 | 102 | 0 | 0 | 0 | 102 | 0 | 0 | 0 | 102 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| SOUTHBOUND | Left | 31 | 1 | 31 | 37 | 68 | 68 | 0 | 31 | 1 | 31 | 37 | 68 | 1 | 68 | 0 | 68 | 1 | 68 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 1044 | 1 | **651** | 0 | 1044 | **651** | 0 | 1044 | 1 | **652** | 0 | 1044 | 1 | **652** | 0 | 1044 | 1 | **652** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 257 | 0 | 0 | 0 | 257 | 0 | 3 | 260 | 0 | 0 | 0 | 260 | 0 | 0 | 0 | 260 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| EASTBOUND | Left | 188 | 1 | **188** | 0 | 188 | **188** | 4 | 192 | 1 | **192** | 0 | 192 | 1 | **192** | 0 | 192 | 1 | **192** |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 91 | 1 | 91 | 16 | 107 | 107 | 0 | 91 | 1 | 91 | 16 | 107 | 1 | 107 | 0 | 107 | 1 | 107 |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 140 | 0 | 24 | 0 | 140 | 24 | 0 | 140 | 0 | 24 | 0 | 140 | 0 | 24 | 0 | 140 | 0 | 24 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| WESTBOUND | Left | 95 | 1 | 95 | 0 | 95 | 95 | 0 | 95 | 1 | 95 | 0 | 95 | 1 | 95 | 0 | 95 | 1 | 95 |
| | Left-Through | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Through | 86 | 1 | **56** | 7 | 93 | **68** | 0 | 86 | 1 | **56** | 7 | 93 | 1 | **68** | 0 | 93 | 1 | **68** |
| | Through-Right | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | |
| | Right | 25 | 0 | 0 | 17 | 42 | 0 | 0 | 25 | 0 | 0 | 17 | 42 | 0 | 0 | 0 | 42 | 0 | 0 |
| | Left-Through-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | Left-Right | | 0 | | | | | | | 0 | | | | 0 | | | | 0 | |
| | CRITICAL VOLUMES | *North-South:* | | 883 | *North-South:* | | 883 | *North-South:* | | | 884 | *North-South:* | | | 884 | *North-South:* | | | 884 |
| | | *East-West:* | | 244 | *East-West:* | | 256 | *East-West:* | | | 248 | *East-West:* | | | 260 | *East-West:* | | | 260 |
| | | *SUM:* | | 1127 | *SUM:* | | 1139 | *SUM:* | | | 1132 | *SUM:* | | | 1144 | *SUM:* | | | 1144 |
| | VOLUME/CAPACITY *(V/C)* RATIO: | | | 0.820 | | | 0.828 | | | | 0.823 | | | | 0.832 | | | | |
| | *V/C* LESS ATSAC/ATCS ADJUSTMENT: | | | **0.720** | | | **0.728** | | | | **0.723** | | | | **0.732** | | | | **-0.100** |
| | LEVEL OF SERVICE (LOS): | | | **C** | | | **C** | | | | **C** | | | | **C** | | | | **A** |

**PROJECT IMPACT**

| | | | |
|---|---|---|---|
| Change in *v/c* due to project: | 0.009 | Δ*v/c* after mitigation: | -0.823 |
| Significant impacted? | NO | Fully mitigated? | N/A |

# APPENDIX D:
# PROJECT ELEMENTS

**TABLE 1**
**PROJECT ELEMENTS**

| Project Element | Area (sf) |
|---|---|
| ***Phase I (2012 – 2016)*** | |
| *Existing SCMI Facility at Fish Harbor (Terminal Island, Berth 260)* | |
| Site Restoration (Demolition of existing building, warehouse, shop storage, and floating docks) | 57,500 sf |
| *Berths 56 and 57 (SCMI Facility)* | |
| Conversion of existing 46,500-sf transit shed into SCMI research facility | 46,500 sf |
| with approx. 3,600-sf addition (including demolition of existing addition): | 3,600 sf |
| • Faculty office space | 758 sf |
| • Teaching Laboratories | 3,600 sf |
| • Research Laboratories | 13,849 sf |
| • Lab Support Space | 2,300sf |
| • Administrative Suite | 3,381sf |
| • Staff Support Facilities (toilets, showers and lockers for staff) | 1,964 sf |
| • Building Support Facilities (machine shop, storeroom, chemical storage, hazardous waste, etc) | 6,870 sf |
| • Outdoor Teaching/Outreach classroom | 1,997 sf |
| • Outside Storage Space | 6,150 sf |
| • Hallways, Walkways | 5,634 sf |
| Construct Learning Center at Berth 56 (150-seat lecture hall/auditorium, classrooms, public interpretive center, museum with small aquaria) | 11,500 sf |
| **Berths 56 – 57 Subtotal:** | **61,600 sf** |
| *Parking Facilities* | |
| Surface parking adjacent to Berth 56 | 15 spaces |
| *Other Phase I Improvements* | |
| Construction of floating docks for 12 vessel slips adjacent to Berth 57 | 18,500 sf (12 vessel slips) |
| Circulating Seawater System for Berths 57– 60 | new utility |
| Wharf retrofit/repairs for Berths 57–60 | |
| Construction of a public plaza at Berth 57 | 7500 sf |
| **Total New Square Footage Under Phase I** | **80,100 sf** |
| (Does not include removal of existing SCMI facility at Berth 260) | |
| ***Phase II (2013 – 2024)*** | |
| *Berth 58—60* | |
| Conversion Berth 58 Transit Shed space into SCMI and SCMI Partners research facility | 60,000 sf |
| Conversion Berths 59 – 60 Transit Shed space into a marine science business park/incubator space | 70,000 sf |
| Creation of temporary NOAA space within Berth 59-60 Transit Shed[a] | 50,000 sf |
| Provision of temporary berthing space for 2 to 3 NOAA research vessels at Berths 59-60[a] | |
| Development of waterfront café | 280 sf |
| Designation of public plaza/viewing platform at Berth 60 | 4000 sf |
| Relocation of water taxi service facilities to within B.60 vicinity | |
| *Berths 70-71 (Westways)* | |
| Construction of NOAA administration and research facility[b] | 50,000 sf |
| Wharf maintenance (remove catwalks) | |
| Installation of Wave Tank, enclosed within its own building | 80,000 sf (36,000 cy) |
| **Berths 70-71 Subtotal** | **130, 000 sf** |

**TABLE 1**
**PROJECT ELEMENTS**

| Project Element | Area (sf) |
|---|---|
| *Signal Street Improvements*[c] | |
| • Repaving and restriping | |
| • Diagonal parking | 195 spaces |
| • Removal of existing heavy rail line from street | 8,000 square feet of disturbance |
| **Total New Square Footage Under Phase II** | **314,280 sf** |
| **Total New Square Footage for Proposed Project** | **394,380 sf** |
| *Parking Facilities* | |
| • Berth 56 Surface Parking | 15 spaces |
| • Minor Street Diagonal Parking | 195 spaces |
| • Sampson Way and 22nd Street Existing Parking Lot | 409 spaces |
| **Total Parking Spaces** | 619 spaces |

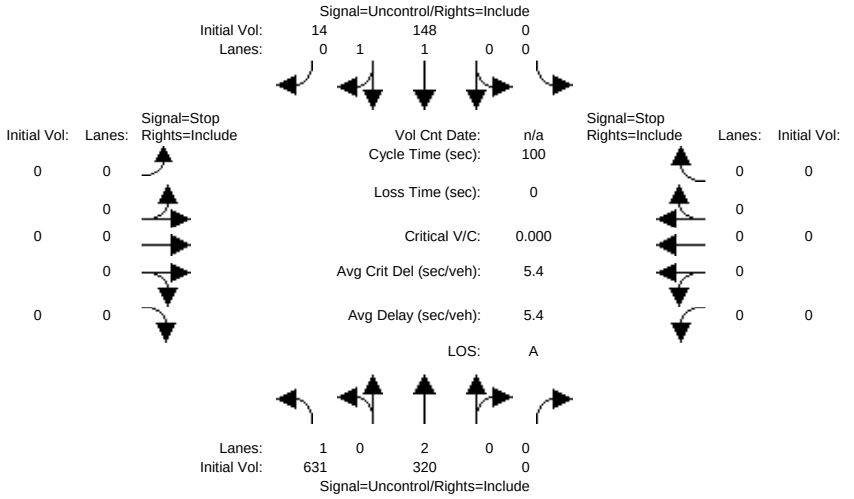
[a] NOAA facilities, including office and research space within Berths 58-60 Transit Shed and berthing space at Berths 58-60 to be relocated to Berths 70-71 when remediation of those berths has been completed.
[b] Demolition of the Westways tanks, piping and related structures at Berths 70-71 has been analyzed under the San Pedro Waterfront EIS/EIR and is not considered a component of the proposed Project.
[c] Impacts associated with extension of Red Car Line construction and expansion of waterfront promenade were considered under the San Pedro Waterfront EIR and are not considered components of the proposed Project.

SOURCE: Port of Los Angeles, City Dock Marine Research Center Project Elements and Phasing, Draft September 15, 2010.

# APPENDIX E:
# UNSIGNALIZED LEVEL OF SERVICE WORKSHEETS

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
EXAM

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 631 | 320 | 0 | 0 | 148 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 631 | 320 | 0 | 0 | 148 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 631 | 320 | 0 | 0 | 148 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 631 | 320 | 0 | 0 | 148 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 631 | 320 | 0 | 0 | 148 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 162 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | 1429 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | 1429 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | 0.44 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | 2.3 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | 9.5 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | A | * | * | * | * | * | * | * | * | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | * | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 631 320 | 0 | | 0 148 | 14 | | 0 0 | 0 | | 0 0 | 0 | |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 631 320 | 0 | | 0 148 | 14 | | 0 0 | 0 | | 0 0 | 0 | |

Major Street Volume: 1113
Minor Approach Volume: 0
Minor Approach Volume Threshold: 248

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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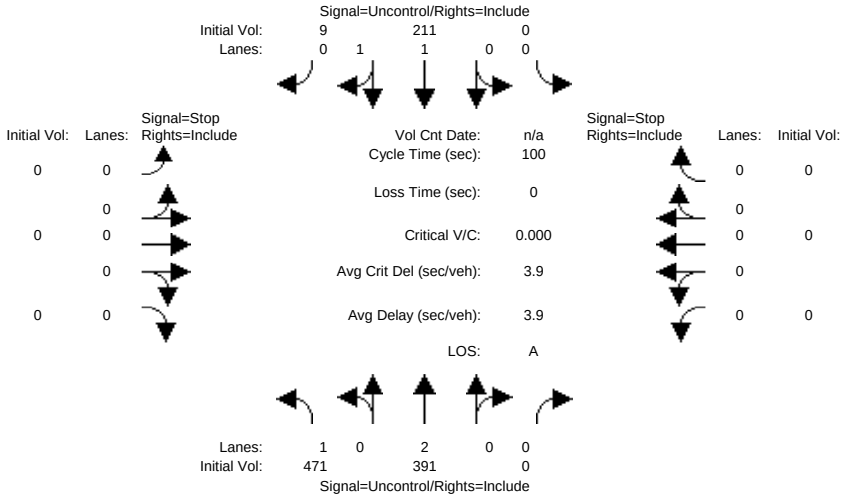
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
EX PM

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | | L | - T | - R | | L | - T | - R | | L | - T | - R | |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 471 | 391 | 0 | | 0 | 211 | 9 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 471 | 391 | 0 | | 0 | 211 | 9 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Added Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| PasserByVol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Initial Fut: | 471 | 391 | 0 | | 0 | 211 | 9 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 471 | 391 | 0 | | 0 | 211 | 9 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| FinalVolume: | 471 | 391 | 0 | | 0 | 211 | 9 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 220 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Potent Cap.: | 1361 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Move Cap.: | 1361 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Volume/Cap: | 0.35 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 1.6 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Control Del: | 9.0 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| LOS by Move: | A | * | * | * | * | * | * | * | * | * | * | * | | | | |
| Movement: | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shared LOS: | * | * | * | | * | * | * | | * | * | * | | * | * | * | |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | xxxxxx | | | | xxxxxx | | | |
| ApproachLOS: | * | | | | * | | | | * | | | | * | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 471 | 391 | 0 | 0 | 211 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 471 | 391 | 0 | 0 | 211 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |

Major Street Volume: 1082
Minor Approach Volume: 0
Minor Approach Volume Threshold: 258

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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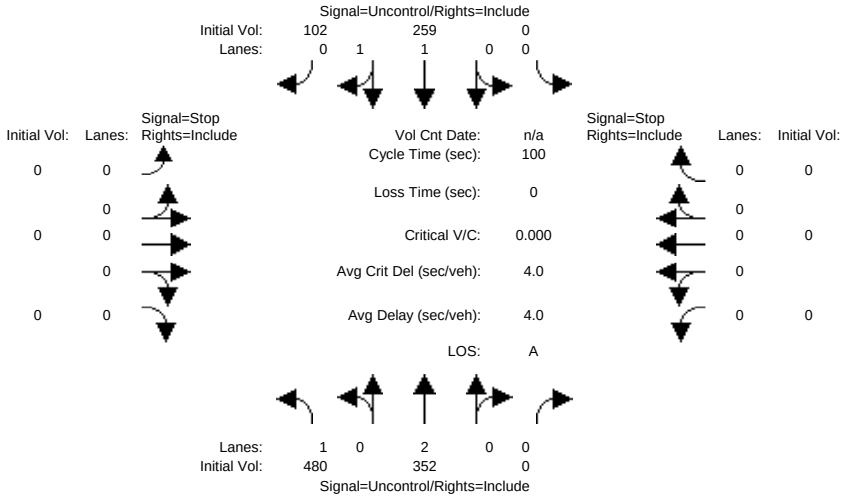
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
EXSAT

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 480 | 352 | 0 | 0 | 259 | 102 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 480 | 352 | 0 | 0 | 259 | 102 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 480 | 352 | 0 | 0 | 259 | 102 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 480 | 352 | 0 | 0 | 259 | 102 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 480 | 352 | 0 | 0 | 259 | 102 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 361 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Potent Cap.: | 1209 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Move Cap.: | 1209 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Volume/Cap: | 0.40 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 1.9 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Control Del: | 9.9 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| LOS by Move: | A | * | * | * | * | * | * | * | * | * | * | * | | | | |
| Movement: | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shared LOS: | * | * | * | | * | * | * | | * | * | * | | * | * | * | |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | xxxxxx | | | | xxxxxx | | | |
| ApproachLOS: | * | | | | * | | | | * | | | | * | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 480 352 | 0 | | 0 259 | 102 | | 0 0 | 0 | | 0 0 | 0 | |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 480 352 | 0 | | 0 259 | 102 | | 0 0 | 0 | | 0 0 | 0 | |

Major Street Volume: 1193
Minor Approach Volume: 0
Minor Approach Volume Threshold: 224

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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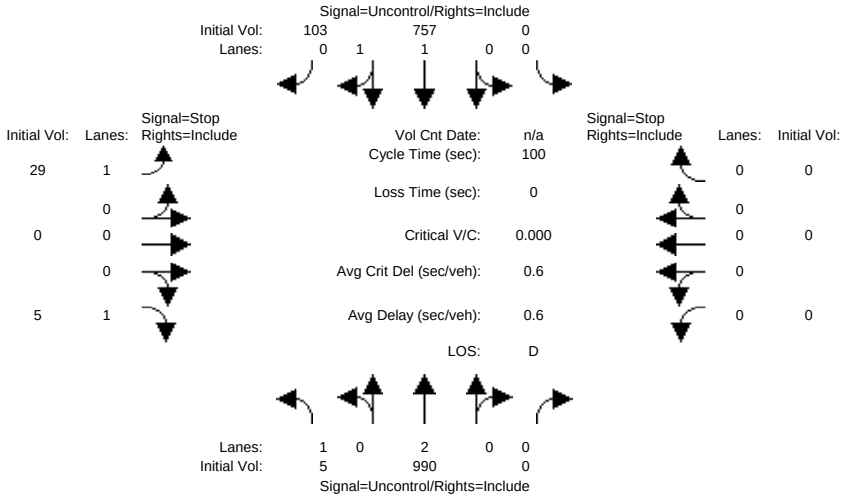
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
EXAM

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 5 | 990 | 0 | 0 | 757 | 103 | 29 | 0 | 5 | 0 | 0 | 0 | | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Initial Bse: | 5 | 990 | 0 | 0 | 757 | 103 | 29 | 0 | 5 | 0 | 0 | 0 | | | | |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Initial Fut: | 5 | 990 | 0 | 0 | 757 | 103 | 29 | 0 | 5 | 0 | 0 | 0 | | | | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Volume: | 5 | 990 | 0 | 0 | 757 | 103 | 29 | 0 | 5 | 0 | 0 | 0 | | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| FinalVolume: | 5 | 990 | 0 | 0 | 757 | 103 | 29 | 0 | 5 | 0 | 0 | 0 | | | | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 6.8 | xxxx | 6.9 | xxxxx | xxxx | xxxxx | | | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 3.5 | xxxx | 3.3 | xxxxx | xxxx | xxxxx | | | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 860 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1314 | xxxx | 430 | xxxx | xxxx | xxxxx | | | | |
| Potent Cap.: | 790 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 152 | xxxx | 579 | xxxx | xxxx | xxxxx | | | | |
| Move Cap.: | 790 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 152 | xxxx | 579 | xxxx | xxxx | xxxxx | | | | |
| Volume/Cap: | 0.01 | xxxx | xxxx | xxxx | xxxx | xxxx | 0.19 | xxxx | 0.01 | xxxx | xxxx | xxxx | | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 0.0 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.7 | xxxx | 0.0 | xxxx | xxxx | xxxxx | | | | |
| Control Del: | 9.6 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 34.3 | xxxx | 11.3 | xxxxx | xxxx | xxxxx | | | | |
| LOS by Move: | A | * | * | * | * | * | D | * | B | * | * | * | | | | |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | | | | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * | | | | |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 30.9 | | | xxxxxx | | | | | | |
| ApproachLOS: | * | | | * | | | D | | | * | | | | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 1 0 0 | 0 | 1 | 0 0 0 | 0 | 0 |
| Initial Vol: | 5 | 990 | 0 | 0 | 757 | 103 | 29 | 0 | 5 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 30.9 | | | xxxxxx | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=34]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1889]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

---

SIGNAL WARRANT DISCLAIMER
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## Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 1 0 0 | 0 | 1 | 0 0 0 | 0 | 0 |
| Initial Vol: | 5 | 990 | 0 | 0 | 757 | 103 | 29 | 0 | 5 | 0 | 0 | 0 |

Major Street Volume: 1855
Minor Approach Volume: 34
Minor Approach Volume Threshold: 108 [less than minimum of 150]

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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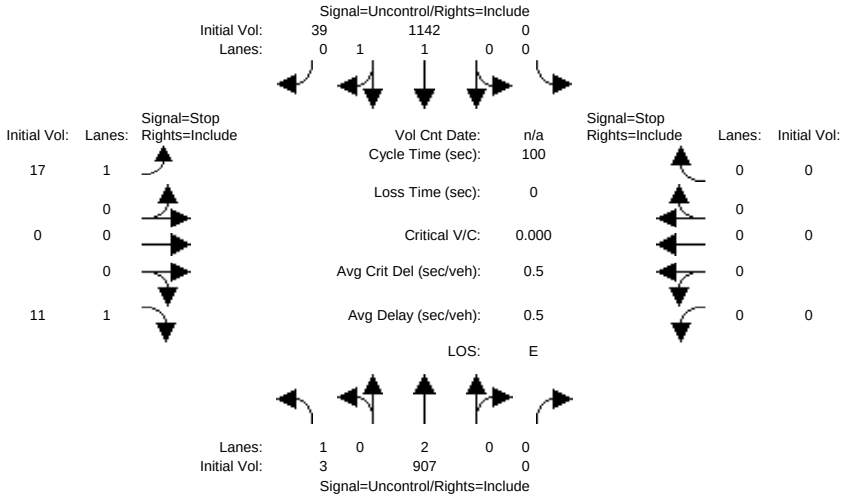
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
EX PM

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 3 | 907 | 0 | 0 | 1142 | 39 | 17 | 0 | 11 | 0 | 0 | 0 | | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Initial Bse: | 3 | 907 | 0 | 0 | 1142 | 39 | 17 | 0 | 11 | 0 | 0 | 0 | | | | |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Initial Fut: | 3 | 907 | 0 | 0 | 1142 | 39 | 17 | 0 | 11 | 0 | 0 | 0 | | | | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Volume: | 3 | 907 | 0 | 0 | 1142 | 39 | 17 | 0 | 11 | 0 | 0 | 0 | | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| FinalVolume: | 3 | 907 | 0 | 0 | 1142 | 39 | 17 | 0 | 11 | 0 | 0 | 0 | | | | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 6.8 | xxxx | 6.9 | xxxxx | xxxx | xxxxx | | | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 3.5 | xxxx | 3.3 | xxxxx | xxxx | xxxxx | | | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 1181 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1621 | xxxx | 591 | xxxx | xxxx | xxxxx | | | | |
| Potent Cap.: | 599 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 96 | xxxx | 456 | xxxx | xxxx | xxxxx | | | | |
| Move Cap.: | 599 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 95 | xxxx | 456 | xxxx | xxxx | xxxxx | | | | |
| Volume/Cap: | 0.01 | xxxx | xxxx | xxxx | xxxx | xxxx | 0.18 | xxxx | 0.02 | xxxx | xxxx | xxxx | | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 0.0 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.6 | xxxx | 0.1 | xxxx | xxxx | xxxxx | | | | |
| Control Del: | 11.0 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 50.8 | xxxx | 13.1 | xxxxx | xxxx | xxxxx | | | | |
| LOS by Move: | B | * | * | * | * | * | F | * | B | * | * | * | | | | |
| Movement: | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shared LOS: | * | * | * | | * | * | * | | * | * | * | | * | * | * | |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | 36.0 | | | | xxxxxx | | | |
| ApproachLOS: | * | | | | * | | | | E | | | | * | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 1 0 0 | 0 | 1 | 0 0 0 | 0 | 0 |
| Initial Vol: | 3 | 907 | 0 | 0 | 1142 | 39 | 17 | 0 | 11 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 36.0 | | | xxxxxx | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=28]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=2119]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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## Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 1 0 0 | 0 | 1 | 0 0 0 | 0 | 0 |
| Initial Vol: | 3 | 907 | 0 | 0 | 1142 | 39 | 17 | 0 | 11 | 0 | 0 | 0 |

Major Street Volume: 2091
Minor Approach Volume: 28
Minor Approach Volume Threshold: 57 [less than minimum of 150]

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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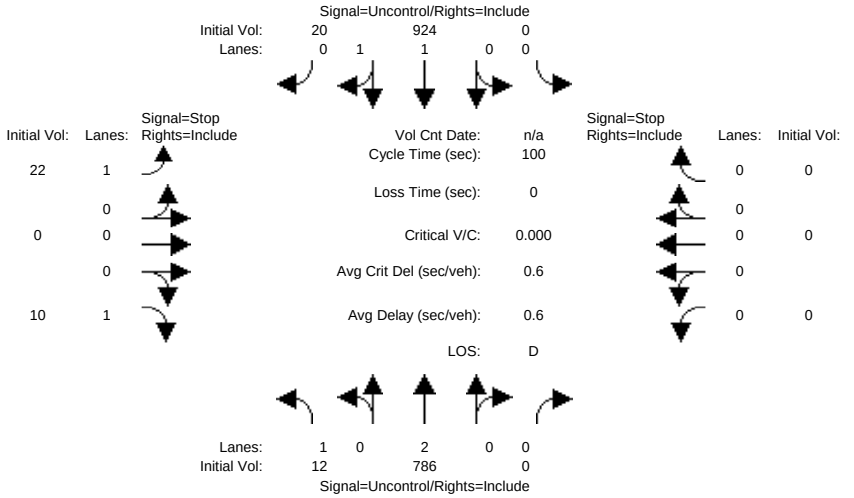
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
EXSAT

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 12 | | 786 | 0 | 0 | | 924 | 20 | 22 | | 0 | 10 | 0 | | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Initial Bse: | 12 | | 786 | 0 | 0 | | 924 | 20 | 22 | | 0 | 10 | 0 | | 0 | 0 |
| Added Vol: | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| PasserByVol: | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| Initial Fut: | 12 | | 786 | 0 | 0 | | 924 | 20 | 22 | | 0 | 10 | 0 | | 0 | 0 |
| User Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| PHF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| PHF Volume: | 12 | | 786 | 0 | 0 | | 924 | 20 | 22 | | 0 | 10 | 0 | | 0 | 0 |
| Reduct Vol: | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| FinalVolume: | 12 | | 786 | 0 | 0 | | 924 | 20 | 22 | | 0 | 10 | 0 | | 0 | 0 |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | 6.8 | xxxx | | 6.9 | xxxxx | xxxx | xxxxx | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | 3.5 | xxxx | | 3.3 | xxxxx | xxxx | xxxxx | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 944 | xxxx | xxxxx | xxxx | xxxx | xxxxx | | 1351 | xxxx | | 472 | xxxx | xxxx | xxxxx | | |
| Potent Cap.: | 735 | xxxx | xxxxx | xxxx | xxxx | xxxxx | | 144 | xxxx | | 544 | xxxx | xxxx | xxxxx | | |
| Move Cap.: | 735 | xxxx | xxxxx | xxxx | xxxx | xxxxx | | 142 | xxxx | | 544 | xxxx | xxxx | xxxxx | | |
| Volume/Cap: | 0.02 | xxxx | xxxx | xxxx | xxxx | xxxx | | 0.15 | xxxx | | 0.02 | xxxx | xxxx | xxxx | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 0.0 | xxxx | xxxxx | xxxx | xxxx | xxxxx | | 0.5 | xxxx | | 0.1 | xxxx | xxxx | xxxxx | | |
| Control Del: | 10.0 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | 34.9 | xxxx | | 11.7 | xxxxx | xxxx | xxxxx | | |
| LOS by Move: | A | * | | * | * | | * | D | * | | B | * | * | | * | |
| Movement: | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shared LOS: | * | * | | * | * | * | | * | * | * | | * | * | * | | * |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | 27.7 | | | | xxxxxx | | | |
| ApproachLOS: | * | | | | * | | | | D | | | | * | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 1 0 0 | 0 | 1 | 0 0 0 | 0 | 0 |
| Initial Vol: | 12 | 786 | 0 | 0 | 924 | 20 | 22 | 0 | 10 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 27.7 | | | xxxxxx | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=32]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1774]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

---

SIGNAL WARRANT DISCLAIMER
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## Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 1 0 0 | 0 | 1 | 0 0 0 | 0 | 0 |
| Initial Vol: | 12 | 786 | 0 | 0 | 924 | 20 | 22 | 0 | 10 | 0 | 0 | 0 |

Major Street Volume: 1742
Minor Approach Volume: 32
Minor Approach Volume Threshold: 135 [less than minimum of 150]

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SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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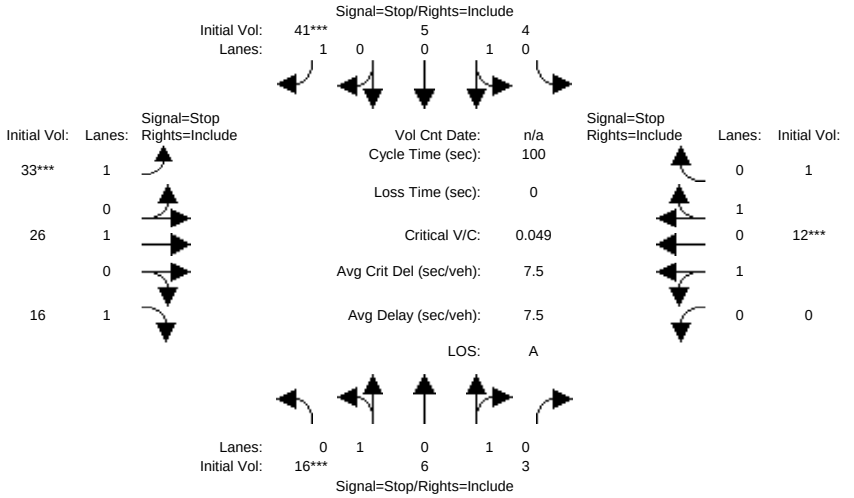
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
EXAM

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 16 | 6 | 3 | 4 | 5 | 41 | 33 | 26 | 16 | 0 | 12 | 1 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 16 | 6 | 3 | 4 | 5 | 41 | 33 | 26 | 16 | 0 | 12 | 1 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 16 | 6 | 3 | 4 | 5 | 41 | 33 | 26 | 16 | 0 | 12 | 1 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 16 | 6 | 3 | 4 | 5 | 41 | 33 | 26 | 16 | 0 | 12 | 1 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 16 | 6 | 3 | 4 | 5 | 41 | 33 | 26 | 16 | 0 | 12 | 1 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 16 | 6 | 3 | 4 | 5 | 41 | 33 | 26 | 16 | 0 | 12 | 1 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.76 | 0.24 | 0.44 | 0.56 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.85 | 0.15 |
| Final Sat.: | 675 | 587 | 185 | 318 | 397 | 875 | 680 | 752 | 880 | 0 | 1394 | 118 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.01 | 0.02 | 0.01 | 0.01 | 0.05 | 0.05 | 0.03 | 0.02 | xxxx | 0.01 | 0.01 |
| Crit Moves: | **** | | | | | **** | **** | | | | **** | |
| Delay/Veh: | 8.1 | 7.3 | 7.3 | 7.7 | 7.7 | 6.9 | 8.2 | 7.6 | 6.8 | 0.0 | 7.4 | 7.4 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.1 | 7.3 | 7.3 | 7.7 | 7.7 | 6.9 | 8.2 | 7.6 | 6.8 | 0.0 | 7.4 | 7.4 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | * | A | A |
| ApproachDel: | 7.8 | | | 7.1 | | | 7.7 | | | 7.4 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 7.8 | | | 7.1 | | | 7.7 | | | 7.4 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 16 | 6 | 3 | 4 | 5 | 41 | 33 | 26 | 16 | 0 | 12 | 1 |

Major Street Volume: 88
Minor Approach Volume: 50
Minor Approach Volume Threshold: 1419

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SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.


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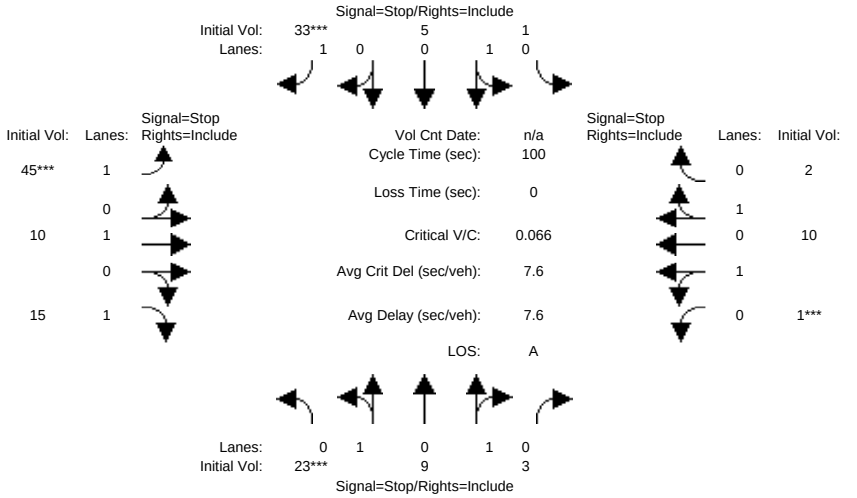
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
EX PM

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 23 | 9 | 3 | 1 | 5 | 33 | 45 | 10 | 15 | 1 | 10 | 2 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 23 | 9 | 3 | 1 | 5 | 33 | 45 | 10 | 15 | 1 | 10 | 2 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 23 | 9 | 3 | 1 | 5 | 33 | 45 | 10 | 15 | 1 | 10 | 2 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 23 | 9 | 3 | 1 | 5 | 33 | 45 | 10 | 15 | 1 | 10 | 2 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 23 | 9 | 3 | 1 | 5 | 33 | 45 | 10 | 15 | 1 | 10 | 2 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 23 | 9 | 3 | 1 | 5 | 33 | 45 | 10 | 15 | 1 | 10 | 2 |
| **Saturation Flow Module:** | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.83 | 0.17 | 0.17 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 | 0.15 | 1.54 | 0.31 |
| Final Sat.: | 678 | 636 | 132 | 122 | 612 | 875 | 680 | 752 | 880 | 113 | 1166 | 241 |
| **Capacity Analysis Module:** | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.01 | 0.02 | 0.01 | 0.01 | 0.04 | 0.07 | 0.01 | 0.02 | 0.01 | 0.01 | 0.01 |
| Crit Moves: | **** | | | | | **** | **** | | | **** | | |
| Delay/Veh: | 8.1 | 7.4 | 7.4 | 7.6 | 7.6 | 6.9 | 8.3 | 7.5 | 6.8 | 7.5 | 7.4 | 7.2 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.1 | 7.4 | 7.4 | 7.6 | 7.6 | 6.9 | 8.3 | 7.5 | 6.8 | 7.5 | 7.4 | 7.2 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | A | A | A |
| ApproachDel: | 7.9 | | | 7.0 | | | 7.8 | | | 7.4 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 7.9 | | | 7.0 | | | 7.8 | | | 7.4 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 23 | 9 | 3 | 1 | 5 | 33 | 45 | 10 | 15 | 1 | 10 | 2 |

Major Street Volume: 83
Minor Approach Volume: 39
Minor Approach Volume Threshold: 1444

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SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.


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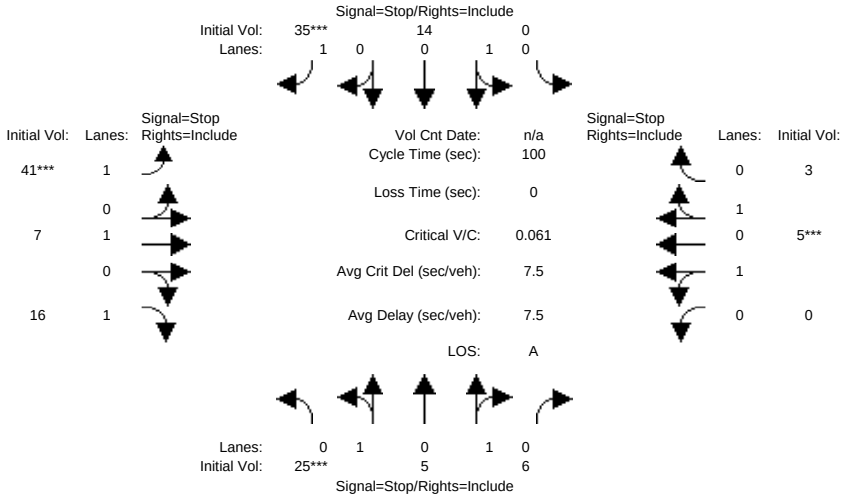
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
EXSAT

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 25 | 5 | 6 | 0 | 14 | 35 | 41 | 7 | 16 | 0 | 5 | 3 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 25 | 5 | 6 | 0 | 14 | 35 | 41 | 7 | 16 | 0 | 5 | 3 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 25 | 5 | 6 | 0 | 14 | 35 | 41 | 7 | 16 | 0 | 5 | 3 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 25 | 5 | 6 | 0 | 14 | 35 | 41 | 7 | 16 | 0 | 5 | 3 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 25 | 5 | 6 | 0 | 14 | 35 | 41 | 7 | 16 | 0 | 5 | 3 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 25 | 5 | 6 | 0 | 14 | 35 | 41 | 7 | 16 | 0 | 5 | 3 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.67 | 0.33 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.25 | 0.75 |
| Final Sat.: | 681 | 527 | 264 | 0 | 754 | 884 | 677 | 748 | 874 | 0 | 953 | 626 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.01 | 0.02 | xxxx | 0.02 | 0.04 | 0.06 | 0.01 | 0.02 | xxxx | 0.01 | 0.00 |
| Crit Moves: | **** | | | | | **** | **** | | | | **** | |
| Delay/Veh: | 8.1 | 7.2 | 7.2 | 0.0 | 7.5 | 6.9 | 8.3 | 7.5 | 6.8 | 0.0 | 7.4 | 6.9 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.1 | 7.2 | 7.2 | 0.0 | 7.5 | 6.9 | 8.3 | 7.5 | 6.8 | 0.0 | 7.4 | 6.9 |
| LOS by Move: | A | A | A | * | A | A | A | A | A | * | A | A |
| ApproachDel: | 7.8 | | | 7.0 | | | 7.8 | | | 7.2 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 7.8 | | | 7.0 | | | 7.8 | | | 7.2 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 25 | 5 | 6 | 0 | 14 | 35 | 41 | 7 | 16 | 0 | 5 | 3 |

Major Street Volume: 85
Minor Approach Volume: 64
Minor Approach Volume Threshold: 1434

---

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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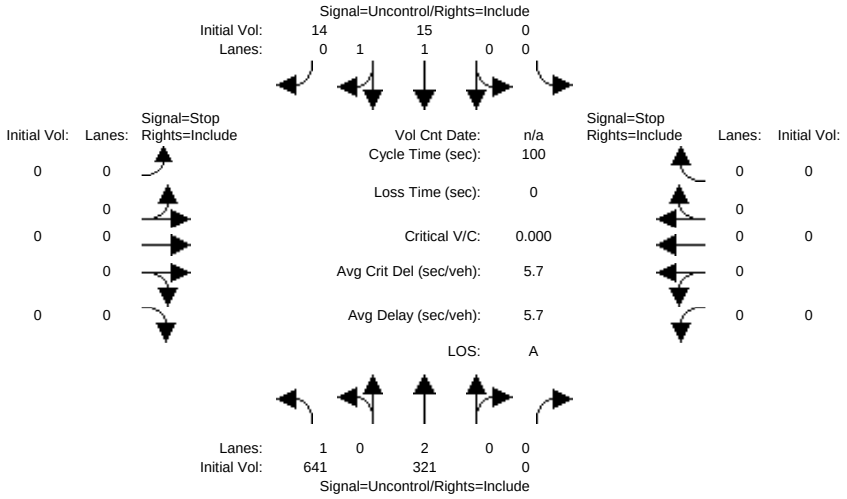
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
EPP1AM

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 641 | 321 | 0 | 0 | 15 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 641 | 321 | 0 | 0 | 15 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 641 | 321 | 0 | 0 | 15 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 641 | 321 | 0 | 0 | 15 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 641 | 321 | 0 | 0 | 15 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 29 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | 1597 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | 1597 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | 0.40 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | 2.0 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | 8.8 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | A | * | * | * | * | * | * | * | * | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | * | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 641 | 321 | 0 | 0 | 15 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 641 | 321 | 0 | 0 | 15 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |

Major Street Volume: 991
Minor Approach Volume: 0
Minor Approach Volume Threshold: 288

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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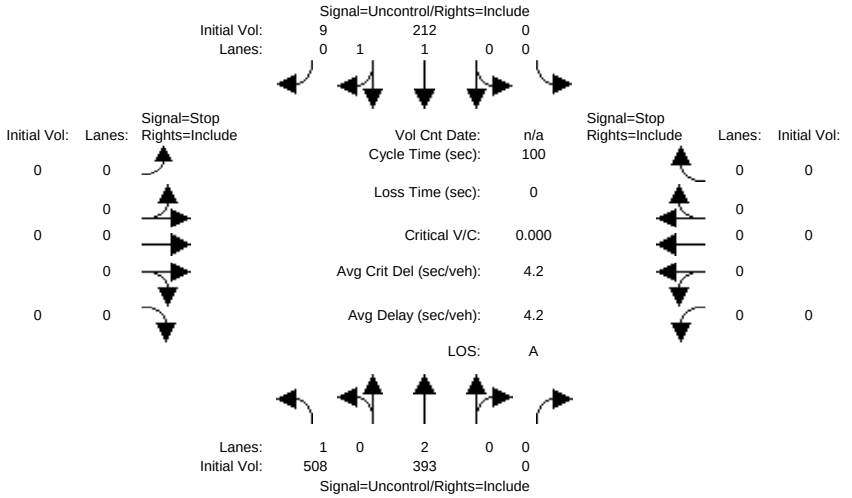
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
EPP1PM

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 508 | 393 | 0 | 0 | 212 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 508 | 393 | 0 | 0 | 212 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 508 | 393 | 0 | 0 | 212 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 508 | 393 | 0 | 0 | 212 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 508 | 393 | 0 | 0 | 212 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 221 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | 1360 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | 1360 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | 0.37 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | 1.8 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | 9.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | A | * | * | * | * | * | * | * | * | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | * | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 508 | 393 | 0 | 0 | 212 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 508 | 393 | 0 | 0 | 212 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |

Major Street Volume: 1122
Minor Approach Volume: 0
Minor Approach Volume Threshold: 245

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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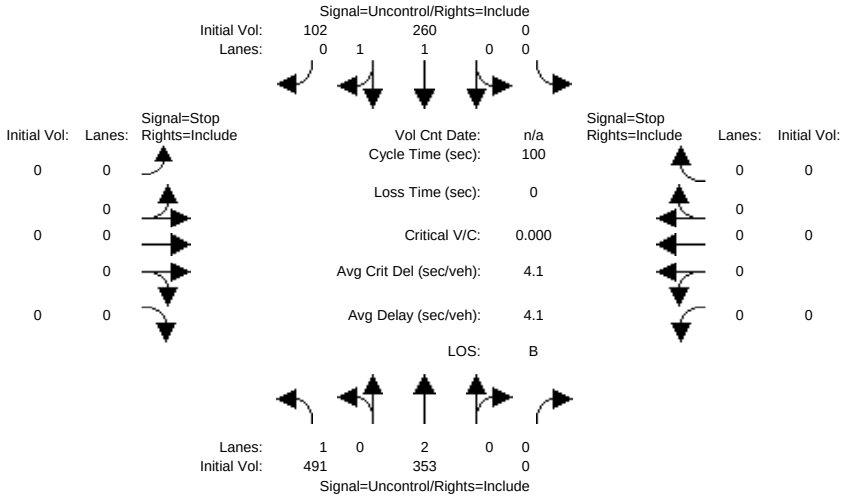
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
EPP1SAT

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 491 | 353 | 0 | 0 | 260 | 102 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 491 | 353 | 0 | 0 | 260 | 102 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 491 | 353 | 0 | 0 | 260 | 102 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 491 | 353 | 0 | 0 | 260 | 102 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 491 | 353 | 0 | 0 | 260 | 102 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 362 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Potent Cap.: | 1208 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Move Cap.: | 1208 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Volume/Cap: | 0.41 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 2.0 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Control Del: | 10.0 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| LOS by Move: | B | * | * | * | * | * | * | * | * | * | * | * | | | | |
| Movement: | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shared LOS: | * | * | * | | * | * | * | | * | * | * | | * | * | * | |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | xxxxxx | | | | xxxxxx | | | |
| ApproachLOS: | * | | | | * | | | | * | | | | * | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 491 | 353 | 0 | 0 | 260 | 102 | 0 | 0 | 0 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 491 | 353 | 0 | 0 | 260 | 102 | 0 | 0 | 0 | 0 | 0 | 0 |

Major Street Volume: 1206
Minor Approach Volume: 0
Minor Approach Volume Threshold: 220

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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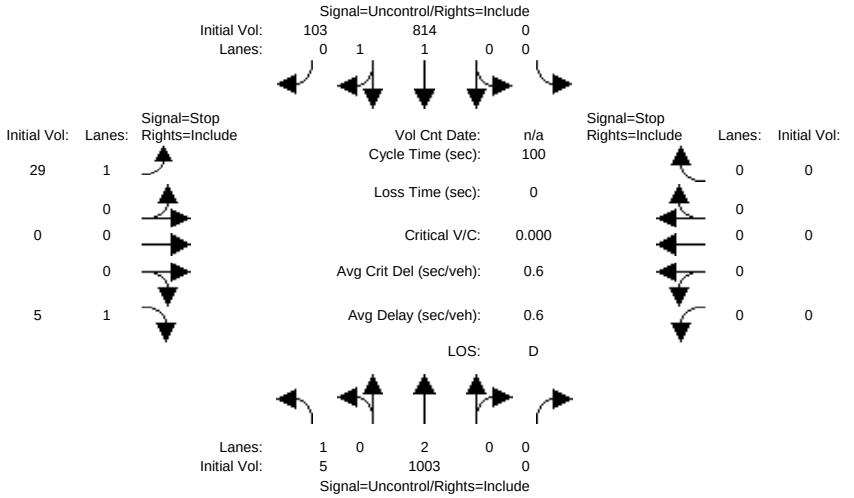
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
EPP1AM

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | | L | - T | - R | | L | - T | - R | | L | - T | - R | |
| **Volume Module:** | | | | | | | | | | | | | | | | |
| Base Vol: | 5 | 1003 | 0 | 0 | 814 | 103 | 29 | 0 | 5 | 0 | 0 | 0 | | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Initial Bse: | 5 | 1003 | 0 | 0 | 814 | 103 | 29 | 0 | 5 | 0 | 0 | 0 | | | | |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Initial Fut: | 5 | 1003 | 0 | 0 | 814 | 103 | 29 | 0 | 5 | 0 | 0 | 0 | | | | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Volume: | 5 | 1003 | 0 | 0 | 814 | 103 | 29 | 0 | 5 | 0 | 0 | 0 | | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| FinalVolume: | 5 | 1003 | 0 | 0 | 814 | 103 | 29 | 0 | 5 | 0 | 0 | 0 | | | | |
| **Critical Gap Module:** | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 6.8 | xxxx | 6.9 | xxxxx | xxxx | xxxxx | | | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 3.5 | xxxx | 3.3 | xxxxx | xxxx | xxxxx | | | | |
| **Capacity Module:** | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 917 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1377 | xxxx | 459 | xxxx | xxxx | xxxxx | | | | |
| Potent Cap.: | 752 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 138 | xxxx | 555 | xxxx | xxxx | xxxxx | | | | |
| Move Cap.: | 752 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 138 | xxxx | 555 | xxxx | xxxx | xxxxx | | | | |
| Volume/Cap: | 0.01 | xxxx | xxxx | xxxx | xxxx | xxxx | 0.21 | xxxx | 0.01 | xxxx | xxxx | xxxx | | | | |
| **Level Of Service Module:** | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 0.0 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.8 | xxxx | 0.0 | xxxx | xxxx | xxxxx | | | | |
| Control Del: | 9.8 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 38.0 | xxxx | 11.5 | xxxxx | xxxx | xxxxx | | | | |
| LOS by Move: | A | * | * | * | * | * | E | * | B | * | * | * | | | | |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | | | | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * | | | | |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 34.1 | | | xxxxxx | | | | | | |
| ApproachLOS: | * | | | * | | | D | | | * | | | | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 1 0 0 | 0 | 1 | 0 0 0 | 0 | 0 |
| Initial Vol: | 5 | 1003 | 0 | 0 | 814 | 103 | 29 | 0 | 5 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 34.1 | | | xxxxxx | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=34]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1959]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

---

SIGNAL WARRANT DISCLAIMER
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## Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 1 0 0 | 0 | 1 | 0 0 0 | 0 | 0 |
| Initial Vol: | 5 | 1003 | 0 | 0 | 814 | 103 | 29 | 0 | 5 | 0 | 0 | 0 |

Major Street Volume: 1925
Minor Approach Volume: 34
Minor Approach Volume Threshold: 92 [less than minimum of 150]

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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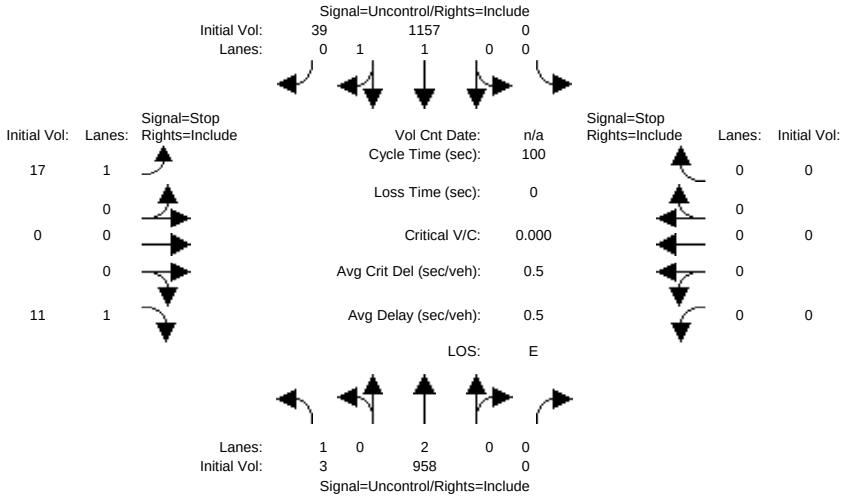
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
EPP1PM

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 3 | 958 | 0 | 0 | 1157 | 39 | 17 | 0 | 11 | 0 | 0 | 0 | | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Initial Bse: | 3 | 958 | 0 | 0 | 1157 | 39 | 17 | 0 | 11 | 0 | 0 | 0 | | | | |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Initial Fut: | 3 | 958 | 0 | 0 | 1157 | 39 | 17 | 0 | 11 | 0 | 0 | 0 | | | | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Volume: | 3 | 958 | 0 | 0 | 1157 | 39 | 17 | 0 | 11 | 0 | 0 | 0 | | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| FinalVolume: | 3 | 958 | 0 | 0 | 1157 | 39 | 17 | 0 | 11 | 0 | 0 | 0 | | | | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 6.8 | xxxx | 6.9 | xxxxx | xxxx | xxxxx | | | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 3.5 | xxxx | 3.3 | xxxxx | xxxx | xxxxx | | | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 1196 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1662 | xxxx | 598 | xxxx | xxxx | xxxxx | | | | |
| Potent Cap.: | 591 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 90 | xxxx | 450 | xxxx | xxxx | xxxxx | | | | |
| Move Cap.: | 591 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 90 | xxxx | 450 | xxxx | xxxx | xxxxx | | | | |
| Volume/Cap: | 0.01 | xxxx | xxxx | xxxx | xxxx | xxxx | 0.19 | xxxx | 0.02 | xxxx | xxxx | xxxx | | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 0.0 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.7 | xxxx | 0.1 | xxxx | xxxx | xxxxx | | | | |
| Control Del: | 11.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 54.4 | xxxx | 13.2 | xxxxx | xxxx | xxxxx | | | | |
| LOS by Move: | B | * | * | * | * | * | F | * | B | * | * | * | | | | |
| Movement: | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shared LOS: | * | * | * | | * | * | * | | * | * | * | | * | * | * | |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | 38.2 | | | | xxxxxx | | | |
| ApproachLOS: | * | | | | * | | | | E | | | | * | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 1 0 0 | 0 | 1 | 0 0 0 | 0 | 0 |
| Initial Vol: | 3 | 958 | 0 | 0 | 1157 | 39 | 17 | 0 | 11 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 38.2 | | | xxxxxx | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=28]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=2185]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

## Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 1 0 0 | 0 | 1 | 0 0 0 | 0 | 0 |
| Initial Vol: | 3 | 958 | 0 | 0 | 1157 | 39 | 17 | 0 | 11 | 0 | 0 | 0 |

Major Street Volume: 2157
Minor Approach Volume: 28
Minor Approach Volume Threshold: 44 [less than minimum of 150]

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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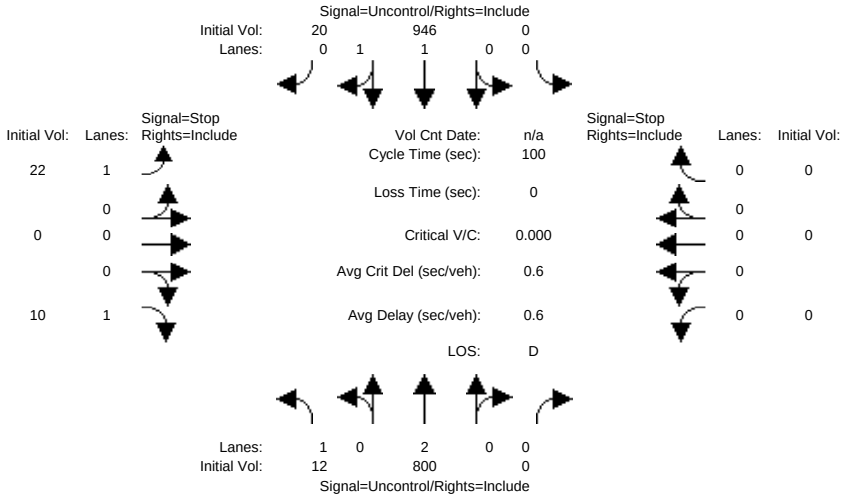
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
EPP1SAT

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 12 | 800 | 0 | 0 | 946 | 20 | 22 | 0 | 10 | 0 | 0 | 0 | | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Initial Bse: | 12 | 800 | 0 | 0 | 946 | 20 | 22 | 0 | 10 | 0 | 0 | 0 | | | | |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Initial Fut: | 12 | 800 | 0 | 0 | 946 | 20 | 22 | 0 | 10 | 0 | 0 | 0 | | | | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Volume: | 12 | 800 | 0 | 0 | 946 | 20 | 22 | 0 | 10 | 0 | 0 | 0 | | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| FinalVolume: | 12 | 800 | 0 | 0 | 946 | 20 | 22 | 0 | 10 | 0 | 0 | 0 | | | | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 6.8 | xxxx | 6.9 | xxxxx | xxxx | xxxxx | | | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 3.5 | xxxx | 3.3 | xxxxx | xxxx | xxxxx | | | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 966 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1380 | xxxx | 483 | xxxx | xxxx | xxxxx | | | | |
| Potent Cap.: | 721 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 138 | xxxx | 535 | xxxx | xxxx | xxxxx | | | | |
| Move Cap.: | 721 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 136 | xxxx | 535 | xxxx | xxxx | xxxxx | | | | |
| Volume/Cap: | 0.02 | xxxx | xxxx | xxxx | xxxx | xxxx | 0.16 | xxxx | 0.02 | xxxx | xxxx | xxxx | | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 0.1 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.6 | xxxx | 0.1 | xxxx | xxxx | xxxxx | | | | |
| Control Del: | 10.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 36.5 | xxxx | 11.9 | xxxxx | xxxx | xxxxx | | | | |
| LOS by Move: | B | * | * | * | * | * | E | * | B | * | * | * | | | | |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | | | | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * | | | | |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 28.8 | | | xxxxxx | | | | | | |
| ApproachLOS: | * | | | * | | | D | | | * | | | | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 1 0 0 | 0 | 1 | 0 0 0 | 0 | 0 |
| Initial Vol: | 12 800 | | 0 | 0 946 | | 20 | 22 | 0 | 10 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 28.8 | | | xxxxxx | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=32]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1810]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

## Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 1 0 0 | 0 | 1 | 0 0 0 | 0 | 0 |
| Initial Vol: | 12 800 | | 0 | 0 946 | | 20 | 22 | 0 | 10 | 0 | 0 | 0 |

Major Street Volume: 1778
Minor Approach Volume: 32
Minor Approach Volume Threshold: 127 [less than minimum of 150]

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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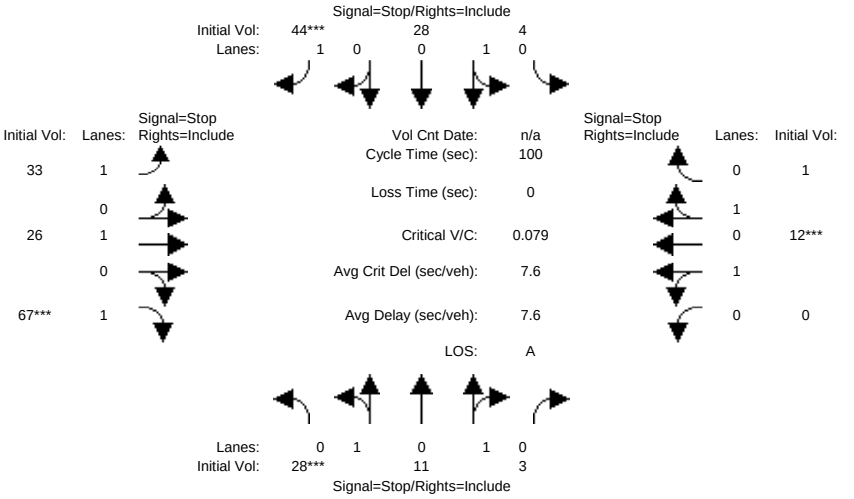
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
EPP1AM

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 28 | 11 | 3 | 4 | 28 | 44 | 33 | 26 | 67 | 0 | 12 | 1 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 28 | 11 | 3 | 4 | 28 | 44 | 33 | 26 | 67 | 0 | 12 | 1 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 28 | 11 | 3 | 4 | 28 | 44 | 33 | 26 | 67 | 0 | 12 | 1 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 28 | 11 | 3 | 4 | 28 | 44 | 33 | 26 | 67 | 0 | 12 | 1 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 28 | 11 | 3 | 4 | 28 | 44 | 33 | 26 | 67 | 0 | 12 | 1 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 28 | 11 | 3 | 4 | 28 | 44 | 33 | 26 | 67 | 0 | 12 | 1 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.86 | 0.14 | 0.12 | 0.88 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.85 | 0.15 |
| Final Sat.: | 654 | 628 | 105 | 89 | 624 | 841 | 661 | 728 | 849 | 0 | 1338 | 113 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.02 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.04 | 0.08 | xxxx | 0.01 | 0.01 |
| Crit Moves: | **** | | | | | **** | | | **** | | | **** |
| Delay/Veh: | 8.3 | 7.6 | 7.6 | 7.8 | 7.8 | 7.1 | 8.3 | 7.7 | 7.2 | 0.0 | 7.6 | 7.5 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.3 | 7.6 | 7.6 | 7.8 | 7.8 | 7.1 | 8.3 | 7.7 | 7.2 | 0.0 | 7.6 | 7.5 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | * | A | A |
| ApproachDel: | 8.1 | | | 7.4 | | | 7.6 | | | 7.6 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.1 | | | 7.4 | | | 7.6 | | | 7.6 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 28 | 11 | 3 | 4 | 28 | 44 | 33 | 26 | 67 | 0 | 12 | 1 |

Major Street Volume: 139
Minor Approach Volume: 76
Minor Approach Volume Threshold: 1223

---

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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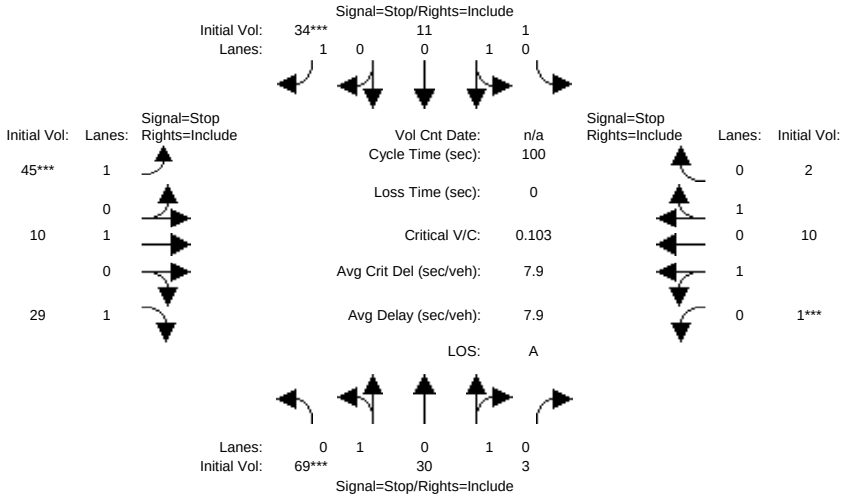
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
EPP1PM

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 69 | 30 | 3 | 1 | 11 | 34 | 45 | 10 | 29 | 1 | 10 | 2 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 69 | 30 | 3 | 1 | 11 | 34 | 45 | 10 | 29 | 1 | 10 | 2 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 69 | 30 | 3 | 1 | 11 | 34 | 45 | 10 | 29 | 1 | 10 | 2 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 69 | 30 | 3 | 1 | 11 | 34 | 45 | 10 | 29 | 1 | 10 | 2 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 69 | 30 | 3 | 1 | 11 | 34 | 45 | 10 | 29 | 1 | 10 | 2 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 69 | 30 | 3 | 1 | 11 | 34 | 45 | 10 | 29 | 1 | 10 | 2 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.94 | 0.06 | 0.08 | 0.92 | 1.00 | 1.00 | 1.00 | 1.00 | 0.15 | 1.54 | 0.31 |
| Final Sat.: | 671 | 703 | 44 | 60 | 664 | 852 | 647 | 710 | 825 | 107 | 1101 | 227 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.10 | 0.04 | 0.07 | 0.02 | 0.02 | 0.04 | 0.07 | 0.01 | 0.04 | 0.01 | 0.01 | 0.01 |
| Crit Moves: | **** | | | | | **** | **** | | | **** | | |
| Delay/Veh: | 8.6 | 7.6 | 7.6 | 7.6 | 7.6 | 7.0 | 8.5 | 7.7 | 7.1 | 7.8 | 7.6 | 7.5 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.6 | 7.6 | 7.6 | 7.6 | 7.6 | 7.0 | 8.5 | 7.7 | 7.1 | 7.8 | 7.6 | 7.5 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | A | A | A |
| ApproachDel: | 8.3 | | | 7.2 | | | 7.9 | | | 7.6 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.3 | | | 7.2 | | | 7.9 | | | 7.6 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 69 | 30 | 3 | 1 | 11 | 34 | 45 | 10 | 29 | 1 | 10 | 2 |

Major Street Volume: 148
Minor Approach Volume: 84
Minor Approach Volume Threshold: 1196

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SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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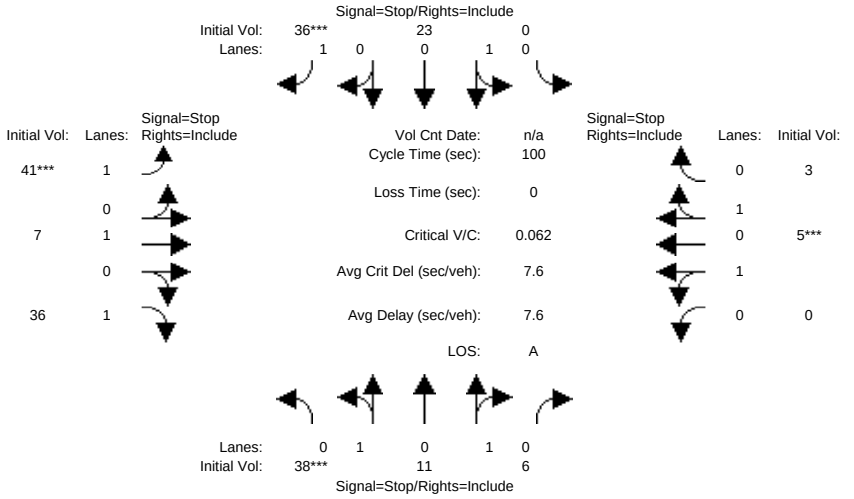
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
EPP1SAT

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 38 | 11 | 6 | 0 | 23 | 36 | 41 | 7 | 36 | 0 | 5 | 3 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 38 | 11 | 6 | 0 | 23 | 36 | 41 | 7 | 36 | 0 | 5 | 3 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 38 | 11 | 6 | 0 | 23 | 36 | 41 | 7 | 36 | 0 | 5 | 3 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 38 | 11 | 6 | 0 | 23 | 36 | 41 | 7 | 36 | 0 | 5 | 3 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 38 | 11 | 6 | 0 | 23 | 36 | 41 | 7 | 36 | 0 | 5 | 3 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 38 | 11 | 6 | 0 | 23 | 36 | 41 | 7 | 36 | 0 | 5 | 3 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.78 | 0.22 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.25 | 0.75 |
| Final Sat.: | 673 | 599 | 167 | 0 | 742 | 866 | 664 | 731 | 853 | 0 | 929 | 609 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.02 | 0.04 | xxxx | 0.03 | 0.04 | 0.06 | 0.01 | 0.04 | xxxx | 0.01 | 0.00 |
| Crit Moves: | **** | | | | | **** | **** | | | | **** | |
| Delay/Veh: | 8.3 | 7.4 | 7.4 | 0.0 | 7.6 | 6.9 | 8.4 | 7.6 | 7.0 | 0.0 | 7.5 | 7.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.3 | 7.4 | 7.4 | 0.0 | 7.6 | 6.9 | 8.4 | 7.6 | 7.0 | 0.0 | 7.5 | 7.0 |
| LOS by Move: | A | A | A | * | A | A | A | A | A | * | A | A |
| ApproachDel: | 8.0 | | | 7.2 | | | 7.7 | | | 7.3 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.0 | | | 7.2 | | | 7.7 | | | 7.3 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #19 Signal St & 22nd St

**********


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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 38 | 11 | 6 | 0 | 23 | 36 | 41 | 7 | 36 | 0 | 5 | 3 |

Major Street Volume: 114
Minor Approach Volume: 84
Minor Approach Volume Threshold: 1308

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SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.


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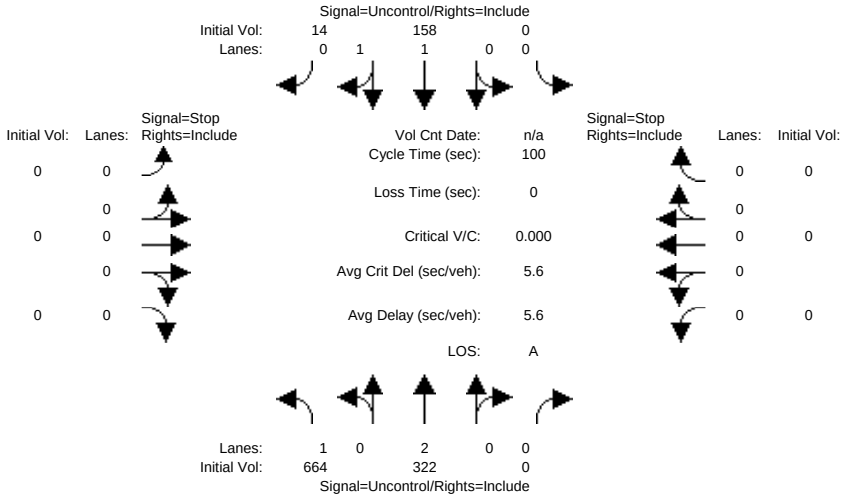
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
EPAM

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 664 | 322 | 0 | 0 | 158 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 664 | 322 | 0 | 0 | 158 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 664 | 322 | 0 | 0 | 158 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 664 | 322 | 0 | 0 | 158 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 664 | 322 | 0 | 0 | 158 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Critical Gap Module:** | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| **Capacity Module:** | | | | | | | | | | | | |
| Cnflict Vol: | 172 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | 1417 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | 1417 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | 0.47 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| **Level Of Service Module:** | | | | | | | | | | | | |
| 2Way95thQ: | 2.6 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | 9.8 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | A | * | * | * | * | * | * | * | * | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | * | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 664 322 | | 0 | 0 158 | | 14 | 0 0 | | 0 | 0 0 | | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 664 322 | | 0 | 0 158 | | 14 | 0 0 | | 0 | 0 0 | | 0 |

Major Street Volume: 1158
Minor Approach Volume: 0
Minor Approach Volume Threshold: 234

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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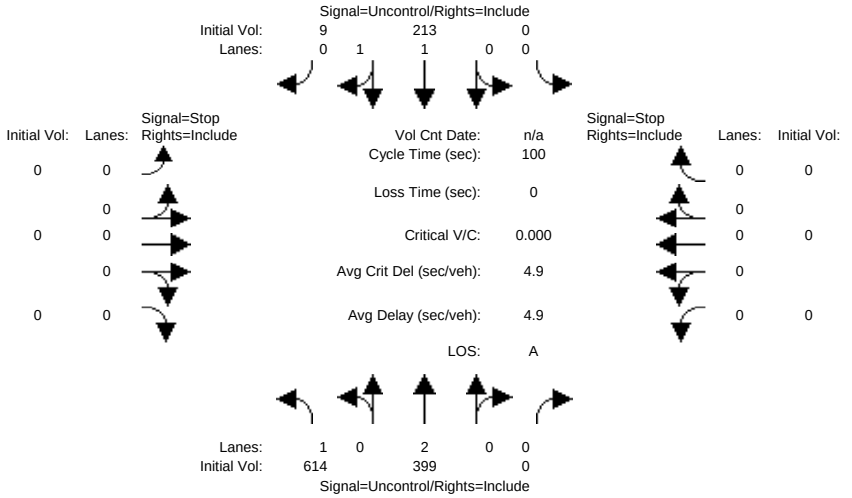
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
EP PM

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 614 | 399 | 0 | 0 | 213 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Initial Bse: | 614 | 399 | 0 | 0 | 213 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Initial Fut: | 614 | 399 | 0 | 0 | 213 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Volume: | 614 | 399 | 0 | 0 | 213 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| FinalVolume: | 614 | 399 | 0 | 0 | 213 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 222 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Potent Cap.: | 1359 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Move Cap.: | 1359 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Volume/Cap: | 0.45 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 2.4 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Control Del: | 9.8 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| LOS by Move: | A | * | * | * | * | * | * | * | * | * | * | * | | | | |
| Movement: | LT | - LTR | - RT | | LT | - LTR | - RT | | LT | - LTR | - RT | | LT | - LTR | - RT | |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shared LOS: | * | * | * | | * | * | * | | * | * | * | | * | * | * | |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | xxxxxx | | | | xxxxxx | | | |
| ApproachLOS: | * | | | | * | | | | * | | | | * | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 0 | | 0 0 1 | 1 0 | | 0 0 0 | 0 0 | | 0 0 0 | 0 0 | |
| Initial Vol: | 614 | 399 | 0 | 0 | 213 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 0 | | 0 0 1 | 1 0 | | 0 0 0 | 0 0 | | 0 0 0 | 0 0 | |
| Initial Vol: | 614 | 399 | 0 | 0 | 213 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |

Major Street Volume: 1235
Minor Approach Volume: 0
Minor Approach Volume Threshold: 212

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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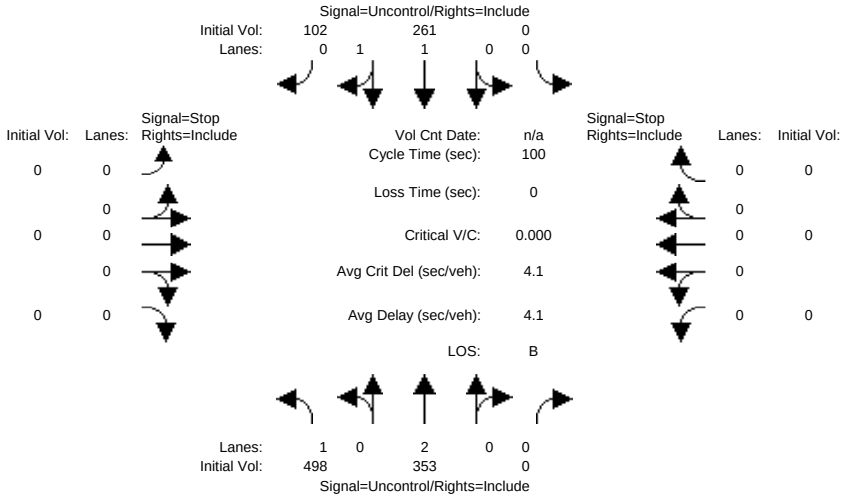
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
EPSAT

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | | L | - T | - R | | L | - T | - R | | L | - T | - R | |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 498 | 353 | 0 | 0 | 261 | 102 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 498 | 353 | 0 | 0 | 261 | 102 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 498 | 353 | 0 | 0 | 261 | 102 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 498 | 353 | 0 | 0 | 261 | 102 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 498 | 353 | 0 | 0 | 261 | 102 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxx | xxxxx | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 363 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | 1207 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | 1207 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | 0.41 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 2.1 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxx | xxxxx |
| Control Del: | 10.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | B | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| Movement: | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | | | | | |
| ApproachLOS: | * | | | * | | | * | | | * | | | | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 498 | 353 | 0 | 0 | 261 | 102 | 0 | 0 | 0 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 498 | 353 | 0 | 0 | 261 | 102 | 0 | 0 | 0 | 0 | 0 | 0 |

Major Street Volume: 1214
Minor Approach Volume: 0
Minor Approach Volume Threshold: 218

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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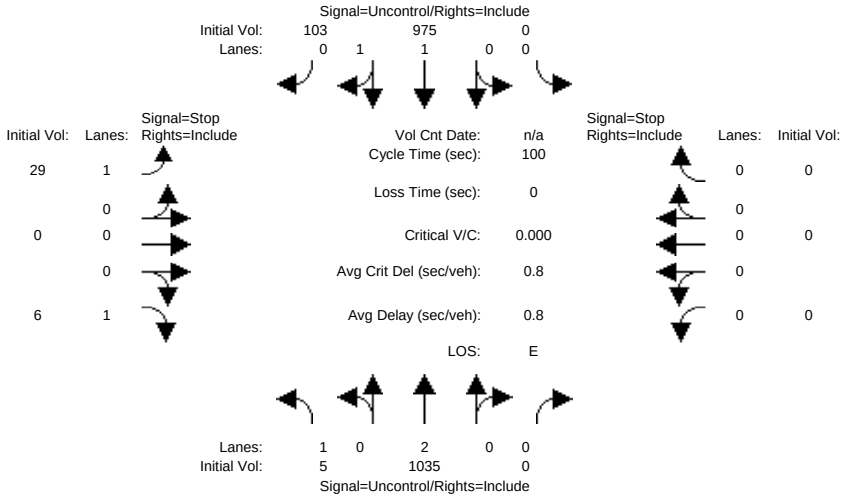
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
EPAM

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | | L | - T | - R | | L | - T | - R | | L | - T | - R | |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 5 | 1035 | 0 | 0 | 975 | 103 | 29 | 0 | 6 | 0 | 0 | 0 | | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Initial Bse: | 5 | 1035 | 0 | 0 | 975 | 103 | 29 | 0 | 6 | 0 | 0 | 0 | | | | |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Initial Fut: | 5 | 1035 | 0 | 0 | 975 | 103 | 29 | 0 | 6 | 0 | 0 | 0 | | | | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Volume: | 5 | 1035 | 0 | 0 | 975 | 103 | 29 | 0 | 6 | 0 | 0 | 0 | | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| FinalVolume: | 5 | 1035 | 0 | 0 | 975 | 103 | 29 | 0 | 6 | 0 | 0 | 0 | | | | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 6.8 | xxxx | 6.9 | xxxxx | xxxx | xxxxx | | | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 3.5 | xxxx | 3.3 | xxxxx | xxxx | xxxxx | | | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 1078 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1554 | xxxx | 539 | xxxx | xxxx | xxxxx | | | | |
| Potent Cap.: | 655 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 106 | xxxx | 492 | xxxx | xxxx | xxxxx | | | | |
| Move Cap.: | 655 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 105 | xxxx | 492 | xxxx | xxxx | xxxxx | | | | |
| Volume/Cap: | 0.01 | xxxx | xxxx | xxxx | xxxx | xxxx | 0.28 | xxxx | 0.01 | xxxx | xxxx | xxxx | | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 0.0 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1.0 | xxxx | 0.0 | xxxx | xxxx | xxxxx | | | | |
| Control Del: | 10.5 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 51.7 | xxxx | 12.4 | xxxxx | xxxx | xxxxx | | | | |
| LOS by Move: | B | * | * | * | * | * | F | * | B | * | * | * | | | | |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | | | | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * | | | | |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 45.0 | | | xxxxxx | | | | | | |
| ApproachLOS: | * | | | * | | | E | | | * | | | | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 1 0 0 | 0 | 1 | 0 0 0 | 0 | 0 |
| Initial Vol: | 5 1035 | | 0 | 0 975 | 103 | | 29 | 0 | 6 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 45.0 | | | xxxxxx | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.4]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=35]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=2153]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

## Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 1 0 0 | 0 | 1 | 0 0 0 | 0 | 0 |
| Initial Vol: | 5 1035 | | 0 | 0 975 | 103 | | 29 | 0 | 6 | 0 | 0 | 0 |

Major Street Volume: 2118
Minor Approach Volume: 35
Minor Approach Volume Threshold: 51 [less than minimum of 150]

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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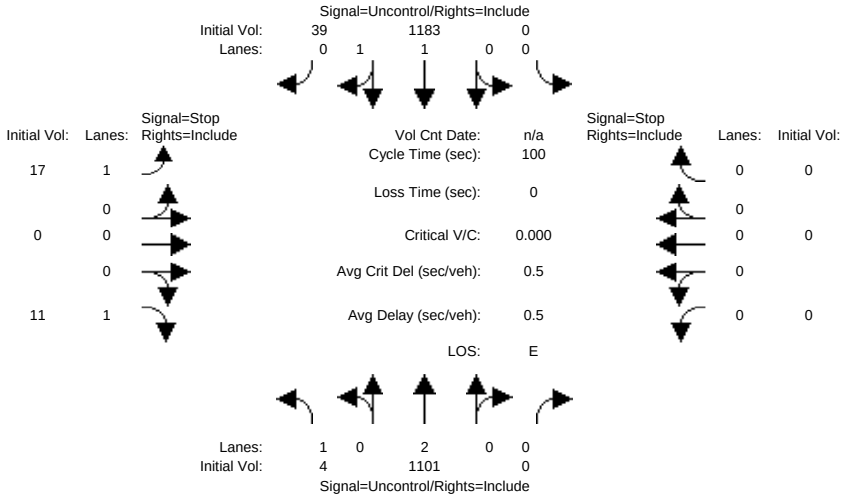
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
EP PM

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 4 | 1101 | 0 | 0 | 1183 | 39 | 17 | 0 | 11 | 0 | 0 | 0 | | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Initial Bse: | 4 | 1101 | 0 | 0 | 1183 | 39 | 17 | 0 | 11 | 0 | 0 | 0 | | | | |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Initial Fut: | 4 | 1101 | 0 | 0 | 1183 | 39 | 17 | 0 | 11 | 0 | 0 | 0 | | | | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Volume: | 4 | 1101 | 0 | 0 | 1183 | 39 | 17 | 0 | 11 | 0 | 0 | 0 | | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| FinalVolume: | 4 | 1101 | 0 | 0 | 1183 | 39 | 17 | 0 | 11 | 0 | 0 | 0 | | | | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 6.8 | xxxx | 6.9 | xxxxx | xxxx | xxxxx | | | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 3.5 | xxxx | 3.3 | xxxxx | xxxx | xxxxx | | | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 1222 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1761 | xxxx | 611 | xxxx | xxxx | xxxxx | | | | |
| Potent Cap.: | 578 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 77 | xxxx | 442 | xxxx | xxxx | xxxxx | | | | |
| Move Cap.: | 578 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 77 | xxxx | 442 | xxxx | xxxx | xxxxx | | | | |
| Volume/Cap: | 0.01 | xxxx | xxxx | xxxx | xxxx | xxxx | 0.22 | xxxx | 0.02 | xxxx | xxxx | xxxx | | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 0.0 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.8 | xxxx | 0.1 | xxxx | xxxx | xxxxx | | | | |
| Control Del: | 11.3 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 64.7 | xxxx | 13.4 | xxxxx | xxxx | xxxxx | | | | |
| LOS by Move: | B | * | * | * | * | * | F | * | B | * | * | * | | | | |
| Movement: | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shared LOS: | * | * | * | | * | * | * | | * | * | * | | * | * | * | |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | 44.6 | | | | xxxxxx | | | |
| ApproachLOS: | * | | | | * | | | | E | | | | * | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 1 0 0 | 0 | 1 | 0 0 0 | 0 | 0 |
| Initial Vol: | 4 1101 | | 0 | 0 1183 | | 39 | 17 | 0 | 11 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 44.6 | | | xxxxxx | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=28]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=2355]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

---

SIGNAL WARRANT DISCLAIMER
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## Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 1 0 0 | 0 | 1 | 0 0 0 | 0 | 0 |
| Initial Vol: | 4 1101 | | 0 | 0 1183 | | 39 | 17 | 0 | 11 | 0 | 0 | 0 |

Major Street Volume: 2327
Minor Approach Volume: 28
Minor Approach Volume Threshold: 11 [less than minimum of 150]

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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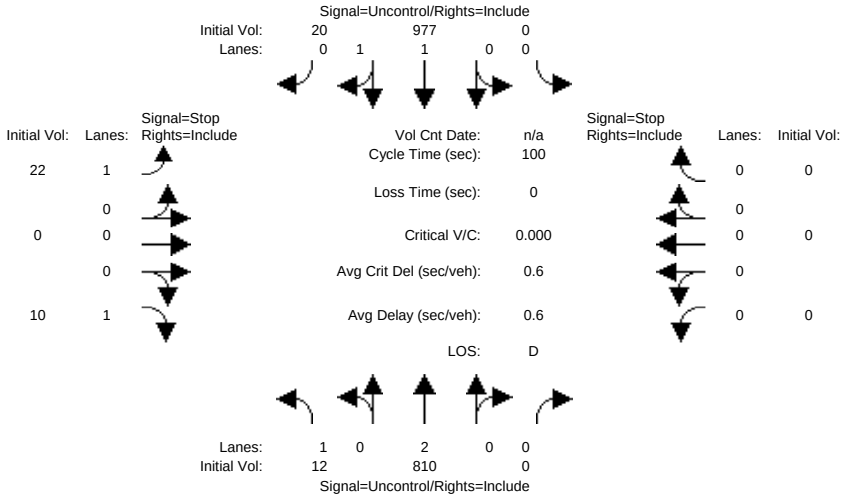
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
EPSAT

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 12 | 810 | 0 | 0 | 977 | 20 | 22 | 0 | 10 | 0 | 0 | 0 | | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Initial Bse: | 12 | 810 | 0 | 0 | 977 | 20 | 22 | 0 | 10 | 0 | 0 | 0 | | | | |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Initial Fut: | 12 | 810 | 0 | 0 | 977 | 20 | 22 | 0 | 10 | 0 | 0 | 0 | | | | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Volume: | 12 | 810 | 0 | 0 | 977 | 20 | 22 | 0 | 10 | 0 | 0 | 0 | | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| FinalVolume: | 12 | 810 | 0 | 0 | 977 | 20 | 22 | 0 | 10 | 0 | 0 | 0 | | | | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 6.8 | xxxx | 6.9 | xxxxx | xxxx | xxxxx | | | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 3.5 | xxxx | 3.3 | xxxxx | xxxx | xxxxx | | | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 997 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1416 | xxxx | 499 | xxxx | xxxx | xxxxx | | | | |
| Potent Cap.: | 702 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 131 | xxxx | 523 | xxxx | xxxx | xxxxx | | | | |
| Move Cap.: | 702 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 129 | xxxx | 523 | xxxx | xxxx | xxxxx | | | | |
| Volume/Cap: | 0.02 | xxxx | xxxx | xxxx | xxxx | xxxx | 0.17 | xxxx | 0.02 | xxxx | xxxx | xxxx | | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 0.1 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.6 | xxxx | 0.1 | xxxx | xxxx | xxxxx | | | | |
| Control Del: | 10.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 38.6 | xxxx | 12.0 | xxxxx | xxxx | xxxxx | | | | |
| LOS by Move: | B | * | * | * | * | * | E | * | B | * | * | * | | | | |
| Movement: | LT | - LTR | - RT | LT | - LTR | - RT | LT | - LTR | - RT | LT | - LTR | - RT | | | | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * | | | | |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 30.3 | | | xxxxxx | | | | | | |
| ApproachLOS: | * | | | * | | | D | | | * | | | | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 1 0 0 | 0 | 1 | 0 0 0 | 0 | 0 |
| Initial Vol: | 12 | 810 | 0 | 0 | 977 | 20 | 22 | 0 | 10 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 30.3 | | | xxxxxx | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=32]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1851]
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

---

SIGNAL WARRANT DISCLAIMER
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## Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 1 0 0 | 0 | 1 | 0 0 0 | 0 | 0 |
| Initial Vol: | 12 | 810 | 0 | 0 | 977 | 20 | 22 | 0 | 10 | 0 | 0 | 0 |

Major Street Volume: 1819
Minor Approach Volume: 32
Minor Approach Volume Threshold: 117 [less than minimum of 150]

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SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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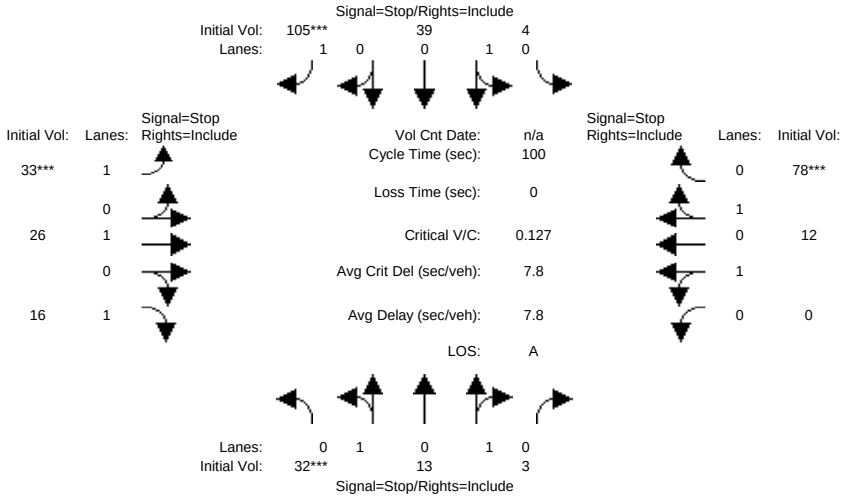
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
EPAM

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 32 | 13 | 3 | 4 | 39 | 105 | 33 | 26 | 16 | 0 | 12 | 78 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 32 | 13 | 3 | 4 | 39 | 105 | 33 | 26 | 16 | 0 | 12 | 78 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 32 | 13 | 3 | 4 | 39 | 105 | 33 | 26 | 16 | 0 | 12 | 78 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 32 | 13 | 3 | 4 | 39 | 105 | 33 | 26 | 16 | 0 | 12 | 78 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 32 | 13 | 3 | 4 | 39 | 105 | 33 | 26 | 16 | 0 | 12 | 78 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 32 | 13 | 3 | 4 | 39 | 105 | 33 | 26 | 16 | 0 | 12 | 78 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.87 | 0.13 | 0.09 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 |
| Final Sat.: | 635 | 619 | 88 | 65 | 638 | 824 | 614 | 672 | 772 | 0 | 691 | 799 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.02 | 0.03 | 0.06 | 0.06 | 0.13 | 0.05 | 0.04 | 0.02 | xxxx | 0.02 | 0.10 |
| Crit Moves: | **** | | | | | **** | **** | | | | | **** |
| Delay/Veh: | 8.5 | 7.7 | 7.7 | 8.0 | 8.0 | 7.5 | 8.7 | 8.1 | 7.2 | 0.0 | 7.8 | 7.5 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.5 | 7.7 | 7.7 | 8.0 | 8.0 | 7.5 | 8.7 | 8.1 | 7.2 | 0.0 | 7.8 | 7.5 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | * | A | A |
| ApproachDel: | 8.2 | | | 7.7 | | | 8.2 | | | 7.5 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.2 | | | 7.7 | | | 8.2 | | | 7.5 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 32 | 13 | 3 | 4 | 39 | 105 | 33 | 26 | 16 | 0 | 12 | 78 |

Major Street Volume: 196
Minor Approach Volume: 90
Minor Approach Volume Threshold: 1075

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.


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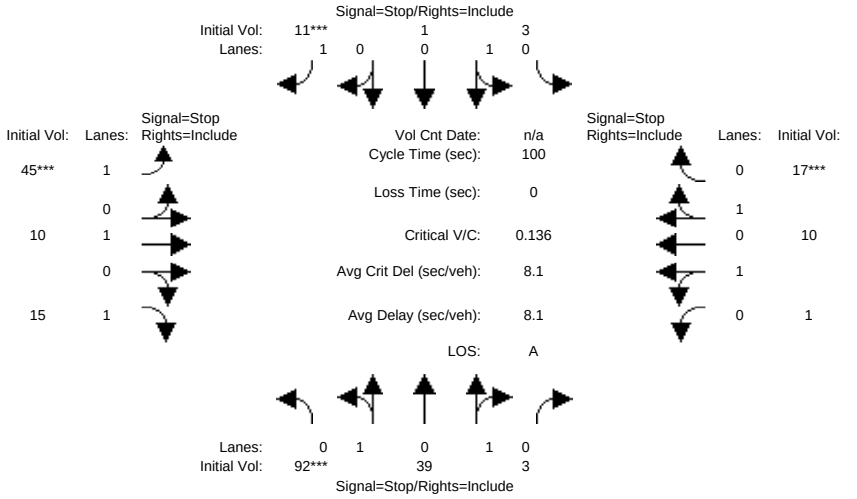
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
EP PM

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 92 | 39 | 3 | 3 | 1 | 11 | 45 | 10 | 15 | 1 | 10 | 17 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 92 | 39 | 3 | 3 | 1 | 11 | 45 | 10 | 15 | 1 | 10 | 17 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 92 | 39 | 3 | 3 | 1 | 11 | 45 | 10 | 15 | 1 | 10 | 17 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 92 | 39 | 3 | 3 | 1 | 11 | 45 | 10 | 15 | 1 | 10 | 17 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 92 | 39 | 3 | 3 | 1 | 11 | 45 | 10 | 15 | 1 | 10 | 17 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 92 | 39 | 3 | 3 | 1 | 11 | 45 | 10 | 15 | 1 | 10 | 17 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.96 | 0.04 | 0.75 | 0.25 | 1.00 | 1.00 | 1.00 | 1.00 | 0.07 | 0.93 | 1.00 |
| Final Sat.: | 675 | 715 | 34 | 505 | 168 | 843 | 642 | 704 | 817 | 50 | 653 | 821 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.14 | 0.05 | 0.09 | 0.01 | 0.01 | 0.01 | 0.07 | 0.01 | 0.02 | 0.02 | 0.02 | 0.02 |
| Crit Moves: | **** | | | | | **** | **** | | | | | **** |
| Delay/Veh: | 8.8 | 7.7 | 7.7 | 8.0 | 8.0 | 6.9 | 8.6 | 7.7 | 7.0 | 7.7 | 7.7 | 7.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.8 | 7.7 | 7.7 | 8.0 | 8.0 | 6.9 | 8.6 | 7.7 | 7.0 | 7.7 | 7.7 | 7.0 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | A | A | A |
| ApproachDel: | 8.4 | | | 7.2 | | | 8.1 | | | 7.3 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.4 | | | 7.2 | | | 8.1 | | | 7.3 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.2 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 92 | 39 | 3 | 3 | 1 | 11 | 45 | 10 | 15 | 1 | 10 | 17 |

Major Street Volume: 149
Minor Approach Volume: 70
Minor Approach Volume Threshold: 1193

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SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.


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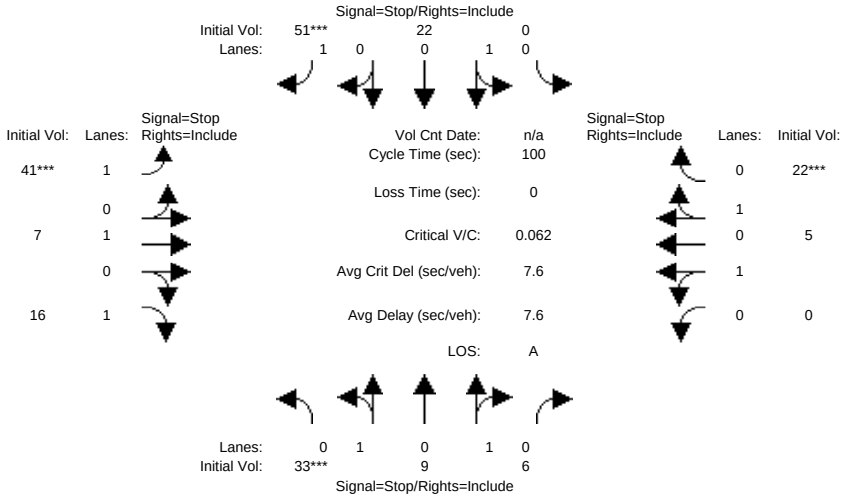
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
EPSAT

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 33 | 9 | 6 | 0 | 22 | 51 | 41 | 7 | 16 | 0 | 5 | 22 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 33 | 9 | 6 | 0 | 22 | 51 | 41 | 7 | 16 | 0 | 5 | 22 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 33 | 9 | 6 | 0 | 22 | 51 | 41 | 7 | 16 | 0 | 5 | 22 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 33 | 9 | 6 | 0 | 22 | 51 | 41 | 7 | 16 | 0 | 5 | 22 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 33 | 9 | 6 | 0 | 22 | 51 | 41 | 7 | 16 | 0 | 5 | 22 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 33 | 9 | 6 | 0 | 22 | 51 | 41 | 7 | 16 | 0 | 5 | 22 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.75 | 0.25 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 |
| Final Sat.: | 672 | 576 | 192 | 0 | 743 | 868 | 658 | 723 | 842 | 0 | 727 | 845 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.02 | 0.03 | xxxx | 0.03 | 0.06 | 0.06 | 0.01 | 0.02 | xxxx | 0.01 | 0.03 |
| Crit Moves: | **** | | | | | **** | **** | | | | | **** |
| Delay/Veh: | 8.2 | 7.4 | 7.4 | 0.0 | 7.6 | 7.0 | 8.4 | 7.6 | 6.9 | 0.0 | 7.6 | 6.9 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.2 | 7.4 | 7.4 | 0.0 | 7.6 | 7.0 | 8.4 | 7.6 | 6.9 | 0.0 | 7.6 | 6.9 |
| LOS by Move: | A | A | A | * | A | A | A | A | A | * | A | A |
| ApproachDel: | 8.0 | | | 7.2 | | | 7.9 | | | 7.1 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.0 | | | 7.2 | | | 7.9 | | | 7.1 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 33 | 9 | 6 | 0 | 22 | 51 | 41 | 7 | 16 | 0 | 5 | 22 |

Major Street Volume: 121
Minor Approach Volume: 64
Minor Approach Volume Threshold: 1282

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SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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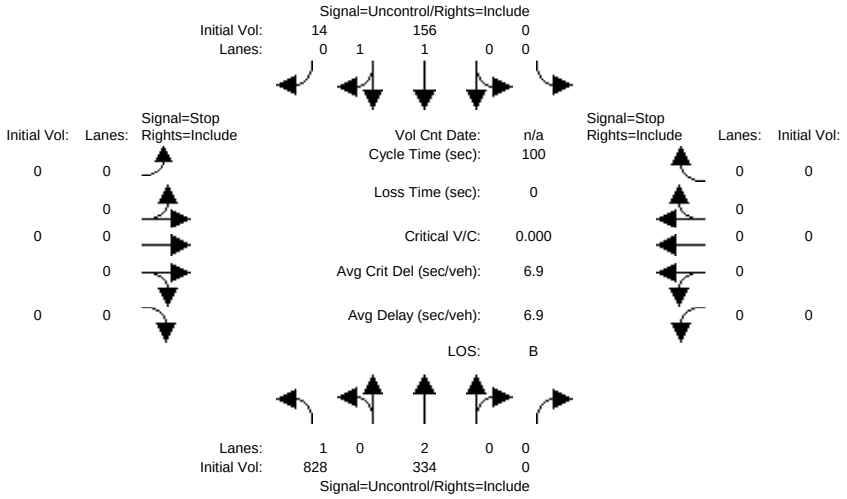
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2016NPAM

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 828 | 334 | 0 | 0 | 156 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 828 | 334 | 0 | 0 | 156 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 828 | 334 | 0 | 0 | 156 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 828 | 334 | 0 | 0 | 156 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 828 | 334 | 0 | 0 | 156 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 170 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | 1420 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | 1420 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | 0.58 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | 4.0 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | 11.0 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | B | * | * | * | * | * | * | * | * | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | * | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 828 | 334 | 0 | 0 | 156 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 828 | 334 | 0 | 0 | 156 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |

Major Street Volume: 1332
Minor Approach Volume: 0
Minor Approach Volume Threshold: 186

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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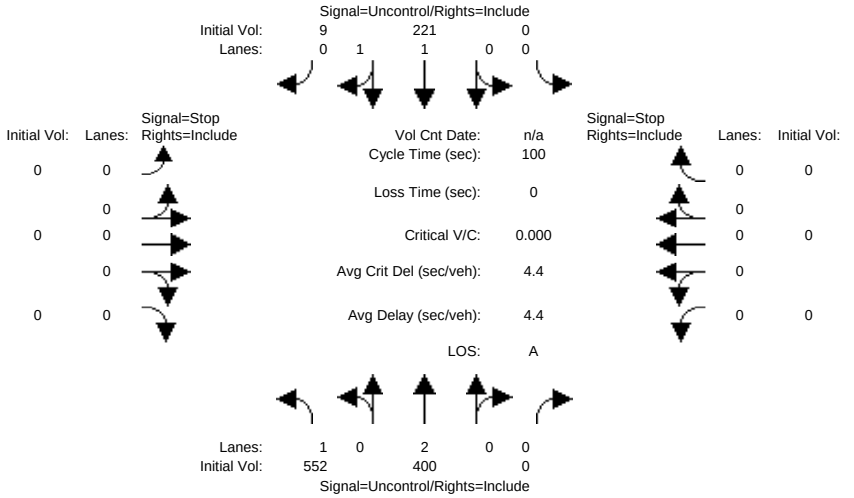
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2016NP PM

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | | L | - T | - R | | L | - T | - R | | L | - T | - R | |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 552 | 400 | 0 | 0 | 221 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Initial Bse: | 552 | 400 | 0 | 0 | 221 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Initial Fut: | 552 | 400 | 0 | 0 | 221 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Volume: | 552 | 400 | 0 | 0 | 221 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| FinalVolume: | 552 | 400 | 0 | 0 | 221 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 230 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Potent Cap.: | 1350 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Move Cap.: | 1350 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Volume/Cap: | 0.41 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 2.0 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Control Del: | 9.5 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| LOS by Move: | A | * | * | * | * | * | * | * | * | * | * | * | | | | |
| Movement: | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * | | | | |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | | | | | |
| ApproachLOS: | * | | | * | | | * | | | * | | | | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 552 400 | 0 | | 0 221 | 9 | | 0 0 | 0 | | 0 0 | 0 | |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 552 400 | 0 | | 0 221 | 9 | | 0 0 | 0 | | 0 0 | 0 | |

Major Street Volume: 1182
Minor Approach Volume: 0
Minor Approach Volume Threshold: 227

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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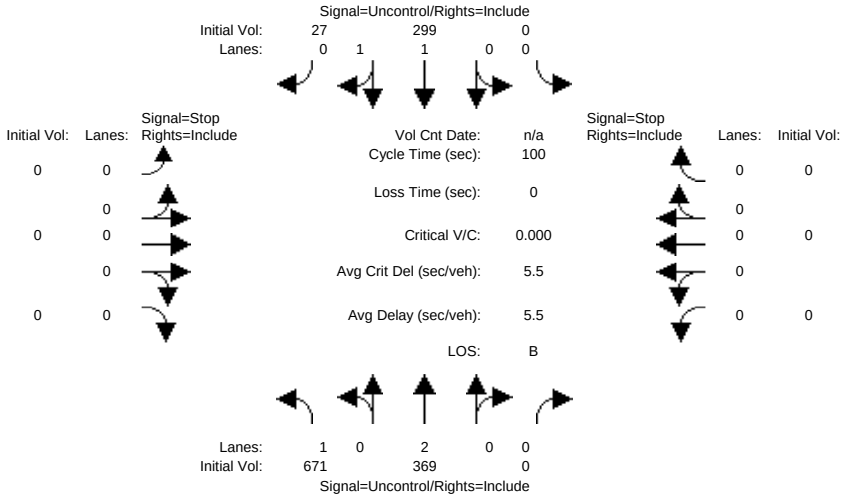
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2016NPSAT

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 671 | 369 | 0 | 0 | 299 | 27 | 0 | 0 | 0 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 671 | 369 | 0 | 0 | 299 | 27 | 0 | 0 | 0 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 671 | 369 | 0 | 0 | 299 | 27 | 0 | 0 | 0 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 671 | 369 | 0 | 0 | 299 | 27 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 671 | 369 | 0 | 0 | 299 | 27 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 326 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | 1245 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | 1245 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | 0.54 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | 3.4 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | 11.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | B | * | * | * | * | * | * | * | * | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | * | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 671 | 369 | 0 | 0 | 299 | 27 | 0 | 0 | 0 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 671 | 369 | 0 | 0 | 299 | 27 | 0 | 0 | 0 | 0 | 0 | 0 |

Major Street Volume: 1366
Minor Approach Volume: 0
Minor Approach Volume Threshold: 177

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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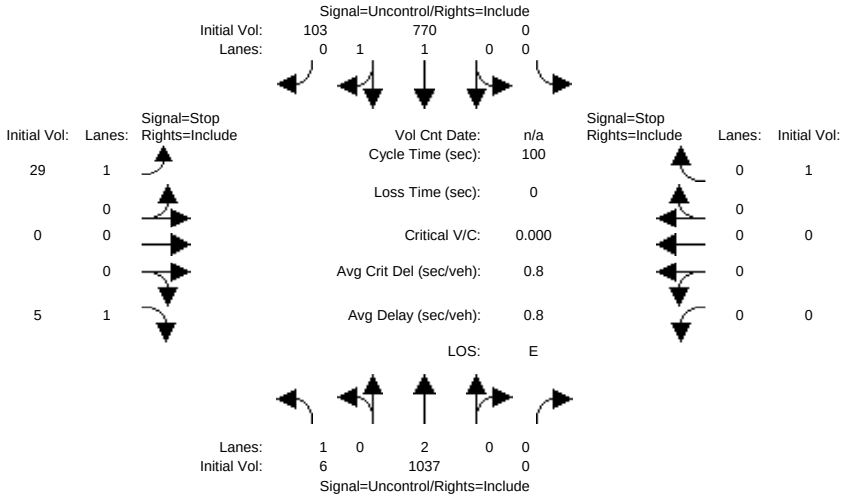
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2016NPAM

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| **Volume Module:** | | | | | | | | | | | | | | | | |
| Base Vol: | 6 | 1037 | 0 | 0 | 770 | 103 | 29 | 0 | 5 | 0 | 0 | 1 | | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Initial Bse: | 6 | 1037 | 0 | 0 | 770 | 103 | 29 | 0 | 5 | 0 | 0 | 1 | | | | |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Initial Fut: | 6 | 1037 | 0 | 0 | 770 | 103 | 29 | 0 | 5 | 0 | 0 | 1 | | | | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Volume: | 6 | 1037 | 0 | 0 | 770 | 103 | 29 | 0 | 5 | 0 | 0 | 1 | | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| FinalVolume: | 6 | 1037 | 0 | 0 | 770 | 103 | 29 | 0 | 5 | 0 | 0 | 1 | | | | |
| **Critical Gap Module:** | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 7.5 | xxxx | 6.9 | xxxxx | xxxx | 6.9 | | | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 3.5 | xxxx | 3.3 | xxxxx | xxxx | 3.3 | | | | |
| **Capacity Module:** | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 873 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1352 | xxxx | 437 | xxxx | xxxx | 519 | | | | |
| Potent Cap.: | 781 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 111 | xxxx | 573 | xxxx | xxxx | 507 | | | | |
| Move Cap.: | 781 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 110 | xxxx | 573 | xxxx | xxxx | 507 | | | | |
| Volume/Cap: | 0.01 | xxxx | xxxx | xxxx | xxxx | xxxx | 0.26 | xxxx | 0.01 | xxxx | xxxx | 0.00 | | | | |
| **Level Of Service Module:** | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 0.0 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1.0 | xxxx | 0.0 | xxxx | xxxx | 0.0 | | | | |
| Control Del: | 9.6 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 49.2 | xxxx | 11.3 | xxxxx | xxxx | 12.1 | | | | |
| LOS by Move: | A | * | * | * | * | * | E | * | B | * | * | B | | | | |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | | | | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * | | | | |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 43.7 | | | 12.1 | | | | | | |
| ApproachLOS: | * | | | * | | | E | | | B | | | | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 1 0 0 | 0 | 1 | 0 0 0 | 0 | 1 |
| Initial Vol: | 6 1037 | | 0 | 0 770 | | 103 | 29 | 0 | 5 | 0 | 0 | 1 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 43.7 | | | 12.1 | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.4]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=34]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1951]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=1]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1951]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 1 0 0 | 0 | 1 | 0 0 0 | 0 | 1 |
| Initial Vol: | 6 1037 | | 0 | 0 770 | | 103 | 29 | 0 | 5 | 0 | 0 | 1 |

Major Street Volume: 1916
Minor Approach Volume: 34
Minor Approach Volume Threshold: 94 [less than minimum of 150]

---

SIGNAL WARRANT DISCLAIMER
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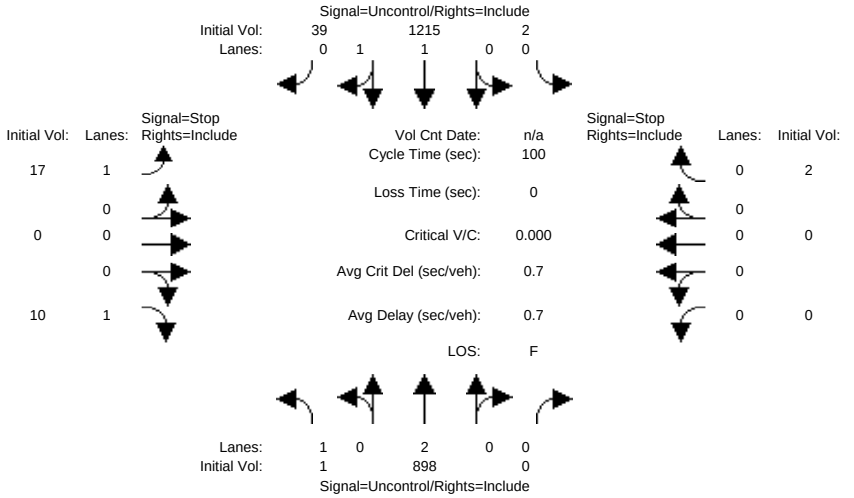
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2016NP PM

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 1 | 898 | 0 | 2 | 1215 | 39 | 17 | 0 | 10 | 0 | 0 | 2 | | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Initial Bse: | 1 | 898 | 0 | 2 | 1215 | 39 | 17 | 0 | 10 | 0 | 0 | 2 | | | | |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Initial Fut: | 1 | 898 | 0 | 2 | 1215 | 39 | 17 | 0 | 10 | 0 | 0 | 2 | | | | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Volume: | 1 | 898 | 0 | 2 | 1215 | 39 | 17 | 0 | 10 | 0 | 0 | 2 | | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| FinalVolume: | 1 | 898 | 0 | 2 | 1215 | 39 | 17 | 0 | 10 | 0 | 0 | 2 | | | | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx | 7.5 | xxxx | 6.9 | xxxxx | xxxx | 6.9 | | | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx | 3.5 | xxxx | 3.3 | xxxxx | xxxx | 3.3 | | | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 1254 | xxxx | xxxxx | 898 | xxxx | xxxxx | 1690 | xxxx | 627 | xxxx | xxxx | 449 | | | | |
| Potent Cap.: | 562 | xxxx | xxxxx | 765 | xxxx | xxxxx | 62 | xxxx | 431 | xxxx | xxxx | 563 | | | | |
| Move Cap.: | 562 | xxxx | xxxxx | 765 | xxxx | xxxxx | 62 | xxxx | 431 | xxxx | xxxx | 563 | | | | |
| Volume/Cap: | 0.00 | xxxx | xxxx | 0.00 | xxxx | xxxx | 0.28 | xxxx | 0.02 | xxxx | xxxx | 0.00 | | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 0.0 | xxxx | xxxxx | 0.0 | xxxx | xxxxx | 1.0 | xxxx | 0.1 | xxxx | xxxx | 0.0 | | | | |
| Control Del: | 11.4 | xxxx | xxxxx | 9.7 | xxxx | xxxxx | 84.4 | xxxx | 13.5 | xxxxx | xxxx | 11.4 | | | | |
| LOS by Move: | B | * | * | A | * | * | F | * | B | * | * | B | | | | |
| Movement: | LT | - LTR | - RT | LT | - LTR | - RT | LT | - LTR | - RT | LT | - LTR | - RT | | | | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| SharedQueue: | xxxxx | xxxx | xxxxx | 0.0 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | 9.7 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Shared LOS: | * | * | * | A | * | * | * | * | * | * | * | * | | | | |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 58.2 | | | 11.4 | | | | | | |
| ApproachLOS: | * | | | * | | | F | | | B | | | | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 1 | 0 | 1 0 | 1 0 | 0 | 1 | 0 0 | 0 | 1 |
| Initial Vol: | 1 898 | | 0 | 2 1215 | | 39 | 17 | 0 | 10 | 0 | 0 | 2 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 58.2 | | | 11.4 | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.4]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=27]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=2184]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=2]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=2184]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

## Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 1 | 0 | 1 0 | 1 0 | 0 | 1 | 0 0 | 0 | 1 |
| Initial Vol: | 1 898 | | 0 | 2 1215 | | 39 | 17 | 0 | 10 | 0 | 0 | 2 |

Major Street Volume: 2155
Minor Approach Volume: 27
Minor Approach Volume Threshold: 44 [less than minimum of 150]

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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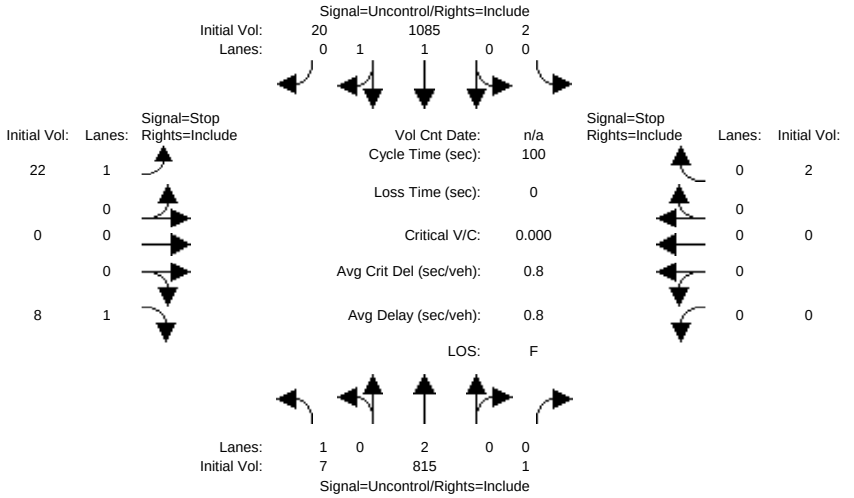
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2016NPSAT

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 7 | | 815 | 1 | 2 | | 1085 | 20 | 22 | | 0 | 8 | 0 | | 0 | 2 |
| Growth Adj: | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Initial Bse: | 7 | | 815 | 1 | 2 | | 1085 | 20 | 22 | | 0 | 8 | 0 | | 0 | 2 |
| Added Vol: | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| PasserByVol: | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| Initial Fut: | 7 | | 815 | 1 | 2 | | 1085 | 20 | 22 | | 0 | 8 | 0 | | 0 | 2 |
| User Adj: | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| PHF Adj: | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| PHF Volume: | 7 | | 815 | 1 | 2 | | 1085 | 20 | 22 | | 0 | 8 | 0 | | 0 | 2 |
| Reduct Vol: | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| FinalVolume: | 7 | | 815 | 1 | 2 | | 1085 | 20 | 22 | | 0 | 8 | 0 | | 0 | 2 |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | | 4.1 | xxxx | xxxxx | | 7.5 | xxxx | | 6.9 | xxxxx | xxxx | | 6.9 |
| FollowUpTim: | 2.2 | xxxx | xxxxx | | 2.2 | xxxx | xxxxx | | 3.5 | xxxx | | 3.3 | xxxxx | xxxx | | 3.3 |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 1105 | xxxx | xxxxx | | 816 | xxxx | xxxxx | | 1521 | xxxx | | 553 | xxxx | xxxx | | 408 |
| Potent Cap.: | 639 | xxxx | xxxxx | | 820 | xxxx | xxxxx | | 83 | xxxx | | 482 | xxxx | xxxx | | 598 |
| Move Cap.: | 639 | xxxx | xxxxx | | 820 | xxxx | xxxxx | | 82 | xxxx | | 482 | xxxx | xxxx | | 598 |
| Volume/Cap: | 0.01 | xxxx | xxxx | | 0.00 | xxxx | xxxx | | 0.27 | xxxx | | 0.02 | xxxx | xxxx | | 0.00 |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 0.0 | xxxx | xxxxx | | 0.0 | xxxx | xxxxx | | 1.0 | xxxx | | 0.1 | xxxx | xxxx | | 0.0 |
| Control Del: | 10.7 | xxxx | xxxxx | | 9.4 | xxxx | xxxxx | | 64.5 | xxxx | | 12.6 | xxxxx | xxxx | | 11.0 |
| LOS by Move: | B | * | | * | A | * | | * | F | * | | B | * | * | | B |
| Movement: | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | 0.0 | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | 9.4 | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shared LOS: | * | * | | * | A | * | | * | * | * | | * | * | * | | * |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | 50.6 | | | | 11.0 | | | |
| ApproachLOS: | * | | | | * | | | | F | | | | B | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 1 | 1 0 | | 0 1 0 | 1 0 | | 1 0 0 | 0 1 | | 0 0 0 | 0 1 | |
| Initial Vol: | 7 | 815 | 1 | 2 | 1085 | 20 | 22 | 0 | 8 | 0 | 0 | 2 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 50.6 | | | 11.0 | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.4]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=30]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1962]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=2]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1962]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

## Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 1 | 1 0 | | 0 1 0 | 1 0 | | 1 0 0 | 0 1 | | 0 0 0 | 0 1 | |
| Initial Vol: | 7 | 815 | 1 | 2 | 1085 | 20 | 22 | 0 | 8 | 0 | 0 | 2 |

Major Street Volume: 1930
Minor Approach Volume: 30
Minor Approach Volume Threshold: 91 [less than minimum of 150]

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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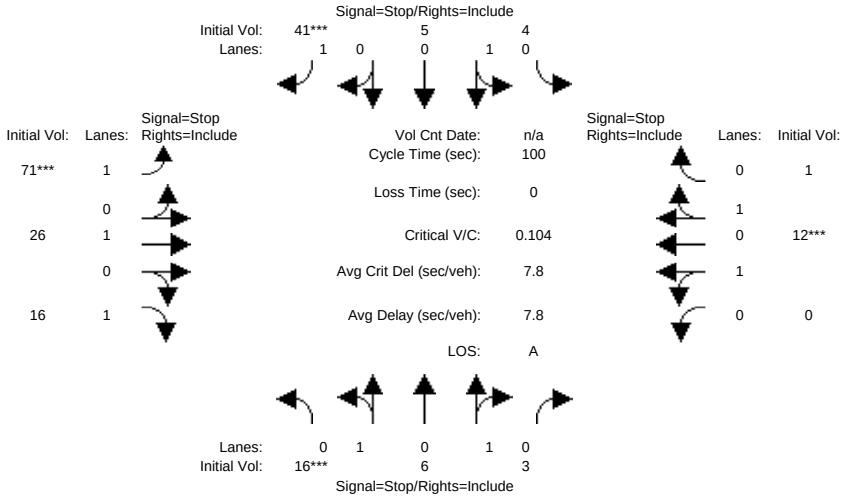
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
2016NPAM

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 16 | 6 | 3 | 4 | 5 | 41 | 71 | 26 | 16 | 0 | 12 | 1 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 16 | 6 | 3 | 4 | 5 | 41 | 71 | 26 | 16 | 0 | 12 | 1 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 16 | 6 | 3 | 4 | 5 | 41 | 71 | 26 | 16 | 0 | 12 | 1 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 16 | 6 | 3 | 4 | 5 | 41 | 71 | 26 | 16 | 0 | 12 | 1 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 16 | 6 | 3 | 4 | 5 | 41 | 71 | 26 | 16 | 0 | 12 | 1 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 16 | 6 | 3 | 4 | 5 | 41 | 71 | 26 | 16 | 0 | 12 | 1 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.76 | 0.24 | 0.44 | 0.56 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.85 | 0.15 |
| Final Sat.: | 658 | 569 | 180 | 309 | 387 | 848 | 680 | 752 | 881 | 0 | 1381 | 117 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.01 | 0.02 | 0.01 | 0.01 | 0.05 | 0.10 | 0.03 | 0.02 | xxxx | 0.01 | 0.01 |
| Crit Moves: | **** | | | | | **** | **** | | | | **** | |
| Delay/Veh: | 8.2 | 7.4 | 7.4 | 7.8 | 7.8 | 7.0 | 8.5 | 7.6 | 6.8 | 0.0 | 7.5 | 7.4 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.2 | 7.4 | 7.4 | 7.8 | 7.8 | 7.0 | 8.5 | 7.6 | 6.8 | 0.0 | 7.5 | 7.4 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | * | A | A |
| ApproachDel: | 7.9 | | | 7.2 | | | 8.1 | | | 7.4 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 7.9 | | | 7.2 | | | 8.1 | | | 7.4 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 16 | 6 | 3 | 4 | 5 | 41 | 71 | 26 | 16 | 0 | 12 | 1 |

Major Street Volume: 126
Minor Approach Volume: 50
Minor Approach Volume Threshold: 1265

---

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.


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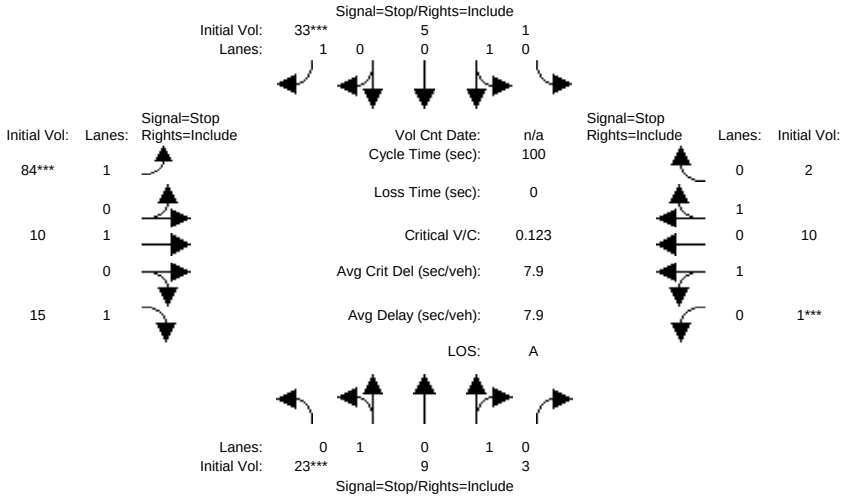
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
2016NP PM

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 23 | 9 | 3 | 1 | 5 | 33 | 84 | 10 | 15 | 1 | 10 | 2 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 23 | 9 | 3 | 1 | 5 | 33 | 84 | 10 | 15 | 1 | 10 | 2 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 23 | 9 | 3 | 1 | 5 | 33 | 84 | 10 | 15 | 1 | 10 | 2 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 23 | 9 | 3 | 1 | 5 | 33 | 84 | 10 | 15 | 1 | 10 | 2 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 23 | 9 | 3 | 1 | 5 | 33 | 84 | 10 | 15 | 1 | 10 | 2 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 23 | 9 | 3 | 1 | 5 | 33 | 84 | 10 | 15 | 1 | 10 | 2 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.83 | 0.17 | 0.17 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 | 0.15 | 1.54 | 0.31 |
| Final Sat.: | 660 | 617 | 128 | 119 | 595 | 846 | 680 | 751 | 880 | 112 | 1155 | 239 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.01 | 0.02 | 0.01 | 0.01 | 0.04 | 0.12 | 0.01 | 0.02 | 0.01 | 0.01 | 0.01 |
| Crit Moves: | **** | | | | | **** | **** | | | **** | | |
| Delay/Veh: | 8.2 | 7.5 | 7.5 | 7.7 | 7.7 | 7.0 | 8.6 | 7.5 | 6.8 | 7.6 | 7.4 | 7.3 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.2 | 7.5 | 7.5 | 7.7 | 7.7 | 7.0 | 8.6 | 7.5 | 6.8 | 7.6 | 7.4 | 7.3 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | A | A | A |
| ApproachDel: | 8.0 | | | 7.1 | | | 8.3 | | | 7.4 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.0 | | | 7.1 | | | 8.3 | | | 7.4 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 23 | 9 | 3 | 1 | 5 | 33 | 84 | 10 | 15 | 1 | 10 | 2 |

Major Street Volume: 122
Minor Approach Volume: 39
Minor Approach Volume Threshold: 1279

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SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.


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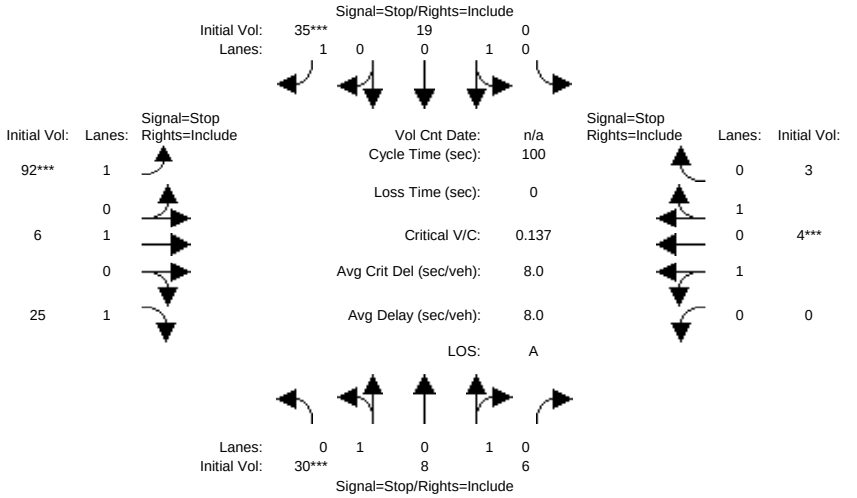
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
2016NPSAT

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 30 | 8 | 6 | 0 | 19 | 35 | 92 | 6 | 25 | 0 | 4 | 3 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 30 | 8 | 6 | 0 | 19 | 35 | 92 | 6 | 25 | 0 | 4 | 3 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 30 | 8 | 6 | 0 | 19 | 35 | 92 | 6 | 25 | 0 | 4 | 3 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 30 | 8 | 6 | 0 | 19 | 35 | 92 | 6 | 25 | 0 | 4 | 3 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 30 | 8 | 6 | 0 | 19 | 35 | 92 | 6 | 25 | 0 | 4 | 3 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 30 | 8 | 6 | 0 | 19 | 35 | 92 | 6 | 25 | 0 | 4 | 3 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.73 | 0.27 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.14 | 0.86 |
| Final Sat.: | 655 | 545 | 204 | 0 | 721 | 839 | 671 | 740 | 864 | 0 | 844 | 708 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.01 | 0.03 | xxxx | 0.03 | 0.04 | 0.14 | 0.01 | 0.03 | xxxx | 0.00 | 0.00 |
| Crit Moves: | **** | | | | | **** | **** | | | | **** | |
| Delay/Veh: | 8.3 | 7.5 | 7.5 | 0.0 | 7.7 | 7.0 | 8.8 | 7.5 | 6.9 | 0.0 | 7.5 | 6.9 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.3 | 7.5 | 7.5 | 0.0 | 7.7 | 7.0 | 8.8 | 7.5 | 6.9 | 0.0 | 7.5 | 6.9 |
| LOS by Move: | A | A | A | * | A | A | A | A | A | * | A | A |
| ApproachDel: | 8.0 | | | 7.3 | | | 8.3 | | | 7.3 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.0 | | | 7.3 | | | 8.3 | | | 7.3 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 30 | 8 | 6 | 0 | 19 | 35 | 92 | 6 | 25 | 0 | 4 | 3 |

Major Street Volume: 130
Minor Approach Volume: 54
Minor Approach Volume Threshold: 1251

---

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.


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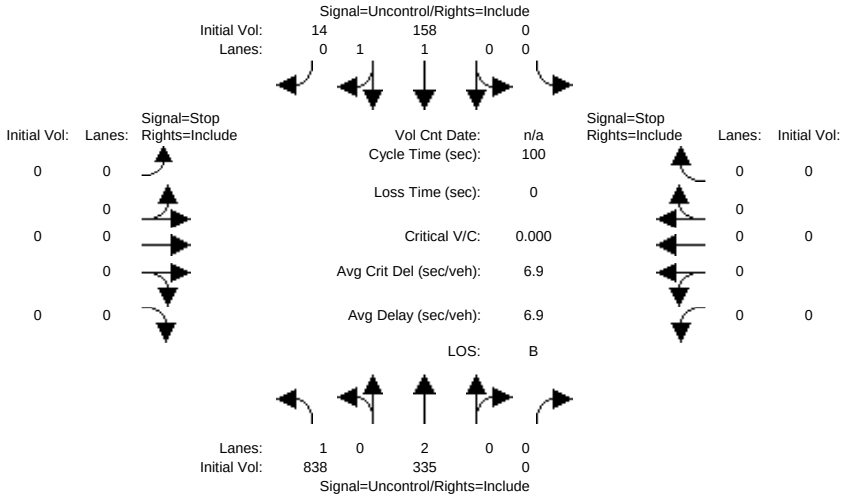
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2016AM

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 838 | 335 | 0 | 0 | 158 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 838 | 335 | 0 | 0 | 158 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 838 | 335 | 0 | 0 | 158 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 838 | 335 | 0 | 0 | 158 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 838 | 335 | 0 | 0 | 158 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Critical Gap Module:** | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| **Capacity Module:** | | | | | | | | | | | | |
| Cnflict Vol: | 172 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | 1417 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | 1417 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | 0.59 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| **Level Of Service Module:** | | | | | | | | | | | | |
| 2Way95thQ: | 4.1 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | 11.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | B | * | * | * | * | * | * | * | * | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | * | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 838 335 | 0 | | 0 158 | 14 | | 0 0 | 0 | | 0 0 | 0 | |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 838 335 | 0 | | 0 158 | 14 | | 0 0 | 0 | | 0 0 | 0 | |

Major Street Volume: 1345
Minor Approach Volume: 0
Minor Approach Volume Threshold: 183

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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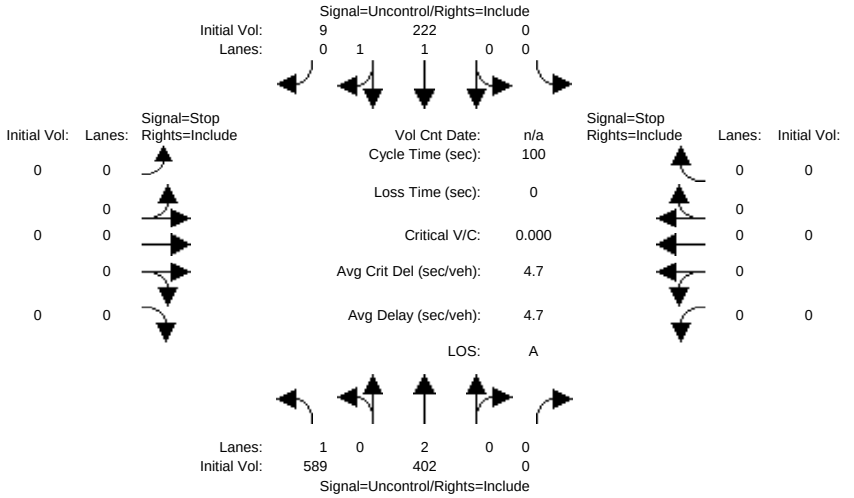
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2016P PM

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 589 | 402 | 0 | 0 | 222 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 589 | 402 | 0 | 0 | 222 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 589 | 402 | 0 | 0 | 222 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 589 | 402 | 0 | 0 | 222 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 589 | 402 | 0 | 0 | 222 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Critical Gap Module:** | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| **Capacity Module:** | | | | | | | | | | | | |
| Cnflict Vol: | 231 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | 1349 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | 1349 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | 0.44 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| **Level Of Service Module:** | | | | | | | | | | | | |
| 2Way95thQ: | 2.3 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | 9.7 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | A | * | * | * | * | * | * | * | * | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | * | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 589 402 | | 0 | 0 222 | | 9 | 0 0 | | 0 | 0 0 | | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 589 402 | | 0 | 0 222 | | 9 | 0 0 | | 0 | 0 0 | | 0 |

Major Street Volume: 1222
Minor Approach Volume: 0
Minor Approach Volume Threshold: 216

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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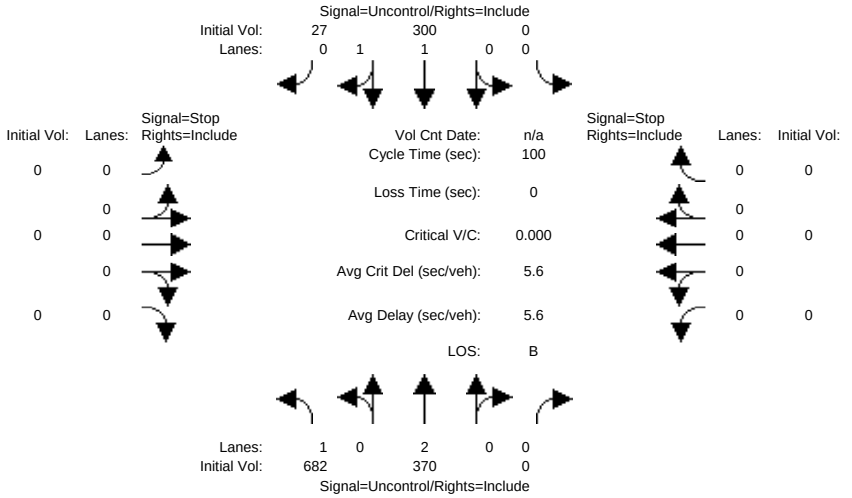
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2016PSAT

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 682 | | 370 | 0 | 0 | | 300 | 27 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 682 | | 370 | 0 | 0 | | 300 | 27 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| Added Vol: | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| PasserByVol: | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| Initial Fut: | 682 | | 370 | 0 | 0 | | 300 | 27 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 682 | | 370 | 0 | 0 | | 300 | 27 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| Reduct Vol: | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| FinalVolume: | 682 | | 370 | 0 | 0 | | 300 | 27 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 327 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Potent Cap.: | 1244 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Move Cap.: | 1244 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Volume/Cap: | 0.55 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 3.5 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Control Del: | 11.3 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| LOS by Move: | B | * | | * | * | * | | * | * | * | | * | | | | |
| Movement: | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shared LOS: | * | | * | * | * | | * | * | * | | * | * | * | | * | * |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | xxxxxx | | | | xxxxxx | | | |
| ApproachLOS: | * | | | | * | | | | * | | | | * | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 682 370 | 0 | | 0 300 | 27 | | 0 0 | 0 | | 0 0 | 0 | |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 682 370 | 0 | | 0 300 | 27 | | 0 0 | 0 | | 0 0 | 0 | |

Major Street Volume: 1379
Minor Approach Volume: 0
Minor Approach Volume Threshold: 174

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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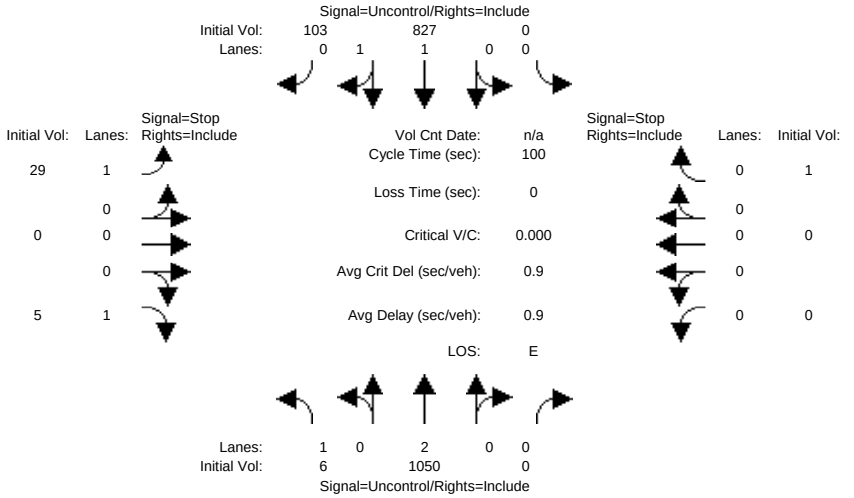
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2016AM

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | | L | - T | - R | | L | - T | - R | | L | - T | - R | |
| **Volume Module:** | | | | | | | | | | | | | | | | |
| Base Vol: | 6 | 1050 | 0 | | 0 | 827 | 103 | | 29 | 0 | 5 | | 0 | 0 | 1 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 6 | 1050 | 0 | | 0 | 827 | 103 | | 29 | 0 | 5 | | 0 | 0 | 1 | |
| Added Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| PasserByVol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Initial Fut: | 6 | 1050 | 0 | | 0 | 827 | 103 | | 29 | 0 | 5 | | 0 | 0 | 1 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 6 | 1050 | 0 | | 0 | 827 | 103 | | 29 | 0 | 5 | | 0 | 0 | 1 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| FinalVolume: | 6 | 1050 | 0 | | 0 | 827 | 103 | | 29 | 0 | 5 | | 0 | 0 | 1 | |
| **Critical Gap Module:** | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 7.5 | xxxx | 6.9 | xxxxx | xxxx | 6.9 | | | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 3.5 | xxxx | 3.3 | xxxxx | xxxx | 3.3 | | | | |
| **Capacity Module:** | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 930 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1416 | xxxx | 465 | xxxx | xxxx | 525 | | | | |
| Potent Cap.: | 744 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 99 | xxxx | 550 | xxxx | xxxx | 502 | | | | |
| Move Cap.: | 744 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 98 | xxxx | 550 | xxxx | xxxx | 502 | | | | |
| Volume/Cap: | 0.01 | xxxx | xxxx | xxxx | xxxx | xxxx | 0.29 | xxxx | 0.01 | xxxx | xxxx | 0.00 | | | | |
| **Level Of Service Module:** | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 0.0 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1.1 | xxxx | 0.0 | xxxx | xxxx | 0.0 | | | | |
| Control Del: | 9.9 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 56.2 | xxxx | 11.6 | xxxxx | xxxx | 12.2 | | | | |
| LOS by Move: | A | * | * | * | * | * | F | * | B | * | * | B | | | | |
| Movement: | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shared LOS: | * | * | * | | * | * | * | | * | * | * | | * | * | * | |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | 49.6 | | | | 12.2 | | | |
| ApproachLOS: | * | | | | * | | | | E | | | | B | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 1 0 0 | 0 | 1 | 0 0 0 | 0 | 1 |
| Initial Vol: | 6 | 1050 | 0 | 0 | 827 | 103 | 29 | 0 | 5 | 0 | 0 | 1 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 49.6 | | | 12.2 | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.5]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=34]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=2021]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=1]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=2021]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 0 1 | 1 | 0 | 1 0 0 | 0 | 1 | 0 0 0 | 0 | 1 |
| Initial Vol: | 6 | 1050 | 0 | 0 | 827 | 103 | 29 | 0 | 5 | 0 | 0 | 1 |

Major Street Volume: 1986
Minor Approach Volume: 34
Minor Approach Volume Threshold: 79 [less than minimum of 150]

---

SIGNAL WARRANT DISCLAIMER
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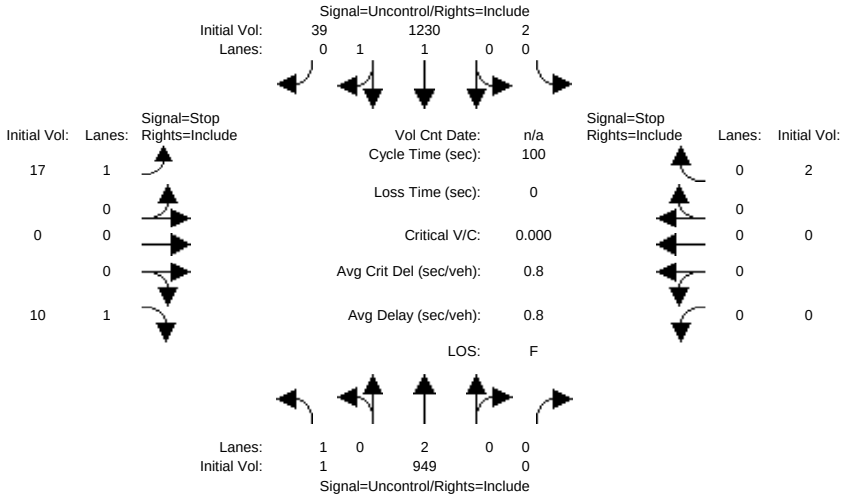
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2016P PM

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 1 | 949 | | 0 | 2 | 1230 | | 39 | 17 | | 0 | 10 | 0 | | 0 | 2 |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Initial Bse: | 1 | 949 | | 0 | 2 | 1230 | | 39 | 17 | | 0 | 10 | 0 | | 0 | 2 |
| Added Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| PasserByVol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| Initial Fut: | 1 | 949 | | 0 | 2 | 1230 | | 39 | 17 | | 0 | 10 | 0 | | 0 | 2 |
| User Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| PHF Volume: | 1 | 949 | | 0 | 2 | 1230 | | 39 | 17 | | 0 | 10 | 0 | | 0 | 2 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| FinalVolume: | 1 | 949 | | 0 | 2 | 1230 | | 39 | 17 | | 0 | 10 | 0 | | 0 | 2 |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | | 4.1 | xxxx | xxxxx | | 7.5 | xxxx | | 6.9 | xxxxx | xxxx | | 6.9 |
| FollowUpTim: | 2.2 | xxxx | xxxxx | | 2.2 | xxxx | xxxxx | | 3.5 | xxxx | | 3.3 | xxxxx | xxxx | | 3.3 |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 1269 | xxxx | xxxxx | | 949 | xxxx | xxxxx | | 1730 | xxxx | | 635 | xxxx | xxxx | | 475 |
| Potent Cap.: | 554 | xxxx | xxxxx | | 732 | xxxx | xxxxx | | 58 | xxxx | | 426 | xxxx | xxxx | | 542 |
| Move Cap.: | 554 | xxxx | xxxxx | | 732 | xxxx | xxxxx | | 57 | xxxx | | 426 | xxxx | xxxx | | 542 |
| Volume/Cap: | 0.00 | xxxx | xxxx | | 0.00 | xxxx | xxxx | | 0.30 | xxxx | | 0.02 | xxxx | xxxx | | 0.00 |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 0.0 | xxxx | xxxxx | | 0.0 | xxxx | xxxxx | | 1.0 | xxxx | | 0.1 | xxxx | xxxx | | 0.0 |
| Control Del: | 11.5 | xxxx | xxxxx | | 9.9 | xxxx | xxxxx | | 92.2 | xxxx | | 13.6 | xxxxx | xxxx | | 11.7 |
| LOS by Move: | B | * | | * | A | * | | * | F | * | | B | * | * | | B |
| Movement: | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | 0.0 | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | 9.9 | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shared LOS: | * | * | | * | A | * | | * | * | * | | * | * | * | | * |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | 63.1 | | | | 11.7 | | | |
| ApproachLOS: | * | | | | * | | | | F | | | | B | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 1 | 0 | 1 0 | 1 0 | 0 | 1 | 0 0 | 0 | 1 |
| Initial Vol: | 1 949 | | 0 | 2 1230 | | 39 | 17 | 0 | 10 | 0 | 0 | 2 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 63.1 | | | 11.7 | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.5]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=27]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=2250]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=2]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=2250]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

SIGNAL WARRANT DISCLAIMER
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## Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 0 | 0 | 0 1 | 0 | 1 0 | 1 0 | 0 | 1 | 0 0 | 0 | 1 |
| Initial Vol: | 1 949 | | 0 | 2 1230 | | 39 | 17 | 0 | 10 | 0 | 0 | 2 |

Major Street Volume: 2221
Minor Approach Volume: 27
Minor Approach Volume Threshold: 31 [less than minimum of 150]

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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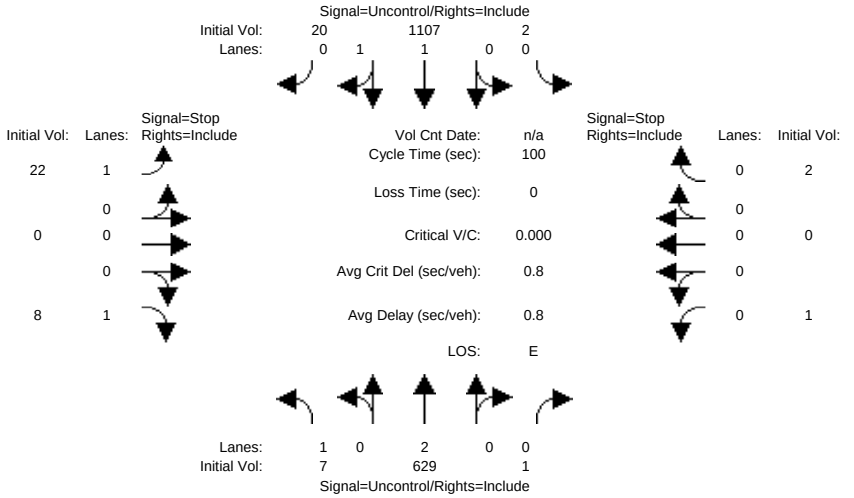
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2016PSAT

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 7 | 629 | 1 | 2 | 1107 | 20 | 22 | 0 | 8 | 1 | 0 | 2 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 7 | 629 | 1 | 2 | 1107 | 20 | 22 | 0 | 8 | 1 | 0 | 2 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 7 | 629 | 1 | 2 | 1107 | 20 | 22 | 0 | 8 | 1 | 0 | 2 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 7 | 629 | 1 | 2 | 1107 | 20 | 22 | 0 | 8 | 1 | 0 | 2 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 7 | 629 | 1 | 2 | 1107 | 20 | 22 | 0 | 8 | 1 | 0 | 2 |
| **Critical Gap Module:** | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx | 7.5 | xxxx | 6.9 | 7.5 | 6.5 | 6.9 |
| FollowUpTim: | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx | 3.5 | xxxx | 3.3 | 3.5 | 4.0 | 3.3 |
| **Capacity Module:** | | | | | | | | | | | | |
| Cnflict Vol: | 1127 | xxxx | xxxxx | 630 | xxxx | xxxxx | 1450 | xxxx | 564 | 1201 | 1775 | 315 |
| Potent Cap.: | 627 | xxxx | xxxxx | 962 | xxxx | xxxxx | 94 | xxxx | 474 | 143 | 84 | 687 |
| Move Cap.: | 627 | xxxx | xxxxx | 962 | xxxx | xxxxx | 92 | xxxx | 474 | 139 | 83 | 687 |
| Volume/Cap: | 0.01 | xxxx | xxxx | 0.00 | xxxx | xxxx | 0.24 | xxxx | 0.02 | 0.01 | 0.00 | 0.00 |
| **Level Of Service Module:** | | | | | | | | | | | | |
| 2Way95thQ: | 0.0 | xxxx | xxxxx | 0.0 | xxxx | xxxxx | 0.9 | xxxx | 0.1 | xxxx | xxxx | xxxxx |
| Control Del: | 10.8 | xxxx | xxxxx | 8.7 | xxxx | xxxxx | 55.7 | xxxx | 12.7 | xxxxx | xxxx | xxxxx |
| LOS by Move: | B | * | * | A | * | * | F | * | B | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | 297 | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | 0.0 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 0.0 | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | 8.7 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 17.3 | xxxxx |
| Shared LOS: | * | * | * | A | * | * | * | * | * | * | C | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 44.3 | | | 17.3 | | |
| ApproachLOS: | * | | | * | | | E | | | C | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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```
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        1  0  1  1  0    0  1  0  1  0    1  0  0  0  1    0  0  1! 0  0
Initial Vol:    7  629     1     2 1107    20    22    0     8     1    0     2
ApproachDel:    xxxxxx           xxxxxx             44.3             17.3
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.4]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=30]
   FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1799]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=3]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1799]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
              Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #14 Harbor/3rd
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        1  0  1  1  0    0  1  0  1  0    1  0  0  0  1    0  0  1! 0  0
Initial Vol:    7  629     1     2 1107    20    22    0     8     1    0     2
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1766
Minor Approach Volume:           30
Minor Approach Volume Threshold: 130 [less than minimum of 150]
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```


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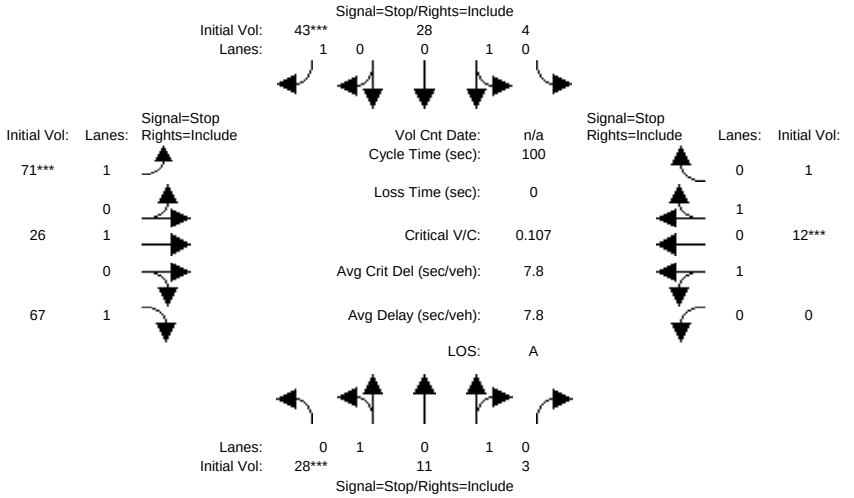
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
2016AM

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 28 | 11 | 3 | 4 | 28 | 43 | 71 | 26 | 67 | 0 | 12 | 1 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 28 | 11 | 3 | 4 | 28 | 43 | 71 | 26 | 67 | 0 | 12 | 1 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 28 | 11 | 3 | 4 | 28 | 43 | 71 | 26 | 67 | 0 | 12 | 1 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 28 | 11 | 3 | 4 | 28 | 43 | 71 | 26 | 67 | 0 | 12 | 1 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 28 | 11 | 3 | 4 | 28 | 43 | 71 | 26 | 67 | 0 | 12 | 1 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 28 | 11 | 3 | 4 | 28 | 43 | 71 | 26 | 67 | 0 | 12 | 1 |
| **Saturation Flow Module:** | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.86 | 0.14 | 0.12 | 0.88 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.85 | 0.15 |
| Final Sat.: | 638 | 611 | 102 | 87 | 608 | 815 | 661 | 729 | 848 | 0 | 1324 | 112 |
| **Capacity Analysis Module:** | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.02 | 0.03 | 0.05 | 0.05 | 0.05 | 0.11 | 0.04 | 0.08 | xxxx | 0.01 | 0.01 |
| Crit Moves: | **** | | | | | **** | **** | | | | **** | |
| Delay/Veh: | 8.4 | 7.7 | 7.7 | 7.9 | 7.9 | 7.2 | 8.7 | 7.7 | 7.2 | 0.0 | 7.6 | 7.5 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.4 | 7.7 | 7.7 | 7.9 | 7.9 | 7.2 | 8.7 | 7.7 | 7.2 | 0.0 | 7.6 | 7.5 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | * | A | A |
| ApproachDel: | 8.2 | | | 7.5 | | | 7.9 | | | 7.6 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.2 | | | 7.5 | | | 7.9 | | | 7.6 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 28 | 11 | 3 | 4 | 28 | 43 | 71 | 26 | 67 | 0 | 12 | 1 |

Major Street Volume: 177
Minor Approach Volume: 75
Minor Approach Volume Threshold: 1119

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SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.


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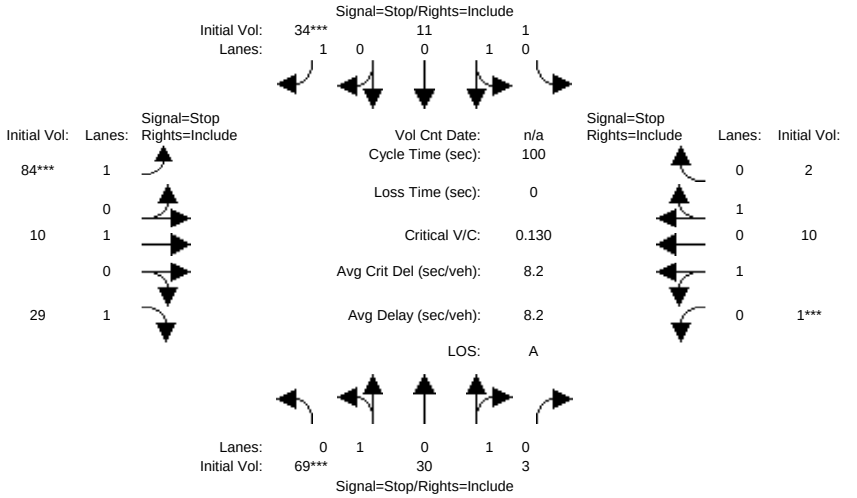
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
2016P PM

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 69 | 30 | 3 | 1 | 11 | 34 | 84 | 10 | 29 | 1 | 10 | 2 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 69 | 30 | 3 | 1 | 11 | 34 | 84 | 10 | 29 | 1 | 10 | 2 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 69 | 30 | 3 | 1 | 11 | 34 | 84 | 10 | 29 | 1 | 10 | 2 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 69 | 30 | 3 | 1 | 11 | 34 | 84 | 10 | 29 | 1 | 10 | 2 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 69 | 30 | 3 | 1 | 11 | 34 | 84 | 10 | 29 | 1 | 10 | 2 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 69 | 30 | 3 | 1 | 11 | 34 | 84 | 10 | 29 | 1 | 10 | 2 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.94 | 0.06 | 0.08 | 0.92 | 1.00 | 1.00 | 1.00 | 1.00 | 0.15 | 1.54 | 0.31 |
| Final Sat.: | 654 | 682 | 43 | 59 | 645 | 823 | 647 | 710 | 824 | 106 | 1089 | 225 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.04 | 0.07 | 0.02 | 0.02 | 0.04 | 0.13 | 0.01 | 0.04 | 0.01 | 0.01 | 0.01 |
| Crit Moves: | **** | | | | | **** | **** | | | **** | | |
| Delay/Veh: | 8.7 | 7.8 | 7.8 | 7.8 | 7.8 | 7.1 | 8.9 | 7.7 | 7.1 | 7.8 | 7.7 | 7.5 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.7 | 7.8 | 7.8 | 7.8 | 7.8 | 7.1 | 8.9 | 7.7 | 7.1 | 7.8 | 7.7 | 7.5 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | A | A | A |
| ApproachDel: | 8.4 | | | 7.3 | | | 8.4 | | | 7.6 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.4 | | | 7.3 | | | 8.4 | | | 7.6 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 69 | 30 | 3 | 1 | 11 | 34 | 84 | 10 | 29 | 1 | 10 | 2 |

Major Street Volume: 148
Minor Approach Volume: 123
Minor Approach Volume Threshold: 1196

---

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.


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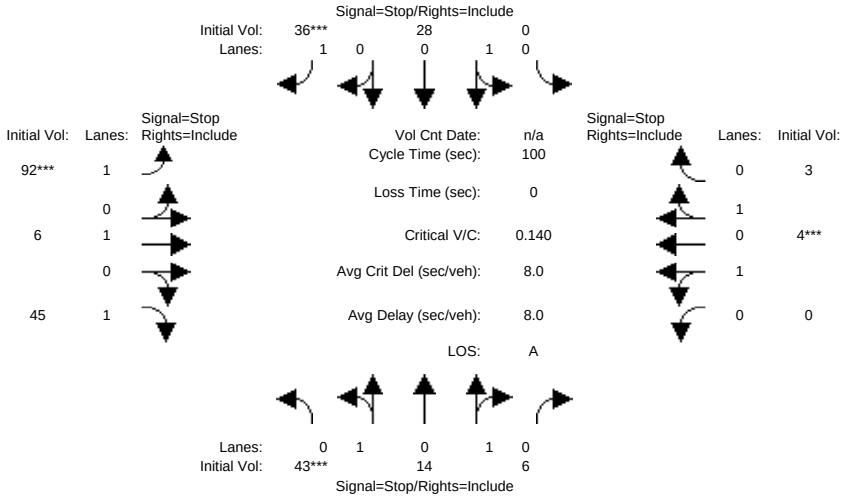
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
2016PSAT

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 43 | 14 | 6 | 0 | 28 | 36 | 92 | 6 | 45 | 0 | 4 | 3 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 43 | 14 | 6 | 0 | 28 | 36 | 92 | 6 | 45 | 0 | 4 | 3 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 43 | 14 | 6 | 0 | 28 | 36 | 92 | 6 | 45 | 0 | 4 | 3 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 43 | 14 | 6 | 0 | 28 | 36 | 92 | 6 | 45 | 0 | 4 | 3 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 43 | 14 | 6 | 0 | 28 | 36 | 92 | 6 | 45 | 0 | 4 | 3 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 43 | 14 | 6 | 0 | 28 | 36 | 92 | 6 | 45 | 0 | 4 | 3 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.81 | 0.19 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.14 | 0.86 |
| Final Sat.: | 647 | 591 | 139 | 0 | 710 | 824 | 659 | 724 | 844 | 0 | 822 | 688 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.02 | 0.04 | xxxx | 0.04 | 0.04 | 0.14 | 0.01 | 0.05 | xxxx | 0.00 | 0.00 |
| Crit Moves: | **** | | | | | **** | **** | | | | **** | |
| Delay/Veh: | 8.5 | 7.6 | 7.6 | 0.0 | 7.8 | 7.1 | 8.9 | 7.6 | 7.1 | 0.0 | 7.6 | 7.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.5 | 7.6 | 7.6 | 0.0 | 7.8 | 7.1 | 8.9 | 7.6 | 7.1 | 0.0 | 7.6 | 7.0 |
| LOS by Move: | A | A | A | * | A | A | A | A | A | * | A | A |
| ApproachDel: | 8.2 | | | 7.4 | | | 8.3 | | | 7.3 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.2 | | | 7.4 | | | 8.3 | | | 7.3 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 43 | 14 | 6 | 0 | 28 | 36 | 92 | 6 | 45 | 0 | 4 | 3 |

Major Street Volume: 150
Minor Approach Volume: 64
Minor Approach Volume Threshold: 1190

---

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.


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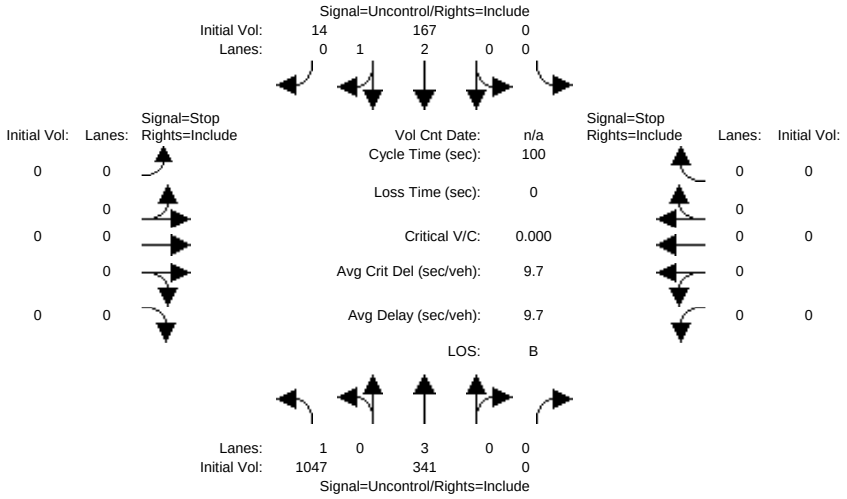
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2024NPAM

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 1047 | 341 | 0 | 0 | 167 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 1047 | 341 | 0 | 0 | 167 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 1047 | 341 | 0 | 0 | 167 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 1047 | 341 | 0 | 0 | 167 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 1047 | 341 | 0 | 0 | 167 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Critical Gap Module:** | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| **Capacity Module:** | | | | | | | | | | | | |
| Cnflict Vol: | 181 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | 1407 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | 1407 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | 0.74 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| **Level Of Service Module:** | | | | | | | | | | | | |
| 2Way95thQ: | 7.5 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | 14.6 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | B | * | * | * | * | * | * | * | * | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | * | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 | 3 0 | 0 | 0 0 | 2 1 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 |
| Initial Vol: | 1047 | 341 | 0 | 0 | 167 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 | 3 0 | 0 | 0 0 | 2 1 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 |
| Initial Vol: | 1047 | 341 | 0 | 0 | 167 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |

Major Street Volume: 1569
Minor Approach Volume: 0
Minor Approach Volume Threshold: 130

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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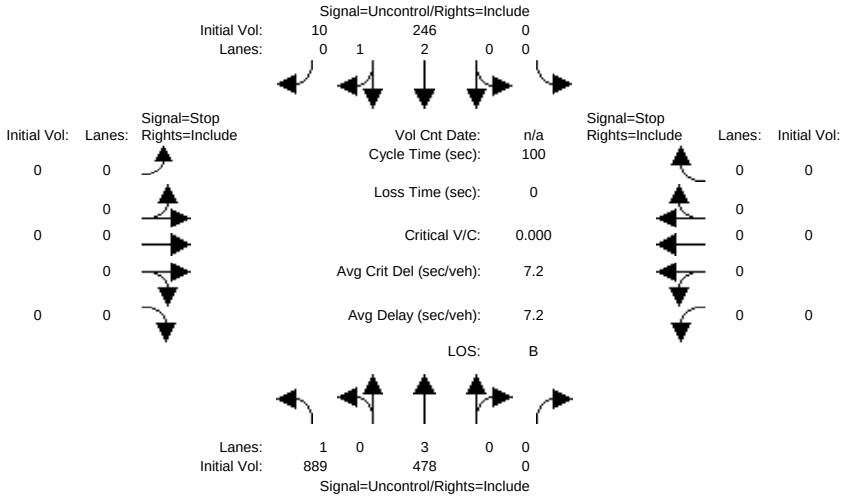
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2042NP PM

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 889 | 478 | 0 | 0 | 246 | 10 | 0 | 0 | 0 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 889 | 478 | 0 | 0 | 246 | 10 | 0 | 0 | 0 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 889 | 478 | 0 | 0 | 246 | 10 | 0 | 0 | 0 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 889 | 478 | 0 | 0 | 246 | 10 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 889 | 478 | 0 | 0 | 246 | 10 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 256 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | 1321 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | 1321 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | 0.67 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | 5.6 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | 13.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | B | * | * | * | * | * | * | * | * | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | * | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 3 | 0 | 0 | 0 0 2 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 889 | 478 | 0 | 0 | 246 | 10 | 0 | 0 | 0 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 3 | 0 | 0 | 0 0 2 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 889 | 478 | 0 | 0 | 246 | 10 | 0 | 0 | 0 | 0 | 0 | 0 |

Major Street Volume: 1623
Minor Approach Volume: 0
Minor Approach Volume Threshold: 118

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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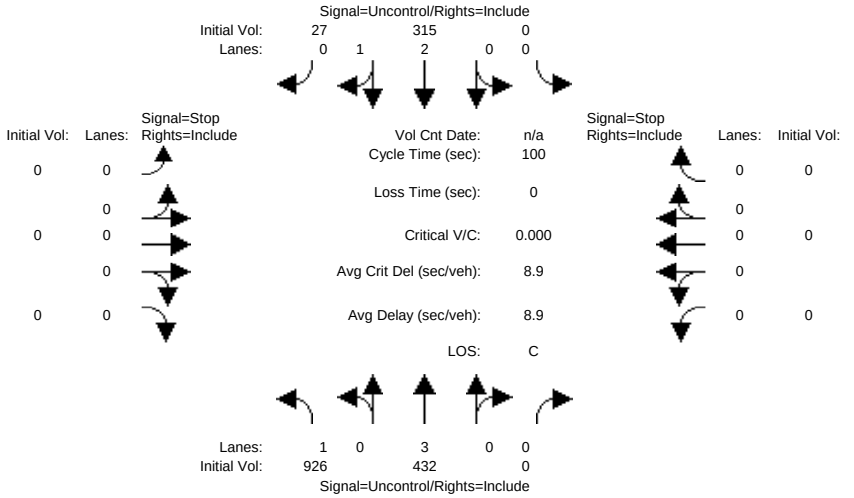
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2024NPSAT

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 926 | 432 | 0 | 0 | 315 | 27 | 0 | 0 | 0 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 926 | 432 | 0 | 0 | 315 | 27 | 0 | 0 | 0 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 926 | 432 | 0 | 0 | 315 | 27 | 0 | 0 | 0 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 926 | 432 | 0 | 0 | 315 | 27 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 926 | 432 | 0 | 0 | 315 | 27 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 342 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | 1228 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | 1228 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | 0.75 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | 7.6 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | 16.3 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | C | * | * | * | * | * | * | * | * | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | * | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 | 3 0 | 0 | 0 0 | 2 1 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 |
| Initial Vol: | 926 | 432 | 0 | 0 | 315 | 27 | 0 | 0 | 0 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 | 3 0 | 0 | 0 0 | 2 1 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 |
| Initial Vol: | 926 | 432 | 0 | 0 | 315 | 27 | 0 | 0 | 0 | 0 | 0 | 0 |

Major Street Volume: 1700
Minor Approach Volume: 0
Minor Approach Volume Threshold: 102

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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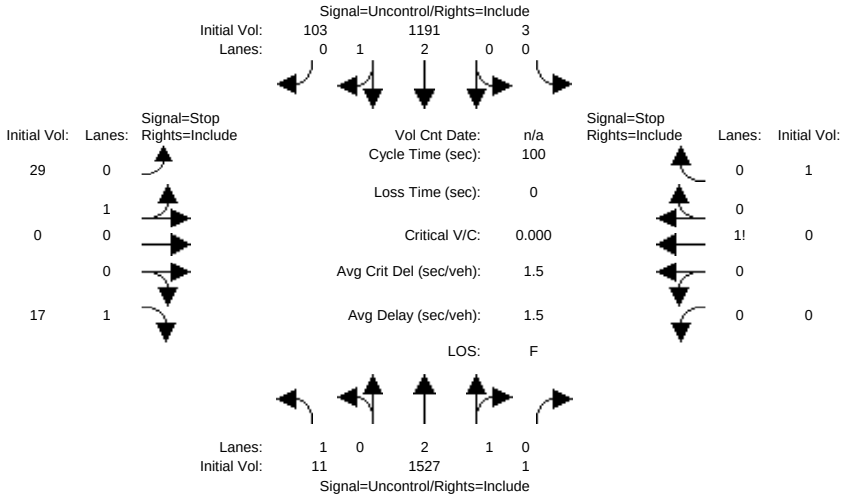
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2024NPAM

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | | L | - T | - R | | L | - T | - R | | L | - T | - R | |
| **Volume Module:** | | | | | | | | | | | | | | | | |
| Base Vol: | 11 | 1527 | 1 | | 3 | 1191 | 103 | | 29 | 0 | 17 | | 0 | 0 | 1 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 11 | 1527 | 1 | | 3 | 1191 | 103 | | 29 | 0 | 17 | | 0 | 0 | 1 | |
| Added Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| PasserByVol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Initial Fut: | 11 | 1527 | 1 | | 3 | 1191 | 103 | | 29 | 0 | 17 | | 0 | 0 | 1 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 11 | 1527 | 1 | | 3 | 1191 | 103 | | 29 | 0 | 17 | | 0 | 0 | 1 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| FinalVolume: | 11 | 1527 | 1 | | 3 | 1191 | 103 | | 29 | 0 | 17 | | 0 | 0 | 1 | |
| **Critical Gap Module:** | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | | 4.1 | xxxx | xxxxx | | 7.5 | 6.5 | 6.9 | | xxxxx | xxxx | 6.9 | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | | 2.2 | xxxx | xxxxx | | 3.5 | 4.0 | 3.3 | | xxxxx | xxxx | 3.3 | |
| **Capacity Module:** | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 1294 | xxxx | xxxxx | | 1528 | xxxx | xxxxx | | 1780 | 2799 | 449 | | xxxx | xxxx | 510 | |
| Potent Cap.: | 542 | xxxx | xxxxx | | 442 | xxxx | xxxxx | | 53 | 19 | 563 | | xxxx | xxxx | 514 | |
| Move Cap.: | 542 | xxxx | xxxxx | | 442 | xxxx | xxxxx | | 52 | 18 | 563 | | xxxx | xxxx | 514 | |
| Volume/Cap: | 0.02 | xxxx | xxxx | | 0.01 | xxxx | xxxx | | 0.56 | 0.00 | 0.03 | | xxxx | xxxx | 0.00 | |
| **Level Of Service Module:** | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 0.1 | xxxx | xxxxx | | 0.0 | xxxx | xxxxx | | xxxx | xxxx | 0.1 | | xxxx | xxxx | 0.0 | |
| Control Del: | 11.8 | xxxx | xxxxx | | 13.2 | xxxx | xxxxx | | xxxxx | xxxx | 11.6 | | xxxxx | xxxx | 12.0 | |
| LOS by Move: | B | * | * | | B | * | * | | * | * | B | | * | * | B | |
| Movement: | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | 52 | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | 0.0 | xxxx | xxxxx | | 2.2 | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | 13.2 | xxxx | xxxxx | | 140.4 | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shared LOS: | * | * | * | | B | * | * | | F | * | * | | * | * | * | |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | 92.8 | | | | 12.0 | | | |
| ApproachLOS: | * | | | | * | | | | F | | | | B | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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```
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        1  0  2  1  0    0  1  1  1  0    0  1  0  0  1    0  0  0  0  1
Initial Vol:   11 1527     1     3 1191   103    29    0    17     0    0     1
ApproachDel:    xxxxxx           xxxxxx             92.8             12.0
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.2]
   FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=46]
   FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=2883]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=1]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=2883]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
              Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #14 Harbor/3rd
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        1  0  2  1  0    0  1  1  1  0    0  1  0  0  1    0  0  0  0  1
Initial Vol:   11 1527     1     3 1191   103    29    0    17     0    0     1
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             2836
Minor Approach Volume:           46
Minor Approach Volume Threshold: -74 [less than minimum of 150]
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
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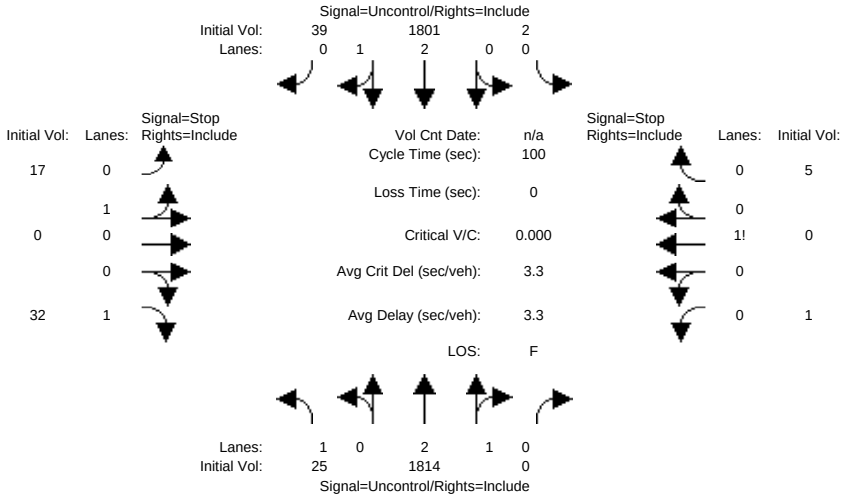
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2042NP PM

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 25 | 1814 | 0 | 2 | 1801 | 39 | 17 | 0 | 32 | 1 | 0 | 5 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 25 | 1814 | 0 | 2 | 1801 | 39 | 17 | 0 | 32 | 1 | 0 | 5 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 25 | 1814 | 0 | 2 | 1801 | 39 | 17 | 0 | 32 | 1 | 0 | 5 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 25 | 1814 | 0 | 2 | 1801 | 39 | 17 | 0 | 32 | 1 | 0 | 5 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 25 | 1814 | 0 | 2 | 1801 | 39 | 17 | 0 | 32 | 1 | 0 | 5 |
| **Critical Gap Module:** | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 |
| FollowUpTim: | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |
| **Capacity Module:** | | | | | | | | | | | | |
| Cnflict Vol: | 1840 | xxxx | xxxxx | 1814 | xxxx | xxxxx | 2479 | 3689 | 620 | 2468 | 3708 | 605 |
| Potent Cap.: | 335 | xxxx | xxxxx | 343 | xxxx | xxxxx | 16 | 5 | 436 | 16 | 5 | 446 |
| Move Cap.: | 335 | xxxx | xxxxx | 343 | xxxx | xxxxx | 14 | 4 | 436 | 14 | 4 | 446 |
| Volume/Cap: | 0.07 | xxxx | xxxx | 0.01 | xxxx | xxxx | 1.18 | 0.00 | 0.07 | 0.07 | 0.00 | 0.01 |
| **Level Of Service Module:** | | | | | | | | | | | | |
| 2Way95thQ: | 0.2 | xxxx | xxxxx | 0.0 | xxxx | xxxxx | xxxx | xxxx | 0.2 | xxxx | xxxx | xxxxx |
| Control Del: | 16.6 | xxxx | xxxxx | 15.6 | xxxx | xxxxx | xxxxx | xxxx | 13.9 | xxxxx | xxxx | xxxxx |
| LOS by Move: | C | * | * | C | * | * | * | * | B | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 14 | xxxx | xxxxx | xxxx | 72 | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | 0.0 | xxxx | xxxxx | 2.7 | xxxx | xxxxx | xxxxx | 0.3 | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | 15.6 | xxxx | xxxxx | 659.5 | xxxx | xxxxx | xxxxx | 59.7 | xxxxx |
| Shared LOS: | * | * | * | C | * | * | F | * | * | * | F | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 237.9 | | | 59.7 | | |
| ApproachLOS: | * | | | * | | | F | | | F | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 1 | 0 | 0 1 | 1 | 1 0 | 0 1 | 0 | 0 1 | 0 0 | 1! | 0 0 |
| Initial Vol: | 25 1814 | | 0 | 2 1801 | | 39 | 17 | | 0 | 32 | | 1 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 237.9 | | | 59.7 | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=3.2]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=49]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3736]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=6]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3736]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

## Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 1 | 0 | 0 1 | 1 | 1 0 | 0 1 | 0 | 0 1 | 0 0 | 1! | 0 0 |
| Initial Vol: | 25 1814 | | 0 | 2 1801 | | 39 | 17 | | 0 | 32 | | 1 |

Major Street Volume: 3681
Minor Approach Volume: 49
Minor Approach Volume Threshold: -186 [less than minimum of 150]

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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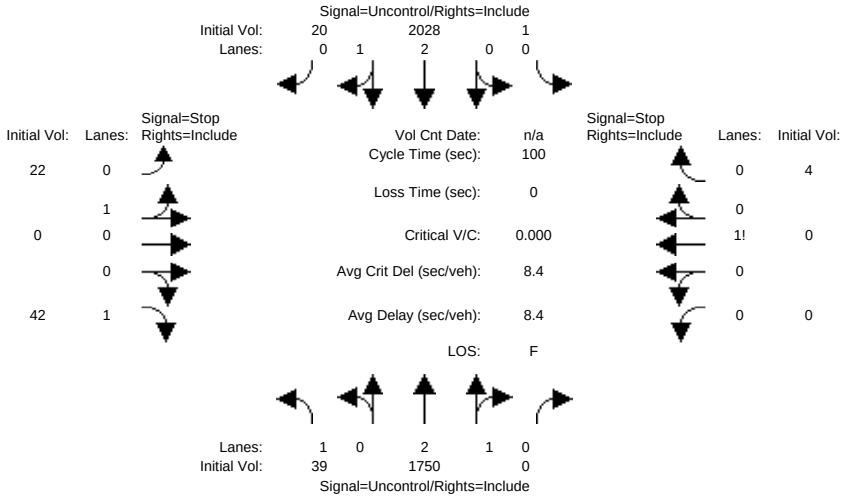
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2024NPSAT

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | | L | - T | - R | | L | - T | - R | | L | - T | - R | |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 39 | 1750 | 0 | | 1 | 2028 | 20 | | 22 | 0 | 42 | | 0 | 0 | 4 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 39 | 1750 | 0 | | 1 | 2028 | 20 | | 22 | 0 | 42 | | 0 | 0 | 4 | |
| Added Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| PasserByVol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Initial Fut: | 39 | 1750 | 0 | | 1 | 2028 | 20 | | 22 | 0 | 42 | | 0 | 0 | 4 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 39 | 1750 | 0 | | 1 | 2028 | 20 | | 22 | 0 | 42 | | 0 | 0 | 4 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| FinalVolume: | 39 | 1750 | 0 | | 1 | 2028 | 20 | | 22 | 0 | 42 | | 0 | 0 | 4 | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | | 4.1 | xxxx | xxxxx | | 7.5 | 6.5 | 6.9 | xxxxx | xxxx | 6.9 | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | | 2.2 | xxxx | xxxxx | | 3.5 | 4.0 | 3.3 | xxxxx | xxxx | 3.3 | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 2048 | xxxx | xxxxx | | 1750 | xxxx | xxxxx | | 2701 | 3868 | 686 | xxxx | xxxx | 583 | | |
| Potent Cap.: | 278 | xxxx | xxxxx | | 363 | xxxx | xxxxx | | 10 | 4 | 395 | xxxx | xxxx | 460 | | |
| Move Cap.: | 278 | xxxx | xxxxx | | 363 | xxxx | xxxxx | | 9 | 3 | 395 | xxxx | xxxx | 460 | | |
| Volume/Cap: | 0.14 | xxxx | xxxx | | 0.00 | xxxx | xxxx | | 2.38 | 0.00 | 0.11 | xxxx | xxxx | 0.01 | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 0.5 | xxxx | xxxxx | | 0.0 | xxxx | xxxxx | | xxxx | xxxx | 0.4 | xxxx | xxxx | 0.0 | | |
| Control Del: | 20.0 | xxxx | xxxxx | | 14.9 | xxxx | xxxxx | | xxxxx | xxxx | 15.2 | xxxxx | xxxx | 12.9 | | |
| LOS by Move: | C | * | * | | B | * | * | | * | * | C | * | * | B | | |
| Movement: | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | 9 | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | 0.0 | xxxx | xxxxx | | 3.8 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | 14.9 | xxxx | xxxxx | | 1421 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | |
| Shared LOS: | * | * | * | | B | * | * | | F | * | * | * | * | * | | |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | 498.4 | | | 12.9 | | | | |
| ApproachLOS: | * | | | | * | | | | F | | | B | | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 1 | 0 | 0 1 1 | 1 | 0 | 0 1 0 | 0 | 1 | 0 0 0 | 0 | 1 |
| Initial Vol: | 39 1750 | | 0 | 1 2028 | | 20 | 22 | | 0 | 42 | | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 498.4 | | | 12.9 | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=8.9]
SUCCEED - Vehicle-hours >= 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=64]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3906]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=4]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3906]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

## Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 1 | 0 | 0 1 1 | 1 | 0 | 0 1 0 | 0 | 1 | 0 0 0 | 0 | 1 |
| Initial Vol: | 39 1750 | | 0 | 1 2028 | | 20 | 22 | | 0 | 42 | | 0 |

Major Street Volume: 3838
Minor Approach Volume: 64
Minor Approach Volume Threshold: -204 [less than minimum of 150]

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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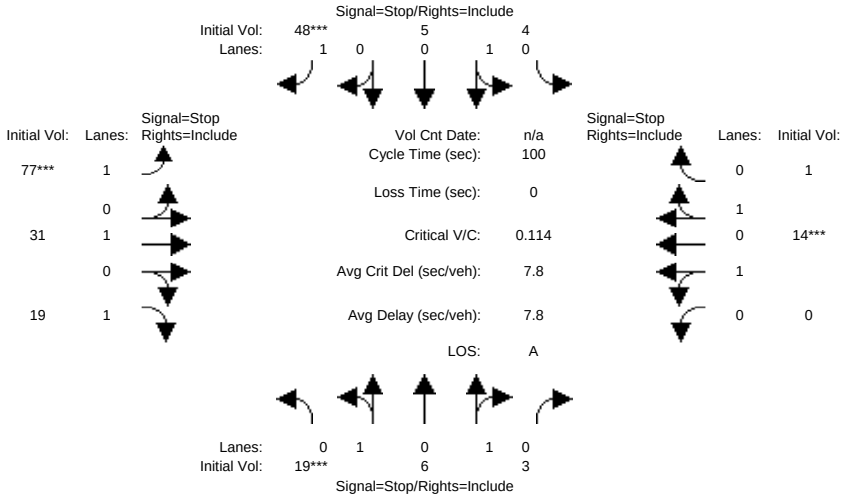
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
2024NPAM

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 19 | 6 | 3 | 4 | 5 | 48 | 77 | 31 | 19 | 0 | 14 | 1 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 19 | 6 | 3 | 4 | 5 | 48 | 77 | 31 | 19 | 0 | 14 | 1 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 19 | 6 | 3 | 4 | 5 | 48 | 77 | 31 | 19 | 0 | 14 | 1 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 19 | 6 | 3 | 4 | 5 | 48 | 77 | 31 | 19 | 0 | 14 | 1 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 19 | 6 | 3 | 4 | 5 | 48 | 77 | 31 | 19 | 0 | 14 | 1 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 19 | 6 | 3 | 4 | 5 | 48 | 77 | 31 | 19 | 0 | 14 | 1 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.79 | 0.21 | 0.44 | 0.56 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.87 | 0.13 |
| Final Sat.: | 652 | 580 | 158 | 306 | 383 | 836 | 676 | 745 | 872 | 0 | 1381 | 100 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.01 | 0.02 | 0.01 | 0.01 | 0.06 | 0.11 | 0.04 | 0.02 | xxxx | 0.01 | 0.01 |
| Crit Moves: | **** | | | | | **** | **** | | | | **** | |
| Delay/Veh: | 8.2 | 7.5 | 7.5 | 7.9 | 7.9 | 7.1 | 8.6 | 7.7 | 6.8 | 0.0 | 7.5 | 7.5 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.2 | 7.5 | 7.5 | 7.9 | 7.9 | 7.1 | 8.6 | 7.7 | 6.8 | 0.0 | 7.5 | 7.5 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | * | A | A |
| ApproachDel: | 8.0 | | | 7.2 | | | 8.1 | | | 7.5 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.0 | | | 7.2 | | | 8.1 | | | 7.5 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 19 | 6 | 3 | 4 | 5 | 48 | 77 | 31 | 19 | 0 | 14 | 1 |

Major Street Volume: 142
Minor Approach Volume: 57
Minor Approach Volume Threshold: 1213

---

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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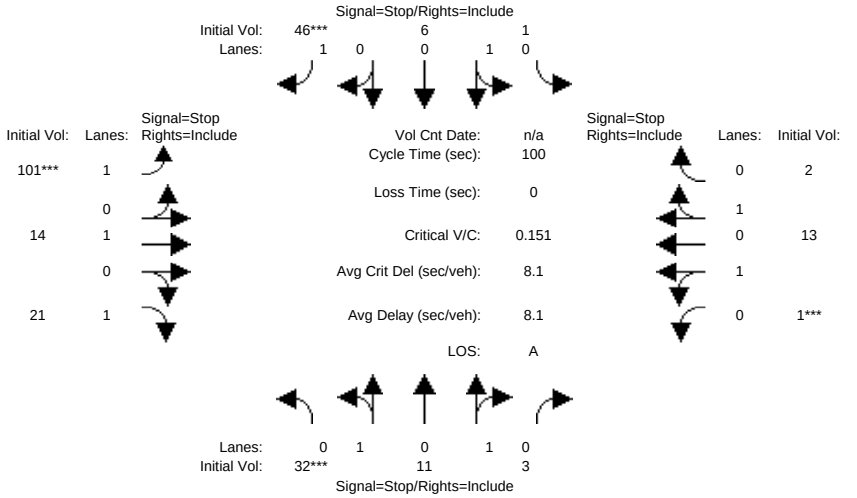
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
2042NP PM

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 32 | 11 | 3 | 1 | 6 | 46 | 101 | 14 | 21 | 1 | 13 | 2 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 32 | 11 | 3 | 1 | 6 | 46 | 101 | 14 | 21 | 1 | 13 | 2 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 32 | 11 | 3 | 1 | 6 | 46 | 101 | 14 | 21 | 1 | 13 | 2 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 32 | 11 | 3 | 1 | 6 | 46 | 101 | 14 | 21 | 1 | 13 | 2 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 32 | 11 | 3 | 1 | 6 | 46 | 101 | 14 | 21 | 1 | 13 | 2 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 32 | 11 | 3 | 1 | 6 | 46 | 101 | 14 | 21 | 1 | 13 | 2 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.87 | 0.13 | 0.14 | 0.86 | 1.00 | 1.00 | 1.00 | 1.00 | 0.12 | 1.63 | 0.25 |
| Final Sat.: | 647 | 629 | 94 | 100 | 600 | 825 | 669 | 737 | 859 | 89 | 1188 | 187 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.02 | 0.03 | 0.01 | 0.01 | 0.06 | 0.15 | 0.02 | 0.02 | 0.01 | 0.01 | 0.01 |
| Crit Moves: | **** | | | | | **** | **** | | | **** | | |
| Delay/Veh: | 8.4 | 7.6 | 7.6 | 7.7 | 7.7 | 7.2 | 8.9 | 7.6 | 6.9 | 7.7 | 7.6 | 7.4 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.4 | 7.6 | 7.6 | 7.7 | 7.7 | 7.2 | 8.9 | 7.6 | 6.9 | 7.7 | 7.6 | 7.4 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | A | A | A |
| ApproachDel: | 8.2 | | | 7.2 | | | 8.5 | | | 7.5 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.2 | | | 7.2 | | | 8.5 | | | 7.5 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 32 | 11 | 3 | 1 | 6 | 46 | 101 | 14 | 21 | 1 | 13 | 2 |

Major Street Volume: 152
Minor Approach Volume: 53
Minor Approach Volume Threshold: 1184

---

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.


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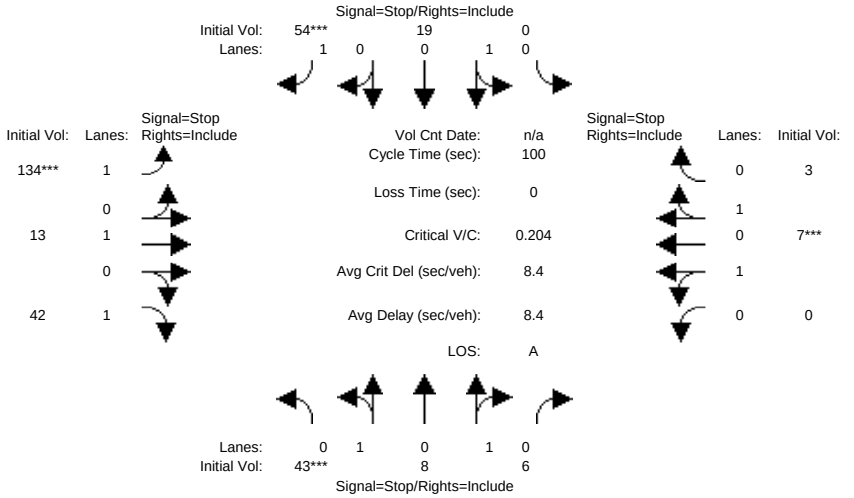
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
2024NPSAT

## Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 43 | 8 | 6 | 0 | 19 | 54 | 134 | 13 | 42 | 0 | 7 | 3 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 43 | 8 | 6 | 0 | 19 | 54 | 134 | 13 | 42 | 0 | 7 | 3 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 43 | 8 | 6 | 0 | 19 | 54 | 134 | 13 | 42 | 0 | 7 | 3 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 43 | 8 | 6 | 0 | 19 | 54 | 134 | 13 | 42 | 0 | 7 | 3 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 43 | 8 | 6 | 0 | 19 | 54 | 134 | 13 | 42 | 0 | 7 | 3 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 43 | 8 | 6 | 0 | 19 | 54 | 134 | 13 | 42 | 0 | 7 | 3 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.79 | 0.21 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.40 | 0.60 |
| Final Sat.: | 627 | 557 | 148 | 0 | 687 | 794 | 657 | 722 | 840 | 0 | 1001 | 456 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.01 | 0.04 | xxxx | 0.03 | 0.07 | 0.20 | 0.02 | 0.05 | xxxx | 0.01 | 0.01 |
| Crit Moves: | **** | | | | | **** | **** | | | | **** | |
| Delay/Veh: | 8.7 | 7.7 | 7.7 | 0.0 | 7.9 | 7.4 | 9.4 | 7.7 | 7.1 | 0.0 | 7.6 | 7.3 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.7 | 7.7 | 7.7 | 0.0 | 7.9 | 7.4 | 9.4 | 7.7 | 7.1 | 0.0 | 7.6 | 7.3 |
| LOS by Move: | A | A | A | * | A | A | A | A | A | * | A | A |
| ApproachDel: | 8.4 | | | 7.5 | | | 8.8 | | | 7.5 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.4 | | | 7.5 | | | 8.8 | | | 7.5 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 43 | 8 | 6 | 0 | 19 | 54 | 134 | 13 | 42 | 0 | 7 | 3 |

Major Street Volume: 199
Minor Approach Volume: 73
Minor Approach Volume Threshold: 1068

---

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.


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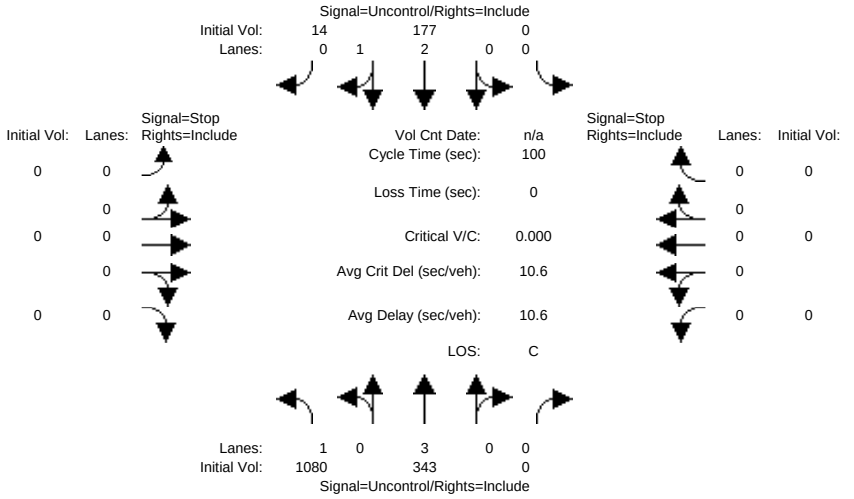
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2024AM

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 1080 | 343 | 0 | 0 | 177 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 1080 | 343 | 0 | 0 | 177 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 1080 | 343 | 0 | 0 | 177 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 1080 | 343 | 0 | 0 | 177 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 1080 | 343 | 0 | 0 | 177 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 191 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | 1395 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | 1395 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | 0.77 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | 8.5 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | 15.8 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | C | * | * | * | * | * | * | * | * | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | * | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 | 3 0 | 0 | 0 0 | 2 1 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 |
| Initial Vol: | 1080 | 343 | 0 | 0 | 177 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 | 3 0 | 0 | 0 0 | 2 1 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 |
| Initial Vol: | 1080 | 343 | 0 | 0 | 177 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |

Major Street Volume: 1614
Minor Approach Volume: 0
Minor Approach Volume Threshold: 120

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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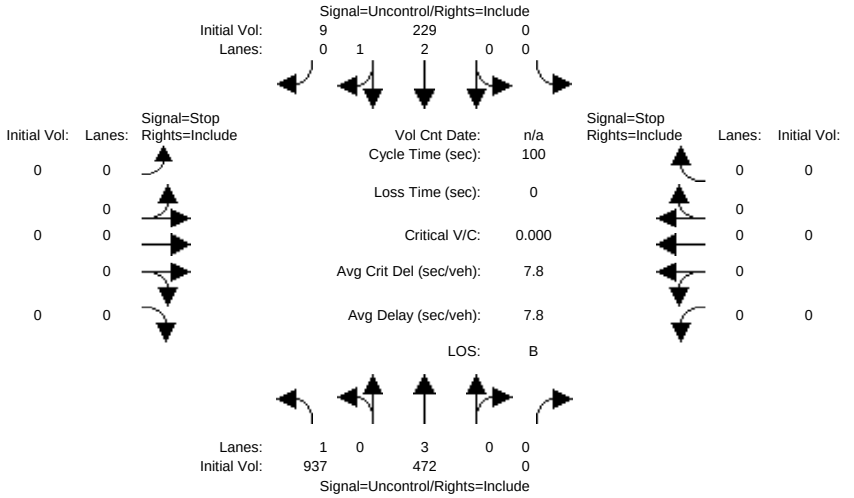
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2024P PM

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 937 | 472 | 0 | 0 | 229 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 937 | 472 | 0 | 0 | 229 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 937 | 472 | 0 | 0 | 229 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 937 | 472 | 0 | 0 | 229 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 937 | 472 | 0 | 0 | 229 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Critical Gap Module:** | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| **Capacity Module:** | | | | | | | | | | | | |
| Cnflict Vol: | 238 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | 1341 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | 1341 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | 0.70 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| **Level Of Service Module:** | | | | | | | | | | | | |
| 2Way95thQ: | 6.2 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | 13.7 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | B | * | * | * | * | * | * | * | * | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | * | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 3 | 0 | 0 | 0 0 2 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 937 | 472 | 0 | 0 | 229 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
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The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 3 | 0 | 0 | 0 0 2 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 937 | 472 | 0 | 0 | 229 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |

Major Street Volume: 1647
Minor Approach Volume: 0
Minor Approach Volume Threshold: 113

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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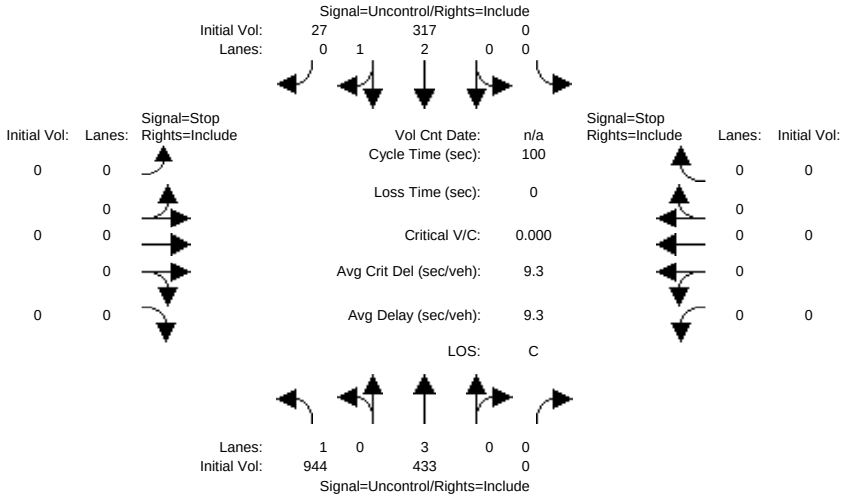
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2024PSAT

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 944 | 433 | 0 | 0 | 317 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Initial Bse: | 944 | 433 | 0 | 0 | 317 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Initial Fut: | 944 | 433 | 0 | 0 | 317 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Volume: | 944 | 433 | 0 | 0 | 317 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| FinalVolume: | 944 | 433 | 0 | 0 | 317 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 344 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Potent Cap.: | 1226 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Move Cap.: | 1226 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Volume/Cap: | 0.77 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 8.2 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Control Del: | 17.0 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| LOS by Move: | C | * | * | * | * | * | * | * | * | * | * | * | | | | |
| Movement: | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shared LOS: | * | * | * | | * | * | * | | * | * | * | | * | * | * | |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | xxxxxx | | | | xxxxxx | | | |
| ApproachLOS: | * | | | | * | | | | * | | | | * | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 | 3 0 | 0 | 0 0 | 2 1 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 |
| Initial Vol: | 944 | 433 | 0 | 0 | 317 | 27 | 0 | 0 | 0 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 | 3 0 | 0 | 0 0 | 2 1 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 |
| Initial Vol: | 944 | 433 | 0 | 0 | 317 | 27 | 0 | 0 | 0 | 0 | 0 | 0 |

Major Street Volume: 1721
Minor Approach Volume: 0
Minor Approach Volume Threshold: 98 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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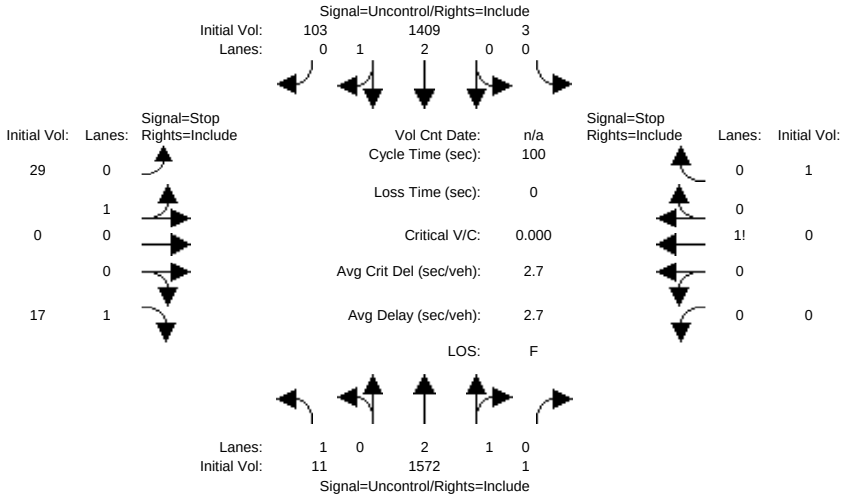
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2024AM

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | | L | - T | - R | | L | - T | - R | | L | - T | - R | |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 11 | 1572 | 1 | | 3 | 1409 | 103 | | 29 | 0 | 17 | | 0 | 0 | 1 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 11 | 1572 | 1 | | 3 | 1409 | 103 | | 29 | 0 | 17 | | 0 | 0 | 1 | |
| Added Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| PasserByVol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Initial Fut: | 11 | 1572 | 1 | | 3 | 1409 | 103 | | 29 | 0 | 17 | | 0 | 0 | 1 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 11 | 1572 | 1 | | 3 | 1409 | 103 | | 29 | 0 | 17 | | 0 | 0 | 1 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| FinalVolume: | 11 | 1572 | 1 | | 3 | 1409 | 103 | | 29 | 0 | 17 | | 0 | 0 | 1 | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | | 4.1 | xxxx | xxxxx | | 7.5 | 6.5 | 6.9 | | xxxxx | xxxx | 6.9 | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | | 2.2 | xxxx | xxxxx | | 3.5 | 4.0 | 3.3 | | xxxxx | xxxx | 3.3 | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 1512 | xxxx | xxxxx | | 1573 | xxxx | xxxxx | | 2013 | 3062 | 521 | | xxxx | xxxx | 525 | |
| Potent Cap.: | 448 | xxxx | xxxxx | | 425 | xxxx | xxxxx | | 35 | 13 | 505 | | xxxx | xxxx | 503 | |
| Move Cap.: | 448 | xxxx | xxxxx | | 425 | xxxx | xxxxx | | 34 | 12 | 505 | | xxxx | xxxx | 503 | |
| Volume/Cap: | 0.02 | xxxx | xxxx | | 0.01 | xxxx | xxxx | | 0.84 | 0.00 | 0.03 | | xxxx | xxxx | 0.00 | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 0.1 | xxxx | xxxxx | | 0.0 | xxxx | xxxxx | | xxxx | xxxx | 0.1 | | xxxx | xxxx | 0.0 | |
| Control Del: | 13.2 | xxxx | xxxxx | | 13.5 | xxxx | xxxxx | | xxxxx | xxxx | 12.4 | | xxxxx | xxxx | 12.2 | |
| LOS by Move: | B | * | * | | B | * | * | | * | * | B | | * | * | B | |
| Movement: | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | 34 | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | 0.0 | xxxx | xxxxx | | 3.0 | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | 13.5 | xxxx | xxxxx | | 275.7 | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shared LOS: | * | * | * | | B | * | * | | F | * | * | | * | * | * | |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | 178.4 | | | | 12.2 | | | |
| ApproachLOS: | * | | | | * | | | | F | | | | B | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 1 | 0 | 0 1 | 1 | 0 | 0 1 | 0 | 0 1 | 0 | 0 0 | 1 |
| Initial Vol: | 11 1572 | 1 | | 3 1409 | 103 | | 29 | 0 | 17 | 0 | 0 | 1 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 178.4 | | | 12.2 | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=2.3]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=46]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3146]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=1]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3146]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

SIGNAL WARRANT DISCLAIMER
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## Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 1 | 0 | 0 1 | 1 | 0 | 0 1 | 0 | 0 1 | 0 | 0 0 | 1 |
| Initial Vol: | 11 1572 | 1 | | 3 1409 | 103 | | 29 | 0 | 17 | 0 | 0 | 1 |

Major Street Volume: 3099
Minor Approach Volume: 46
Minor Approach Volume Threshold: -112 [less than minimum of 150]

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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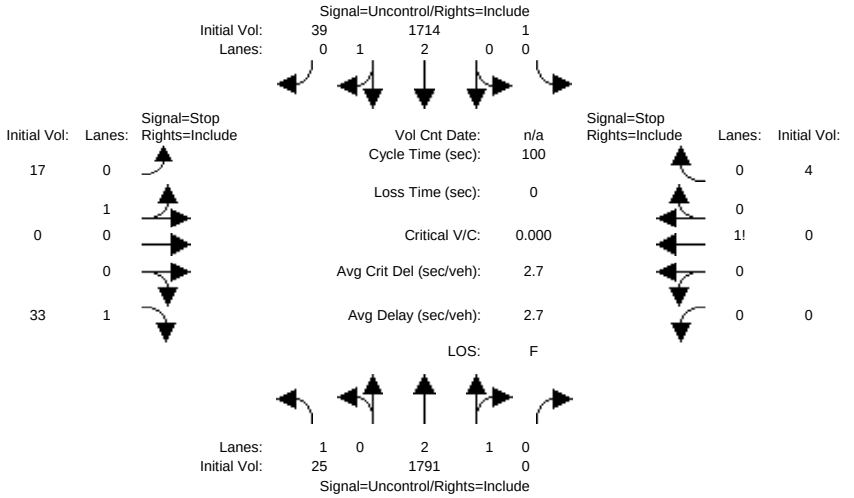
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2024P PM

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | | L | - T | - R | | L | - T | - R | | L | - T | - R | |
| **Volume Module:** | | | | | | | | | | | | | | | | |
| Base Vol: | 25 | 1791 | 0 | | 1 | 1714 | 39 | | 17 | 0 | 33 | | 0 | 0 | 4 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 25 | 1791 | 0 | | 1 | 1714 | 39 | | 17 | 0 | 33 | | 0 | 0 | 4 | |
| Added Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| PasserByVol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Initial Fut: | 25 | 1791 | 0 | | 1 | 1714 | 39 | | 17 | 0 | 33 | | 0 | 0 | 4 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 25 | 1791 | 0 | | 1 | 1714 | 39 | | 17 | 0 | 33 | | 0 | 0 | 4 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| FinalVolume: | 25 | 1791 | 0 | | 1 | 1714 | 39 | | 17 | 0 | 33 | | 0 | 0 | 4 | |
| **Critical Gap Module:** | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | | 4.1 | xxxx | xxxxx | | 7.5 | 6.5 | 6.9 | | xxxxx | xxxx | 6.9 | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | | 2.2 | xxxx | xxxxx | | 3.5 | 4.0 | 3.3 | | xxxxx | xxxx | 3.3 | |
| **Capacity Module:** | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 1753 | xxxx | xxxxx | | 1791 | xxxx | xxxxx | | 2383 | 3577 | 591 | | xxxx | xxxx | 597 | |
| Potent Cap.: | 362 | xxxx | xxxxx | | 350 | xxxx | xxxxx | | 18 | 6 | 455 | | xxxx | xxxx | 451 | |
| Move Cap.: | 362 | xxxx | xxxxx | | 350 | xxxx | xxxxx | | 17 | 5 | 455 | | xxxx | xxxx | 451 | |
| Volume/Cap: | 0.07 | xxxx | xxxx | | 0.00 | xxxx | xxxx | | 0.98 | 0.00 | 0.07 | | xxxx | xxxx | 0.01 | |
| **Level Of Service Module:** | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 0.2 | xxxx | xxxxx | | 0.0 | xxxx | xxxxx | | xxxx | xxxx | 0.2 | | xxxx | xxxx | 0.0 | |
| Control Del: | 15.7 | xxxx | xxxxx | | 15.3 | xxxx | xxxxx | | xxxxx | xxxx | 13.5 | | xxxxx | xxxx | 13.1 | |
| LOS by Move: | C | * | * | | C | * | * | | * | * | B | | * | * | B | |
| Movement: | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | 17 | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | 0.0 | xxxx | xxxxx | | 2.5 | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | 15.3 | xxxx | xxxxx | | 512.4 | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shared LOS: | * | * | * | | C | * | * | | F | * | * | | * | * | * | |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | 183.2 | | | | 13.1 | | | |
| ApproachLOS: | * | | | | * | | | | F | | | | B | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 1 | 0 | 0 1 1 | 1 | 0 | 0 1 0 | 0 | 1 | 0 0 0 | 0 | 1 |
| Initial Vol: | 25 | 1791 | 0 | 1 | 1714 | 39 | 17 | 0 | 33 | 0 | 0 | 4 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 183.2 | | | 13.1 | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=2.5]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=50]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3624]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=4]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3624]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 1 | 0 | 0 1 1 | 1 | 0 | 0 1 0 | 0 | 1 | 0 0 0 | 0 | 1 |
| Initial Vol: | 25 | 1791 | 0 | 1 | 1714 | 39 | 17 | 0 | 33 | 0 | 0 | 4 |

Major Street Volume: 3570
Minor Approach Volume: 50
Minor Approach Volume Threshold: -173 [less than minimum of 150]

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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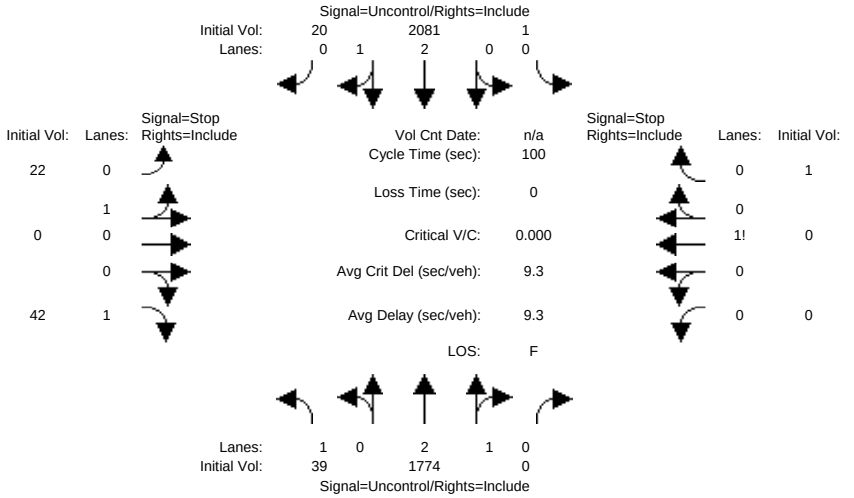
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2024PSAT

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | | L | - T | - R | | L | - T | - R | | L | - T | - R | |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 39 | 1774 | 0 | | 1 | 2081 | 20 | | 22 | 0 | 42 | | 0 | 0 | 1 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 39 | 1774 | 0 | | 1 | 2081 | 20 | | 22 | 0 | 42 | | 0 | 0 | 1 | |
| Added Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| PasserByVol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Initial Fut: | 39 | 1774 | 0 | | 1 | 2081 | 20 | | 22 | 0 | 42 | | 0 | 0 | 1 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 39 | 1774 | 0 | | 1 | 2081 | 20 | | 22 | 0 | 42 | | 0 | 0 | 1 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| FinalVolume: | 39 | 1774 | 0 | | 1 | 2081 | 20 | | 22 | 0 | 42 | | 0 | 0 | 1 | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | | 4.1 | xxxx | xxxxx | | 7.5 | 6.5 | 6.9 | xxxxx | xxxx | 6.9 | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | | 2.2 | xxxx | xxxxx | | 3.5 | 4.0 | 3.3 | xxxxx | xxxx | 3.3 | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 2101 | xxxx | xxxxx | | 1774 | xxxx | xxxxx | | 2762 | 3945 | 704 | xxxx | xxxx | 591 | | |
| Potent Cap.: | 266 | xxxx | xxxxx | | 355 | xxxx | xxxxx | | 9 | 3 | 384 | xxxx | xxxx | 455 | | |
| Move Cap.: | 266 | xxxx | xxxxx | | 355 | xxxx | xxxxx | | 8 | 3 | 384 | xxxx | xxxx | 455 | | |
| Volume/Cap: | 0.15 | xxxx | xxxx | | 0.00 | xxxx | xxxx | | 2.65 | 0.00 | 0.11 | xxxx | xxxx | 0.00 | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 0.5 | xxxx | xxxxx | | 0.0 | xxxx | xxxxx | | xxxx | xxxx | 0.4 | xxxx | xxxx | 0.0 | | |
| Control Del: | 20.9 | xxxx | xxxxx | | 15.2 | xxxx | xxxxx | | xxxxx | xxxx | 15.5 | xxxxx | xxxx | 12.9 | | |
| LOS by Move: | C | * | * | | C | * | * | | * | * | C | * | * | B | | |
| Movement: | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | 8 | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | 0.0 | xxxx | xxxxx | | 3.9 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | 15.2 | xxxx | xxxxx | | 1621 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | |
| Shared LOS: | * | * | * | | C | * | * | | F | * | * | * | * | * | | |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | 567.3 | | | 12.9 | | | | |
| ApproachLOS: | * | | | | * | | | | F | | | B | | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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```
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        1  0  2  1  0    0  1  1  1  0    0  1  0  0  1    0  0  0  0  1
Initial Vol:   39 1774     0     1 2081    20    22    0    42     0    0     1
ApproachDel:    xxxxxx           xxxxxx            567.3            12.9
------------|---------------||---------------||---------------||---------------|
Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=10.1]
   SUCCEED - Vehicle-hours >= 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=64]
   FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3980]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=1]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3980]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
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"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
              Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #14 Harbor/3rd
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        1  0  2  1  0    0  1  1  1  0    0  1  0  0  1    0  0  0  0  1
Initial Vol:   39 1774     0     1 2081    20    22    0    42     0    0     1
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             3915
Minor Approach Volume:           64
Minor Approach Volume Threshold: -213 [less than minimum of 150]
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```


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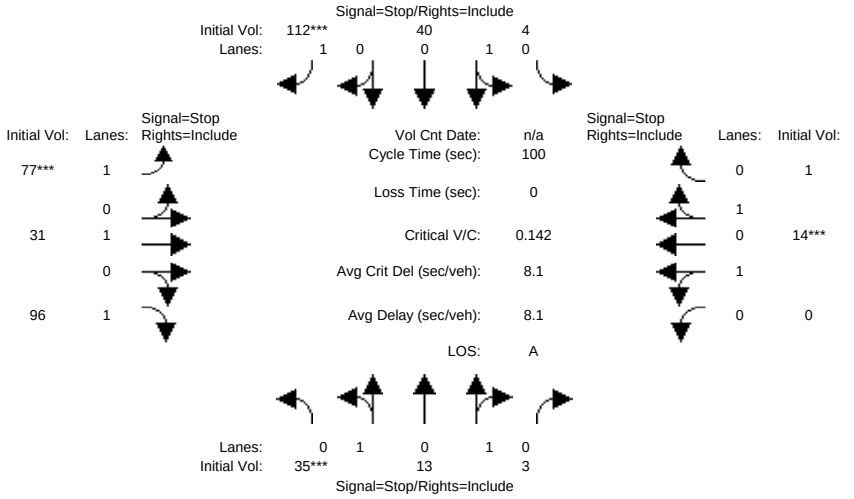
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
2024AM

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 35 | 13 | 3 | 4 | 40 | 112 | 77 | 31 | 96 | 0 | 14 | 1 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 35 | 13 | 3 | 4 | 40 | 112 | 77 | 31 | 96 | 0 | 14 | 1 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 35 | 13 | 3 | 4 | 40 | 112 | 77 | 31 | 96 | 0 | 14 | 1 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 35 | 13 | 3 | 4 | 40 | 112 | 77 | 31 | 96 | 0 | 14 | 1 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 35 | 13 | 3 | 4 | 40 | 112 | 77 | 31 | 96 | 0 | 14 | 1 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 35 | 13 | 3 | 4 | 40 | 112 | 77 | 31 | 96 | 0 | 14 | 1 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.88 | 0.12 | 0.09 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.87 | 0.13 |
| Final Sat.: | 613 | 600 | 80 | 62 | 617 | 791 | 627 | 686 | 792 | 0 | 1249 | 90 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.02 | 0.04 | 0.06 | 0.06 | 0.14 | 0.12 | 0.05 | 0.12 | xxxx | 0.01 | 0.01 |
| Crit Moves: | **** | | | | | **** | **** | | | | **** | |
| Delay/Veh: | 8.7 | 7.9 | 7.9 | 8.2 | 8.2 | 7.8 | 9.0 | 8.0 | 7.6 | 0.0 | 7.9 | 7.8 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.7 | 7.9 | 7.9 | 8.2 | 8.2 | 7.8 | 9.0 | 8.0 | 7.6 | 0.0 | 7.9 | 7.8 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | * | A | A |
| ApproachDel: | 8.4 | | | 7.9 | | | 8.2 | | | 7.9 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.4 | | | 7.9 | | | 8.2 | | | 7.9 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 35 | 13 | 3 | 4 | 40 | 112 | 77 | 31 | 96 | 0 | 14 | 1 |

Major Street Volume: 219
Minor Approach Volume: 156
Minor Approach Volume Threshold: 1027

---

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.


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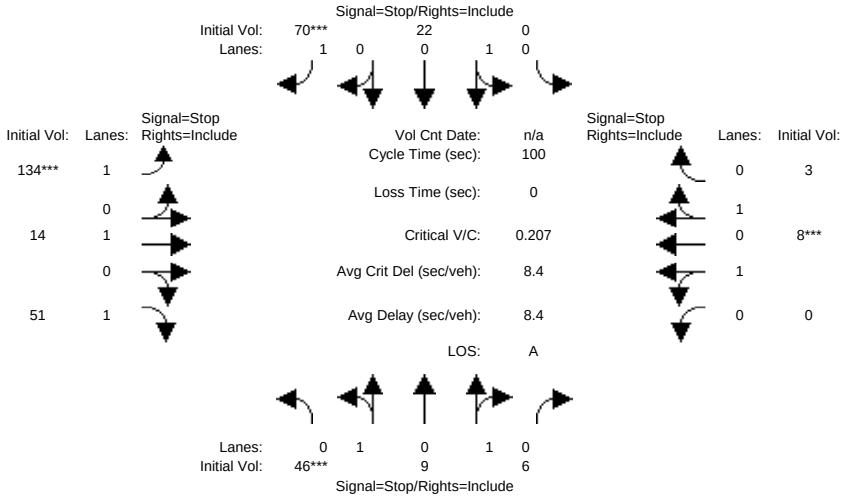
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
2024P PM

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 46 | 9 | 6 | 0 | 22 | 70 | 134 | 14 | 51 | 0 | 8 | 3 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 46 | 9 | 6 | 0 | 22 | 70 | 134 | 14 | 51 | 0 | 8 | 3 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 46 | 9 | 6 | 0 | 22 | 70 | 134 | 14 | 51 | 0 | 8 | 3 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 46 | 9 | 6 | 0 | 22 | 70 | 134 | 14 | 51 | 0 | 8 | 3 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 46 | 9 | 6 | 0 | 22 | 70 | 134 | 14 | 51 | 0 | 8 | 3 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 46 | 9 | 6 | 0 | 22 | 70 | 134 | 14 | 51 | 0 | 8 | 3 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.80 | 0.20 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.45 | 0.55 |
| Final Sat.: | 621 | 559 | 137 | 0 | 683 | 787 | 648 | 710 | 825 | 0 | 1021 | 403 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.02 | 0.04 | xxxx | 0.03 | 0.09 | 0.21 | 0.02 | 0.06 | xxxx | 0.01 | 0.01 |
| Crit Moves: | **** | | | | | **** | **** | | | | **** | |
| Delay/Veh: | 8.7 | 7.8 | 7.8 | 0.0 | 7.9 | 7.5 | 9.5 | 7.7 | 7.2 | 0.0 | 7.7 | 7.4 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.7 | 7.8 | 7.8 | 0.0 | 7.9 | 7.5 | 9.5 | 7.7 | 7.2 | 0.0 | 7.7 | 7.4 |
| LOS by Move: | A | A | A | * | A | A | A | A | A | * | A | A |
| ApproachDel: | 8.5 | | | 7.6 | | | 8.8 | | | 7.6 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.5 | | | 7.6 | | | 8.8 | | | 7.6 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 46 | 9 | 6 | 0 | 22 | 70 | 134 | 14 | 51 | 0 | 8 | 3 |

Major Street Volume: 210
Minor Approach Volume: 92
Minor Approach Volume Threshold: 1045

---

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.


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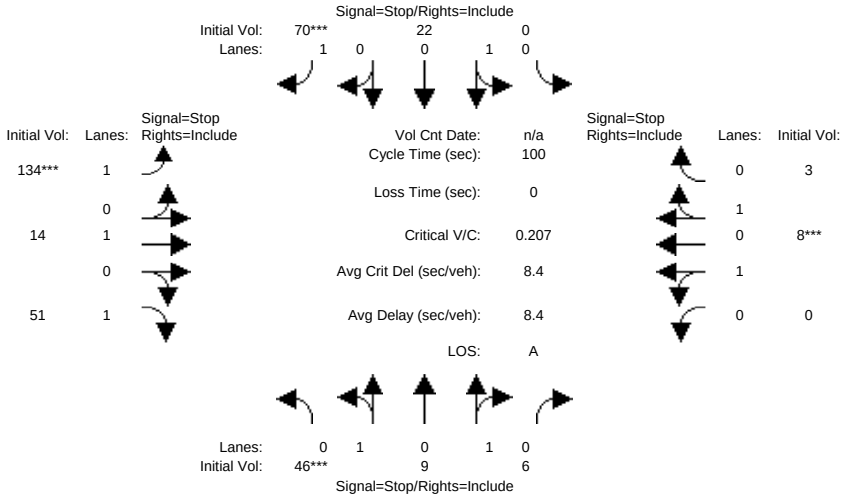
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
2024PSAT

## Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 46 | 9 | 6 | 0 | 22 | 70 | 134 | 14 | 51 | 0 | 8 | 3 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 46 | 9 | 6 | 0 | 22 | 70 | 134 | 14 | 51 | 0 | 8 | 3 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 46 | 9 | 6 | 0 | 22 | 70 | 134 | 14 | 51 | 0 | 8 | 3 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 46 | 9 | 6 | 0 | 22 | 70 | 134 | 14 | 51 | 0 | 8 | 3 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 46 | 9 | 6 | 0 | 22 | 70 | 134 | 14 | 51 | 0 | 8 | 3 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 46 | 9 | 6 | 0 | 22 | 70 | 134 | 14 | 51 | 0 | 8 | 3 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.80 | 0.20 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.45 | 0.55 |
| Final Sat.: | 621 | 559 | 137 | 0 | 683 | 787 | 648 | 710 | 825 | 0 | 1021 | 403 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.02 | 0.04 | xxxx | 0.03 | 0.09 | 0.21 | 0.02 | 0.06 | xxxx | 0.01 | 0.01 |
| Crit Moves: | **** | | | | | **** | **** | | | | **** | |
| Delay/Veh: | 8.7 | 7.8 | 7.8 | 0.0 | 7.9 | 7.5 | 9.5 | 7.7 | 7.2 | 0.0 | 7.7 | 7.4 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.7 | 7.8 | 7.8 | 0.0 | 7.9 | 7.5 | 9.5 | 7.7 | 7.2 | 0.0 | 7.7 | 7.4 |
| LOS by Move: | A | A | A | * | A | A | A | A | A | * | A | A |
| ApproachDel: | 8.5 | | | 7.6 | | | 8.8 | | | 7.6 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.5 | | | 7.6 | | | 8.8 | | | 7.6 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 46 | 9 | 6 | 0 | 22 | 70 | 134 | 14 | 51 | 0 | 8 | 3 |

Major Street Volume: 210
Minor Approach Volume: 92
Minor Approach Volume Threshold: 1045

---

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.


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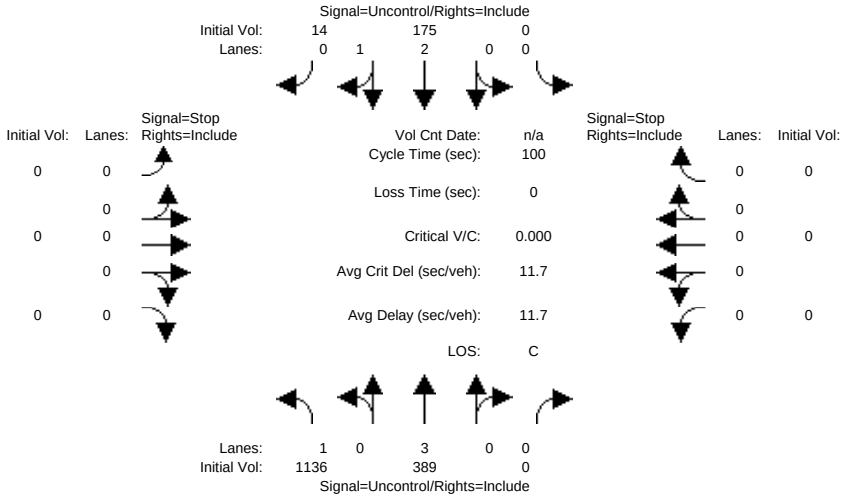
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2042NPAM

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 1136 | 389 | 0 | 0 | 175 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 1136 | 389 | 0 | 0 | 175 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 1136 | 389 | 0 | 0 | 175 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 1136 | 389 | 0 | 0 | 175 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 1136 | 389 | 0 | 0 | 175 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Critical Gap Module:** | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| **Capacity Module:** | | | | | | | | | | | | |
| Cnflict Vol: | 189 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | 1397 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | 1397 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | 0.81 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| **Level Of Service Module:** | | | | | | | | | | | | |
| 2Way95thQ: | 10.0 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | 17.6 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | C | * | * | * | * | * | * | * | * | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | * | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 | 3 0 | 0 | 0 0 | 2 1 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 |
| Initial Vol: | 1136 | 389 | 0 | 0 | 175 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 | 3 0 | 0 | 0 0 | 2 1 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 |
| Initial Vol: | 1136 | 389 | 0 | 0 | 175 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |

Major Street Volume: 1714
Minor Approach Volume: 0
Minor Approach Volume Threshold: 99 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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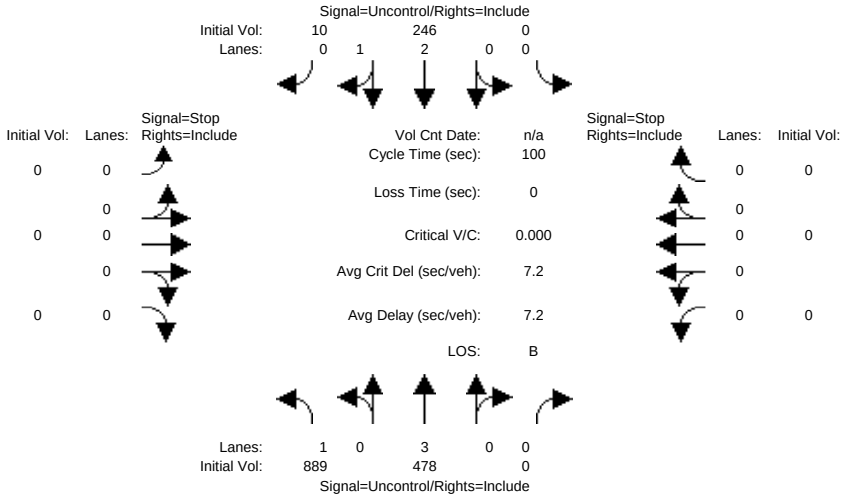
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2042NP PM

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 889 | 478 | 0 | 0 | 246 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Initial Bse: | 889 | 478 | 0 | 0 | 246 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Initial Fut: | 889 | 478 | 0 | 0 | 246 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Volume: | 889 | 478 | 0 | 0 | 246 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| FinalVolume: | 889 | 478 | 0 | 0 | 246 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 256 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Potent Cap.: | 1321 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Move Cap.: | 1321 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Volume/Cap: | 0.67 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 5.6 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Control Del: | 13.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| LOS by Move: | B | * | * | * | * | * | * | * | * | * | * | * | | | | |
| Movement: | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shared LOS: | * | * | * | | * | * | * | | * | * | * | | * | * | * | |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | xxxxxx | | | | xxxxxx | | | |
| ApproachLOS: | * | | | | * | | | | * | | | | * | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 | 3 0 | 0 | 0 0 | 2 1 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 |
| Initial Vol: | 889 | 478 | 0 | 0 | 246 | 10 | 0 | 0 | 0 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 | 3 0 | 0 | 0 0 | 2 1 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 |
| Initial Vol: | 889 | 478 | 0 | 0 | 246 | 10 | 0 | 0 | 0 | 0 | 0 | 0 |

Major Street Volume: 1623
Minor Approach Volume: 0
Minor Approach Volume Threshold: 118

SIGNAL WARRANT DISCLAIMER
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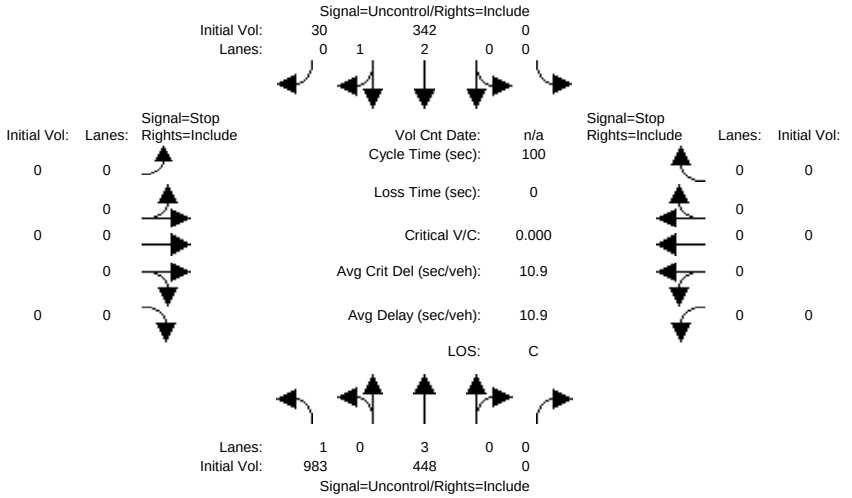
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2042NPSAT

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 983 | 448 | 0 | 0 | 342 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Initial Bse: | 983 | 448 | 0 | 0 | 342 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Initial Fut: | 983 | 448 | 0 | 0 | 342 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Volume: | 983 | 448 | 0 | 0 | 342 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| FinalVolume: | 983 | 448 | 0 | 0 | 342 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 372 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Potent Cap.: | 1198 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Move Cap.: | 1198 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Volume/Cap: | 0.82 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 10.0 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Control Del: | 20.0 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| LOS by Move: | C | * | * | * | * | * | * | * | * | * | * | * | | | | |
| Movement: | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shared LOS: | * | * | * | | * | * | * | | * | * | * | | * | * | * | |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | xxxxxx | | | | xxxxxx | | | |
| ApproachLOS: | * | | | | * | | | | * | | | | * | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 3 | 0 | 0 | 0 0 2 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 983 | 448 | 0 | 0 | 342 | 30 | 0 | 0 | 0 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 3 | 0 | 0 | 0 0 2 | 1 | 0 | 0 0 0 | 0 | 0 | 0 0 0 | 0 | 0 |
| Initial Vol: | 983 | 448 | 0 | 0 | 342 | 30 | 0 | 0 | 0 | 0 | 0 | 0 |

Major Street Volume: 1803
Minor Approach Volume: 0
Minor Approach Volume Threshold: 82 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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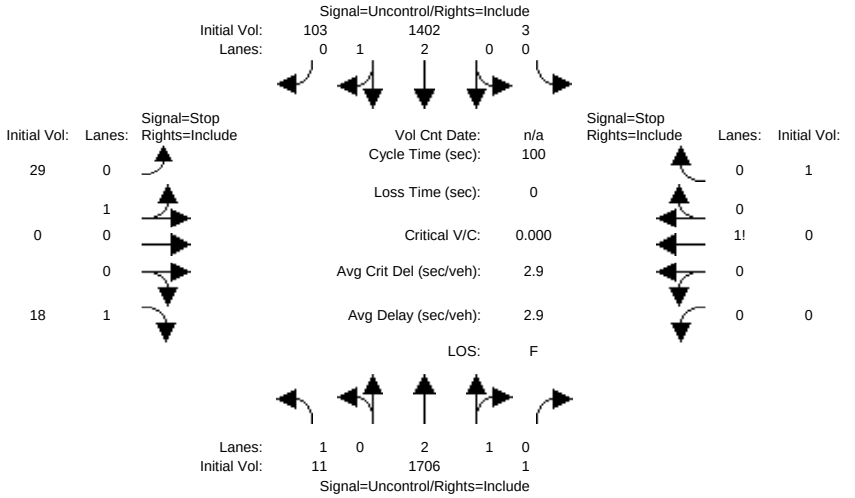
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2042NPAM

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 11 | 1706 | 1 | 3 | 1402 | 103 | 29 | 0 | 18 | 0 | 0 | 1 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 11 | 1706 | 1 | 3 | 1402 | 103 | 29 | 0 | 18 | 0 | 0 | 1 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 11 | 1706 | 1 | 3 | 1402 | 103 | 29 | 0 | 18 | 0 | 0 | 1 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 11 | 1706 | 1 | 3 | 1402 | 103 | 29 | 0 | 18 | 0 | 0 | 1 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 11 | 1706 | 1 | 3 | 1402 | 103 | 29 | 0 | 18 | 0 | 0 | 1 |
| **Critical Gap Module:** | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx | 7.5 | 6.5 | 6.9 | xxxxx | xxxx | 6.9 |
| FollowUpTim: | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx | 3.5 | 4.0 | 3.3 | xxxxx | xxxx | 3.3 |
| **Capacity Module:** | | | | | | | | | | | | |
| Cnflict Vol: | 1505 | xxxx | xxxxx | 1707 | xxxx | xxxxx | 2050 | 3189 | 519 | xxxx | xxxx | 569 |
| Potent Cap.: | 451 | xxxx | xxxxx | 377 | xxxx | xxxxx | 33 | 10 | 507 | xxxx | xxxx | 470 |
| Move Cap.: | 451 | xxxx | xxxxx | 377 | xxxx | xxxxx | 32 | 10 | 507 | xxxx | xxxx | 470 |
| Volume/Cap: | 0.02 | xxxx | xxxx | 0.01 | xxxx | xxxx | 0.90 | 0.00 | 0.04 | xxxx | xxxx | 0.00 |
| **Level Of Service Module:** | | | | | | | | | | | | |
| 2Way95thQ: | 0.1 | xxxx | xxxxx | 0.0 | xxxx | xxxxx | xxxx | xxxx | 0.1 | xxxx | xxxx | 0.0 |
| Control Del: | 13.2 | xxxx | xxxxx | 14.6 | xxxx | xxxxx | xxxxx | xxxx | 12.4 | xxxxx | xxxx | 12.7 |
| LOS by Move: | B | * | * | B | * | * | * | * | B | * | * | B |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 32 | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | 0.0 | xxxx | xxxxx | 3.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | 14.6 | xxxx | xxxxx | 307.6 | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | B | * | * | F | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 194.6 | | | 12.7 | | |
| ApproachLOS: | * | | | * | | | F | | | B | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 1 | 0 | 0 1 | 1 | 0 | 0 1 | 0 | 1 | 0 0 | 0 | 1 |
| Initial Vol: | 11 1706 | | 1 | 3 1402 | | 103 | 29 | 0 | 18 | 0 | 0 | 1 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 194.6 | | | 12.7 | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=2.5]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=47]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3274]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=1]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3274]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 1 | 0 | 0 1 | 1 | 0 | 0 1 | 0 | 1 | 0 0 | 0 | 1 |
| Initial Vol: | 11 1706 | | 1 | 3 1402 | | 103 | 29 | 0 | 18 | 0 | 0 | 1 |

Major Street Volume: 3226
Minor Approach Volume: 47
Minor Approach Volume Threshold: -130 [less than minimum of 150]

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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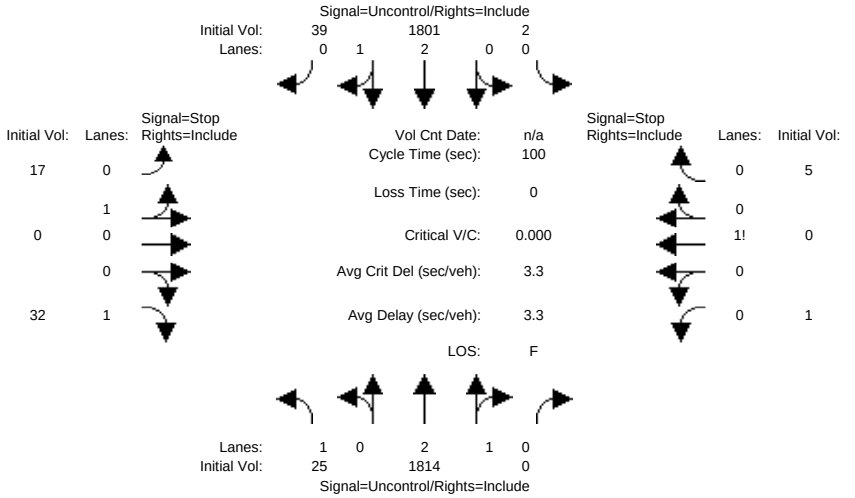
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2042NP PM

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | | L | - T | - R | | L | - T | - R | | L | - T | - R | |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 25 | 1814 | 0 | | 2 | 1801 | 39 | | 17 | 0 | 32 | | 1 | 0 | 5 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 25 | 1814 | 0 | | 2 | 1801 | 39 | | 17 | 0 | 32 | | 1 | 0 | 5 | |
| Added Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| PasserByVol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Initial Fut: | 25 | 1814 | 0 | | 2 | 1801 | 39 | | 17 | 0 | 32 | | 1 | 0 | 5 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 25 | 1814 | 0 | | 2 | 1801 | 39 | | 17 | 0 | 32 | | 1 | 0 | 5 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| FinalVolume: | 25 | 1814 | 0 | | 2 | 1801 | 39 | | 17 | 0 | 32 | | 1 | 0 | 5 | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | | 4.1 | xxxx | xxxxx | | 7.5 | 6.5 | 6.9 | | 7.5 | 6.5 | 6.9 | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | | 2.2 | xxxx | xxxxx | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 1840 | xxxx | xxxxx | | 1814 | xxxx | xxxxx | | 2479 | 3689 | 620 | | 2468 | 3708 | 605 | |
| Potent Cap.: | 335 | xxxx | xxxxx | | 343 | xxxx | xxxxx | | 16 | 5 | 436 | | 16 | 5 | 446 | |
| Move Cap.: | 335 | xxxx | xxxxx | | 343 | xxxx | xxxxx | | 14 | 4 | 436 | | 14 | 4 | 446 | |
| Volume/Cap: | 0.07 | xxxx | xxxx | | 0.01 | xxxx | xxxx | | 1.18 | 0.00 | 0.07 | | 0.07 | 0.00 | 0.01 | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 0.2 | xxxx | xxxxx | | 0.0 | xxxx | xxxxx | | xxxx | xxxx | 0.2 | | xxxx | xxxx | xxxxx | |
| Control Del: | 16.6 | xxxx | xxxxx | | 15.6 | xxxx | xxxxx | | xxxxx | xxxx | 13.9 | | xxxxx | xxxx | xxxxx | |
| LOS by Move: | C | * | * | | C | * | * | | * | * | B | | * | * | * | |
| Movement: | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | 14 | xxxx | xxxxx | | xxxx | 72 | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | 0.0 | xxxx | xxxxx | | 2.7 | xxxx | xxxxx | | xxxxx | 0.3 | xxxxx | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | 15.6 | xxxx | xxxxx | | 659.5 | xxxx | xxxxx | | xxxxx | 59.7 | xxxxx | |
| Shared LOS: | * | * | * | | C | * | * | | F | * | * | | * | F | * | |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | 237.9 | | | | 59.7 | | | |
| ApproachLOS: | * | | | | * | | | | F | | | | F | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 1 | 0 | 0 1 | 1 | 1 0 | 0 1 | 0 | 0 1 | 0 0 | 1! | 0 0 |
| Initial Vol: | 25 1814 | | 0 | 2 1801 | | 39 | 17 | | 0 | 32 | | 1 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 237.9 | | | 59.7 | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=3.2]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=49]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3736]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=6]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3736]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 1 | 0 | 0 1 | 1 | 1 0 | 0 1 | 0 | 0 1 | 0 0 | 1! | 0 0 |
| Initial Vol: | 25 1814 | | 0 | 2 1801 | | 39 | 17 | | 0 | 32 | | 1 |

Major Street Volume: 3681
Minor Approach Volume: 49
Minor Approach Volume Threshold: -186 [less than minimum of 150]

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SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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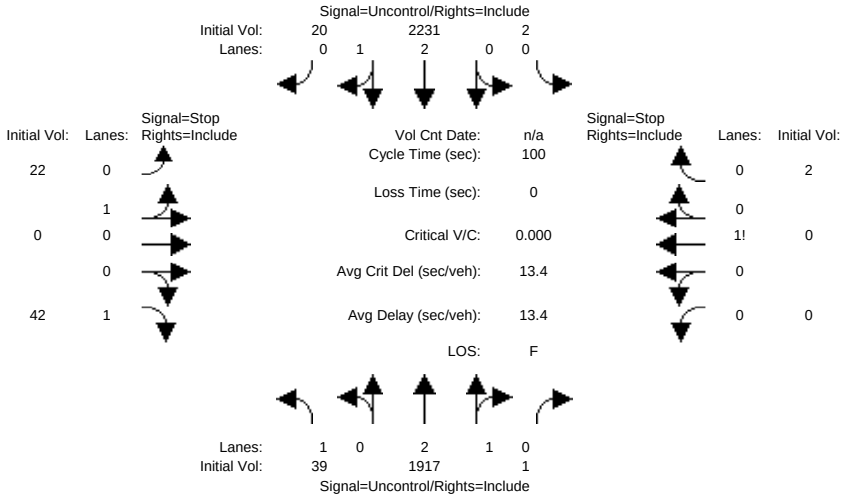
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2042NPSAT

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | | L | - T | - R | | L | - T | - R | | L | - T | - R | |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 39 | 1917 | 1 | | 2 | 2231 | 20 | | 22 | 0 | 42 | | 0 | 0 | 2 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 39 | 1917 | 1 | | 2 | 2231 | 20 | | 22 | 0 | 42 | | 0 | 0 | 2 | |
| Added Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| PasserByVol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Initial Fut: | 39 | 1917 | 1 | | 2 | 2231 | 20 | | 22 | 0 | 42 | | 0 | 0 | 2 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 39 | 1917 | 1 | | 2 | 2231 | 20 | | 22 | 0 | 42 | | 0 | 0 | 2 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| FinalVolume: | 39 | 1917 | 1 | | 2 | 2231 | 20 | | 22 | 0 | 42 | | 0 | 0 | 2 | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | | 4.1 | xxxx | xxxxx | | 7.5 | 6.5 | 6.9 | xxxxx | xxxx | 6.9 | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | | 2.2 | xxxx | xxxxx | | 3.5 | 4.0 | 3.3 | xxxxx | xxxx | 3.3 | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 2251 | xxxx | xxxxx | | 1918 | xxxx | xxxxx | | 2962 | 4241 | 754 | xxxx | xxxx | 640 | | |
| Potent Cap.: | 232 | xxxx | xxxxx | | 313 | xxxx | xxxxx | | 7 | 2 | 356 | xxxx | xxxx | 423 | | |
| Move Cap.: | 232 | xxxx | xxxxx | | 313 | xxxx | xxxxx | | 6 | 2 | 356 | xxxx | xxxx | 423 | | |
| Volume/Cap: | 0.17 | xxxx | xxxx | | 0.01 | xxxx | xxxx | | 3.89 | 0.00 | 0.12 | xxxx | xxxx | 0.00 | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 0.6 | xxxx | xxxxx | | 0.0 | xxxx | xxxxx | | xxxx | xxxx | 0.4 | xxxx | xxxx | 0.0 | | |
| Control Del: | 23.6 | xxxx | xxxxx | | 16.6 | xxxx | xxxxx | | xxxxx | xxxx | 16.4 | xxxxx | xxxx | 13.5 | | |
| LOS by Move: | C | * | * | | C | * | * | | * | * | C | * | * | B | | |
| Movement: | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | 6 | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | 0.0 | xxxx | xxxxx | | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | 16.6 | xxxx | xxxxx | | 2531 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | |
| Shared LOS: | * | * | * | | C | * | * | | F | * | * | * | * | * | | |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | 880.9 | | | 13.5 | | | | |
| ApproachLOS: | * | | | | * | | | | F | | | B | | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 1 | 0 | 0 1 | 1 | 1 0 | 0 1 | 0 | 0 1 | 0 | 0 0 0 | 1 |
| Initial Vol: | 39 1917 | 1 | | 2 2231 | 20 | | 22 | 0 | 42 | 0 | 0 | 2 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 880.9 | | | 13.5 | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=15.7]
SUCCEED - Vehicle-hours >= 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=64]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=4276]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=2]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=4276]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

## Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 1 | 0 | 0 1 | 1 | 1 0 | 0 1 | 0 | 0 1 | 0 | 0 0 0 | 1 |
| Initial Vol: | 39 1917 | 1 | | 2 2231 | 20 | | 22 | 0 | 42 | 0 | 0 | 2 |

Major Street Volume: 4210
Minor Approach Volume: 64
Minor Approach Volume Threshold: -244 [less than minimum of 150]

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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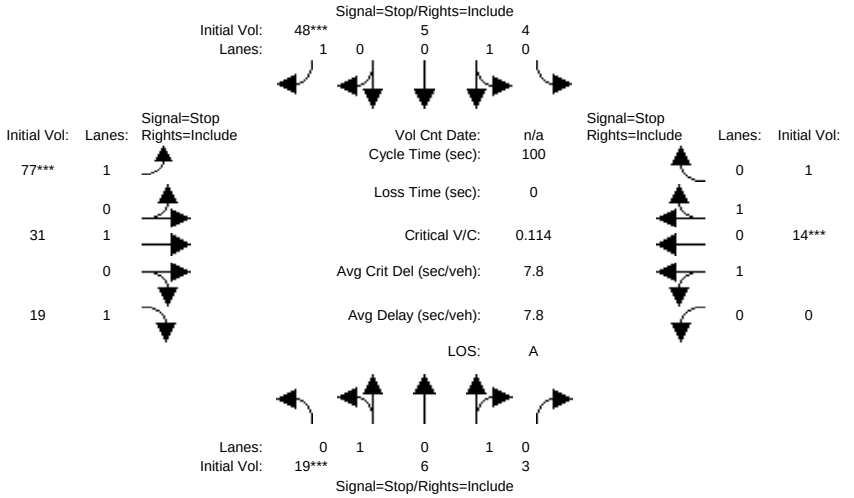
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
2042NPAM

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 19 | 6 | 3 | 4 | 5 | 48 | 77 | 31 | 19 | 0 | 14 | 1 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 19 | 6 | 3 | 4 | 5 | 48 | 77 | 31 | 19 | 0 | 14 | 1 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 19 | 6 | 3 | 4 | 5 | 48 | 77 | 31 | 19 | 0 | 14 | 1 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 19 | 6 | 3 | 4 | 5 | 48 | 77 | 31 | 19 | 0 | 14 | 1 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 19 | 6 | 3 | 4 | 5 | 48 | 77 | 31 | 19 | 0 | 14 | 1 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 19 | 6 | 3 | 4 | 5 | 48 | 77 | 31 | 19 | 0 | 14 | 1 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.79 | 0.21 | 0.44 | 0.56 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.87 | 0.13 |
| Final Sat.: | 652 | 580 | 158 | 306 | 383 | 836 | 676 | 745 | 872 | 0 | 1381 | 100 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.01 | 0.02 | 0.01 | 0.01 | 0.06 | 0.11 | 0.04 | 0.02 | xxxx | 0.01 | 0.01 |
| Crit Moves: | **** | | | | | **** | **** | | | | **** | |
| Delay/Veh: | 8.2 | 7.5 | 7.5 | 7.9 | 7.9 | 7.1 | 8.6 | 7.7 | 6.8 | 0.0 | 7.5 | 7.5 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.2 | 7.5 | 7.5 | 7.9 | 7.9 | 7.1 | 8.6 | 7.7 | 6.8 | 0.0 | 7.5 | 7.5 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | * | A | A |
| ApproachDel: | 8.0 | | | 7.2 | | | 8.1 | | | 7.5 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.0 | | | 7.2 | | | 8.1 | | | 7.5 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 19 | 6 | 3 | 4 | 5 | 48 | 77 | 31 | 19 | 0 | 14 | 1 |

Major Street Volume: 142
Minor Approach Volume: 57
Minor Approach Volume Threshold: 1213

---

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.


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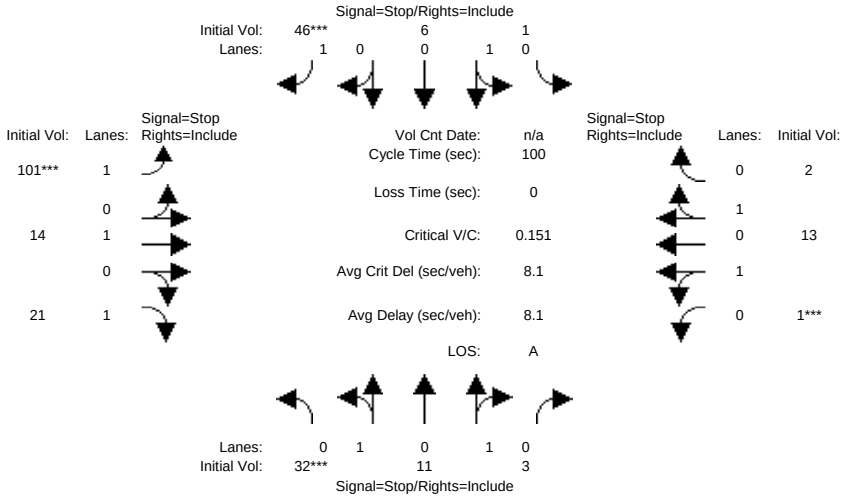
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
2042NP PM

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 32 | 11 | 3 | 1 | 6 | 46 | 101 | 14 | 21 | 1 | 13 | 2 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 32 | 11 | 3 | 1 | 6 | 46 | 101 | 14 | 21 | 1 | 13 | 2 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 32 | 11 | 3 | 1 | 6 | 46 | 101 | 14 | 21 | 1 | 13 | 2 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 32 | 11 | 3 | 1 | 6 | 46 | 101 | 14 | 21 | 1 | 13 | 2 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 32 | 11 | 3 | 1 | 6 | 46 | 101 | 14 | 21 | 1 | 13 | 2 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 32 | 11 | 3 | 1 | 6 | 46 | 101 | 14 | 21 | 1 | 13 | 2 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.87 | 0.13 | 0.14 | 0.86 | 1.00 | 1.00 | 1.00 | 1.00 | 0.12 | 1.63 | 0.25 |
| Final Sat.: | 647 | 629 | 94 | 100 | 600 | 825 | 669 | 737 | 859 | 89 | 1188 | 187 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.02 | 0.03 | 0.01 | 0.01 | 0.06 | 0.15 | 0.02 | 0.02 | 0.01 | 0.01 | 0.01 |
| Crit Moves: | **** | | | | | **** | **** | | | **** | | |
| Delay/Veh: | 8.4 | 7.6 | 7.6 | 7.7 | 7.7 | 7.2 | 8.9 | 7.6 | 6.9 | 7.7 | 7.6 | 7.4 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.4 | 7.6 | 7.6 | 7.7 | 7.7 | 7.2 | 8.9 | 7.6 | 6.9 | 7.7 | 7.6 | 7.4 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | A | A | A |
| ApproachDel: | 8.2 | | | 7.2 | | | 8.5 | | | 7.5 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.2 | | | 7.2 | | | 8.5 | | | 7.5 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 32 | 11 | 3 | 1 | 6 | 46 | 101 | 14 | 21 | 1 | 13 | 2 |

Major Street Volume: 152
Minor Approach Volume: 53
Minor Approach Volume Threshold: 1184

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SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.


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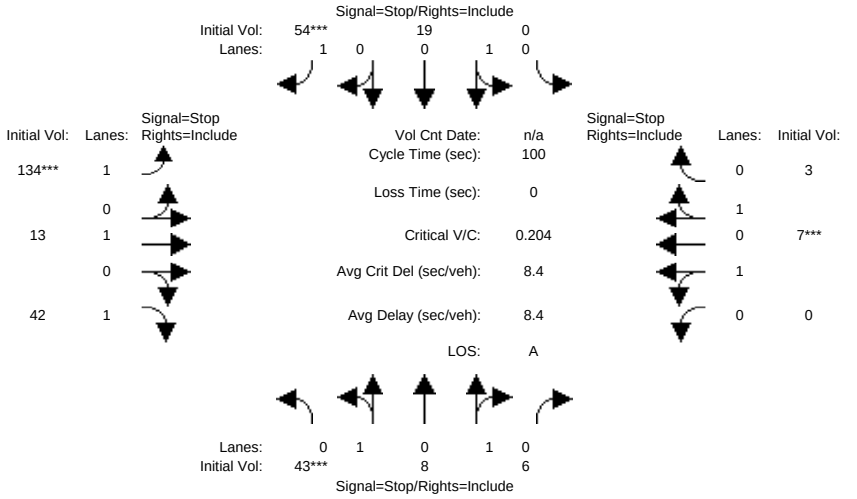
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
2042NPSAT

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 43 | 8 | 6 | 0 | 19 | 54 | 134 | 13 | 42 | 0 | 7 | 3 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 43 | 8 | 6 | 0 | 19 | 54 | 134 | 13 | 42 | 0 | 7 | 3 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 43 | 8 | 6 | 0 | 19 | 54 | 134 | 13 | 42 | 0 | 7 | 3 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 43 | 8 | 6 | 0 | 19 | 54 | 134 | 13 | 42 | 0 | 7 | 3 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 43 | 8 | 6 | 0 | 19 | 54 | 134 | 13 | 42 | 0 | 7 | 3 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 43 | 8 | 6 | 0 | 19 | 54 | 134 | 13 | 42 | 0 | 7 | 3 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.79 | 0.21 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.40 | 0.60 |
| Final Sat.: | 627 | 557 | 148 | 0 | 687 | 794 | 657 | 722 | 840 | 0 | 1001 | 456 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.01 | 0.04 | xxxx | 0.03 | 0.07 | 0.20 | 0.02 | 0.05 | xxxx | 0.01 | 0.01 |
| Crit Moves: | **** | | | | | **** | **** | | | | **** | |
| Delay/Veh: | 8.7 | 7.7 | 7.7 | 0.0 | 7.9 | 7.4 | 9.4 | 7.7 | 7.1 | 0.0 | 7.6 | 7.3 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.7 | 7.7 | 7.7 | 0.0 | 7.9 | 7.4 | 9.4 | 7.7 | 7.1 | 0.0 | 7.6 | 7.3 |
| LOS by Move: | A | A | A | * | A | A | A | A | A | * | A | A |
| ApproachDel: | 8.4 | | | 7.5 | | | 8.8 | | | 7.5 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.4 | | | 7.5 | | | 8.8 | | | 7.5 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 43 | 8 | 6 | 0 | 19 | 54 | 134 | 13 | 42 | 0 | 7 | 3 |

Major Street Volume: 199
Minor Approach Volume: 73
Minor Approach Volume Threshold: 1068

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SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.


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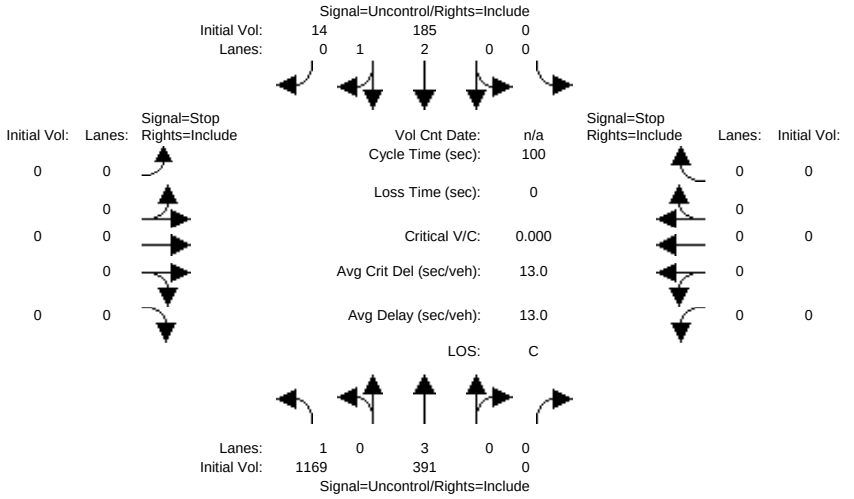
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2042AM

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 1169 | 391 | 0 | 0 | 185 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 1169 | 391 | 0 | 0 | 185 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 1169 | 391 | 0 | 0 | 185 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 1169 | 391 | 0 | 0 | 185 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 1169 | 391 | 0 | 0 | 185 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Critical Gap Module:** | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| **Capacity Module:** | | | | | | | | | | | | |
| Cnflict Vol: | 199 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | 1385 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | 1385 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | 0.84 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| **Level Of Service Module:** | | | | | | | | | | | | |
| 2Way95thQ: | 11.4 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | 19.6 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | C | * | * | * | * | * | * | * | * | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | * | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 | 3 0 | 0 | 0 0 | 2 1 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 |
| Initial Vol: | 1169 | 391 | 0 | 0 | 185 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 | 3 0 | 0 | 0 0 | 2 1 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 |
| Initial Vol: | 1169 | 391 | 0 | 0 | 185 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |

Major Street Volume: 1759
Minor Approach Volume: 0
Minor Approach Volume Threshold: 90 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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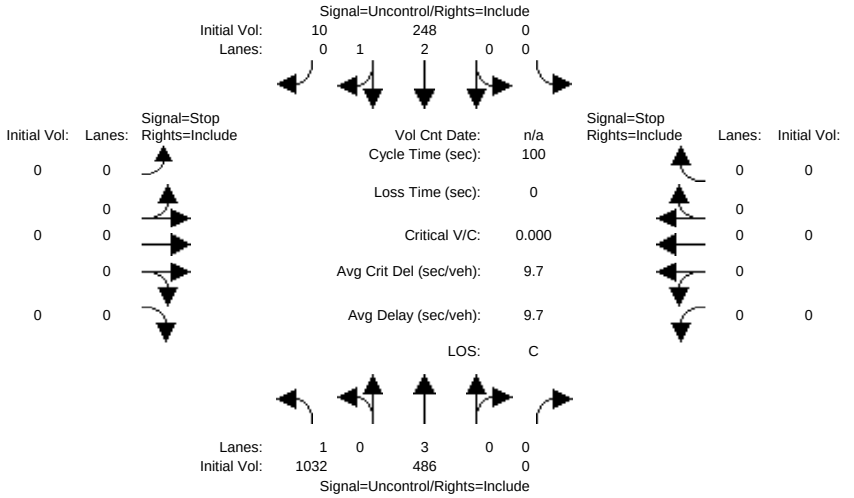
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2042P PM

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 1032 | 486 | 0 | 0 | 248 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Initial Bse: | 1032 | 486 | 0 | 0 | 248 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Initial Fut: | 1032 | 486 | 0 | 0 | 248 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Volume: | 1032 | 486 | 0 | 0 | 248 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| FinalVolume: | 1032 | 486 | 0 | 0 | 248 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 258 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Potent Cap.: | 1318 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Move Cap.: | 1318 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Volume/Cap: | 0.78 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 8.7 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Control Del: | 16.7 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| LOS by Move: | C | * | * | * | * | * | * | * | * | * | * | * | | | | |
| Movement: | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shared LOS: | * | * | * | | * | * | * | | * | * | * | | * | * | * | |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | xxxxxx | | | | xxxxxx | | | |
| ApproachLOS: | * | | | | * | | | | * | | | | * | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 | 3 0 | 0 | 0 0 | 2 1 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 |
| Initial Vol: | 1032 | 486 | 0 | 0 | 248 | 10 | 0 | 0 | 0 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 | 3 0 | 0 | 0 0 | 2 1 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 |
| Initial Vol: | 1032 | 486 | 0 | 0 | 248 | 10 | 0 | 0 | 0 | 0 | 0 | 0 |

Major Street Volume: 1776
Minor Approach Volume: 0
Minor Approach Volume Threshold: 87 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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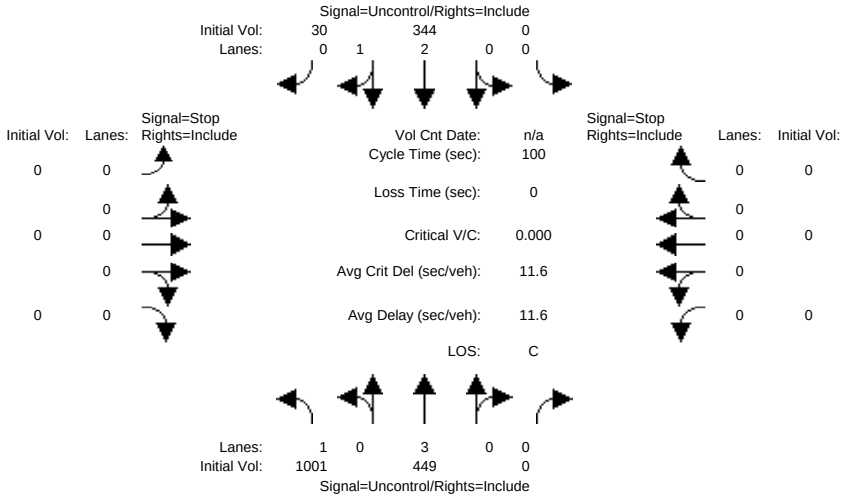
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2042PSAT

Intersection #10: Harbor/SR-47




| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 1001 | 449 | 0 | 0 | 344 | 30 | 0 | 0 | 0 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 1001 | 449 | 0 | 0 | 344 | 30 | 0 | 0 | 0 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 1001 | 449 | 0 | 0 | 344 | 30 | 0 | 0 | 0 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 1001 | 449 | 0 | 0 | 344 | 30 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 1001 | 449 | 0 | 0 | 344 | 30 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 374 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | 1196 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | 1196 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | 0.84 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | 10.7 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | 21.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | C | * | * | * | * | * | * | * | * | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | * | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 | 3 0 | 0 | 0 0 | 2 1 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 |
| Initial Vol: | 1001 | 449 | 0 | 0 | 344 | 30 | 0 | 0 | 0 | 0 | 0 | 0 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #10 Harbor/SR-47

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 | 3 0 | 0 | 0 0 | 2 1 | 0 | 0 0 | 0 0 | 0 | 0 0 | 0 0 | 0 |
| Initial Vol: | 1001 | 449 | 0 | 0 | 344 | 30 | 0 | 0 | 0 | 0 | 0 | 0 |

Major Street Volume: 1824
Minor Approach Volume: 0
Minor Approach Volume Threshold: 78 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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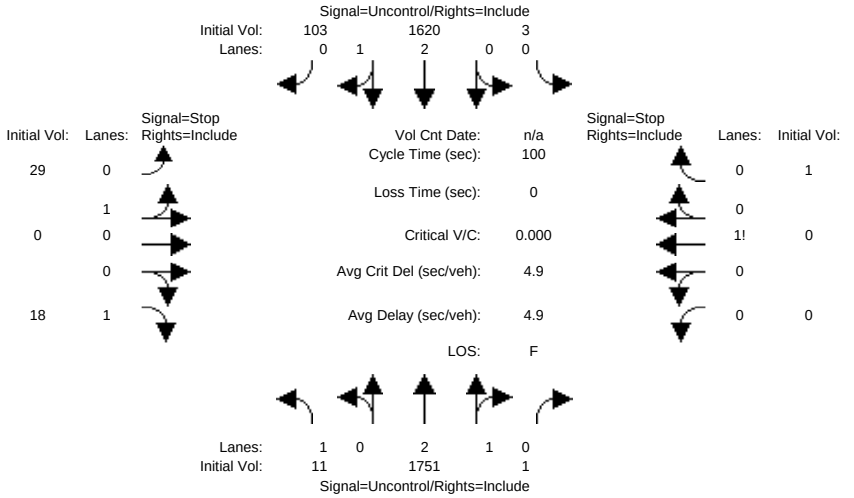
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2042AM

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 11 | 1751 | 1 | 3 | 1620 | 103 | 29 | 0 | 18 | 0 | 0 | 1 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 11 | 1751 | 1 | 3 | 1620 | 103 | 29 | 0 | 18 | 0 | 0 | 1 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 11 | 1751 | 1 | 3 | 1620 | 103 | 29 | 0 | 18 | 0 | 0 | 1 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 11 | 1751 | 1 | 3 | 1620 | 103 | 29 | 0 | 18 | 0 | 0 | 1 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 11 | 1751 | 1 | 3 | 1620 | 103 | 29 | 0 | 18 | 0 | 0 | 1 |
| **Critical Gap Module:** | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx | 7.5 | 6.5 | 6.9 | xxxxx | xxxx | 6.9 |
| FollowUpTim: | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx | 3.5 | 4.0 | 3.3 | xxxxx | xxxx | 3.3 |
| **Capacity Module:** | | | | | | | | | | | | |
| Cnflict Vol: | 1723 | xxxx | xxxxx | 1752 | xxxx | xxxxx | 2283 | 3452 | 592 | xxxx | xxxx | 584 |
| Potent Cap.: | 372 | xxxx | xxxxx | 362 | xxxx | xxxxx | 22 | 7 | 455 | xxxx | xxxx | 460 |
| Move Cap.: | 372 | xxxx | xxxxx | 362 | xxxx | xxxxx | 21 | 7 | 455 | xxxx | xxxx | 460 |
| Volume/Cap: | 0.03 | xxxx | xxxx | 0.01 | xxxx | xxxx | 1.36 | 0.00 | 0.04 | xxxx | xxxx | 0.00 |
| **Level Of Service Module:** | | | | | | | | | | | | |
| 2Way95thQ: | 0.1 | xxxx | xxxxx | 0.0 | xxxx | xxxxx | xxxx | xxxx | 0.1 | xxxx | xxxx | 0.0 |
| Control Del: | 15.0 | xxxx | xxxxx | 15.0 | xxxx | xxxxx | xxxxx | xxxx | 13.2 | xxxxx | xxxx | 12.8 |
| LOS by Move: | B | * | * | C | * | * | * | * | B | * | * | B |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 21 | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | 0.0 | xxxx | xxxxx | 3.8 | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | 15.0 | xxxx | xxxxx | 586.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | C | * | * | F | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 366.7 | | | 12.8 | | |
| ApproachLOS: | * | | | * | | | F | | | B | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 1 | 0 | 0 1 | 1 | 0 | 0 1 | 0 | 1 | 0 0 | 0 | 1 |
| Initial Vol: | 11 1751 | 1 | | 3 1620 | 103 | | 29 | 0 | 18 | 0 | 0 | 1 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 366.7 | | | 12.8 | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=4.8]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=47]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3537]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=1]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3537]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 1 | 0 | 0 1 | 1 | 0 | 0 1 | 0 | 1 | 0 0 | 0 | 1 |
| Initial Vol: | 11 1751 | 1 | | 3 1620 | 103 | | 29 | 0 | 18 | 0 | 0 | 1 |

Major Street Volume: 3489
Minor Approach Volume: 47
Minor Approach Volume Threshold: -163 [less than minimum of 150]

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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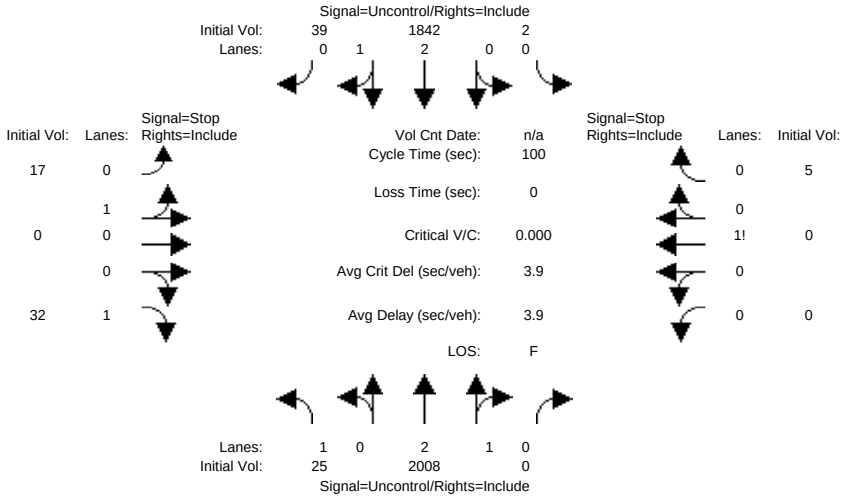
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2042P PM

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| **Volume Module:** | | | | | | | | | | | | | | | | |
| Base Vol: | 25 | 2008 | 0 | 2 | 1842 | 39 | 17 | 0 | 32 | 0 | 0 | 5 | | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Initial Bse: | 25 | 2008 | 0 | 2 | 1842 | 39 | 17 | 0 | 32 | 0 | 0 | 5 | | | | |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Initial Fut: | 25 | 2008 | 0 | 2 | 1842 | 39 | 17 | 0 | 32 | 0 | 0 | 5 | | | | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Volume: | 25 | 2008 | 0 | 2 | 1842 | 39 | 17 | 0 | 32 | 0 | 0 | 5 | | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| FinalVolume: | 25 | 2008 | 0 | 2 | 1842 | 39 | 17 | 0 | 32 | 0 | 0 | 5 | | | | |
| **Critical Gap Module:** | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx | 7.5 | 6.5 | 6.9 | xxxxx | xxxx | 6.9 | | | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx | 3.5 | 4.0 | 3.3 | xxxxx | xxxx | 3.3 | | | | |
| **Capacity Module:** | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 1881 | xxxx | xxxxx | 2008 | xxxx | xxxxx | 2585 | 3924 | 634 | xxxx | xxxx | 669 | | | | |
| Potent Cap.: | 323 | xxxx | xxxxx | 289 | xxxx | xxxxx | 13 | 3 | 427 | xxxx | xxxx | 405 | | | | |
| Move Cap.: | 323 | xxxx | xxxxx | 289 | xxxx | xxxxx | 12 | 3 | 427 | xxxx | xxxx | 405 | | | | |
| Volume/Cap: | 0.08 | xxxx | xxxx | 0.01 | xxxx | xxxx | 1.43 | 0.00 | 0.07 | xxxx | xxxx | 0.01 | | | | |
| **Level Of Service Module:** | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 0.2 | xxxx | xxxxx | 0.0 | xxxx | xxxxx | xxxx | xxxx | 0.2 | xxxx | xxxx | 0.0 | | | | |
| Control Del: | 17.1 | xxxx | xxxxx | 17.6 | xxxx | xxxxx | xxxxx | xxxx | 14.1 | xxxxx | xxxx | 14.0 | | | | |
| LOS by Move: | C | * | * | C | * | * | * | * | B | * | * | B | | | | |
| Movement: | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT | LT | - | LTR | - RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | 12 | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | 0.0 | xxxx | xxxxx | | 2.9 | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | 17.6 | xxxx | xxxxx | | 853.6 | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shared LOS: | * | * | * | | C | * | * | | F | * | * | | * | * | * | |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | 305.4 | | | | 14.0 | | | |
| ApproachLOS: | * | | | | * | | | | F | | | | B | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 1 | 0 | 0 1 | 1 | 1 0 | 0 1 | 0 | 0 1 | 0 | 0 0 0 | 1 |
| Initial Vol: | 25 2008 | 0 | | 2 1842 | 39 | | 17 | 0 | 32 | 0 | 0 | 5 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 305.4 | | | 14.0 | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=4.2]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=49]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3970]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=5]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=3970]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 1 | 0 | 0 1 | 1 | 1 0 | 0 1 | 0 | 0 1 | 0 | 0 0 0 | 1 |
| Initial Vol: | 25 2008 | 0 | | 2 1842 | 39 | | 17 | 0 | 32 | 0 | 0 | 5 |

Major Street Volume: 3916
Minor Approach Volume: 49
Minor Approach Volume Threshold: -213 [less than minimum of 150]

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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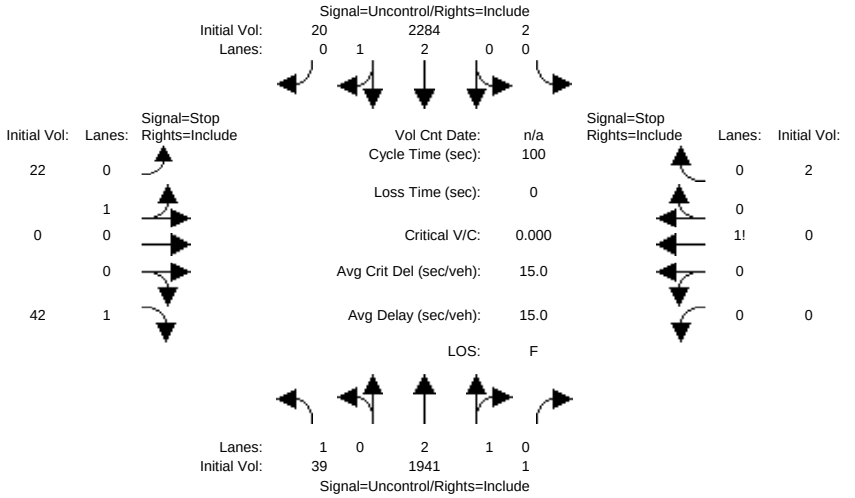
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
2042PSAT

Intersection #14: Harbor/3rd




| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | | L | - T | - R | | L | - T | - R | | L | - T | - R | |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 39 | 1941 | 1 | | 2 | 2284 | 20 | | 22 | 0 | 42 | | 0 | 0 | 2 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 39 | 1941 | 1 | | 2 | 2284 | 20 | | 22 | 0 | 42 | | 0 | 0 | 2 | |
| Added Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| PasserByVol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Initial Fut: | 39 | 1941 | 1 | | 2 | 2284 | 20 | | 22 | 0 | 42 | | 0 | 0 | 2 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 39 | 1941 | 1 | | 2 | 2284 | 20 | | 22 | 0 | 42 | | 0 | 0 | 2 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| FinalVolume: | 39 | 1941 | 1 | | 2 | 2284 | 20 | | 22 | 0 | 42 | | 0 | 0 | 2 | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | | 4.1 | xxxx | xxxxx | | 7.5 | 6.5 | 6.9 | xxxxx | xxxx | 6.9 | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | | 2.2 | xxxx | xxxxx | | 3.5 | 4.0 | 3.3 | xxxxx | xxxx | 3.3 | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 2304 | xxxx | xxxxx | | 1942 | xxxx | xxxxx | | 3023 | 4318 | 771 | xxxx | xxxx | 648 | | |
| Potent Cap.: | 221 | xxxx | xxxxx | | 306 | xxxx | xxxxx | | 6 | 2 | 347 | xxxx | xxxx | 418 | | |
| Move Cap.: | 221 | xxxx | xxxxx | | 306 | xxxx | xxxxx | | 5 | 1 | 347 | xxxx | xxxx | 418 | | |
| Volume/Cap: | 0.18 | xxxx | xxxx | | 0.01 | xxxx | xxxx | | 4.37 | 0.00 | 0.12 | xxxx | xxxx | 0.00 | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| 2Way95thQ: | 0.6 | xxxx | xxxxx | | 0.0 | xxxx | xxxxx | | xxxx | xxxx | 0.4 | xxxx | xxxx | 0.0 | | |
| Control Del: | 24.7 | xxxx | xxxxx | | 16.8 | xxxx | xxxxx | | xxxxx | xxxx | 16.8 | xxxxx | xxxx | 13.7 | | |
| LOS by Move: | C | * | * | | C | * | * | | * | * | C | * | * | B | | |
| Movement: | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | 5 | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| SharedQueue: | xxxxx | xxxx | xxxxx | | 0.0 | xxxx | xxxxx | | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | | 16.8 | xxxx | xxxxx | | 2889 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | |
| Shared LOS: | * | * | * | | C | * | * | | F | * | * | * | * | * | | |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | 1004.3 | | | 13.7 | | | | |
| ApproachLOS: | * | | | | * | | | | F | | | B | | | | |

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 1 | 0 | 0 1 1 | 1 | 0 | 0 1 0 | 0 | 1 | 0 0 0 | 0 | 1 |
| Initial Vol: | 39 1941 | 1 | | 2 2284 | 20 | | 22 | 0 | 42 | 0 | 0 | 2 |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 1004.3 | | | 13.7 | | |

Approach[eastbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=17.9]
SUCCEED - Vehicle-hours >= 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=64]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=4353]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=2]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=4353]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

## Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #14 Harbor/3rd

**********

Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 1 0 2 | 1 | 0 | 0 1 1 | 1 | 0 | 0 1 0 | 0 | 1 | 0 0 0 | 0 | 1 |
| Initial Vol: | 39 1941 | 1 | | 2 2284 | 20 | | 22 | 0 | 42 | 0 | 0 | 2 |

Major Street Volume: 4287
Minor Approach Volume: 64
Minor Approach Volume Threshold: -252 [less than minimum of 150]

---

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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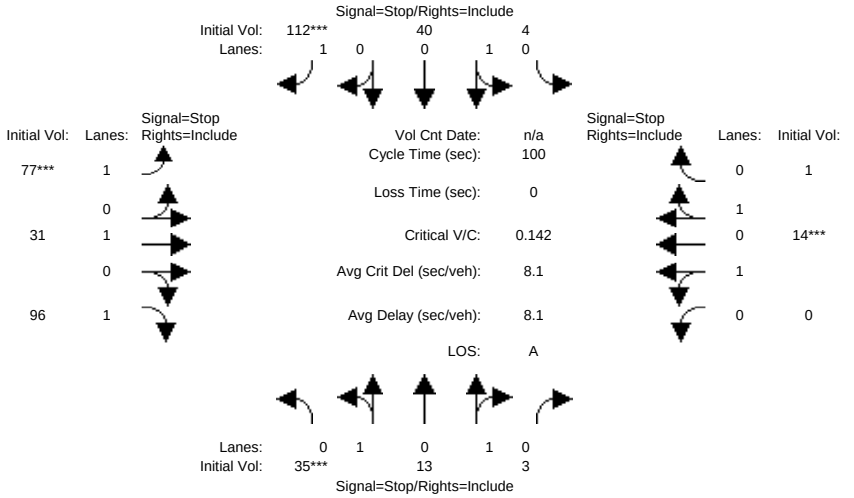
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
2042AM

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 35 | 13 | 3 | 4 | 40 | 112 | 77 | 31 | 96 | 0 | 14 | 1 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 35 | 13 | 3 | 4 | 40 | 112 | 77 | 31 | 96 | 0 | 14 | 1 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 35 | 13 | 3 | 4 | 40 | 112 | 77 | 31 | 96 | 0 | 14 | 1 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 35 | 13 | 3 | 4 | 40 | 112 | 77 | 31 | 96 | 0 | 14 | 1 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 35 | 13 | 3 | 4 | 40 | 112 | 77 | 31 | 96 | 0 | 14 | 1 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 35 | 13 | 3 | 4 | 40 | 112 | 77 | 31 | 96 | 0 | 14 | 1 |
| **Saturation Flow Module:** | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.88 | 0.12 | 0.09 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.87 | 0.13 |
| Final Sat.: | 613 | 600 | 80 | 62 | 617 | 791 | 627 | 686 | 792 | 0 | 1249 | 90 |
| **Capacity Analysis Module:** | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.02 | 0.04 | 0.06 | 0.06 | 0.14 | 0.12 | 0.05 | 0.12 | xxxx | 0.01 | 0.01 |
| Crit Moves: | **** | | | | | **** | **** | | | | **** | |
| Delay/Veh: | 8.7 | 7.9 | 7.9 | 8.2 | 8.2 | 7.8 | 9.0 | 8.0 | 7.6 | 0.0 | 7.9 | 7.8 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.7 | 7.9 | 7.9 | 8.2 | 8.2 | 7.8 | 9.0 | 8.0 | 7.6 | 0.0 | 7.9 | 7.8 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | * | A | A |
| ApproachDel: | 8.4 | | | 7.9 | | | 8.2 | | | 7.9 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.4 | | | 7.9 | | | 8.2 | | | 7.9 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 35 | 13 | 3 | 4 | 40 | 112 | 77 | 31 | 96 | 0 | 14 | 1 |

Major Street Volume: 219
Minor Approach Volume: 156
Minor Approach Volume Threshold: 1027

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SIGNAL WARRANT DISCLAIMER

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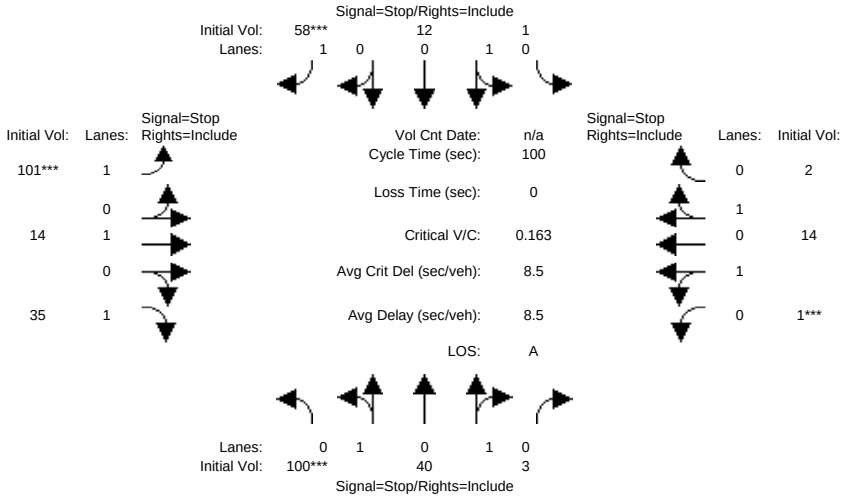
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
2042P PM

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 100 | 40 | 3 | 1 | 12 | 58 | 101 | 14 | 35 | 1 | 14 | 2 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 100 | 40 | 3 | 1 | 12 | 58 | 101 | 14 | 35 | 1 | 14 | 2 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 100 | 40 | 3 | 1 | 12 | 58 | 101 | 14 | 35 | 1 | 14 | 2 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 100 | 40 | 3 | 1 | 12 | 58 | 101 | 14 | 35 | 1 | 14 | 2 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 100 | 40 | 3 | 1 | 12 | 58 | 101 | 14 | 35 | 1 | 14 | 2 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 100 | 40 | 3 | 1 | 12 | 58 | 101 | 14 | 35 | 1 | 14 | 2 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.96 | 0.04 | 0.08 | 0.92 | 1.00 | 1.00 | 1.00 | 1.00 | 0.12 | 1.65 | 0.23 |
| Final Sat.: | 639 | 675 | 30 | 52 | 629 | 792 | 620 | 677 | 780 | 77 | 1103 | 161 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.16 | 0.06 | 0.10 | 0.02 | 0.02 | 0.07 | 0.16 | 0.02 | 0.04 | 0.01 | 0.01 | 0.01 |
| Crit Moves: | **** | | | | | **** | **** | | | **** | | |
| Delay/Veh: | 9.2 | 8.0 | 8.0 | 7.9 | 7.9 | 7.4 | 9.4 | 7.9 | 7.3 | 8.0 | 7.9 | 7.8 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 9.2 | 8.0 | 8.0 | 7.9 | 7.9 | 7.4 | 9.4 | 7.9 | 7.3 | 8.0 | 7.9 | 7.8 |
| LOS by Move: | A | A | A | A | A | A | A | A | A | A | A | A |
| ApproachDel: | 8.8 | | | 7.5 | | | 8.8 | | | 7.9 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.8 | | | 7.5 | | | 8.8 | | | 7.9 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.2 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 100 | 40 | 3 | 1 | 12 | 58 | 101 | 14 | 35 | 1 | 14 | 2 |

Major Street Volume: 214
Minor Approach Volume: 150
Minor Approach Volume Threshold: 1037

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SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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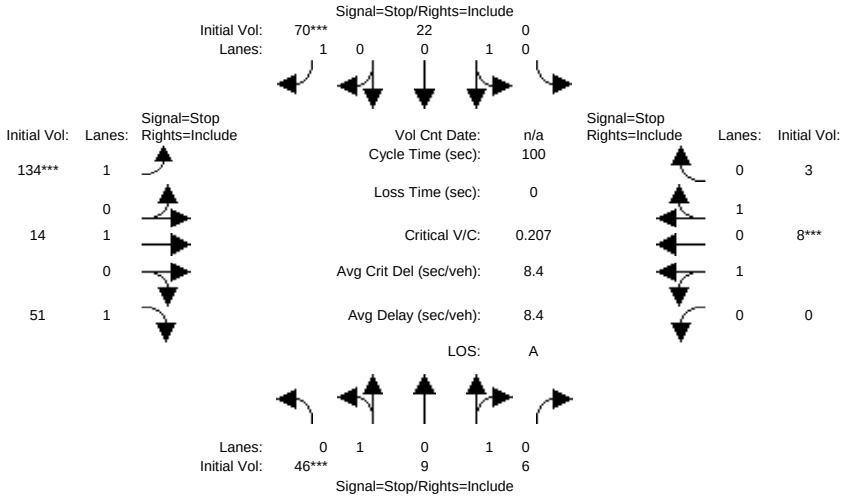
Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
2042PSAT

Intersection #19: Signal St & 22nd St




| Street Name: | Signal St | | | | | | 22nd St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 46 | 9 | 6 | 0 | 22 | 70 | 134 | 14 | 51 | 0 | 8 | 3 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 46 | 9 | 6 | 0 | 22 | 70 | 134 | 14 | 51 | 0 | 8 | 3 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 46 | 9 | 6 | 0 | 22 | 70 | 134 | 14 | 51 | 0 | 8 | 3 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 46 | 9 | 6 | 0 | 22 | 70 | 134 | 14 | 51 | 0 | 8 | 3 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 46 | 9 | 6 | 0 | 22 | 70 | 134 | 14 | 51 | 0 | 8 | 3 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 46 | 9 | 6 | 0 | 22 | 70 | 134 | 14 | 51 | 0 | 8 | 3 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.80 | 0.20 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.45 | 0.55 |
| Final Sat.: | 621 | 559 | 137 | 0 | 683 | 787 | 648 | 710 | 825 | 0 | 1021 | 403 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.02 | 0.04 | xxxx | 0.03 | 0.09 | 0.21 | 0.02 | 0.06 | xxxx | 0.01 | 0.01 |
| Crit Moves: | **** | | | | | **** | **** | | | | **** | |
| Delay/Veh: | 8.7 | 7.8 | 7.8 | 0.0 | 7.9 | 7.5 | 9.5 | 7.7 | 7.2 | 0.0 | 7.7 | 7.4 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.7 | 7.8 | 7.8 | 0.0 | 7.9 | 7.5 | 9.5 | 7.7 | 7.2 | 0.0 | 7.7 | 7.4 |
| LOS by Move: | A | A | A | * | A | A | A | A | A | * | A | A |
| ApproachDel: | 8.5 | | | 7.6 | | | 8.8 | | | 7.6 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 8.5 | | | 7.6 | | | 8.8 | | | 7.6 | | |
| LOS by Appr: | A | | | A | | | A | | | A | | |
| AllWayAvgQ: | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

**********

Intersection #19 Signal St & 22nd St

**********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Future Volume Alternative: Peak Hour Warrant NOT Met

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 |
| Initial Vol: | 46 | 9 | 6 | 0 | 22 | 70 | 134 | 14 | 51 | 0 | 8 | 3 |

Major Street Volume: 210
Minor Approach Volume: 92
Minor Approach Volume Threshold: 1045

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SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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# D

# SPECIAL-STATUS SPECIES

## SPECIAL-STATUS SPECIES BIOLOGY AND LIKELIHOOD OF OCCURRENCE ANALYSIS

The following information provides explanation for conclusions regarding likelihood of occurrence. The brief synopses of biology are provided as limited background only, and no attempt is made to compile or summarize all potentially relevant information on the species.

This appendix addresses all species with applicable special regulatory or management status that includes the Project study area within their general range and for which grossly appropriate habitat is present on or near the Project study area. Conclusions here are limited to biology, with no reflection of regulatory or management issues. For interpretation of this information under applicable laws, regulations and court precedent, see the relevant portion(s) of the report. Judgments regarding likelihood of occurrence are based on evaluation of all available biological information regarding regional and local conditions, species biology, available evaluations of the Project study area and vicinity, and professional experience conducting field investigations across California over many years.

Specific factors substantially affect likelihood of occurrence for individual species on any particular study area. These factors are relevant at multiple scales, including regionally, locally, and within the Project study area. These factors include the presence or absence of many other particular species (e.g., predators, prey), climate, ongoing disturbances, historical land use and other past disturbances such as fire history, surface and subsurface hydrology, soil texture and chemistry, Project study area and habitat size and topology (i.e., shape and fragmentation), past population fluctuations of the species in response to random and nonrandom events, and many other factors, including many not readily visible. Note that some species, including many birds and bats, can occur in multiple roles. Thus, likelihood of occurrence, habitat use, and abundance may vary accordingly. Where multiple codes are given for a species, underlined codes refer to the likelihood of occurrence in potentially constraining roles (e.g., breeding, as opposed to migration or dispersal, for many state Species of Special Concern birds).

## TERMS FOR LIKELIHOOD OF OCCURRENCE IN THE PROJECT STUDY AREA

**NONE**: Based on available information, it is judged that the species does not occur. This determination is based on some combination of these facts: (1) the Project study area is clearly outside the current range based on available information, and/or (2) the Project study area does not contain suitable or extensive enough habitat (including any adjacent off-Project study area habitat) to hold the species or confirmed to be absent based on negative results of a focused survey for the species conducted in appropriate habitat at appropriate time(s) of year, using biologically sound methods and qualified personnel. Further evaluation should not be required at this time.

**VERY LOW**: Although remotely possible, the probability of occurrence on the Project study area is almost none, and the likelihood of meaningful use is less than reasonable. The species may include the Project study area within its general range, however, no appropriate or adequately extensive habitat is found (either on or immediately adjacent to the Project study area). Neither the species nor any indication of its presence was detected. In some cases this likelihood may indicate that based on the best available information, the Project study area has a very high probability of being outside of the species' current range. In all of these cases, the species cannot be definitively ruled out, but is strongly expected to be absent based on the best available evidence. In some cases, the species may occur on rare occasions and in very low numbers, but such stray individuals are unlikely to make more than very brief, incidental use of the Project study area. Certainly there are no substantial populations utilizing the Project study area at any time of year. Further evaluation should not normally be required.

**LOW**: The species is unlikely because of some combination of facts: (1) it was the subject of unsuccessful searches conducted under reasonable circumstances, (2) only marginal or minimal habitat is present, (3) the best available information suggests the species is absent from the Project study area, and/or (4) available information sheds no clear light on the species likelihood on the Project study area, but it is known to be rare at best in the vicinity. No individuals were detected, nor is there any direct indication of them. Although individuals may have been missed, it is unlikely that substantial populations are present. Further evaluation should usually not be required for individual species except, in most cases, for threatened or endangered species. Note however, that where several non-listed species hold this status, a much higher likelihood of occurrence for "one or more" will generally hold. This is due both to the increased number of species, and the fact that an array of possibilities often correlates with greater alpha diversity and lower actual disturbance levels.

**MODERATE**: The Project study area is within the range of the species, and appears to contain appropriate habitat. No individuals or diagnostic sign were detected, it is nevertheless reasonable that some individuals have been overlooked. The best available information on the species with regard to the Project study area is either very uncertain, or is about equally weighted for and against occurrence. Depending upon local and special legal status, extent of habitat, and the nature and sensitivity of the project, focused surveys for the species may be warranted or presence may be assumed.

**HIGH**: The Project study area is known to be within the range of the species, and appears to contain habitat with substantial potential for occupancy. Although no individuals or diagnostic sign were detected, it is judged likely that it is present to some degree, given the best available information. Depending upon regulatory status, local rarity, public interest, extent of habitat on the Project study area and the nature of potential project impacts, a substantial basis may exist for either conducting focused surveys for the species or for assuming presence.

**VERY HIGH**: Based on the best available information, the Project study area is within the current range of the species and sufficient very appropriate or characteristic habitat is present on or contiguous with the Project study area for occupancy. Although individuals and/or diagnostic sign were not definitely detected at the current time, it is judged to be very highly likely to occur. In some cases the species may be known to have occurred on the Project study area historically or in the recent past, with no clear basis to assume extirpation since then. In rare cases, changes off of the Project study area (e.g., fire or other disturbance) may provide a basis to assume current presence as a result. Although focused surveys for this species would be required to absolutely confirm presence or absence, such surveys are judged to have a very high probability of confirming presence. Without such surveys presence should generally be assumed.

**CONFIRMED**: Confirmed present by a qualified biologist or other highly reliable source and there is no specific evidence that the species is now absent. Depending on the species and other information available, it may or may not be possible to determine what portions of the Project study area are currently in use without further studies.

**ABSENT**: Confirmed to be absent on the Project study area as a practical matter. Most often, this is a determination based on negative results of a focused survey for the species conducted in appropriate habitat at appropriate time(s) of year, using biologically sound methods and qualified personnel. In the remaining cases, it may be based on a simple Project study area examination, for species and Project study area contexts where it is easily determined that the species is absent; for example, a tidal marsh insect and a dry mountainside Project study area, or a disturbance-intolerant chaparral shrub where the Project study area is a long-standing, degraded grassland far from chaparral. The relevant field work was also in all cases conducted within a time frame sufficiently recent to conclude that the species remains absent, based on Project study area conditions and the species' known ecology. In most cases a specific, established survey protocol and/or guidelines have been followed.

**Table 1. Status Code Explanations**

| Status code | Explanation |
|---|---|
| FE | Federally Endangered |
| FT | Federally Threatened |
| FPE | Federally proposed Endangered |
| FPT | Federally proposed Threatened |
| FC | Federal Candidate species |
| FW | Federally "warranted for listing, but listing is precluded by higher priority actions" |
| EPA | Covered under the Federal "Bald and Golden Eagle Protection Act" |
| SE | State Endangered |
| ST | State Threatened |
| SR | State Rare (used for plants only) |
| SCE | State Candidate for Endangered listing |
| SCT | State Candidate for Threatened listing |
| SSC | State Species of Special Concern |
| CFP | California Fully Protected species |
| CSP | California Specially Protected species |
| CNDDB | Tracked by the California Department of Fish and Game "Natural Diversity Data Base", but with no other special regulatory or management status |
| 1A | California Native Plant Society (CPS) List 1A plant ("Plants presumed extinct in California") |
| 1B | CNPS List 1B plant ("Plants rare, threatened or endangered in California and elsewhere") |
| 2 | CNPS List 2 plant ("Plants rare, threatened or endangered in California, but more common elsewhere") |
| P | "pt" or "pd": the taxon has been formally proposed to be down-listed, either from Endangered to Threatened ("pt"), or delisted completely ("pd") |

**Table 2. Special Status Species Information**

| SPECIES / NATURAL COMMUNITIES[1] | SPECIAL STATUS[2] | OCCURRENCE[3] LIKELIHOOD | COMMENTS[4] |
|---|---|---|---|
| **PLANTS** | | | |
| Aphanisma (*Aphanisma blitoides*) | 1B | None | Annual herb; habitat includes sandy soils in coastal bluff scrub, coastal dunes, coastal scrub at 1 to 305 meters elevation. These types of vegetation communities are absent from the Project study area. |
| South Coast Saltscale (*Atriplex pacifica*) | 1B | None | Annual herb; habitat includes coastal bluff scrub, coastal dunes, coastal scrub, and playas at 0 to 140 meters elevation. These habitats are absent from the Project study area. |
| Parish's Brittlescale (*Atriplex parishii*) | 1B | None | Not recorded in the San Pedro quadrangle; annual herb; associated with chenopod scrub, playas, and vernal pools at 25 to 1900 meters elevation. Such habitats are absent from the Project study area. |
| Davidson's Saltscale (*Atriplex serenana* var. *davidsonii*) | 1B | None | Annual herb; found in alkaline soils within coastal bluff scrub and coastal scrub vegetation communities at 10 to 200 meters elevation. Habitat absent from Project study area. |
| Lewis's Evening-Primrose (*Camissonia lewisii*) | 3 | None | Not recorded in the San Pedro quadrangle; annual herb found in sandy and clay soils of coastal bluff scrub, cismontaine woodland, coastal dune, coastal scrub, and valley and foothill grassland at 0 to 300 meters elevation. No such habitats are present within the Project study area. |
| Southern Tarplant (*Centromadia parryi* ssp. *australis*) | 1B | None | Not recorded from the San Pedro quadrangle; an annual herb found at the margins of marshes and swamps, in mesic valley and foothill grasslands, and vernal pools at elevations of 0 to 425 meters. No potentially suitable habitat is present within the Project study area. |
| Orcutt's Pincushion (*Chaenactis glabriuscula* var. *orcuttiana*) | 1B | None | Not recorded in the San Pedro quadrangle; annual herb found in sandy soils associated with coastal bluff scrub and coastal dunes at elevations of 0 to 300 meters. No habitat is present within the Project study area. |
| Salt Marsh Bird's-Beak (*Cordylanthus maritimus* ssp. *maritimus*) | FE, SE, 1B | None | Not recorded within the San Pedro quadrangle; annual herb that is found in coastal dunes and coastal salt marshes and swamps at 0-30 meters elevation. A small amount of coastal salt marsh is present Cabrillo. Although historically this area was an expansive saltmarsh/mudflat complex prior to World War II, all that remains is the 3.25-acre Cabrillo salt marsh that was constructed in 1982 (Los Angeles Harbor Department and EDAW, Inc. 1982. Cabrillo Salt Marsh Construction, p. 101- |

| SPECIES / NATURAL COMMUNITIES[1] | SPECIAL STATUS[2] | OCCURRENCE[3] LIKELIHOOD | COMMENTS[4] |
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| | | | 102. In M. Josselyn (Ed.), Wetland Restoration and Enhancement in California. Report T-CSGCP-007, California Sea Grant College Program, University of California, La Jolla). Given the historical disturbances to the area, relative isolation, and artificial construction of marsh, no potential for the species is judged present. |
| Catalina Crossosoma (*Crossosoma californicum*) | 1B | None | Not recorded from San Pedro quadrangle; perrential deciduous shrub found in rocky chaparral and coastal scrub at elevations of 0 to 500 meters. No potential habitat is present within the Project study area. |
| Beach Spectaclepod (*Dithyrea maritima*) | 1B | None | Not found w/in San Pedro quadrangle; perennial herb that is associated with coastal dunes and coastal scrub at 3 to 50 meters elevation. No habitat present in Project study area. |
| Island Green Dudleya (*Dudleya virens* ssp. *insularis*) | 1B | None | Not recorded from San Pedro quadrangle; perennial herb found in rocky coastal bluff scrub and coastal scrub at elevations of 5 to 300 meters. Potential habitat absent from Project study area. |
| Coulter's Goldfields (*Lasthenia glabrata* ssp. *coulteri*) | 1B | None | Not recorded from San Pedro quadrangle; annual herb that inhabits coastal salt marshes and swamps as well as playas and vernal pools at elevations of 1 to 1220 meters. Only extant salt marsh present w/in the vicinity of the Project study area is at Cabrillo. This marsh was created in 1982 and given the time lapse between historical wetlands to the area (prior to World War II) and the isolated conditions of the created Cabrillo salt marsh, no potential for the species is judged present. Vernal pools and playas are absent from the Project study area. |
| Santa Catalina Island Desert-Thorn (*Lycium brevipes* var. *hassei*) | 1B | None | Not recorded from the San Pedro quadrangle; perennial deciduous shrub found at elevations of 10 to 300 meters w/in coastal bluff scrub and coast scrub. No potential habitat is present w/in the Project study area. |
| Prostrate Navarretia (*Navarretia prostrata*) | 1B | None | Not recorded from San Pedro quadrangle; annual herb found in coastal scrub, meadows and seeps, valley and foothill grasslands, and vernal pools; typically associated with alkaline soils and mesic soil conditions at 15 to 700 meters elevation. Single record for species w/in geographical region is dated 1882 and from Wilmington (CDFG 2005). In addition, the freshwater marsh located at the 22nd Street/Old Tank Farm Land open space is far too degraded and disturbed to provide potentially suitable habitat for this species. Soils adjacent to the marsh are compacted and have been "amended" with asphalt, concrete, and gravel. |
| Coast Woolly-heads (*Nemacaulis denudata* var. *denudata*) | 1B | None | Not recorded from San Pedro quadrangle; annual herb found at 0 |

| SPECIES / NATURAL COMMUNITIES[1] | SPECIAL STATUS[2] | OCCURRENCE[3] LIKELIHOOD | COMMENTS[4] |
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| | | | to 100 meters elevation in coastal dunes. Habitat absent from the Project study area. |
| Lyon's Pentachaeta (*Pentachaeta lyonii*) | FE, SE, 1B | None | Not recorded for San Pedro quadrangle; annual herb associated with chaparral, coastal scrub, and valley and foothill grasslands at 30 to 630 meters elevation. No potential habitat w/in Project study area. |
| Brand's Phacelia (*Phacelia stellaris*) | 1B | None | Not recorded from the San Pedro quadrangle; annual herb found at 1 to 400 meters elevation w/in coastal scrub and dunes. No potential habitat present w/in Project study area. |
| Estuary Seablite (*Suaeda esteroa*) | 1B | None | Not recorded w/in San Pedro quadrangle; perennial herb found in coastal salt marshes and swamps at elevations of 0 to 5 meters. Only extant salt marsh is at Cabrillo. This marsh was created in 1982 and isolated from other salt marshes. Given the conditions by which the marsh was created along with it being isolated, the species is judged absent from the Project study area. |
| **ANIMALS** | | | |
| Palos Verdes Blue Butterfly (*Glaucopsyche lygdamus palosverdesensis*) | FE | None | Species limited to a single small population at the former Palos Verdes Navy Housing Area located directly north of the Defense Fuel Supply Point in San Pedro. Associate w/ coastal sage scrub. Potential habitat absent from Project study area and species not known from other locations. |
| Monarch Butterfly (*Danaus plexippus*) | CNDDB | Moderate as migrant only. | Winter roost sites extend along the coast from northern Mendocino to Baja California. Roosts located in wind-protected tree groves (gum trees, Monterey pines, cypress) with nectar and water sources nearby. Small numbers expected to migrate through Project study area in fall. No potential roost sites w/in Project study area. |
| Tidewater Goby (*Eucuclogobius newberryi*) | FE, SSC | None | Historically, the Los Angeles basin provided shallow, brackish lagoon habitat suitable for the tidewater goby. Currently, however, this area is a gap between the Santa Monica (in western L.A. County) and Alisa Creeks (in Orange County) populations (USFWS 2004 – Andy Wones citation). The Project study area contains no habitat suitable for the species and there is no designated federal Critical Habitat for this species (Federal Register 65(224:69693-69717) in the Project study area. |
| Green Sea Turtle (*Chelonia mydas*) | FT | Very Low as transient | Has been observed sporadically in the Los Angeles/Long Beach Harbor area (http://www.mxsocal.org/oldweb/hspappendh.htm). |
| Leatherback Sea Turtle (*Dermochelys coriacea*) | FE | Very Low as transient | Has been observed sporadically in the Los Angeles/Long Beach Harbor area (http://www.mxsocal.org/oldweb/hspappendh.htm). |
| Loggerhead Sea Turtle (*Caretta caretta*) | FT | Very Low as transient | Has been observed sporadically in the Los Angeles/Long Beach Harbor area (http://www.mxsocal.org/oldweb/hspappendh.htm). |

| SPECIES / NATURAL COMMUNITIES[1] | SPECIAL STATUS[2] | OCCURRENCE[3] LIKELIHOOD | COMMENTS[4] |
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| Olive Ridley (*Lepidochelys olivacea*) | FT | Very Low as transient | Has been observed sporadically in the Los Angeles/Long Beach Harbor area (http://www.mxsocal.org/oldweb/hspappendh.htm). |
| San Diego Coast Horned Lizard (*Phrynosoma coronatum blainvillei*) | SSC, | None | Inhabits coastal sage scrub and chaparral in arid and semi-arid climate conditions; prefers friable, rocky, or shaley sandy soils. Potential habitat absent from Project study area. |
| Common Loon (*Gavia immer*) | SSC | Confirmed as migrant and winter resident only | Southern California outside species breeding range; species has been documented w/in the Project study area during fall, winter, and spring (MEC 2002 - Analytical Systems, Inc. 2002. Ports of Long Beach and Los Angeles Year 2000 Biological Baseline Study of San Pedro Bay. Prepared for Port of Los Angeles, Planning Division. Carlsbad, CA. June). |
| California Brown Pelican (*Pelecanus occidentalis californicus*) | FE, SE, CFP | Confirmed as year-round non-breeder | Species uses the Harbor for foraging and roosting only; breeds on the Channel Islands and islands off the coast of Baja California (LAHD 2004 – Draft EIR for Berth 206-209, Interim Container Terminal Reuse Project. Prepared with assistance from CH2MHILL, Santa Ana, California. May 2004). |
| Double-crested Cormorant (*Phalacrocorax auritus*) | SSC | Confirmed as year-round non-breeder | This colonial piscivore (fish eater) is an uncommon transient and winter resident in coastal southern California, especially at major rivers and lakes with undisturbed shallows. Species is known to forage and roost w/in the Harbor year-round. Breeds along the coast and on the Channel Islands in undisturbed settings. |
| Osprey (*Pandion haliaetus*) | SSC | Confirmed as migrant and wintering resident non-breeder | Diet consists almost entirely of fish. It was formerly a common and widespread breeder in southern California (Grinnell and Miller 1944 - Grinnell, J., and A. H. Miller. 1944. The Distribution of the Birds of California. Pacific Coast Avifauna 27.), but no longer breeds regularly in California anywhere south of the northern San Francisco Bay (Small 1994 - Small, A. 1994. California Birds: Their Status and Distribution. Ibis Publishing Company, Vista, CA. 342 pp.). Declines are directly attributed to environmental pollution, with secondary causes including harassment by fishermen, disturbance at nest sites, and loss of habitat quality (including increased turbidity and fish stock declines in some rivers). Species is known to forage in Harbor waters for fish and roosts on tall undisturbed poles, tree snags, etc. |
| White-tailed Kite (*Elanus leucurus*) | CFP | Low as migrant; non-breeder | A bird of prey that hunts in open country. It is found across most of California. Nests are located low in trees and large shrubs near foraging areas in savannahs and at edges between open habitat and woodland or forest areas; vulnerable to human disturbance, especially during nesting. Species is not recorded for the Harbor and is not likely to occur except as a rare brief |

| SPECIES / NATURAL COMMUNITIES[1] | SPECIAL STATUS[2] | OCCURRENCE[3] LIKELIHOOD | COMMENTS[4] |
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| | | | migrant. |
| Bald Eagle (*Haliaeetus leucocephalus*) | FT, EPA, SE, CFP | Very Low as migrant non-breeder | Species eats mainly fish and carrion, and formerly nested locally along the coast of southern California. It is now a very localized winter resident and rare migrant, with only very rare breeding efforts in coastal southern California (e.g., Lake Skinner, Riverside County). Within Los Angeles Harbor an individual may occur in some years during migration and/or winter. Coastally the species is known to nest on Santa Catalina Island. |
| Sharp-shinned Hawk (*Accipiter striatus*) | SSC | Low as non-breeding migrant | This small raptor specializes in hunting small birds and winters widely and fairly commonly in California including urban settings. It is a rare breeder south of northern San Luis Obispo County, and then only in high elevation forest and riparian habitats. Within the Project study area this species is likely to occur sporadically as a migrant or winter visitor. |
| Cooper's Hawk (*Accipiter cooperii*) | SSC | Low as non-breeding migrant | This medium sized hawk is a specialist in hunting small birds in closed quarters. It winters widely and fairly commonly in California as birds breeding to the north move in. In southern California Cooper's Hawks breed primarily in woodland habitats, especially riparian zones, but also oak woodland, walnut woodland, gumtrees (*Eucalyptus* spp.), and occasionally in dense, abandoned or otherwise undisturbed orchards. Within the Project study area this species would likely be an uncommon visitor. |
| Merlin (*Falco columbarius*) | SSC | Low as non-breeding migrant | This is a falcon which breeds only to the north and east of California and winters here sparsely. Like larger falcons such as peregrine falcon, merlins specialize in hunting birds in open country, especially wetlands and extensive grasslands next to trees. Within the Project study area it is reasonable that this species could occur uncommonly as migrant and/or brief winter visitor. |
| American Peregrine Falcon (*Falco peregrinus anatum*) | SE, CFP | Confirmed | This subspecies of peregrine falcon formerly bred over most of North America. It was listed as a federally endangered species on 13 October 1970, and as state endangered on 27 June 1971. The species is currently undergoing a slow, steady recovery, and again breeds in small numbers through much of non-desert portions of California. Habitat at all seasons is primarily areas with accessible open water and high densities of prey species such as ducks and shorebirds. The American peregrine falcon was formally delisted under the federal Endangered Species Act on 25 August 1999 (USFWS 1999 - U.S. Fish and Wildlife Service. 1999. Endangered and Threatened Wildlife and Plants: |

| SPECIES / NATURAL COMMUNITIES[1] | SPECIAL STATUS[2] | OCCURRENCE[3] LIKELIHOOD | COMMENTS[4] |
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| | | | Final Rule to Remove the American Peregrine Falcon from the List of Federal Endangered and Threatened Wildlife, and to Remove the Similarity of Appearance Provision for Free-flying Peregrines in the Conterminous United States; Final Rule. Fed. Reg. 64:46542-46558. 25 August 1999.), as were individuals of all other subspecies occurring within the range of this subspecies. The species as a whole remains listed as Endangered at the state level, throughout California. This species is known to nest within Los Angeles and Long Beach Harbors. The nearest known nesting location to the Project study area is the Vincent Thomas Bridge and the species may forage any where waterbird and pigeons concentrate and thus, may range widely when foraging. |
| Light-footed Clapper Rail (*Rallus longirostris levipes*) | FE, SE | None | This subspecies of clapper rail is restricted to the lower elevations of coastal marshes with active tidal flow. No substantial seasonal movements occur, although rare individuals wander away from known breeding locales. The population trend at this time is uncertain, but nearly all remaining populations are vulnerable to extirpation due to nonnative predators, human disturbance, poor water quality (especially due to siltation of marshes from upland runoff), and habitat degradation and loss. Within the Project study area the only possible location for the species is the Cabrillo salt marsh. The marsh vegetation w/in Cabrillo is far too small to support a clapper rail. This species is judged absent from the Project study area. |
| Western Snowy Plover (*Charadrius alexandrinus nivosus*) | FT, SSC | Confirmed as non-breeder | Breeding habitat requirements include open, relatively flat areas with little or no vegetation. This includes undisturbed beaches, salt flats, playas, dredge spoils, levees, and even river bars. Food is virtually all aquatic and terrestrial invertebrates, which is typically captured through active observation, running, and then gleaning from the ground surface of tidal mudflats. Causes of decline are loss and, especially, intensive human disturbance of nesting areas, and introduction of nonnative predators. The federal listing of Threatened applies only to populations less than 50 miles from the nearest point of the Pacific Ocean. Along the southern California coastline this species is much more "common" as a migrant and winter visitor than a breeder where it can be found foraging and roosting along undisturbed beaches, lagoons, and estuaries. Within the Harbor this species is an occasional visitor to Pier 400 during the tern breeding season (May through August) (Keane Biological Consulting 2004 – |

| SPECIES / NATURAL COMMUNITIES[1] | SPECIAL STATUS[2] | OCCURRENCE[3] LIKELIHOOD | COMMENTS[4] |
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| | | | Keane Biological Consulting. Final Report Breeding Biology of the California Least Tern in Los Angeles Harbor 2004 Season. Prepared for Los Angeles Harbor Department, Environmental Management Division. January 2005) with use of the Project study area expected to be limited to beach and mudflat habitats for foraging and roosting and rare. |
| Long-billed Curlew (*Numenious americanus*) | SSC | Confirmed as non-breeding migrant/winter visitor | Within southern California, this species occurs as a spring/fall migrant and/or winter visitor along beaches and mudflats. This species is known to occur w/in the Harbor as an infrequent transient. |
| California Gull (*Larus californicus*) | SSC | Confirmed as non-breeder | This gull breeds in large colonies east of the Sierra Nevada mountains and in San Francisco Bay, and is one of about a dozen species of "seagulls" that winter in and migrate through coastal southern California. Concentrations occur along the coast, major rivers, lakes, open landfills, and at parks with duck ponds. This species is confirmed to occur as a non-breeder within the Project study area with highest numbers during fall/spring and winter. This species is expected to forage and roost within the Study Area. |
| Black Skimmer *(Rynchops niger*) | SSC | Confirmed as breeder | This species breeds at Pier 400 in small numbers (Keane Biological Consulting - Keane Biological Consulting. Final Report Breeding Biology of the California Least Tern in Los Angeles Harbor 2004 Season. Prepared for Los Angeles Harbor Department, Environmental Management Division. January 2005) and is expected to forage within the Study Area. This bird skims along surface coastal waters for fish and can be seen feeding along quiet protected waters as well as open nearshore waters. Based on MEC (2002 - Analytical Systems, Inc. 2002. Ports of Long Beach and Los Angeles Year 2000 Biological Baseline Study of San Pedro Bay. Prepared for Port of Los Angeles, Planning Division. Carlsbad, CA. June) this species is most common to the Harbor in July and August when post-breeding dispersal from larger breeding colonies occurs along the coast is expected to occur. The lowest number of individuals was recorded in May-June and October-January. |
| California Least Tern (*Sterna antillarum browni*) | FE, SE, CFP | Confirmed as breeder | This subspecies of least tern historically bred in scattered, mostly small colonies along the coast from Monterey Bay south into Baja California. Today they breed in far fewer colonies, heavily managed to control predators and human disturbance, from San Francisco Bay (Alameda County) south to a few sites along the Pacific Coast of Baja California, Mexico. Most individuals breed at a few relatively large colonies in coastal southern |

| SPECIES / NATURAL COMMUNITIES[1] | SPECIAL STATUS[2] | OCCURRENCE[3] LIKELIHOOD | COMMENTS[4] |
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| | | | California including Pier 400 in Los Angeles Harbor. They are extremely rare more than a few miles offshore, or inland except for occasional foraging at favorable fresh and brackish water locations. Winter distribution is unknown, but presumed to be open ocean off of Central America or South America; there are no winter records for California. The species feeds by diving for small surface fish from in flight. The U.S. Fish and Wildlife Service designates the breeding window as 15 April through 15 September; occasional individuals are seen as early as the beginning of April. Colonies are located near the ocean shoreline (within 0.5 miles [about 800 meters]), typically on nearly flat, loose sandy substrates with lightly scattered short vegetation and debris, although some colonies have been located on hard-packed surfaces, even unused asphalt. Colony sites must provide access to the shoreline for juveniles, and must be relatively free of predators. Documented predators include an extremely wide range of hawks, falcons, owls, shrikes, and mammals, even including herons and ground squirrels. The species is vulnerable due to their colonial nesting in a conspicuous, frequently disturbed habitat, along with their small size and dependence on small fishes whose populations vary greatly from year to year. Threats include loss and degradation of nesting and foraging habitat, direct disturbance from humans and pets, and increased predation risks due to the introduction of nonnative predators and increasing reliance on a few large colonies rather than many small, less conspicuous sites. With intensive management, recent population trends are upward. In 2004, an estimated 951 pairs of least terns nested at Pier 400 with 1,042 nests documented. In general, breeding success at this colony is above average compared to other colonies within Los Angeles and Orange Counties. Although the breeding colony is technically just outside the Project study area this species is expected to heavily use the aquatic environs w/in the Project study area for foraging from April through August. |
| Elegant Tern (*Sterna elegans*) | SSC | Confirmed as breeder | This tern forages in coastal and offshore waters including nearshore, bay, and estuarine situations where it feeds strictly on fish by aerial predation. Within the Harbor, elegant's breed at Pier 400 with an estimated 10, 170 nests recorded in 2004 (Keane Biological Consulting 2004 - Keane Biological Consulting. Final Report Breeding Biology of the California Least Tern in Los Angeles Harbor 2004 Season. Prepared for Los Angeles Harbor Department, Environmental Management |

| SPECIES / NATURAL COMMUNITIES[1] | SPECIAL STATUS[2] | OCCURRENCE[3] LIKELIHOOD | COMMENTS[4] |
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| | | | Division. January 2005.). The Harbor in the vicinity of the Project study area is expected to provide important forage for breeding adults and dispersing juvenile. The species is expected to occur between April through October but individuals can be seen in most months. |
| Tufted Puffin (*Fratercula cirrhata*) | SSC | Confirmed as non-breeder (rare) | This seabird is a rare occurrence within southern California coastal waters but an individual was recorded in 2000 (MEC 2002 - Analytical Systems, Inc. 2002. Ports of Long Beach and Los Angeles Year 2000 Biological Baseline Study of San Pedro Bay. Prepared for Port of Los Angeles, Planning Division. Carlsbad, CA. June.). Any sighting of this species is expected to be a rare occurrence. |
| Burrowing Owl (*Athene cunicularia*) | SSC | Confirmed as non-breeder at Pier 400; None w/in Project study area. | This small owl is unusual among birds of prey in utilizing underground burrows. Burrowing owls are widely but thinly scattered through much of the western United States into southern Canada, with a disjunct population in Florida and the Caribbean. Generally they use burrows already dug by fossorial mammals such as ground squirrels, but can also use natural cavities and even man-made structures, such as piles of concrete or openings at the base of structures. Declines have been due to a variety of factors, including direct persecution, habitat loss, and control of both prey species and animals that create burrows. Within the Harbor an individual burrowing owl was relocated from Pier 400 in 2004 (Keane Biological Consulting 2004 - Keane Biological Consulting - Final Report Breeding Biology of the California Least Tern in Los Angeles Harbor 2004 Season. Prepared for Los Angeles Harbor Department, Environmental Management Division. January 2005.). During the current field work for the project, the open lands within the Project study area were carefully checked for potential habitat including ground squirrel burrows. Based on current conditions within the Project study area, potential habitat is absent. |
| Vaux's Swift (*Chaetura vauxi*) | SSC | High | Swifts spend most of their lives in flight, hunting small insects. Vaux's swifts nest in snags in old growth forests from central California to southeast Alaska (as well as in Mexico southward), and winter from central Mexico to northern South America. They are fairly common as spring and fall migrants in southern California. Within the Project study area this species is expected to occur occasionally in fall and spring when the species is migrating to southern wintering grounds or northern breeding ground. |

| SPECIES / NATURAL COMMUNITIES[1] | SPECIAL STATUS[2] | OCCURRENCE[3] LIKELIHOOD | COMMENTS[4] |
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| Loggerhead Shrike (*Lanius ludovicianus*) | SSC | Confirmed | This species typically hunts in sparsely vegetated lands with perches for scanning, and fairly dense shrubs/brush for nesting (Small 1994 - Small, A. 1994. California Birds: Their Status and Distribution. Ibis Publishing Company, Vista, CA. 342 pp.). An individual was recorded during the current field work for the project at the 22nd Street/Old Tank Farm Land open space. It is likely that a pair of this species nests within the brush lining the adjacent cliffs and forages in the remaining open lands within the close vicinity. |
| California Horned Lark (*Eremophila alpestris actia*) | SSC | Confirmed | Species nests in grasslands interrupted by bare ground, dunes, grassy hillsides, mesas, plowed agricultural land, and alkali flats to name a few (Small 1994 - Small, A. 1994. California Birds: Their Status and Distribution. Ibis Publishing Company, Vista, CA. 342 pp) and can be seen year-round in similar habitats including beaches. Several individuals were observed at the 22nd Street/Old Tank Farm Land open space during the current field work and it is expected to occur at other open space w/in the Project study area. It is also expected to breed in small numbers in these same areas. |
| Coastal California Gnatcatcher (*Polioptila californica californica*) | FT, SSC | None | This species is an "obligate" resident of coastal sage scrub. No potential habitat within or adjacent to the Project study area. |
| Western Yellow Warbler (*Dendroica petechia brewsteri*) | SSC | Moderate as non-breeding migrant | Within the southern California coastal zone, breeding habitat for this warbler is found in riparian woodlands. Although the breeding habitat for this species is riparian, migrant yellow warblers during spring and fall can be found in a wide variety of habitats ranging from arid coastal sage scrub to urban landscaping (e.g., gum trees). Within the Project study area this species is expected to be limited to migrants in spring and summer and only a small number of individuals are expected. No breeding habitat is present. |
| Belding's Savannah Sparrow (*Passerculus sandwichensis beldingi*) | SE | Confirmed transient visitor | This subspecies of savannah sparrow is a locally common non-migratory resident of coastal saltmarsh. It is distributed from northwestern Baja California north to Santa Barbara County. This subspecies was formerly numerous and widespread within this restricted range, as noted by Willett (1912): "Abundant resident of the salt marshes along the coast". In some places it extends inland into alkaline marshes as much as 8 miles (about 12.9 kilometers), but all known localities are within 100 feet (about 30.5 meters) elevation above mean sea level. It is an obligate breeder in middle elevation saltmarsh, nearly always characterized by pickleweed (Salicornia spp.), either in tidal situations or non-tidal alkaline flats nearby. Although the |

| SPECIES / NATURAL COMMUNITIES[1] | SPECIAL STATUS[2] | OCCURRENCE[3] LIKELIHOOD | COMMENTS[4] |
|---|---|---|---|
| | | | majority of its subsistence stems from the saltmarsh and closely adjacent mudflat, individuals, particularly post-breeding birds, can be found foraging in a wide variety of habitats including upper marsh, adjacent ruderal and ornamental vegetation, open beach and mudflat, and even dirt and gravel parking lots. During fall, winter and spring, several other races of Savannah Sparrow occur in the same areas as Belding's, with complete overlap in habitat use (though the migrants remain more common in uplands). Migrants may be present within the range of Belding's from at least late August through early April. With good views of individual birds a knowledgeable and experienced observer may reliably identify Savannah Sparrows as Belding's or non-Belding's under field conditions. Non-Belding's savannah sparrows were recorded during the current field work. The breeding season for Belding's Savannah Sparrow has been estimated as mid-March to mid-July, though some young may fledge and remain dependent into August. Primary threats to the subspecies are loss and degradation of middle elevation coastal saltmarsh, and disturbance and predation. Belding's savannah sparrow is not recorded within the Project study area or Los Angeles Harbor. The last documented sighting occurred in 1984 within Long Beach harbor where an individual was observed (LAHD 2002 - ). The small amount of pickleweed present within the Cabrillo marsh is not sufficient to support this subspecies. It is expected that if this species were to occur within the Project study area it would be extremely rare and brief. |
| Tricolored Blackbird (*Agelaius tricolor*) | SSC | None | This species colonially nests in freshwater marshes with dense stands of cattails and/or bulrushes, and occasionally in other riparian-associated thick brush (Small 1994 - Small, A. 1994. California Birds: Their Status and Distribution. Ibis Publishing Company, Vista, CA. 342 pp.); foraging during nesting occurs in open lands with sparse vegetation in vicinity to the nesting colony. At other times of the year this species can be found in flocks foraging in open, expansive sparsely vegetated lands. Within the Project study area it is conceivable that the species could occur but it is highly unlikely given the surrounding urban setting and the limited open space present within the Project study area. |
| California Western Mastiff Bat (*Eumops perotis californicus*) | SSC | Low | In southern California this subspecies of mastiff bat is found throughout the coastal lowlands up to drier mid-elevation mountains. Habitats include dry woodlands, shrublands, |

| SPECIES / NATURAL COMMUNITIES[1] | SPECIAL STATUS[2] | OCCURRENCE[3] LIKELIHOOD | COMMENTS[4] |
|---|---|---|---|
| | | | grasslands, and occasionally even developed areas. This big bat forages in flight. They are active at night year round and are documented to travel over 15 miles (24 kilometers) in foraging bouts. Roost sites may be in natural rock or in tall buildings, large trees or elsewhere, but must be at least 2 inches (5 centimeters) wide and 12 inches (30 centimeters) deep, and narrow to at most 1 inch (2.5 cm) at their upper end. Nursery roosts must be deeper yet. All roosts open well up on a cliff or other steep face, at least 6.5 feet (2 meters) vertically above the substrate, to allow flight from the roost. Roosts may be communal (up to 100 individuals) or solitary, and commonly include other species of bats. Within the Project study area this species has not been documented, however it is possible that roosting habitat may include crevices or compartments in buildings or warehouses. |
| Big Free-tailed Bat (*Nyctinomops (=Tadarida) macrotis*) | SSC | None | This species of bat is nearly restricted to Mexico, with small numbers of incursions recorded into the developed portions of western San Diego County and a few additional records elsewhere in the state. The species roost in high rock crevices and cliffs, and forage primarily on large moths, especially over water. Habitats are arid, with particular preference for rough, rocky country. An individual of this species was collected in Long Beach in 1983. The species is a rarity at best and is not expected to occur within the Project study area. |
| Pacific Pocket Mouse (*Perognathus longimembris pacificus*) | FE, SSC | None | This subspecies is an obligate resident of fine-grained sandy soils of coastal strand, coastal dunes, river and marine alluvium, and coastal sage scrub in close proximity to the ocean, and has never been collected more than 2 miles (about 3 kilometers) from the coast or above 600 feet (about 180 meters) elevation. No potential habitat for this species is present within the Project study area. |
| San Diego Desert Woodrat (*Neotoma lepida intermedia*) | SSC, MSHCP | None | This is a medium-sized native rat locally common in a variety of sunny shrub habitats, frequently in rocky and/or steep terrain and upper drainages. Sage scrub communities are frequently occupied, but with other communities also used as suitable microhabitats are available. Potentially suitable habitat for the species is absent from the Project study area. |
| **NATURAL COMMUNITIES** | | | |
| Coastal and Valley Freshwater Marsh | CNDDB | Confirmed | A 0.3-acre freshwater marsh is located within the Project study area at the 22nd Street/Old Tank Farm Land open space. This marsh is highly degraded and isolated. Refer to Section 3.3.2.1 |

| SPECIES / NATURAL COMMUNITIES[1] | SPECIAL STATUS[2] | OCCURRENCE[3] LIKELIHOOD | COMMENTS[4] |
|---|---|---|---|
| | | | for further details and the jurisdictional delineation performed. |
| Southern Coastal Salt Marsh | CNDDB | Confirmed | A 3.25-acre coastal salt marsh is present at Cabrillo. It was created in 1982 and is vegetated by nonnative and native vegetation in the uplands and native pickleweeds (*Salicornia virginica*, *S. subterminalis*) and saltgrass (*Distichlis spicata*) along the periphery of the intertidal mudflats. The shallow waters provide spawning and nursery areas for fish and a variety of watersbirds are expected to regularly roost and/or forage w/in the marsh throughout the year. |

# E

# HISTORIC RESOURCES EVALUATION REPORT

Final

# PORT OF LOS ANGELES MUNICIPAL PIER NO. 1

## Historic Resources Evaluation Report

Prepared for
Port of Los Angeles

February 2011

Final

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## Historic Resources Evaluation Report

Prepared for
Port of Los Angeles

February 2011

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**Cover Image:** Aerial view of completed Municipal Pier No. 1 showing Warehouse No. 1 (right), Municipal Shed No. 1 (Transit Shed Berths 58-6) (left) and the Pan American Petroleum Co. in the background, October 17, 1925. Source: POLA.

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# HISTORIC RESOURCES EVALUATION
# Port of Los Angeles Municipal Pier No. 1

## 1. Introduction

The Los Angeles Harbor Department (LAHD) has contracted with ESA to perform a historic resources survey and evaluation of Municipal Pier No. 1 (see Figure 1, Location Map). The Port of Los Angeles (POLA) is planning to implement the City Dock project, which would make a number of alterations and improvements to the sheds at Berths 57-60, as well as to Municipal Pier No 1 which supports these sheds.

Previous studies[1] of the site suggested that, in addition to the sheds at Berths 57-60, Municipal Pier No. 1 supports these structures, may also be eligible for listing in the National Register of Historic Places (NRHP) either individually, or as a potential historic district. The LAHD requested that ESA provide a conclusive evaluation of the eligibility of Municipal Pier No. 1 for the LAHD City Dock project.

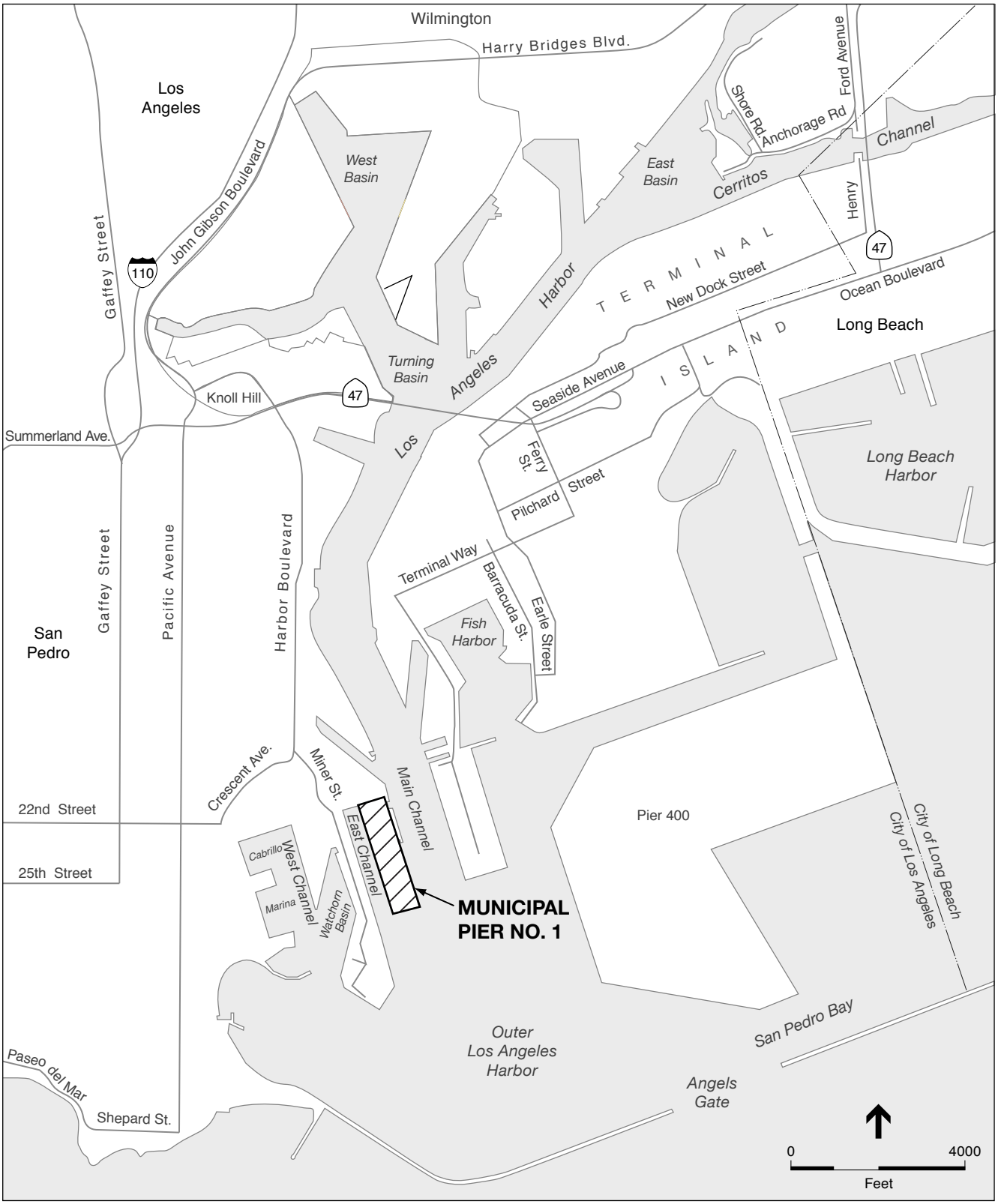
This report documents ESA's methods and findings of an intensive architectural survey and evaluation of Municipal Pier No. 1. Efforts included performing a review of previous studies; conducting additional archival research; surveying Municipal Pier No. 1; and applying the eligibility criteria for listing in the NRHP, CRHR, and City of Los Angeles Landmark criteria. All survey and evaluation work was conducted by ESA's senior preservation specialist, Brad Brewster, who meets the Secretary of Interior's professional qualification standards for both architectural history and preservation planning. Mr. Brewster supervised additional research conducted by Candace Ehringer, Registered Professional Archaeologist. Mr. Brewster and Ms. Ehringer have more than 25 years of combined experience working on cultural resources studies.

## 1.1 Methods

### Previous Study Findings

ESA reviewed previous inventories and evaluations of the Signal Street properties at the Port of Los Angeles, including those by San Buenaventura Research Associates in the late 1990s, and ICF Jones & Stokes in 2000 and 2008.

[1] ICF Jones & Stokes, *Final Architectural Survey and Evaluation of Signal Street Properties Port of Los Angeles, Los Angeles, California*, 2008.




SOURCE: POLA; ESA, 2011

Historic Resources Evaluation Report for Port of Los Angeles - Municipal Pier No. 1 . 201278.14

**Figure 1**
Location Map

In the late 1990s, San Buenaventura Research Associates under subcontract for Fugro West, Inc. prepared for the POLA Environmental Management Division Phase I and Phase II of a Cultural Resources Reconnaissance Survey of 7,500 Acres of land and water for the Port of Los Angeles. The purpose of the phased reconnaissance survey was to identify "potentially" eligible historic resources located on the POLA property and make recommendations of eligibility for the NRHP and for designation as City of Los Angeles Historic Cultural Monuments for individual buildings, and "potential" historic districts at the Port. As part of the Phase II report, San Buenaventura Research Associates proposed a historic district encompassing the entire Pier One area south of 22nd Street. As recommended, the potential historic district includes but may not be limited to transit shed structures at Berths 57-60, Municipal Warehouse No. 1, the U.S. Immigration Station, the former Pan American Petroleum Company site (Berth 70, Westway building), and the Municipal Fish Market. Recommended potential districts, such as "Pier One," were not formally defined and documented in the report (Fugro West, Inc. 1997).

In 1999, the large, concrete, 6-story Warehouse No. 1, completed in 1917 and located at the southern end of Municipal Pier No. 1, was surveyed and evaluated by Jones & Stokes. This massive structure was identified as a property eligible for listing in the National Register of Historic Places (Jones & Stokes, 1999). Warehouse No. 1 was subsequently nominated to, and listed in, the Register in the following year.

In 2008, ICF Jones & Stokes surveyed and evaluated six properties located on or near Signal Street, which are either located on, or immediately adjacent to, Municipal Pier No. 1. These are the Transit Shed Berths 58-60, Immigration Station (Canetti's Restaurant, 309 E. 22nd Street), Transit Shed Berth 57, Pan American Petroleum Company Marine Loading Station Facility – Berth 70 (Westway Terminal Building), 264 and 270 E 22nd Street, and Pan-Am Terminal Facility – Berth 56 (California Fish and Game Building). ICF Jones & Stokes found that all six properties appear to be eligible for listing in the NRHP and the CRHR, as well as appear eligible for listing as Los Angeles Historic –Cultural Monuments (ICF Jones & Stokes, 2008).

Although Municipal Pier No. 1 itself was not surveyed and evaluated at an intensive level by Jones & Stokes in 2008, they inferred that the Pier has potential historical significance because it was an integral part of the Port during the early half of the 20th Century, and the basic layout and facilities at the Pier have changed little since the late 1920s. They also inferred that Municipal Pier No.1 was eligible as part of a potential historic district, with multiple other contributing structures, upon future intensive-level survey and evaluation.

## 1.2 Archival Research

Archival research for the current evaluation of Municipal Pier No. 1 was conducted at POLA, the Los Angeles Public Library, various online sources, and the South Central Coastal Information Center (SCCIC) at the California State University at Fullerton.

## 1.3 Fieldwork

On December 10, 2010, Mr. Brewster conducted an intensive field survey of Municipal Pier No. 1. As part of this survey, Mr. Brewster took photographs and prepared descriptions of the Pier and associated structures atop the Pier. These descriptions are provided in Section 5, below, as well as in California Department of Parks and Recreation (DPR) Forms 523A and B, located in Appendix B. With 17 years of experience surveying and evaluating historic resources throughout the West Coast, Mr. Brewster meets the Secretary of the Interior's qualifications for architectural history.

## 1.4 Area of Potential Effects (APE)

The Area of Potential Effects (APE) was delineated as the entire Municipal Pier No. 1 south of 22nd Street. The APE map is shown in Figure 2 below. The APE includes the geographic areas within which the undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist, including all ground-disturbing activities, staging areas, and construction zones. As such, the APE includes not only the Pier structure itself, but also the sheds and warehouses which are located atop the structure.

# 2. Regulatory Context and Significance Criteria

## 2.1 Federal Regulations

To establish the significance of a property, the National Register of Historic Places (National Register) criteria for evaluation set forth in 36 CFR Part 60.4 must be applied. The following criteria are designed to guide the states, federal agencies, and the Secretary of the Interior in evaluating potential entries for the National Register. The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects that possess at least one of the following:

A. that are associated with events that have made a significant contribution to the broad patterns of our history; or

B. that are associated with the lives of persons significant in our past; or

C. that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master or that possess high artistic values or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. that have yielded, or may be likely to yield, information important in prehistory or history.

The question of integrity is another factor that must be addressed when determining the eligibility of a resource for listing in the National Register. The Secretary of the Interior describes integrity as "the ability of a property to convey its significance." A property must retain certain intact physical features in order to convey its significance under one or more of the NRHP criteria.

APE Boundary

SOURCE: Google Earth, 2011



**Figure 2**
APE Map

Integrity is judged on seven aspects; location, design, setting, workmanship, materials, feeling, and association. If a particular resource meets one of these criteria and retains sufficient integrity to convey its historic significance, it is considered as an eligible "historic property" for listing in the National Register. Additionally, unless exceptionally significant, a property must be at least 50 years old to be eligible for listing.

## Section 106

Section 106 of the National Historic Preservation Act (NHPA) of 1966 requires that a federal agency with direct or indirect jurisdiction over a proposed federal or federally-assisted undertaking, or issuing licenses or permits, must consider the effect of the proposed undertaking on historic properties. An historic site or property may include a prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register maintained by the U.S. Secretary of the Interior. Federal agencies must also allow the Advisory Council on Historic Preservation (ACHP) to comment on the proposed undertaking and its potential effects on historic properties.

The implementing regulations for Section 106 of the NHPA (36 CFR 800) require consultation with the State Historic Preservation Officer (SHPO), the ACHP, federally recognized Indian tribes and other Native Americans, and interested members of the public throughout the compliance process. The four principal steps are:

- initiate the Section 106 process (36 CFR 800.3);
- identify historic properties, resources eligible for inclusion in the NRHP (36 CFR Section 800.4);
- assess the effects of the undertaking on historic properties within the area of potential effect (36 CFR 800.5); and
- resolve adverse effects (36 CFR 800.6).

Adverse effects on historic properties are often resolved through preparation of a memorandum of agreement or programmatic agreement developed in consultation between the federal agency, the SHPO, Indian tribes, and interested members of the public. The ACHP is also invited to participate. The agreement describes stipulations to mitigate adverse effects on historic properties or listing in the National Register of Historic Places (36 CFR §60).

## Significance Criteria under NHPA

A significant impact would occur if a proposed action results in an adverse effect to a property that is listed in or eligible for inclusion in the National Register. The specific Criteria of Effect and Adverse Effect, as defined in 36 CFR 800.9, used to evaluate an undertaking's effect on a historic property, are as follows:

- An undertaking has an effect on a historic property when it may alter the characteristics of the property that qualify the property for inclusion in the National Register. For the purpose

of determining effect, alteration to features of the property's location, setting, or use may be relevant depending on a property's significant characteristics and should be considered.

- An undertaking is considered to have an adverse effect when the effect on a historic property may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Adverse effects on historic properties include, but are not limited to:

  (1) Physical destruction, damage, or alteration of all or part of the property;

  (2) Isolation of the property from or alteration of the character of the property's setting when that character contributes to the property's qualification for the National Register;

  (3) Introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting;

  (4) Neglect of a property resulting in its deterioration or destruction; and

  (5) Transfer, lease, or sale of the property.

## 2.2 State Regulations

The State implements the NHPA through its statewide comprehensive cultural resources surveys and preservation programs. The California Office of Historic Preservation (OHP), as an office of the California Department of Parks and Recreation, implements the policies of the NHPA on a statewide level. The OHP also maintains the California Historic Resources Inventory. The State Historic Preservation Officer (SHPO) is an appointed official who implements historic preservation programs within the State's jurisdictions.

### California Register of Historical Resources

The CRHR includes resources that are listed in or formally determined eligible for listing in the NRHP and some resources designated as California State Landmarks and Points of Historical Interest (PRC Section 5024.1, 14 California Code of Regulations [CCR] Section 4850). Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be significant resources for purposes of CEQA unless a preponderance of evidence indicates otherwise (State CEQA Guidelines Section 15064.5[a][2]). The eligibility criteria for listing in the CRHR are similar to those for NRHP listing but focus on the importance of the resources to California history and heritage. A cultural resource may be eligible for listing in the CRHR if it (see 14 CCR Section 4852):

(1) is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

(2) is associated with the lives of persons important in our past;

(3) embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

(4) has yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting one of the four criteria listed above, a resource eligible for listing in the California Register must retain historic integrity, and is typically fifty years old or older, except where it can be demonstrated that sufficient time has passed to understand the historical importance of the resource.

### Significance Criteria under CEQA

The California Environmental Quality Act (CEQA) specifically addresses the protection of historic resources. Based on the Appendix G of the CEQA Guidelines, a project would have a significant impact on historic resources if it would, "result in a substantial adverse change in the significance of a historical resource that is either listed or eligible for listing on the National Register of Historic Places, the California Register of Historic Resources or a local register of historic resources."

## 2.3 Local Regulations

The Los Angeles Municipal and Administrative Codes address the preservation of historic and cultural monuments, and Preservation Zones. A list of historical and cultural monuments has been compiled and is maintained by the Cultural Heritage Commission, a board of five persons appointed by the Mayor and approved by the City Council. It is the responsibility of the Cultural Heritage Commission to oversee and approve the establishment of Preservation zones (LA Municipal Code Sec. 12.20.3) and to preserve monuments when such action is not in conflict with the public health, safety, and general welfare (LA Administrative Code Sec. 22.128).

According to Section 22.130 of the Los Angeles Municipal Code, a historical or cultural monument is "any site (including significant trees or other plant life located thereon), building or structure of particular historic or cultural significance to the City of Los Angeles, such as historic structures or sites in which the broad cultural, economic or social history of the nation, State or community is reflected or exemplified, or which are identified with historic personages or with important events in the main currents of national, State or local history or which embody the distinguishing characteristics of an architectural type specimen, inherently valuable for a study of a period, style or method of construction, or a notable work of a master builder, designer, or architect whose individual genius influenced his age."

According to Section 22.171 of the Los Angeles Municipal Code, 'The [Historic Preservation] Commission shall take all steps necessary to preserve Monuments not in conflict with the public health, safety and general welfare, powers and duties of the City of Los Angeles, or its several boards, officers or departments. These steps may include assistance in the creation of civic citizens' committees; assistance in the establishment of a private fund for the acquisition or restoration of designated Monuments; and recommendation that a Monument be acquired by a governmental agency where private acquisition is not feasible."

# 3. Historical Setting – Port of Los Angeles

The following historical setting has been adapted, in part, from the intensive-level surveys of the Port of Los Angeles prepared by Jones & Stokes in 2008, as well the reconnaissance-level surveys by San Buenaventura Research Associates from 1992 to 1996. Additional historical information developed by ESA has been inserted into the historic setting where appropriate.

## 3.1 Early History

The Port of Los Angeles is located approximately 20 miles from downtown Los Angeles, at the southernmost point in Los Angeles County. Due to its location on the Pacific Ocean, the surrounding area historically served as a port facility to varying degrees. Commonly referred to as San Pedro, the port is located within the boundaries of three historic ranchos: Rancho San Pedro, Rancho Los Palos Verdes, and Rancho Los Cerrios. These ranchos, conferred by Governor Pedro Fages to three veterans of the 1769 Portola expedition, possessed combined acreage equaling almost 84,000 acres (Beck and Haase 1974). Owners of the rancho lands earned a living through the raising of cattle and participation in the hide and tallow trade, and by 1830, San Pedro was considered a leading hide center on the west coast (Rawls and Bean 1993; Queenan 1986).

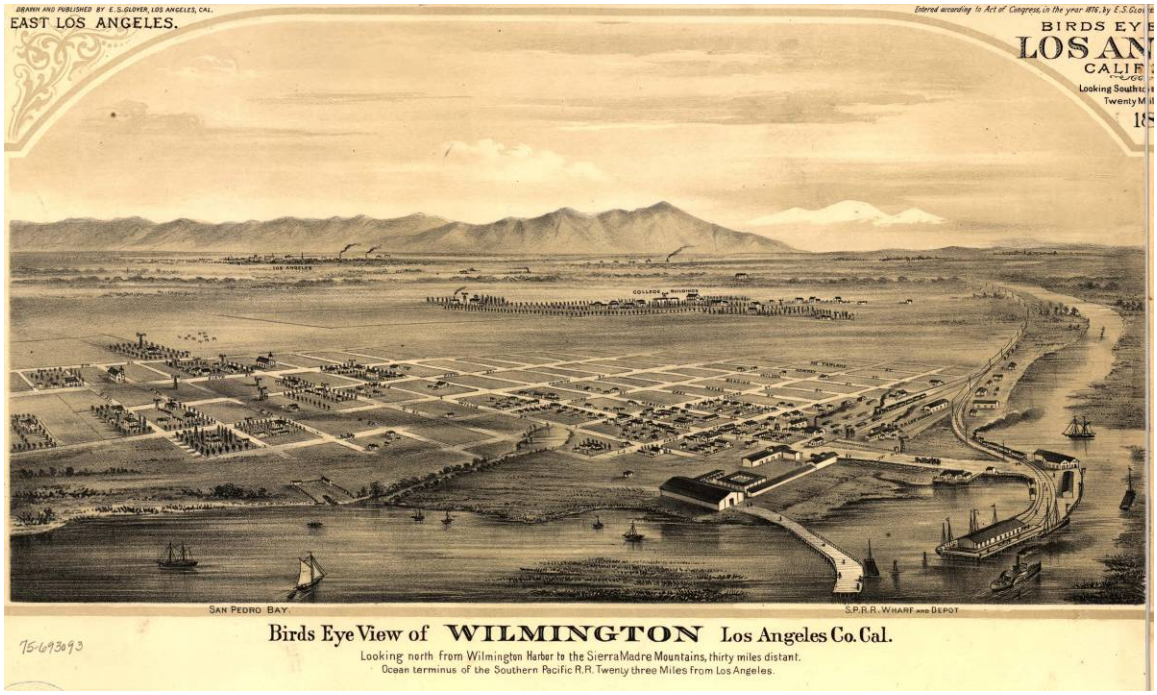
Following the annexation of California by the United States and the subsequent Gold Rush, an influx of new settlers descended upon the San Pedro area. While some residents realized the area's potential as a port area, the region was underused as a port during this period. Cattle and sheep ranching continued to dominate the economy, with one of the largest sheep operations in California, Flint, Bixby & Company, establishing the largest portion of its operation in San Pedro (Queenan 1986; Beck and Hasse 1974).

## 3.2 Commercial Shipping, 1857–1897

One of the earliest residents of the area, Phineas Banning, realized the potential of the area as a commercial shipping port, and in 1857, he constructed new docks to take advantage of the increasing trade coming in and out of Los Angeles. Two primary routes to the southwest gold fields, the Gila River Trail and the Old Spanish Trail, ended in Los Angeles. Banning shuttled materials on smaller boats from his base in Wilmington to and from a second location on the Rancho San Pedro waterfront.

Banning also realized the importance of rail transportation between his operation on the bay and the growing city of Los Angeles. In 1869, Banning and his investors organized the Los Angeles & San Pedro Railroad (LA&SP), marking the beginning of a period of fierce rail competition in the San Pedro and Los Angeles area. Banning's LA&SP was the first route to establish a reliable means of moving cargo from the ships coming into San Pedro Harbor to the City of Los Angeles.

Although the LA&SP was the first short line in southern California, by 1872 it had been purchased by the Southern Pacific Railroad (SPRR). In an attempt to break the stranglehold that the SPRR had on shipping in the area, Senator John P. Jones from Nevada established the Los Angeles and




SOURCE: POLA

**Figure 3**
Library of Congress Map of Wilmington,
Los Angeles County, CA, 1877

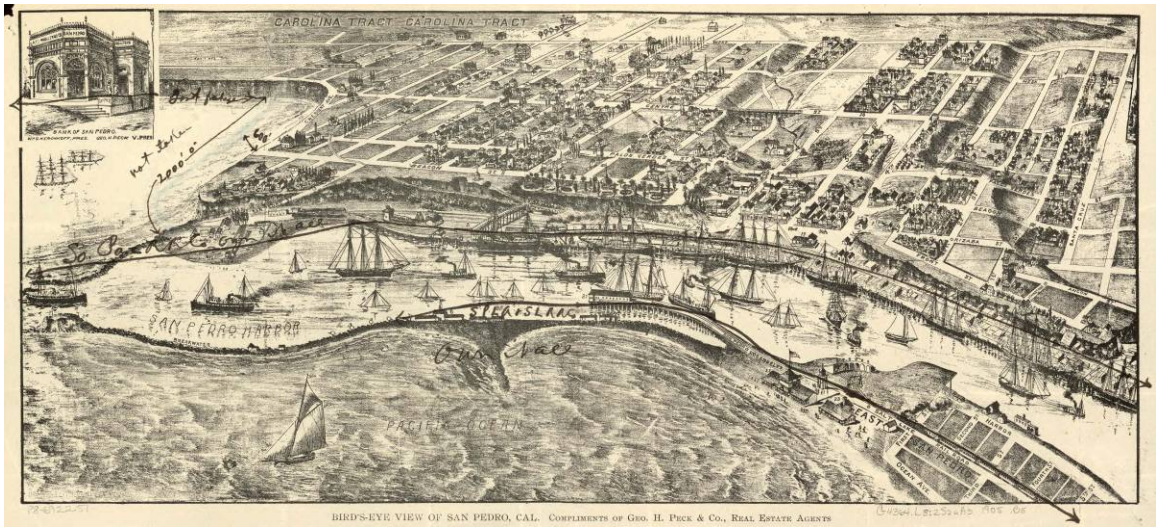
Independence Railroad (LA&I) a year before the SPRR's acquisition of the LA&SP. However, like the LA&SP, the LA&I soon was part of the SPRR system (Queenan, 1986).

Due in part to the improved transportation to and from the harbor, Los Angeles experienced rapid growth during the late nineteenth century. From a population in 1880 of 11,000, the city grew to 50,000 by 1890 and to 102,000 by the turn of the century (Matson, 1920). The increased population brought with it the need for more construction and living supplies, much of which came from ships destined for San Pedro shores.

## 3.3 San Pedro Bay and the Founding of Port of Los Angeles, 1897–1913

Growing commerce in Los Angeles eventually required the formal establishment of a shipping port. The federal government agreed to assist the City of Los Angeles by establishing its official harbor in San Pedro after several studies recommended it over other sites, including a Santa Monica site pursued by Collis Huntington, an influential member of the "Big Four" railroad barons. Following an extensive battle with Huntington, the San Pedro Harbor site won authorization from Congress in March 1897.

In 1906, in preparation for the opening of the Panama Canal, the City of Los Angeles extended its boundaries to coastal tidewaters when it annexed San Pedro. The Port of Los Angeles and the Los Angeles Harbor Commission were officially created in December 1907, and numerous




SOURCE: POLA

**Figure 4**
Library of Congress Map of San Pedro, CA, circa 1905

harbor improvements followed, including the completion of the 2.11-mile breakwater, the broadening and dredging of the main channel, the completion of the first major wharf by the SPRR, construction of the Angel's Gate lighthouse, and the construction of the first municipal pier and wholesale fish market. The construction of the breakwater was a "monumental engineering feat" requiring crane operators to place large boulders in precise locations 40 to 50 feet below the surface of the water. Both Wilmington and San Pedro were part of the City of Los Angeles by 1909, and because of this citywide growth, the Port of Los Angeles became the world's largest lumber importer by 1913 (Marquez and de Turenne, 2007; Matson 1920).

A 9-mile outer breakwater was completed in 1913, splitting the harbor into Inner and Outer Harbors. The Inner Harbor was known as Wilmington Harbor and the Outer Harbor was known as San Pedro Bay. The same year, dredging and filling of Mormon Island (Inner Harbor) allowed for its conversion from swamp land to land suitable for wharves and sheds (Marquez and de Turenne, 2007.) The first industries to use these new facilities were boatbuilding companies.

The opening of the Panama Canal in August 1914 decreased the amount of time spent by ships traveling between eastern and western U.S. ports, and promised to open up new trade opportunities worldwide. In preparation for this new trade, the City of Los Angeles completed one of many large municipal terminals in the harbor. However, the outbreak of World War I that same year temporarily stalled the movement toward expanded worldwide trade (Queenan, 1986).

## 3.4 Wartime Changes, 1914 – 1950

The principal use of the port changed again when England declared war on Germany. At the onset of World War I, the U.S. Navy took possession of a portion of the harbor for a training and submarine base in order to establish a significant presence on the Pacific coast. During the war, the Port was one of the chief sources of employment for residents of the area, with shipbuilding

enterprises turning out vessels by the dozens for the war effort. The Port of Long Beach, established only two years before the onset of the war, offered the only southern California competition to the Port of Los Angeles in terms of shipping or shipbuilding.

Despite the previous use of the Port for the shipment of goods, it was not until 1915 that the Port of Los Angeles began constructing its first warehouse. Warehouse No. 1, located on 60 acres, was six stories in height, with a total storage capacity of 500,000 square feet. Warehouse No. 1 opened on March 6, 1917 to great fanfare, with over 10,000 people in attendance. The completion of this building symbolized the Port's transition to a significant seaport able to handle deep sea ships of varied cargo (Marquez and de Turenne, 2007; Queenan, 1986).

In 1917, Terminal Island was dredged and filled. Boatbuilding companies moved their facilities from Mormon Island to Terminal Island. Oil terminals and petroleum facilities took their place on Mormon Island (Marquez and de Turenne, 2007).

Between 1917 and 1930, distributors constructed a large number of new wharves, warehouses and sheds, indicating a significant increase in trade at the Port. In the 1920s, over 25 million tons of cargo passed through the port (Marquez and de Turenne, 2007).

Transportation systems improvements also encouraged the growth of the import and export trade in the harbor area. By 1917, a vast railroad network existed around the harbor and Los Angeles, which facilitated the efficient movement of goods throughout the country. Los Angeles had an advantage over the Port of San Francisco in that it did not have the Sierra Nevada posing an impediment to cargo shipments en route to the east coast (San Buenaventura Research Associates, 1992).

During the period following the end of World War I in 1918, the Port was increasingly used for importing lumber and other types of raw materials. Similar to the prewar period, the vast majority of inbound cargo to the Port consisted of lumber to satisfy the rapid growth of the Los Angeles area. Exceptional levels of new construction of houses and factories necessitated the importation of lumber on a large scale (Matson, 1920). Comparatively, the biggest export product passing through the Port during the postwar years was crude oil.

Following the end of the war, many trade restrictions were lifted, and the Port provided for the transportation of a wide variety of products. Although lumber and crude oil were the biggest commodities to pass through the Port at the time, Los Angeles featured almost all types of industry. Soon after the war's end, many different types of commerce and business activities developed in the area. Although existing harbor facilities continued to be used for products such as oil, lumber, ships, and fish, new facilities were developed to handle products such as cotton, borax, citrus crops, and steel. In 1923, the City of Los Angeles passed a harbor improvement bond measure, resulting in the construction of additional wharves to meet the demands of increased imports and exports. In order to streamline the railroad portion of shipping in the harbor, the various railroad companies serving the Port consolidated operations by 1929 under the title the Harbor Belt Line Railroad (Queenan, 1986; San Buenaventura Research Associates, 1992).

Harbor traffic slowed during the Depression years and the harbor witnessed a sharp decline in international trade. The Harbor Commission continued to make improvements, however, including a new breakwater extension, completed by 1937, and the construction of new cargo and passenger terminals. The federal government's Works Progress Administration (WPA) helped the Port finance improvements, including passenger and freight terminals and wharf (Queenan, 1986).

As one of the major American ports closest to the fighting in the Pacific Ocean, San Pedro experienced new life and distinction during World War II. Ship and aircraft production facilities in the harbor area worked day and night between 1941 and 1945 to manufacture more than 15 million tons of war equipment. In addition, hundreds of thousands of personnel passed through the Port when departing for and returning from combat.

The LAHD launched a broad restoration program following the war, as many facilities in the harbor required maintenance which had been delayed during the war years. During this time, the LAHD improved several of its buildings and removed many temporary wartime buildings (Queenan, 1986).

## 3.5 Containerization: 1950 to Present

With the rise of containerization following the end of World War II, methods of shipping changed dramatically. Prior to this new method, cargo loading was labor intensive, with individual pieces of cargo, drums, boxes, bags or crates, loaded into ships. Cargo was brought to the dock by truck or train and the individual pieces of cargo were unloaded into transit sheds, sorted and organized, and then moved to the wharf for loading as individual packages into the ship's cargo holds by either ship-based or shore-based cranes where it was then stowed. Alternatively, longshoremen would place the individual pieces of cargo in cargo nets that were hoisted into the ship where the individual pieces of cargo were unloaded and stowed. Some efficiency was achieved by placing several individual containers (e.g., drums, bags, or boxes) on a pallet and then loading the pallet into the cargo hold.

Containerization ships appropriate cargo in standard sized, sealable steel boxes, typically 20 or 40 feet long. Special trailers transport these boxes to and from the port by trucks or rail. An empty container is delivered by truck to a location (manufacture, warehouse, or other enterprise), is loaded with cargo and sealed, then transported by truck or train to the port, where shore-based cranes lift the container from the trailer and place it in the ship's cargo hold or on the ship's deck. After the container is delivered to the destination port, the process was repeated in reverse. This consolidation of cargo in standard-sized containers improves the overall efficiency of transport and allows greater integration of transport by truck, train, and ship.

The adaptation of the maritime industry to containerization involved not only the creation of new ships, truck trailers, rail cars, and cargo cranes designed and built specifically to handle the standard cargo containers, but also the construction of new port facilities. As the loading and unloading of ships and the associated handling was the most time consuming aspect of moving cargo through the Port, under the old loading methods, cargo terminals were designed to

maximize the "surface area" of the terminal by providing as much berthing space as possible, with little backland (transit sheds) to service each wharf.

The containerization method required large-volume terminals, with extensive backlands, and internal roadways to service each wharf. The increased backlands reflected the need for storage of trailers and containers awaiting a ship's arrival, area needed for the loading and unloading of containers onto ships, and area needed to process the containers into and out of the terminal by truck or train. With the increased efficiency, the limiting factor of transferring of cargo became the organization and optimization of storage of containers awaiting shipment, movement to and from the wharf, and cargo flow into and out of the terminal via road or rail. This meant that ports had to either develop new terminals to meet the needs of the new geometry required by containerization or redevelop older terminals. In addition, with containerization, the weight of cargo "packages" (i.e., containers) increased dramatically, requiring much larger cranes and a corresponding move from timber to concrete wharves.

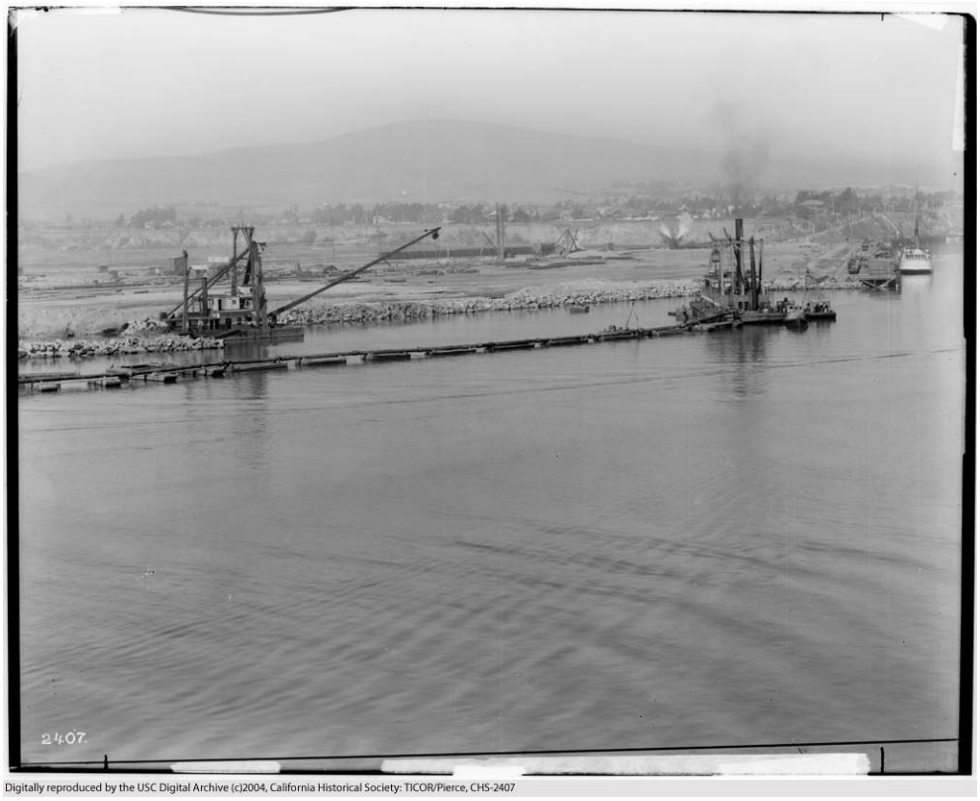
Major improvements to the Port in the 1970s included the deepening of the main channel to accommodate the larger container vessels entering the bay, the purchase of land to expand terminals, and the replacement of older wharves that could not bear the increased weight of newer containers.

Worldwide shipments through the Port increased during the latter half of the 20th century as ocean-going vessels grew to sizes no longer able to negotiate the Panama Canal. Using a "land-bridge" system, shippers wishing to pass materials from the Pacific Ocean to the Atlantic Ocean employed the more efficient practice of unloading at the Port of Los Angeles, moving materials cross country via truck or train, and loading materials onto ships on the east coast.

The following provides a historical context focused on Municipal Pier No. 1.

# 4. Historical Context – Municipal Pier No. 1

In anticipation of increased shipping due to the construction of the Panama Canal, to be completed in 1914, the Los Angeles Board of Harbor Commissioners initiated several improvements at the Port of Los Angeles in the early 1910s to capture a greater portion of the increased shipping traffic in the Pacific. Improvements to the Outer harbor included the construction of the massive Municipal Pier No. 1. Work on the Pier began with the filling of the Huntington Concession (also called the "Huntington Fill") during the spring of 1912. Over 60 acres were in-filled with materials taken from dredging the adjacent channel to a new depth of 35 feet (Marquez and De Turenne, 2007; Board of Harbor Commissioners, 1912-1913; LAT, February 6, 1912). According to the Los Angeles Times, this area provided the best opportunity for deep water wharfage at the Port (LAT, March 26, 1911). The Board of Harbor Commissioners Report for 1912-1913 called the construction of Municipal Pier No. 1 as, "one of the best pieces of wharf construction in the country," and also noted that, "This will be the finest wharf construction that can be built, and is designed for the deep sea commerce of the great ocean lines that will come through the Panama Canal from Europe, or engage in trans-Pacific trade. Figure 5 shows the dredging and fill operations circa 1913.



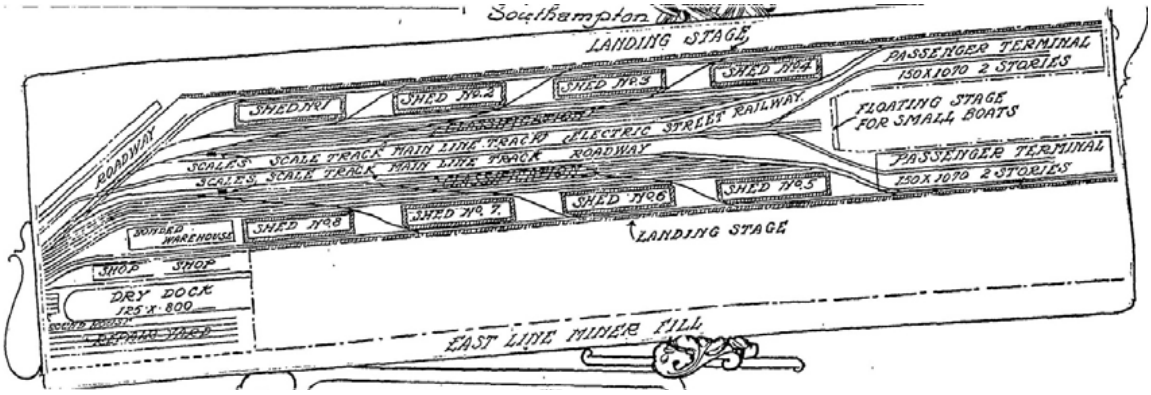

SOURCE: USC Digital Archive

**Figure 5**
Dredgers at Work on the
"Huntington Fill," circa 1913

The successful construction of the adjacent Miner Fill with a reinforced concrete pier (as opposed to a traditional timber pier) provided the model for the construction methods used at Municipal Pier No. 1 (LAT, March 26, 1911). Although he was met with some opposition from City Engineer Homer Hamlin, Harbor Commission board member T.E. Gibbon promoted concrete over timber construction. Gibbon believed that timber construction was obsolete and concrete structures were the wave of the future, especially where oil was involved. Concrete construction helped prevent fires, and given that the Port of Los Angeles was predicted to be one of the largest oil ports in the country, was preferred (LAT, February 6, 1912). This same article compared the Port's project with existing concrete piers in other major ports around the world, including those in Hamburg, Germany, Southampton, England, and Antwerp Belgium; a clear attempt to position the Port of Los Angeles in an international perspective, and exemplifying the enthusiasm for capturing a larger share of the increased world trade resulting from the anticipated opening of the Canal.

The layout of Municipal Pier No. 1 was proposed by Consulting Engineer E.P. Goodrich of New York and prepared by City Engineer Homer Hamlin and Harbor Engineer Vincent (LAT, October 19, 1912). Plans included a 12-foot-high concrete sheet piling retaining wall (bulkhead). The interior was to be filled with dredged materials and raised to a height of 16 feet above the low-

water level. The area was surrounded by 40 feet of docking space placed on concrete pilings.[2] The dock would include modern traveling cranes, 16 railroad tracks, and a roadway wide enough to accommodate an electric railway, as well as provide almost 2 miles of wharfage (LAT, February 6, 1912). The construction contract, in the amount of $444,777 was awarded to Snare & Triest in December 1912 (LAT, December 20, 1912). See Figure 6 showing the original layout of the pier.



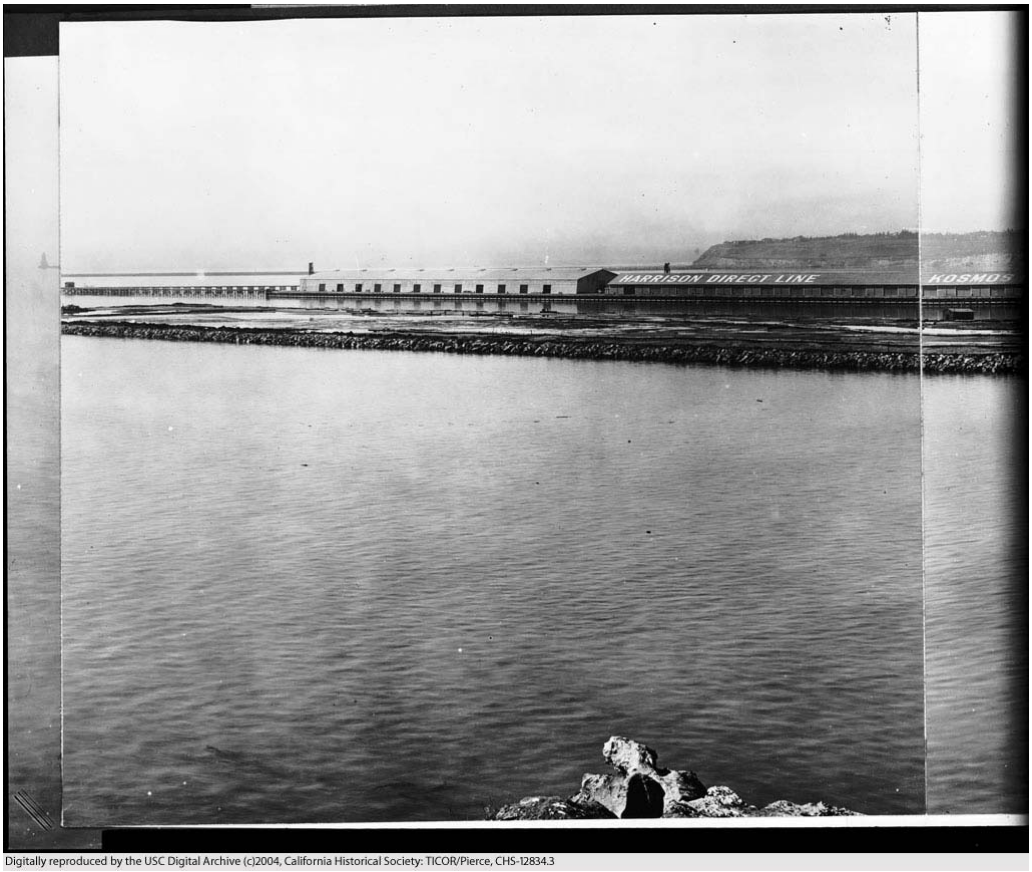

SOURCE: Los Angeles Times, February 6, 1912

**Figure 6**
Preliminary Site Plans for Municipal Pier No. 1.

Municipal Pier No. 1, located between the Main Channel and East Channel, was completed in 1914. At that time, the Pier was about 2,520 feet long and 650 feet wide. The pier could be extended an additional 1400 feet into the harbor if increased shipping traffic necessitated additional wharfage (LAT, December 6, 1914). Over 1200 concrete piles and 1100 sheet piles were used in construction. The dock was paved in asphalt by subcontractor Barber Asphalt Company (LAT, May 31, 1914). Dredging of the Main Channel and East Channel to a depth of 35 feet was conducted by the Standard American Company in 1915 (LAT, January 26, 1913; Board of Harbor Commissioners, 1913-1915).

A June 20, 1914 Los Angeles Times article called Municipal Pier No. 1 "the finest reinforced concrete wharf in the world" and praised the work of the Standard American Dredging Company (LAT, June 20, 1914). The article also noted that, "Within a short time the city will have sufficient wharves to accommodate a great volume or traffic, and others will be built as rapidly as they are needed." Figure 7, below, shows a newly completed Municipal Pier No. 1 circa 1914, prior to the construction of sheds or warehouses.

[2] The concrete pile construction was not completed without difficulties, however. According to the 1912-1913 Port of Los Angeles Board of Harbor Commissioners Annual Report, "Difficulty was encountered in the construction of the reinforced concrete wharf along the west side of Municipal Pier No. 1 through the failure of the first piles manufactured for the wharf. In accordance with the specifications prepared by E. P. Goodrich, consulting engineer, of New York, a waterproofing compound was used in making the piles, but at the end of the 30 days when the piles were allowed to cure under the specifications, they cracked and crumbled when lifted. Other piles were then made without the waterproofing, and they have proven satisfactory when cured 30 days. The construction of the wharf is now going forward without delay."

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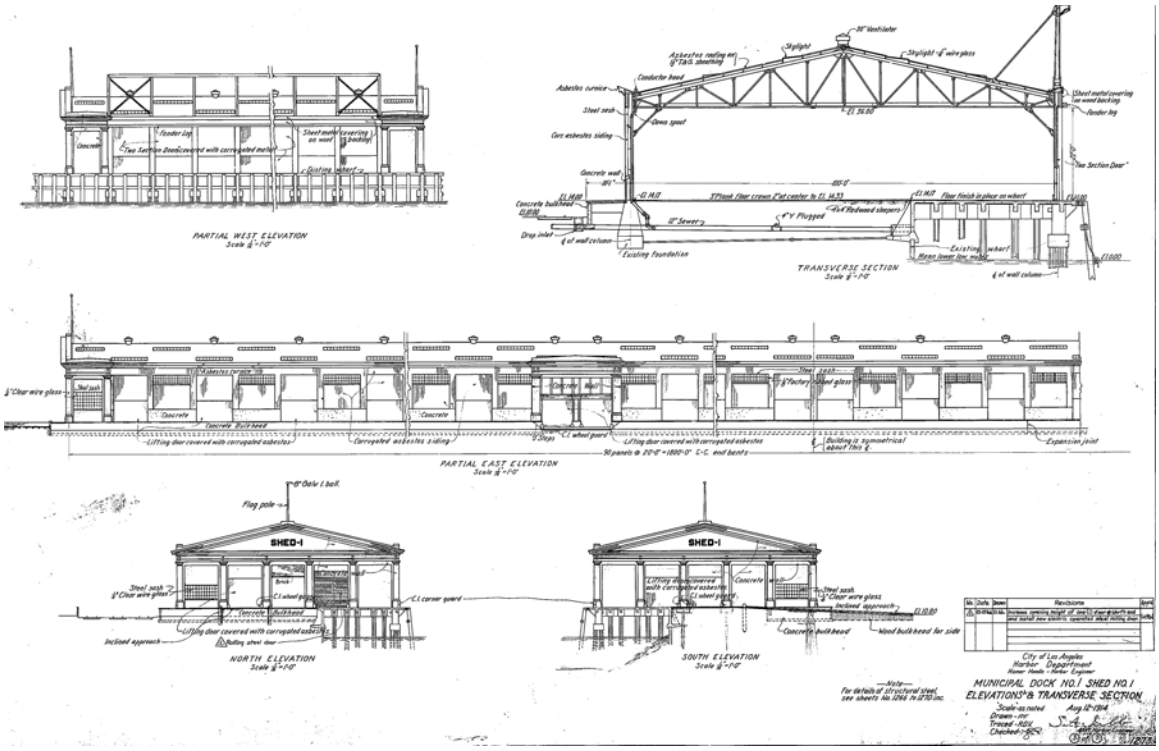
SOURCE: USC Digital Archive

**Figure 7**
Newly Completed Municipal Pier No.1 looking Southwest across the Main Channel, circa 1914 (Miner Fill and associated sheds located in background)

Harbor Commission President Woodman was quoted in a Los Angeles Times article of December 6, 1914, as stating, "The progress in the harbor at the present time is most satisfactory. All the slow and difficult operations, such as dredging, filling, and bulkheading have been attended to, and the dock itself is as complete as could be desired. From now on until the probably distant time when the growth of shipping shall have made additional docks on other city frontage necessary, the development of the Outer Harbor will be simple. Los Angeles is now fully ready to go ahead with wharves, sheds and warehouses as fast as they are needed" (LAT, December 6, 1914).

Los Angeles Municipal Shed No. 1 (Berths 58-60) was constructed on site by 1915 (LAT, May 31, 1914; Board of Harbor Commissioners, 1913-1915). The shed, a one-story steel-frame building, measured 1800 feet long by 100 feet wide. The shed was constructed for, and operated by, the American-Hawaiian Steamship Company (see Figure 8). A portion of the Municipal Pier No. 1 structure can be seen supporting Shed No. 1 in Figure 8.




SOURCE: POLA

**Figure 8**
Plans for Municipal Transit Shed No. 1 (Berth 58-60), 1914

Additional transit sheds and other structures were added to the dock over the next several years, including Municipal Warehouse No. 1, a massive, six-story concrete warehouse, which was completed in 1917 (Board of Harbor Commissioners, 1913-1915; Marquez and De Turenne, 2007). See discussion of Municipal Warehouse No. 1, below. The Los Angeles Times article from 1914, anticipating the construction of Warehouse No. 1, claimed that the structure will be the "largest west of Chicago," and noted that together with adjacent Municipal Shed No.1, "the port is expected to meet all shipping requirements for the present" (LAT, December 6, 1914).

Figure 9 shows an aerial view of Municipal Pier No. 1 with completed warehouses and sheds.

### *Municipal Warehouse No. 1*

Municipal Warehouse No. 1 is a large, six-story structure containing 500,000 square feet in its 475 by 150-foot rectangular plan (see Figure 10 on page 20). The building was designed in 1915 by Peter Ficker, then an employee of the Harbor Engineers office.[3] It was constructed with steel reinforced, poured-in place concrete, and has a flat roof with a short parapet wall with an unornamented cornice. The building is characterized by vertical elements on all elevations,

[3] Peter Ficker also designed Municipal Transit Shed No. 1.

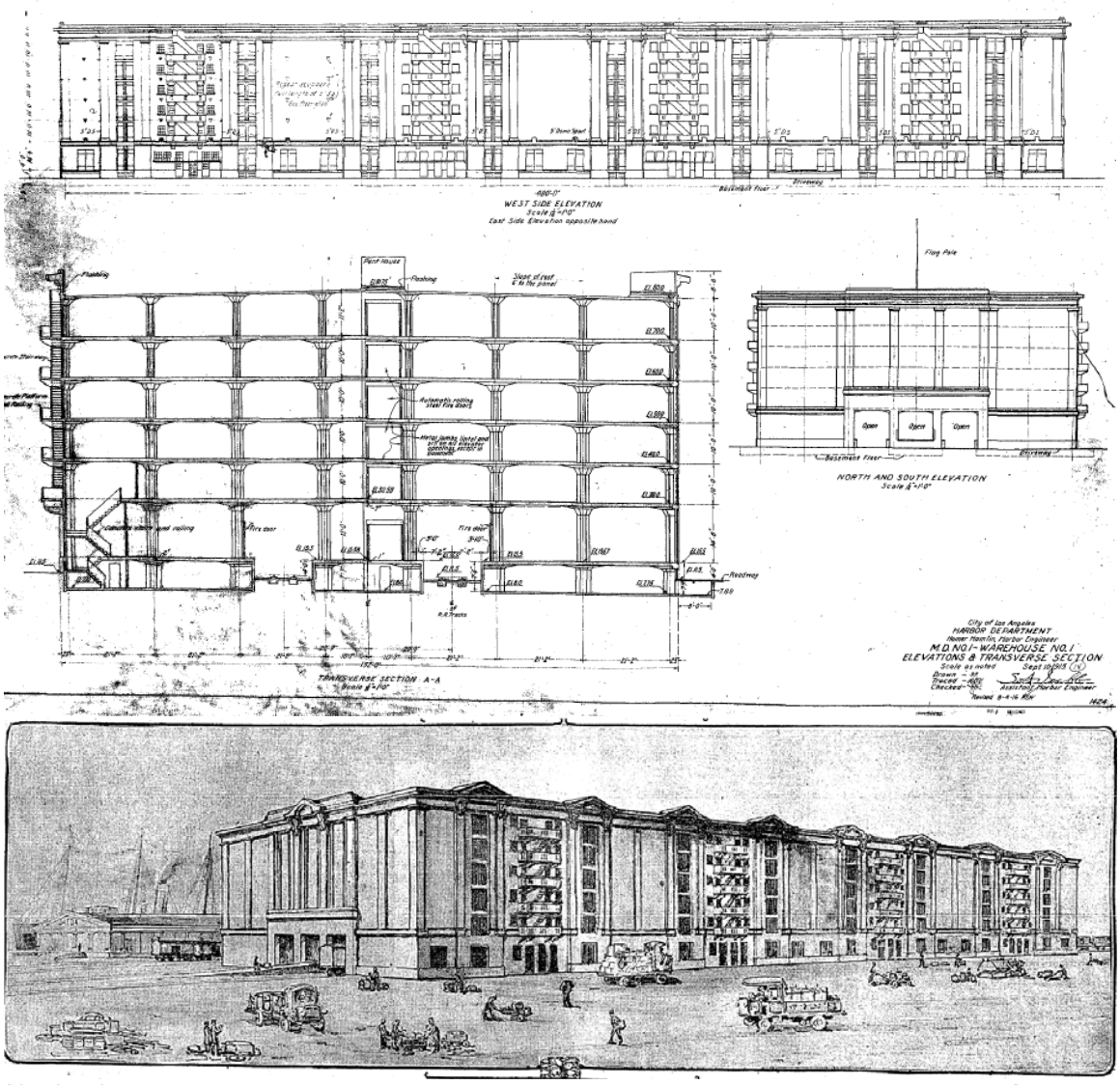
SOURCE: LAPL Photo Database

**Figure 9**
Aerial View of Completed Municipal Pier No. 1 showing Warehouse No. 1 (right), Municipal Shed No. 1 (Transit Shed Berths 57-60) (left) and the Pan American Petroleum Co. in the background, October 17, 1925

including full-height engaged pilasters, projecting concrete fire-escape stairways, steel loading bay doors at each floor level, and cast-concrete gargoyle drain spouts at each floor level. The building sits at the southeastern end of Municipal Pier No. 1 adjacent to Berths 59-60, located between Signal Street to the west, the Main Ship Channel on the east and the Outer Harbor to the south. Completed in 1917, Warehouse No.1 served as the Port's only bonded warehouse. International trade required a bonded location for the temporary storage of goods that would go through customs. The bonded portion of a warehouse was also used for particularly valuable goods. During the era of break-bulk cargo handling, warehousing at the port terminals was important for efficient commerce, and Warehouse No.1 served a leading role in warehousing at the Port of Los Angeles from 1917 through the 1950s (Jones & Stokes, 1999).

### *Transit Sheds 57-60*

Transit Shed at Berth 57 was constructed in 1923, immediately north of Municipal Shed No 1. (Sheds at Berths 58-60). The one-story shed, 93 feet wide by 500 feet long, was erected by the James A. Lynch Construction Company under contract with the Port of Los Angeles at a cost of approximately $200,000.




SOURCE: POLA

**Figure 10**
Plans and Drawings for Municipal Warehouse No. 1, 1917

Plans on file with the Port of Los Angeles indicate that a timber wharf extension had been planned along the western edge of the all-concrete pier adjacent to Transit Sheds 57-60 as early as 1924 (Port of Los Angeles, 1924). However, these plans were abandoned in favor of an all-concrete wharf, which was constructed nearly 14 years later in July, 1938. This effort widened the pier by another 30 feet and provided new trackage for railcars loading and unloading goods at Berths 57-60.

The Pan American Petroleum Company Marine Loading Station Facility at Berth 70, including the Westway Terminal Building, was also constructed in 1923.

### *Summary*

Municipal Pier No. 1 became an integral part of the Port during the early half of the 20th Century as several private industries, local and federal government established buildings in the area. Portions of the Pier were also used for US naval functions during World War II. The basic layout and facilities at the Pier have changed little since the late 1920s beyond additions to the tank farms on the east side of the Pier (Los Angeles Board of Harbor Commissioner Annual Report 1924-25). Other minor changes to the Pier itself which occurred within the last 20 years include of newer timber fender piles along the western edge, and a floating dock for a water taxi service constructed on the southern end.

As noted in Jones & Stokes' National Register Nomination form for Municipal Warehouse No. 1. "The process of transshipment dictated the order in which the Harbor Commission funded construction activities: dredging of the ship channel, construction of [Municipal] Pier 1 and associated wharves, transit sheds, and rail lines, and construction of the massive, bonded warehouse. With these facilities in place, the Port of Los Angeles entered into international commerce, and by 1923 had surpassed all the other west coast ports in tonnage and value of cargo" (Jones & Stokes, 1999).

# 5. Description and Evaluation of Municipal Pier No. 1

## 5.1 Description

Municipal Pier No. 1 consists of a continuous, earthen-fill pier, with a concrete perimeter wall (bulkhead) extending south from 22nd Street along Signal Street. The Pier is approximately 2,600 feet long (measured from 22nd Street) and about 600 feet wide, or about 36 acres in size. The Pier is approximately 16 feet above the low-water level. Signal Street runs north-south down the approximate center of the Pier, providing vehicular access to the sheds and warehouses on the Pier. Photos of the structure are provided in Appendix A, and period plans and drawings can be found in Appendix C.

The entire eastern edge of the Pier is comprised of sloped, rip-rap edge oriented at a 45-degree angle to the water. A sloped rip-rap edge can also be found on the majority of the southern end of the Pier, for a length of approximately 530 feet. The remaining 70 feet of the southern end is comprised of concrete pilings and decking. The western edge of the Pier is comprised entirely of concrete pilings, formed in two distinct, parallel, rows. The landward row of concrete pilings is about 40 feet wide and 2,520 feet long, and dates to the Pier's original construction in 1912-1914. Lengthwise, the reinforced concrete piles are spaced about 15 feet apart, and are seven rows deep. Each piling row is spaced approximately 5.5 to 6 feet apart. The pilings, which are roughly octagonal in plan, range in length from 50 to 60 feet in length, and support a board-formed concrete deck of the same width and length (40 feet by 2,520 feet). The landward row of pilings is only visible from the southern edge of the Pier, where the rows of pilings are exposed.

Located immediately west from, and attached to, this first landward row of pilings is a second row of seaward pilings which are about 30 feet wide and 2,520 feet long, and were constructed

during the Pier's westward expansion in 1938. Lengthwise, the reinforced concrete piles are spaced about 15 feet apart, and are five rows deep. Each piling row is spaced approximately 5.5 feet apart. The reinforced concrete pilings are generally square in plan, and range in length from about 62 to 78 feet. Steel-wrapped cross-bracing piles set at an approximate 45 degree angle are visible beneath the deck. These pilings support a reinforced, board-formed, concrete deck of the same width and length (30 feet by 2,520 feet). The fendering system along the western edge consists of newer timber piles attached to the outer (westernmost) row of concrete pilings.

The majority of the decking on Municipal Pier No. 1 is primarily asphalt over earth fill, while smaller portions along the western edge of the Pier are asphalt over concrete decking. Smaller amounts of all-concrete decking are also visible, such as along loading ramps leading to Warehouse No. 1, and between the sheds at Berths 57 and 58. Three rows of railroad tracks are embedded in the Pier and are located between Signal Street and the Sheds at Berths 57-60. Curving side tracks can also be found leading to the northern end of Warehouse No. 1, and to the tank farm located along the Pier's northeastern edge. Two rows of railroad tracks can also be found along the western edge of the Pier where the concrete pile-supported wharf is located adjacent to Sheds 57-60. Wood bullrails are located along the westernmost edge of the Pier, interspersed with iron cleats located at regular intervals. A floating wooden dock and ramp for the water taxi service is located on the southeastern end of the Pier.

The majority of the pier appears to be in original condition, although some spalling and exposure of the reinforcement steel is visible on the pilings at the southernmost end of the structure (and especially within the first row of concrete pilings). Newer concrete and asphalt overlays are visible on the pier decking, some of which obscures the original railroad tracks in various locations.

Numerous structures are located on Municipal Pier No. 1. Six of these structures were previously recommended eligible for listing in the NRHP and CRHR, and are briefly described in the section below. The following is an evaluation of the historical significance of Municipal Pier No. 1. Although the Municipal Fish Market is located on the northeast corner of Municipal Pier No. 1, it has separate historical associations from this structure, and is not described below.

## 5.2 Evaluation

Municipal Pier No. 1 is representative of the Los Angeles Harbor's massive expansion effort in anticipation of the completion of the Panama Canal in 1914, resulting in vastly increased shipping capacity at the Port, and allowing Los Angeles to compete with other world cities for international shipping traffic. As a facility that has been in continuous use since its construction, Municipal Pier No. 1 is an excellent representation of the growth and development of the Port of Los Angeles during the planning and the completion of the Panama Canal. Completion of the massive, earth-fill pier allowed the construction of Warehouse No. 1, Municipal Shed No. 1 (Transit Sheds at Berths 58-60), as well as Transit Shed at Berth 57 to follow in rapid succession as part of a overall plan for port expansion envisioned by harbor commissioners in the 1910s. The local press extolled the initial proposal to construct the Pier in 1912, and as chronicled its completion in 1914, thereby expressing the enthusiasm of the era to capture a larger share of the

increased world trade resulting from the opening of the Canal, and by comparing the Pier with other major piers in ports around the world in an attempt to position the Port of Los Angeles in an international perspective. During the early half of the 20th Century, Municipal Pier No. 1 became an integral part of the Port as several private industries, local and federal government established buildings in the area. Portions of the pier were also used for U.S. naval functions during World War II. The basic layout of the Pier has changed little since the late 1930s. Therefore, Municipal Pier No. 1, inclusive of the entire 36-acre earth-filled pier plus the concrete pile-supported structure along its western edge, appears to meet **NRHP Criterion A** for its association with events that have made a significant contribution to the broad patterns of our history. For similar reasons, Municipal Pier No. 1 appears to meet the criteria for listing in the **CRHR under Criterion 1**, as well as the City of Los Angeles CHC Criterion as a historic structure that exemplifies the broad cultural, political, economic or social history of the nation, state, and community of Los Angeles.

Although not an example of the first use of an earth-fill pier with a reinforced concrete perimeter wall (bulkhead) and a reinforced concrete pile-supported wharf at the Port of Los Angeles, Municipal Pier No 1. was one of the earliest examples to employ this method of construction in favor of timber construction, which had been the standard method at this time. The successful construction of the adjacent Miner Fill with a reinforced concrete pier provided the model for the construction method of Municipal Pier No. 1. Although this construction method initially met with some opposition from City Engineer Hamlin, Harbor Commission Board members prevailed and promoted reinforced concrete and earth-fill over timber construction. Commissioners believed that concrete structures were the wave of the future, and would help prevent fires given that the Port of Los Angeles was predicted to be one of the largest oil ports in the country. In addition, the reinforced concrete wharf pilings and decking constructed along the western edge of the Pier in 1912 are some of the earliest of such structures found at the Port. Timber pile-supported wharves, by comparison, were built throughout the Port well into the 1940s, and were generally phased out by the 1950s as all-concrete pier construction became favored. Therefore, Municipal Pier No. 1 appears to meet **NRHP Criterion C** because it embodies the distinctive characteristics of a method of construction (early use of and earth-fill pier with a reinforced concrete perimeter wall). For similar reasons, Municipal Pier No. 1 appears to meet the criteria for listing in the **CRHR under Criterion 3**, as well as the City of Los Angeles CHC Criterion as a historic structure that is inherently valuable for a study of a period, style, or method of construction.

Municipal Pier No. 1 does not appear to be significantly associated with the lives of persons significant in our past (NRHP/CRHR B/3), or is likely to yield information important in prehistory or history (NRHP/CRHR D/4).

## 5.3 Period of Significance

The historic significance of Municipal Pier No. 1 relates to the role that the Port facilities played in expanding the commercial and economic success of Los Angeles, which anticipated and coincided with the opening of the Panama Canal in 1914, the emergence of Los Angeles as an

"international" city in the early 1920s, and ending with the initiation of containerization in the 1950s. Therefore, the period of significance for Municipal Pier No. 1 is from 1912 (beginning of pier construction) to 1950 (beginning of containerization).

# 6. Previously-Identified Historical Resources on or Near Municipal Pier No. 1

A number of buildings and structures located on or near Municipal Pier No. 1 at the Port of Los Angeles were previously evaluated by ICF Jones & Stokes in 1999 and 2008, and were identified as historical resources under federal, state, and local criteria (see Table 1). One facility, Warehouse No. 1, was ultimately listed in the NRHP. Brief statements of each property's historical significance under federal, state, and local criteria are provided below, excerpted from the 1999 and 2008 Jones & Stokes reports.

**TABLE 1**
**PREVIOUSLY-IDENTIFIED HISTORICAL RESOURCES ON MUNICIPAL PIER NO. 1**

| Name | Date | Historical Status |
|---|---|---|
| Warehouse No. 1 | 1917 | Listed in the NRHP/CRHR |
| Transit Shed Berths 58-60 (Municipal Shed No. 1) | 1914 | Individually eligible for listing in the NRHP/CRHR |
| Transit Shed Berth 57 | 1923 | Individually eligible for listing in the NRHP/CRHR |
| Pan American Petroleum Company Marine Loading Station Facility at Berth 70 (Westway Terminal Building) | 1923 | Individually eligible for listing in the NRHP/CRHR |
| Pan-Am Terminal Facility at Berth 56 (California Fish and Game Building) | 1930, moved c. 1940 | Individually eligible for listing in the NRHP/CRHR |
| Immigration Station (Canetti's Restaurant, 309 E. 22nd Street) | 1921 | Individually eligible for listing in the NRHP/CRHR |

SOURCE: Jones & Stokes, 1999, and ICF Jones & Stokes, 2008.

## Warehouse No. 1

The following is an excerpt of the Statement of Significance from the National Register Nomination form completed for Warehouse No. 1 by Jones & Stokes in 1999.

> Completed in 1917, Warehouse No.1 served as the Port's only bonded warehouse, a function that was critical to the Los Angeles' entry into international trade markets. During the era of break-bulk cargo handling, warehousing at the port terminals played a critical role in achieving economically efficient commerce. Warehouse No.1 served a leading role in warehousing at the Port of Los Angeles from 1917 through the early 1960s when cargo containerization revolutionized cargo handling by nearly eliminating the need for warehousing. Warehouse No.1 continues to serve in its original capacity, and remains a prominent visual landmark for ships entering the deep water channel and for residents and visitors of San Pedro. This building was recommended as eligible for individual listing in

the NRHP by the US Army Corp of Engineers (Roberts, 1978; Schwartz, 1983), and appears to remain eligible under Criterion A (events), for its close association with the rise to international prominence of the modern port. Since no exceptionally important events or trends are related to the period of 1950-1965, the period of significance is that period of break-bulk cargo transshipment between 1917 and 1950 (Jones & Stokes, 1999).

## Transit Shed Berths 58-60

Since their completion in 1914, Transit Shed Berths 58-60 have served as a symbol of the Los Angeles Harbor's expansion period during the build up and completion of the Panama Canal in 1914, which resulted in increased shipping traffic at the port. As a facility that has been in continuous use since its construction, the subject property is an excellent representation of the growth and development of the Port of Los Angeles during the planning and the completion of the Panama Canal. Therefore, Transit Shed Berths 58-60 appears to meet **NRHP Criterion A**. In addition, Transit Shed Berths 58-60 appears significant under **NRHP Criterion C** as an excellent example of neo-classical ornamentation, indicating the importance assigned to architectural design for utilitarian buildings used for Port commerce in the Outer Harbor before the dredging of the Main Channel. For similar reasons, Jones & Stokes found Transit Shed Berths 58-60 to meet the criteria for listing in the **CRHR under Criterion 1** and **Criterion 3**, and appears to meet City of Los Angeles Cultural Heritage Commission (CHC) Criterion as a historic structure that exemplifies the broad cultural, political, economic or social history of the nation, state, and community of Los Angeles (ICF Jones & Stokes, 2008).

## Transit Shed Berth 57

Built in 1923, the Transit Shed at Berth 57 is representative of the general growth of the Port of Los Angeles, specifically the Outer Harbor area during the early 1920s. The shed served as a symbol of the Los Angeles Harbor's dramatic growth during the post World War I period, which was largely stimulated by an increase in worldwide commerce and the 1920s oil boom. Expansion at the Port included the development of several berths and oil shipping facilities such as the Transit Shed at Berth 57. Consequently, when considered as part of the larger Outer Harbor area, Transit Shed at Berth 57 is indicative of a period of tremendous growth and progress at the port in the early 20th century and appears to meet the criteria for listing in the **NRHP under Criterion A** individually, and as a possible contributor to a potential Pier No. 1 historic district. For similar reasons, Jones & Stokes found Transit Shed Berth 57 to meet the criteria for listing in the **CRHR under Criterion 1**, and appears to meet City of Los Angeles Cultural Heritage Commission (CHC) Criterion as a historic structure that exemplifies the broad cultural, political, economic or social history of the nation, state, and community of Los Angeles (ICF Jones & Stokes, 2008).

## Pan American Petroleum Company Marine Loading Station Facility – Berth 70 (Westway Terminal Building)

Constructed in 1923, the Pan American Petroleum Company Marine Loading Station Facility – Berth 70 (Westway Terminal Building) appears to meet **NRHP Criterion A**. The building gains

significance for its contribution to the broad patterns of local history through its association with development of the oil industry in Los Angeles, the early days of oil shipping from the Port of Los Angeles, and as an example of the rise and fall of Pan American Petroleum Company; one the Nation's top oil producers in the 1920s. For similar reasons, Jones & Stokes found the Westway Terminal Building appears to meet the criteria for listing in the **CRHR under Criterion 1**, and appears to meet City of Los Angeles Cultural Heritage Commission (CHC) Criterion as a historic structure that exemplifies the broad cultural, political, economic or social history of the nation, state, and community of Los Angeles (ICF Jones & Stokes, 2008).

## Pan-Am Terminal Facility – Berth 56 (California Fish and Game Building)

Built circa 1930 and moved to its current location in 1940, the Pan Am Terminal Facility at Berth 56 (California Fish and Game Building) appears eligible under **NRHP Criterion A**, for its association with Pan Am and its China Clipper pioneering flight service which expanded passenger travel service at the Port of Los Angeles in the years prior to World War II. As a Pan Am ticket office, the building played a key role in the development of aviation transportation heritage of the Southern California region through it association with Pan-Am revolutionizing long distance and transoceanic seaplane flights from Los Angles to the Far East. The structure marks the site of the first Pan Am China Clipper flights from Los Angeles to the Antipodes Islands and New Zealand. For similar reasons, Jones & Stokes found the California Fish and Game Building appears to meet the criteria for listing in the **CRHR under Criterion 1**, and appears to meet City of Los Angeles Cultural Heritage Commission (CHC) Criterion as a historic structure that exemplifies the broad cultural, political, economic or social history of the nation, state, and community of Los Angeles (ICF Jones & Stokes, 2008).

## Immigration Station (Canetti's Restaurant, 309 E. 22nd Street)

Constructed in 1921, the former United States Immigration Station appears eligible for the **NRHP under Criteria A** for its association with the Federal Government activities at the Port, as the only extant building designed and used for civilian federal purposes, as well as an excellent representation of the continued use of Port facilities in Cannetti's Restaurant which has become an important part of the Port's cultural heritage. The restaurant, a local institution, has served the Port and surrounding community for well over 50 years, thereby becoming an integral piece of the Port's historic fabric. For similar reasons, Jones & Stokes found the Immigration Station appears to meet the criteria for listing in the **CRHR under Criterion 1**, and appears to meet City of Los Angeles Cultural Heritage Commission (CHC) Criterion as a historic structure that exemplifies the broad cultural, political, economic or social history of the nation, state, and community of Los Angeles (ICF Jones & Stokes, 2008).

# 7. Evaluation of Municipal Pier No. 1 and Associated Structures as a Potential Historic District

Municipal Pier No. 1, as well as associated structures Warehouse No. 1, Municipal Shed No. 1 (Sheds at Berths 58-50) and the Shed at Berth 57, were designed by City Engineer Homer Hamlin and built as part of a master plan by the Harbor Commission in the 1910s to capture increasing international ship traffic in the Pacific in anticipation of the opening of the Panama Canal; an historic event in worldwide shipping. The planning and construction of these facilities occurred during a time of great expansion of the Port of Los Angeles, while their immense size and Neo-Classical detailing of utilitarian structures reflected the optimism and enthusiasm of the era when the City of Los Angeles as a whole was striving to become a major player on the world stage. The very existence of Warehouse No. 1 Municipal Shed No. 1 (Shed at Berths 58-50) and the Shed at Berth 57 would not be possible without the massive earth-filled and concrete pier that underpins their structures and allows them to function as originally designed and connects them by rail and road to the City at large. With a common function, design, and history, Municipal Pier No. 1 and its associated structures appear to meet **NRHP Criterion A as a potential historic district** for their association with events that have made significant contribution to the broad patterns of our history. For similar reasons, Municipal Pier No. 1 and its associated structures appear to meet the criteria for listing in the **CRHR under Criterion 1 as a potential historic district**, as well as the City of Los Angeles CHC Criterion as a potential historic district that exemplifies the broad cultural, political, economic or social history of the nation, state, and community of Los Angeles.

Due to the early use of reinforced concrete construction at the Port of Los Angeles, which reflected both the permanence and the importance of the facility, Municipal Pier No. 1, and associated structures also appear to meet **NRHP Criterion C as a potential historic district** because they embody the distinctive characteristics of a method of construction. Additionally, Warehouse No. 1 and Municipal Shed No. 1 (Transit Shed at Berths 58-60) are excellent examples of neo-classical ornamentation, indicating the importance assigned to architectural design for utilitarian buildings used for Port commerce. For similar reasons, Municipal Pier No. 1 and its associated structures appears to meet the criteria for listing in the **CRHR under Criterion 3 as a potential historic district**, as well as the City of Los Angeles CHC Criterion as a historic structure that is inherently valuable for a study of a period, style, or method of construction.

As structures intimately tied to the early 20th Century history of Municipal Pier No. 1 and identified as potential historical resources in prior studies, the Pan American Petroleum Company Marine Loading Station Facility at Berth 70 (Westway Terminal Building), the Pan-Am Terminal Facility at Berth 56 (California Fish and Game Building), and the Immigration Station (Canetti's Restaurant, 309 E. 22nd Street) also contribute to the historical significance of a potential Municipal Pier No. 1 historic district. As such, contributors to a potential Municipal Pier No. 1 historic district would include; 1) the entire Municipal Pier No. 1 south of 22nd Street, 2) Warehouse No. 1, 3) Shed at Berths 58-60, 4) Shed at Berth 57, 5) the Pan American Petroleum Company Marine Loading Station Facility at Berth 70 (Westway Terminal Building), 6) the Pan-Am Terminal Facility at Berth 56 (California Fish and Game Building), and 7) the Immigration Station (Canetti's Restaurant).

Non-contributors to the potential Municipal Pier No. 1 historic district would include the tank farm and loading docks on the northeastern end of the pier. Although some of the tanks date to the 1920s, many have been removed, and many new facilities have been constructed within the past 50 years which have degraded the overall integrity of the facility and reduced its ability to convey direct historic associations with Municipal Pier No. 1.

Table 2, below, and Figure 11 on the following page, identify the potential Municipal Pier No. 1 historic district and contributing resources.

**TABLE 2**
**CONTRIBUTORS AND NON-CONTRIBUTORS TO THE**
**POTENTIAL MUNICIPAL PIER NO. 1 HISTORIC DISTRICT**

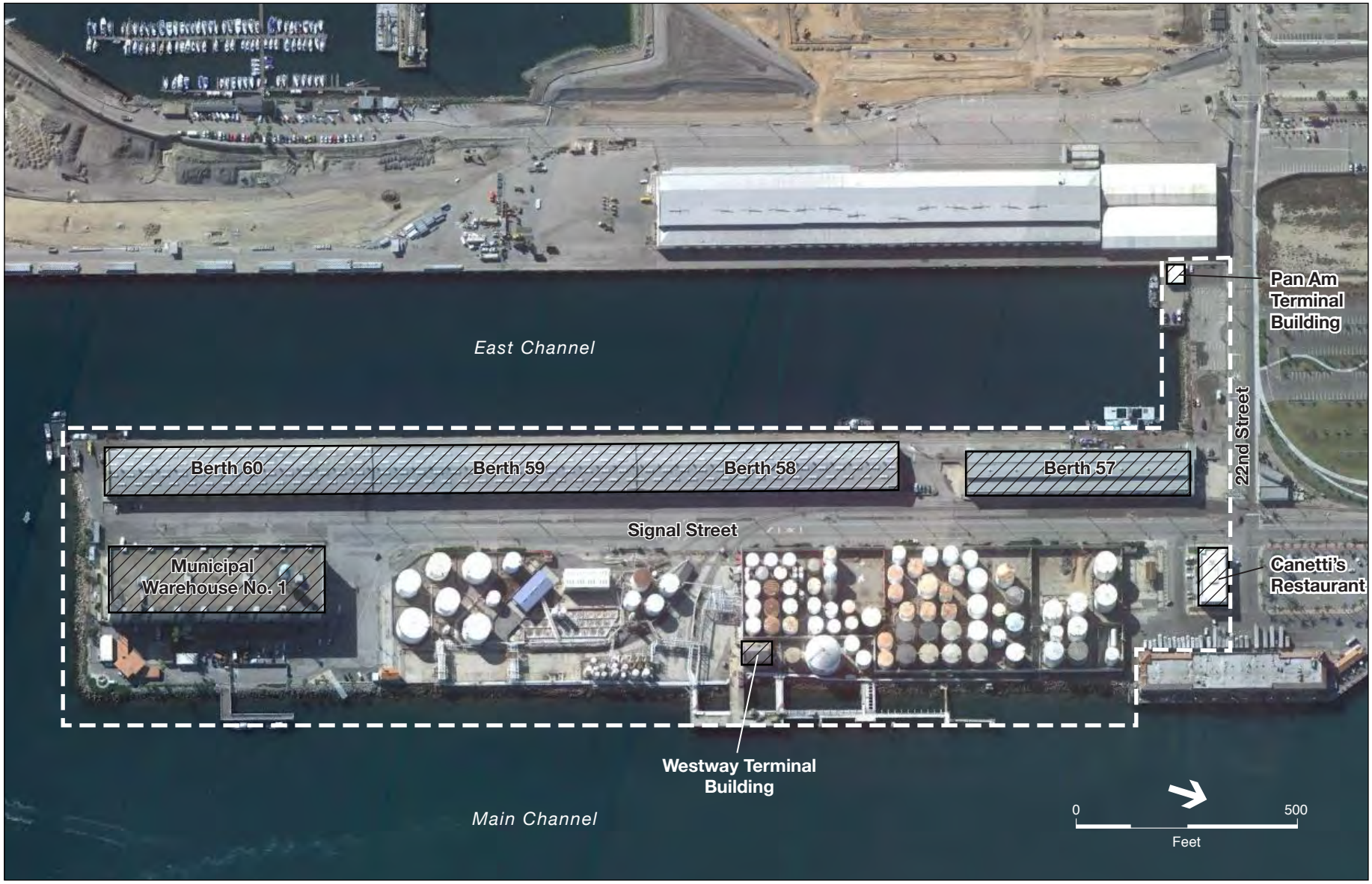
| Potential Contributors | Potential Non-Contributors |
|---|---|
| Municipal Pier No. 1 (from 22nd Street south to the end of Signal Street) | Tank farm and loading docks (northeastern end of the pier) |
| Warehouse No. 1 | Water Taxi docks and trailer buildings |
| Shed at Berths 58-60 | |
| Shed at Berth 57 | |
| Pan American Petroleum Company Marine Loading Station Facility at Berth 70 (Westway Terminal Building) | |
| Pan-Am Terminal Facility at Berth 56 (California Fish and Game Building) | |
| Immigration Station (Canetti's Restaurant at 309 E. 22nd Street) | |

Although the Municipal Fish Market is located on the northeast corner of Municipal Pier No. 1, it has historical associations that are distinct from this structure, and is therefore located outside of the potential historic district.

# 8. Conclusions

Based on an intensive-level survey and evaluation of Municipal Pier No. 1, this facility appears to be individually eligible for listing in the NRHP and CRHR under Criteria A/1 and C/3. The facility also meets the City of Los Angeles CHC Criterion as a historic structure that exemplifies the broad cultural, political, economic or social history of the nation, state, and community of Los Angeles, and as a historic structure that is inherently valuable for a study of a period, style, or method of construction.

Based on this recommendation, as well as the review and incorporation of prior evaluations of the buildings and structures located on or near this facility, Municipal Pier No. 1 is also recommended eligible for listing in the NRHP/CRHR and local register as a potential historic district. Contributors to the potential historic district would include Warehouse No. 1, the Shed at Berths 58-60, the Shed at Berth 57, the Pan American Petroleum Company Marine Loading Station Facility at Berth 70 (Westway Terminal Building), the Pan-Am Terminal Facility at Berth 56 (California Fish and




District Boundary  Contributing Building

SOURCE: Google Earth, 2011



**Figure 11**
Historic District Map

Game Building), and the Immigration Station (Canetti's Restaurant). In summary, these structures appear eligible for listing as contributors to a potential historic district under NRHP/CRHR criteria A/1 for their association with events that have made significant contribution to the broad patterns of our history.

The potential Municipal Pier No. 1 historic district also meets the City of Los Angeles CHC Criterion because it exemplifies the broad cultural, political, economic or social history of the nation, state, and community of Los Angeles. Municipal Pier No. 1 as an entire engineering structure, as well as Municipal Shed No. 1 (Transit Shed at Berths 58-60) additionally appear eligible for listing as contributors to a potential historic district under NRHP/CRHR criteria C/3 because they embody the distinctive characteristics of a type, period, or method of construction (Municipal Pier No. 1 for the early use of reinforced concrete construction, and Municipal Shed No. 1 for the excellent use of neo-classical ornamentation applied to a utilitarian building).

As a result of prior evaluations, the following buildings have been recommended individually eligible for listing in the NRHP, CRHR, and the City of Los Angeles CHC: the Shed at Berths 58-60, the Pan American Petroleum Company Marine Loading Station Facility at Berth 70 (Westway Terminal Building), the Pan-Am Terminal Facility at Berth 56 (California Fish and Game Building), and the Immigration Station (Canetti's Restaurant).

Warehouse No. 1 is currently listed in the NRHP as an individual resource, and is recommended as a contributor to a potential Municipal Pier No. 1 historic district, as described above.

# 9. Recommendations

Specific recommendations regarding the treatment of identified historical resources are typically provided after Port review of the draft conclusions of this report, as well as after receipt of project plans which may identify demolition of, or substantial alterations to, identified historical resources. The Port's proposed City Dock. No. 1 project, which would rehabilitate and reuse the Transit Shed Berths 57-60 for use as a marine research center, and which may require extensive retrofit or replacement of the concrete pile-supported pier which partially supports these sheds, is currently being designed and is not yet fully developed. Regardless, the typical treatment method for the avoidance of significant impacts to historical resources is the application of the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings* (NPS, 1995).

The proposed transit shed rehabilitation project would likely be subject to the Secretary of the Interior's Standards for *Rehabilitation* (other treatments that would likely not apply include preserving, restoring, and reconstructing). The National Park Service defines *Rehabilitation* as, "the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values."

Some of the most important recommendations contained within the *Standards for Rehabilitation* state that, 1) the historic character of a property shall be retained and preserved, and the removal of historic materials or alteration of features and spaces that characterize a property shall be avoided, and 2) new additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment. More specific guidance will be provided in a subsequent report following Port review of the initial conclusions of this report, and after receipt of project plans.

# 10. References

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LAT (Los Angeles Times)

_____ "Los Angeles Harbor Development Great" March 26, 1911.

_____ "Make Way Far Ships Says Harbor Board: February 6, 1912.

_____ "Opens Bids For Municipal Dock" October 19, 1912.

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_____ "Rush Work Or Forfeit Bond" January 26, 1913.

_____ "Wharf Ready In One Month" May 31, 1914.

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Rawls, J. J., and W. Bean, *California: An Interpretive History*, McGraw-Hill, San Francisco, 1993.

## Plans and Drawings

City of Los Angeles Harbor Department, Homer Hamlin, Harbor Engineer, *Municipal Pier No. 1 – Warehouse No. 1, Elevations and Transverse Section,* September 10, 1915. (Drawing No. 1424)

City of Los Angeles, Bureau of Harbor Improvement, City of Los Angeles Harbor Department, *Outer Harbor Wharf General Plan,* August 1912. (Drawing No. 1169)

City of Los Angeles Harbor Department, J.W. Ludlow, Harbor Engineer, *Wharf at Berths 57-60, Plan of Proposed Extension,* June 30, 1924. (Drawing No. 5784).

City of Los Angeles, Bureau of Harbor Improvement, *Outer Harbor Wharf, Plan and Section of Typical Panel for 40-Foot Warf.* May, 1912. (Drawing No. 1170)

City of Los Angeles, Bureau of Harbor Improvement, Homer Hamlin, Harbor Engineer, *Outer Harbor Wharf Typical Panel,* May 1913 (Drawing No. 1170-B)

City of Los Angeles Harbor Department, Office of the Harbor Engineer, Wharf at Berths 57 to 60, Typical Section and Plan, July 7, 1938. (Drawing No. 11685-5)

City of Los Angeles Harbor Department, City of Los Angeles Harbor Department, Municipal Dock No. 1 Shed No. 1, Elevations & Transverse Section, August 12, 1914.

The Port of Los Angeles Engineering Division, *Warehouse at Berth 57, Building Layout Plan,* no date.

The Port of Los Angeles Engineering Division, *Warehouse at Berth 58-60, Building Layout Plan*, no date.

# APPENDIX A
Photos

**Photos – Municipal Pier No. 1**
**ESA, December 9, 2010**

PORT OF LOS ANGELES
BERTH 60 - 59 - 58
PORT OF LOS ANGELES
5
MPH

# APPENDIX B
Site Record Forms

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

# PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code | Reviewer | Date



***Resource Name or #:** Port of Los Angeles Municipal Pier No. 1

**P1. Other Identifier:**

***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted** ***a. County:** Los Angeles

**and** (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** San Pedro **Date:** 1964/1981 **T** ;5S **R** 13W; **¼ of ¼ of Sec** 19; M.D. **B.M.**

c. Address: Signal Street at 22nd Street City: San Pedro Zip: 90731

d. UTM: Zone: 11 ; mE/ mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation:

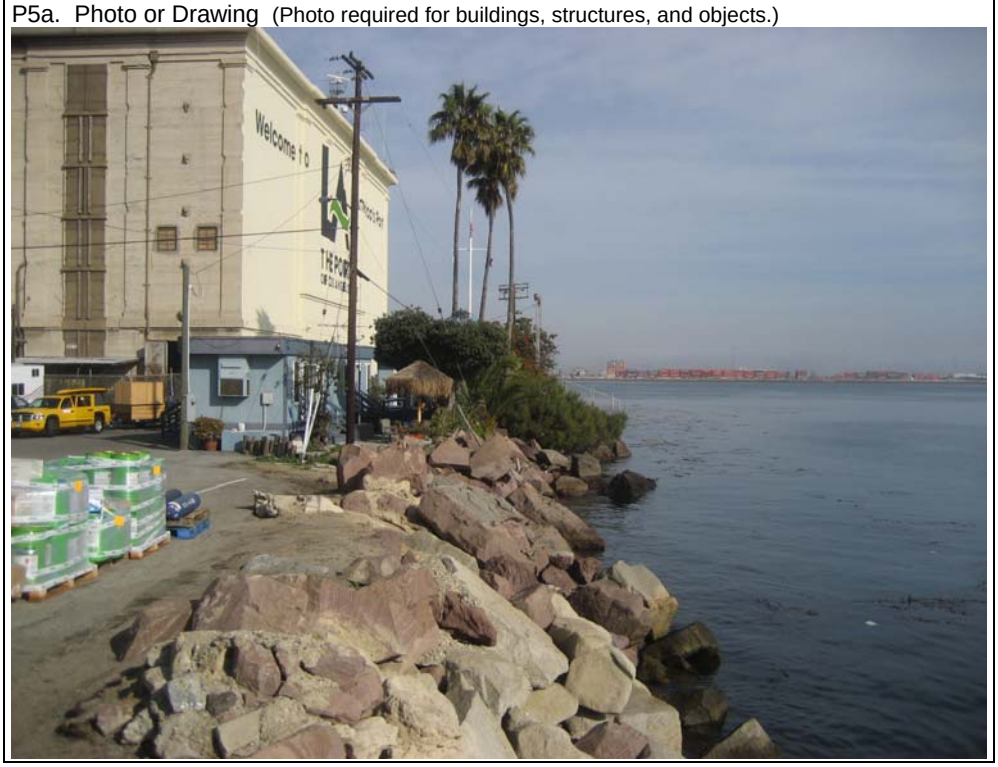
***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Municipal Pier No. 1 consists of a continuous, earthen-fill pier, with a concrete perimeter wall (bulkhead) extending south from 22nd Street along Signal Street at the Port of Los Angeles in San Pedro, California. The pier is approximately 2,600 feet long (measured from 22nd Street) and about 600 feet wide. The Pier is approximately 16 feet above the low-water level. Signal Street runs north-south down the approximate center of the pier providing vehicular access to the sheds and warehouses on the pier. Photos of the structure are provided in Appendix A. The entire eastern edge of the pier is comprised of sloped, rip-rap edge oriented at a 45-degree angle to the water. A sloped rip-rap edge can also be found on the majority of the southern end of the pier, for a length of approximately 530 feet. The remaining 70 feet of the southern end is comprised of concrete pilings and decking. The western edge of the pier is comprised entirely of concrete pilings, formed in two distinct, parallel, rows. The first row of concrete pilings is about 40 feet wide and 2,520 feet long, and dates to the pier's original construction in 1912-1914. Lengthwise, the reinforced concrete piles are spaced about 15 feet apart, and are seven rows deep. Each piling row is spaced approximately 5.5 to 6 feet apart. The pilings, which are roughly octagonal in plan, range in length from 50 to 60 feet in length, and support a board-formed concrete deck of the same width and length (40 feet by 2,520 feet). The first row of pilings is only visible from the southern edge of the pier, where the rows of pilings are exposed. (see Continuation Sheet)

***P3b. Resource Attributes:** (List attributes and codes) AH13: Wharf

***P4. Resources Present:** ☐Building ■Structure ☐Object ☐Site ☐District ■Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)




P5b. Description of Photo: (View, date, accession #)
Southern end of pier looking east 12/9/10

***P6. Date Constructed/Age and Sources:** ■Historic ☐Prehistoric ☐Both
1914 (F)

***P7. Owner and Address:**
Los Angeles Harbor Department
425 S. Palos Verdes Street
San Pedro, CA 90731

***P8. Recorded by:** (Name, affiliation, and address)
Brad Brewster, ESA
225 Bush Street, Suite 1700
San Francisco, CA 94104

***P9. Date Recorded:** 12/9/10

***P10. Survey Type:** (Describe)
Intensive

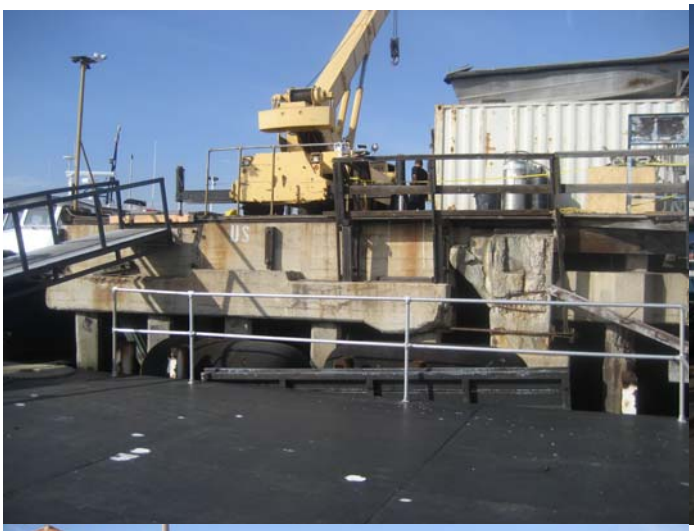
***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") ESA, *Historic Resources Evaluation Report for Port of Los Angeles Municipal Pier No. 1*, January, 2011

***Attachments:** ☐NONE ☐Location Map ☐Sketch Map ☐Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

**P3a. Description (continued)**

Located immediately west from, and attached to, this first row of pilings is a second row of pilings which are about 30 feet wide and 2,520 feet long, and were constructed during the pier's westward expansion in 1938. Lengthwise, the reinforced concrete piles are spaced about 15 feet apart, and are five rows deep. Each piling row is spaced approximately 5.5 feet apart. The reinforced concrete pilings are generally square in plan, and range in length from about 62 to 78 feet. Steel-wrapped cross-bracing piles set at an approximate 45 degree angle are visible beneath the deck. These pilings support a reinforced, board-formed, concrete deck of the same width and length (30 feet by 2,520 feet). The fendering system along the western edge consists of newer timber piles attached to the outer (westernmost) row of concrete pilings.

The majority of the decking on Municipal Pier No. 1 is primarily asphalt over earth fill, while smaller portions along the western edge of the pier are asphalt over concrete decking. Smaller amounts of all-concrete decking are also visible, such as along loading ramps leading to Warehouse No. 1, and between the sheds at Berths 57 and 58. Three rows of railroad tracks are embedded in the pier located between Signal Street and Sheds at Berths 57-60. Curving side tracks can also be found leading to the northern end of Warehouse No. 1, and to the tank farm located along the pier's northeastern edge. Two rows of railroad tracks can also be found along the western edge of the pier where the concrete pile-supported wharf is located adjacent to Sheds 57-60. Wood bullrails are located along the westernmost edge of the pier, interspersed with iron cleats located at regular intervals. A floating wooden dock and ramp for the water taxi service is located on the southeastern end of the pier. The majority of the pier appears to be in original condition, although some spalling and exposure of the reinforcement steel is visible on the pilings at the southernmost end of the structure (and especially within the first row of concrete pilings). Newer concrete and asphalt overlays are visible on the pier decking, some of which obscures the original railroad tracks in various locations.



# BUILDING, STRUCTURE, AND OBJECT RECORD



***NRHP Status Code** 3B

***Resource Name or #** (Assigned by recorder) Port of Los Angeles Municipal Pier No. 1

B1. Historic Name: Municipal Pier No. 1
B2. Common Name: Pier 1.
B3. Original Use: Shipping Pier
B4. Present Use: same
***B5. Architectural Style:** utilitarian/industrial
***B6. Construction History:** (Construction date, alterations, and date of alterations)

Completed in 1914, concrete wharf extension along western edge in 1938. Numerous buildings on top of pier added and removed.

***B7. Moved?** ■No ☐Yes ☐Unknown **Date:** **Original Location:**
***B8. Related Features:**

Municipal Shed No. 1 (Transit Shed at Berths 58-60 [1915]), Municipal Warehouse No. 1 (1917), Transit Shed at Berth 57 [1923], Immigration Station (Canetti's Restaurant, 309 E. 22nd Street [1921]), Pan American Petroleum Company Marine Loading Station Facility at Berth 70 (Westway Terminal Building [1923]), and Pan-Am Terminal Facility at Berth 56 (California Fish and Game Building [1930]).

B9a. Architect: Homer Hamlin, Harbor Engineer
b. Builder: Snare & Triest
***B10. Significance: Theme:** International Shipping
**Area:** Los Angeles
**Period of Significance:** 1912-1950 **Property Type:** Wharf **Applicable Criteria:** A and C
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Individual Evaluation.

Municipal Pier No. 1 is representative of the Los Angeles Harbor's massive expansion effort in anticipation of the completion of the Panama Canal in 1914, resulting in vastly increased shipping capacity at the port, and allowing Los Angeles to compete with other world cities for international shipping traffic. As a facility that has been in continuous use since its construction, Municipal Pier No. 1 is an excellent representation of the growth and development of the Port of Los Angeles during the planning and the completion of the Panama Canal. Completion of the massive, earth-fill pier allowed the construction of Warehouse No. 1, Municipal Shed No. 1 (Transit Sheds at Berths 58-60), as well as Transit Shed at Berth 57 to follow in rapid succession as part of a overall plan for port expansion envisioned by harbor commissioners in the 1910s. The local press extolled the initial proposal to construct the pier in 1912, as chronicled its completion in 1914, thereby expressing the enthusiasm of the era to capture a larger share of the increased world trade resulting from the opening of the Canal, and by comparing the pier with other major piers in ports around the world in an attempt to position the Port of Los Angeles in an international perspective. During the early half of the 20th Century, Municipal Pier No. 1 became an integral part of the Port as several private industries, local and federal government established buildings in the area. Portions of the pier were also used for US naval functions during World War II.
(See Continuation Sheet)

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:**

See Continuation Sheet

B13. Remarks:

***B14. Evaluator:** Brad Brewster, ESA

***Date of Evaluation:** January 20, 2011

(This space reserved for official comments.)

(Sketch Map with north arrow required.)

**B10. Significance (continued)**

The basic layout of the pier has changed little since the late 1930s. Therefore, Municipal Pier No. 1 appears to meet NRHP Criterion A for its association with events that have made significant contribution to the broad patterns of our history. For similar reasons, Municipal Pier No. 1 appears to meet the criteria for listing in the CRHR under Criterion 1, as well as the City of Los Angeles CHC Criterion as a historic structure that exemplifies the broad cultural, political, economic or social history of the nation, state, and community of Los Angeles.

Although not an example of the first use of a reinforced concrete pier at the Port of Los Angeles, Municipal Pier No 1. was one of the earliest examples to employ this method of construction in favor of timber construction. The successful construction of the adjacent Miner fill with a reinforced concrete pier provided the model for the construction method of Municipal Pier No. 1. Although this construction method initially met with some opposition from City Engineer Hamlin, harbor commission board members prevailed and promoted reinforced concrete over timber construction. Commissioners believed that concrete structures were the wave of the future, and would help prevent fires given that the Port of Los Angeles was predicted to be one of the largest oil ports in the country. In addition, the reinforced concrete wharf pilings and decking constructed along the western edge of the pier in 1912 are some of the earliest of such structures found at the Port. Timber pile-supported wharves, by comparison, were built throughout the Port well into the 1940s, and were generally phased out by the 1950s as all-concrete pier construction became favored. Therefore, Municipal Pier No. 1 appears to meet NRHP Criterion C because it embodies the distinctive characteristics of a method of construction (early use of reinforced concrete pier construction). For similar reasons, Municipal Pier No. 1 appears to meet the criteria for listing in the CRHR under Criterion 3, as well as the City of Los Angeles CHC Criterion as a historic structure that is inherently valuable for a study of a period, style, or method of construction.

Municipal Pier No. 1 does not appear to be significantly associated with the lives of persons significant in our past (NRHP/CRHR B/3), or is likely to yield information important in prehistory or history (NRHP/CRHR D/4).

Period of Significance: The historic significance of Municipal Pier No. 1 relates to the role that the Port facilities played in expanding the commercial and economic success of Los Angeles, which anticipated and coincided with the opening of the Panama Canal in 1914, the emergence of Los Angeles as an “international” city in the early 1920s, and ending with the initiation of containerization in the 1950s. Therefore, the period of significance for Municipal Pier No. 1 is from 1912 (beginning of pier construction) to 1950 (beginning of containerization).

Integrity: With few alterations within the last 45 years, Municipal Pier No. 1 retains integrity of location, design, setting, materials, workmanship, feeling, and association.

District Evaluation:

In addition to being individually eligible for listing in the NRHP and CRHR, Municipal Pier No. 1 was evaluated as a potential contributor to a potential *Port of Los Angeles Municipal Pier No. 1 Historic District.* Six structures located on top of, and supported by, Municipal Pier No. 1 were previously evaluated by Jones & Stokes in 1999 and 2008, and were found to be individually eligible for listing in the NRHP and CRHR. These are; Municipal Shed No. 1 (Transit Shed at Berths 58-60 [1915]), Municipal Warehouse No. 1 (1917), Transit Shed at Berth 57 [1923], Immigration Station (Canetti’s Restaurant, 309 E. 22nd Street [1921]), Pan American Petroleum Company Marine Loading Station Facility at Berth 70 (Westway Terminal Building [1923]), and Pan-Am Terminal Facility at Berth 56 (California Fish and Game Building [1930]). Warehouse No. 1 was listed in the NRHP and CRHR in 2000.

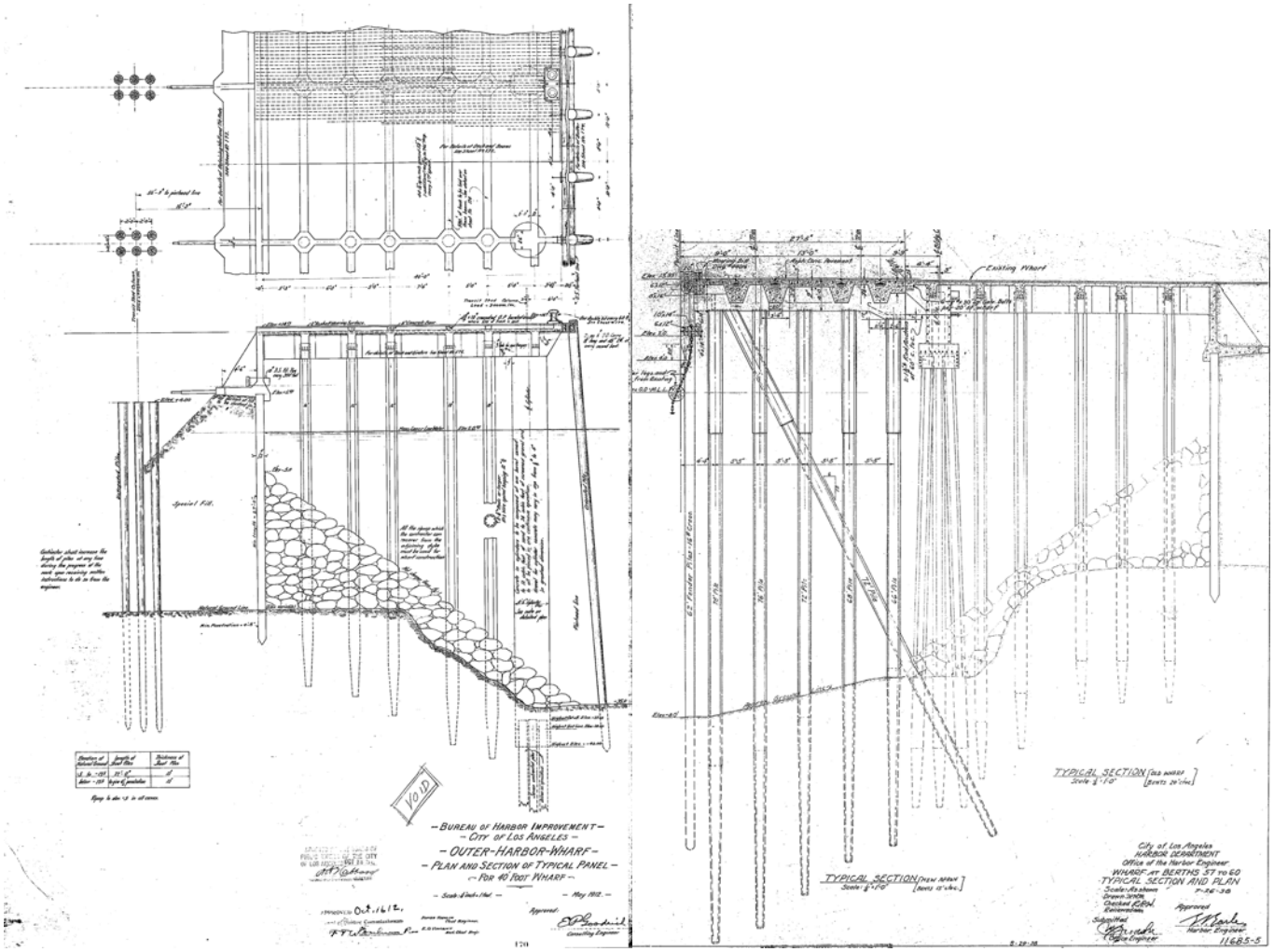
Municipal Pier No. 1, as well as associated structures Warehouse No. 1, Municipal Shed No. 1 (Sheds at Berths 58-50) and the Shed at Berth 57, were designed by the Harbor Engineering Office and built as part of a master plan by Harbor Commission in the 1910s to capture increasing ship traffic in the Pacific in anticipation of the opening of the Panama Canal; an historic event in worldwide shipping. The planning and construction of these facilities occurred during a time of great expansion of the Port of Los Angeles, while their immense size and Neo-Classical detailing of utilitarian structures reflected the optimism and enthusiasm of the era when the City of Los Angeles as a whole was striving to become a major player on the world stage. The very existence of Warehouse No. 1 Municipal Shed No. 1 (Sheds at Berths 58-50) and the Shed at Berth 57 would not be possible without the massive earth-filled and concrete pier that underpins their structures and allows them to function as originally designed and connects them by rail and road to the City at large. With a common function, design, and history, Municipal Pier No. 1 and its associated structures appear to meet NRHP Criterion A as a potential historic district for their association with events that have made significant contribution to the broad patterns of our history. For similar reasons, Municipal Pier No. 1 and its associated structures appear to meet the criteria for listing in the CRHR under Criterion 1 as a potential historic district, as well as the City of Los Angeles CHC Criterion as a potential historic district that exemplifies the broad cultural, political, economic or social history of the nation, state, and community of Los Angeles.

**B10. Significance (continued)**

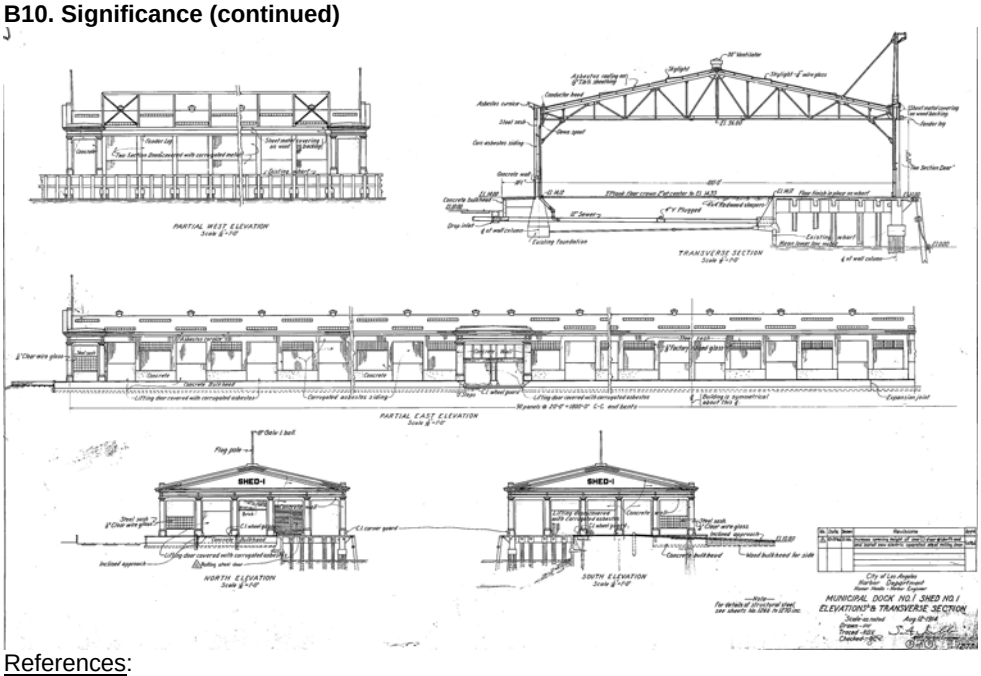
Due to the early use of reinforced concrete construction at the Port of Los Angeles, which reflected both the permanence and the importance of the facility, Municipal Pier No. 1, and associated structures also appear to meet NRHP Criterion C as a potential historic district because they embody the distinctive characteristics of a method of construction. Additionally, Warehouse No. 1 and Municipal Shed No. 1 (Transit Sheds at Berths 58-60) are excellent examples of neo-classical ornamentation, indicating the importance assigned to architectural design for utilitarian buildings used for Port commerce. For similar reasons, Municipal Pier No. 1 and its associated structures appears to meet the criteria for listing in the CRHR under Criterion 3, as well as the City of Los Angeles CHC Criterion as a historic structure that is inherently valuable for a study of a period, style, or method of construction.

As structures intimately tied to the early 20th Century history of Municipal Pier No. 1 and identified as potential historical resources in prior studies, the Pan American Petroleum Company Marine Loading Station Facility at Berth 70 (Westway Terminal Building), the Pan-Am Terminal Facility at Berth 56 (California Fish and Game Building), and the Immigration Station (Canetti's Restaurant, 309 E. 22nd Street) also contribute to the historical significance of a potential Municipal Pier No. 1 historic district. As such, contributors to a potential Municipal Pier No. 1 historic district would include; 1) the entire Municipal Pier No. 1 south of 22nd Street, 2) Warehouse No. 1, 3) Shed at Berths 58-60, 4) Shed at Berth 57, 5) the Pan American Petroleum Company Marine Loading Station Facility at Berth 70 (Westway Terminal Building), 6) the Pan-Am Terminal Facility at Berth 56 (California Fish and Game Building), and 7) the Immigration Station (Canetti's Restaurant).

Non-contributors to the potential Municipal Pier No. 1 historic district would include the tank farm and loading docks on the northeastern end of the pier. Although some of the tanks date to the 1920s, many have been removed, and many new facilities have been constructed within the past 45 years which have degraded the overall integrity of the facility and reduced its ability to convey direct historic associations with Municipal Pier No. 1.



**B10. Significance (continued)**




References:

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LAT (Los Angeles Times)
_____ "Los Angeles Harbor Development Great" March 26, 1911.
_____ "Make Way Far Ships Says Harbor Board: February 6, 1912.
_____ "Opens Bids For Municipal Dock" October 19, 1912.
_____ "Board Awards Wharf Contract" December 20, 1912.
_____ "Rush Work Or Forfeit Bond" January 26, 1913.
_____ "Wharf Ready In One Month" May 31, 1914.
_____ "Great Harbor Realized Here" June 20, 1914.
_____ "Harbor Commissioners O.K. Warehouse Plans" December 6, 1914.

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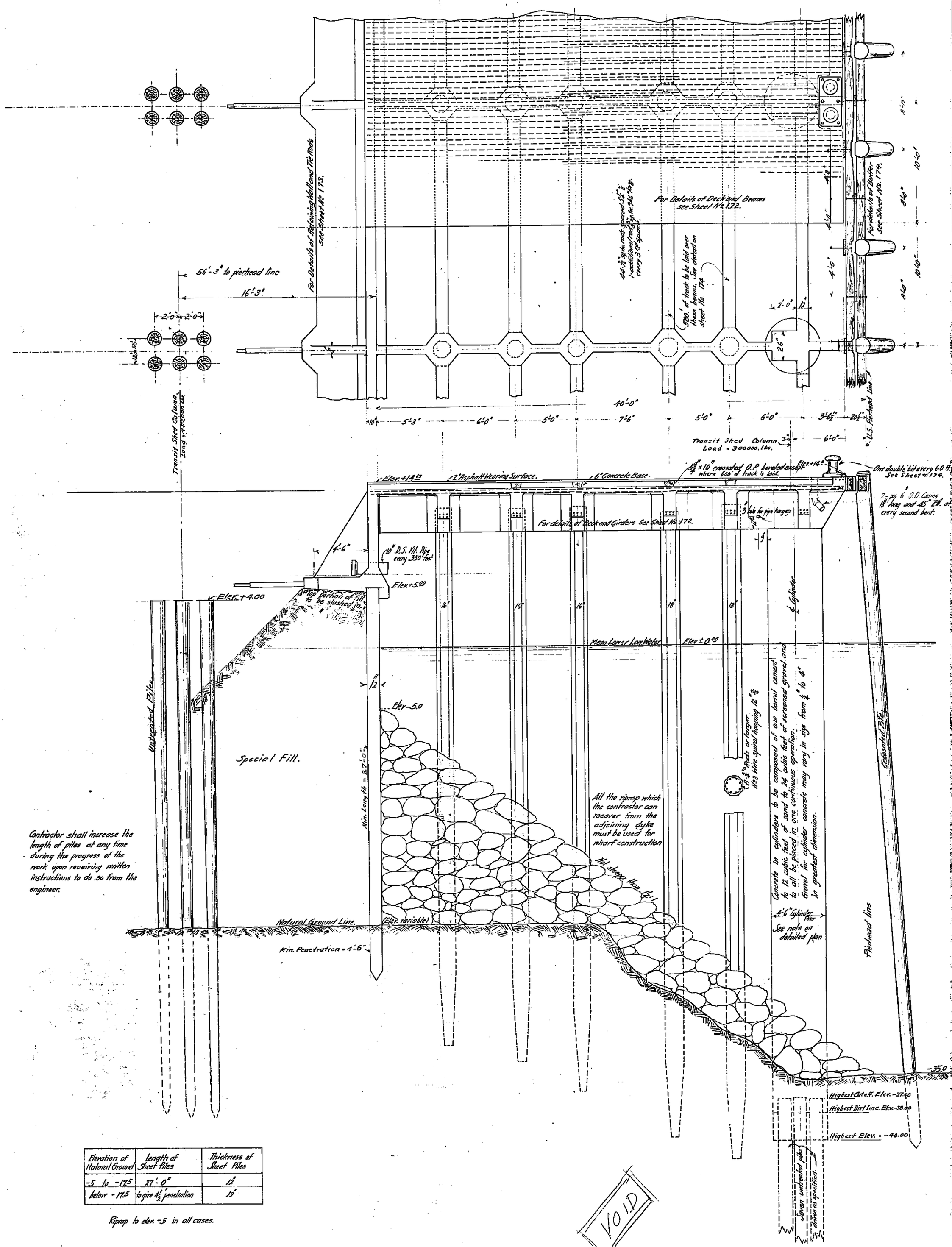
# APPENDIX C
# Plans and Drawings




| Elevation of Natural Ground | Length of Sheet Piles | Thickness of Sheet Piles |
|---|---|---|
| -5 to -17.5 | 27'-0" | 12" |
| below -17.5 | to give 4 1/2' penetration | 12" |

Riprap to elev. -5 in all cases.

VOID

ADOPTED BY THE BOARD OF PUBLIC WORKS OF THE CITY OF LOS ANGELES OCT 18 1912
A A Cobbey SECRETARY

APPROVED Oct. 16 12.
Board of Harbor Commissioners
F F Woolwine Pres

HOMER HAMLIN Chief Engineer.
E.R. VINCENT Asst. Chief Engr.

# — BUREAU OF HARBOR IMPROVEMENT —
## — CITY OF LOS ANGELES —
# — OUTER-HARBOR-WHARF —
## — PLAN AND SECTION OF TYPICAL PANEL —
## — FOR 40' FOOT WHARF —

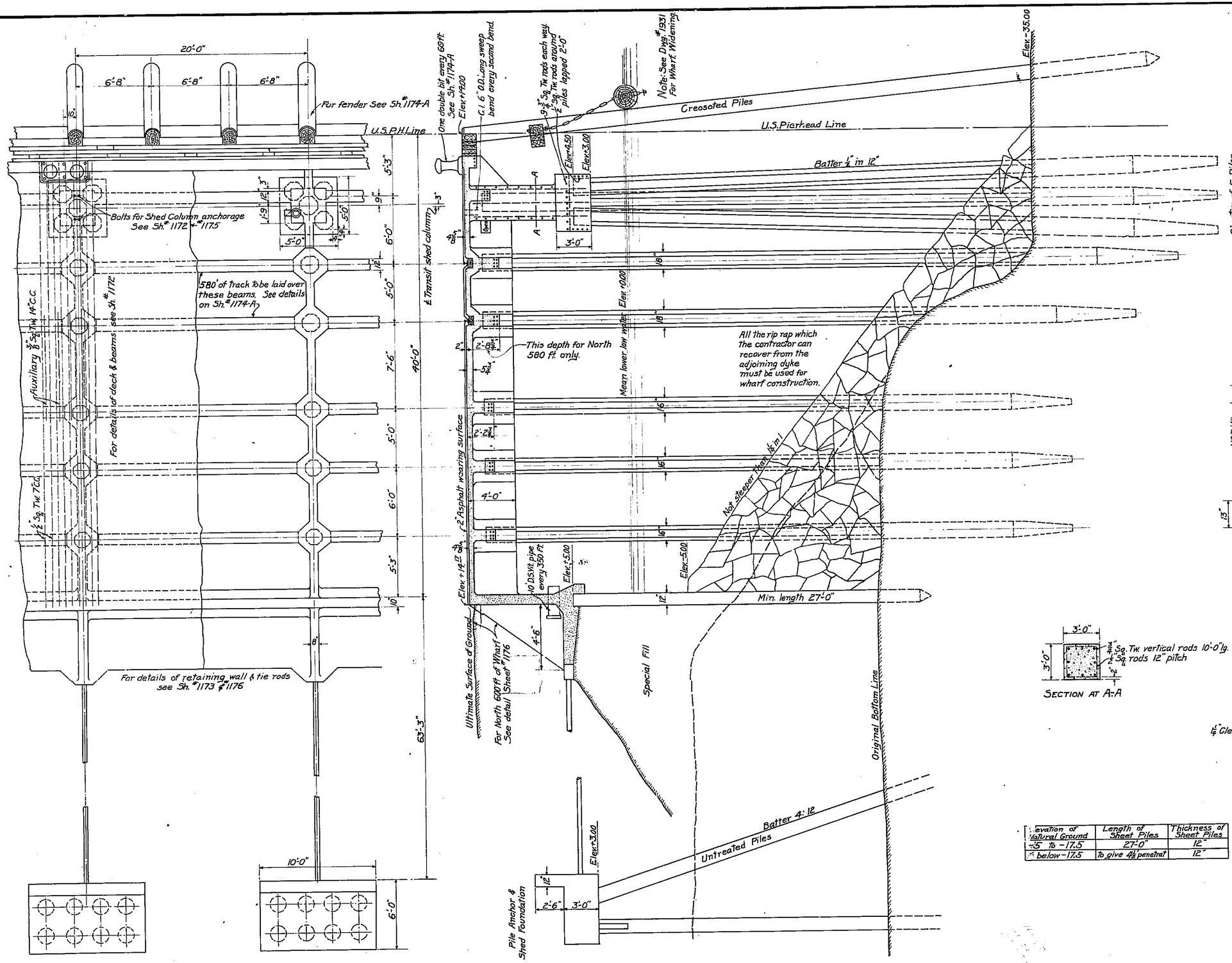
— Scale: 1/4 inch = 1 foot. —

— May 1912. —

Approved:
E P Goodrich
Consulting Engineer



1170

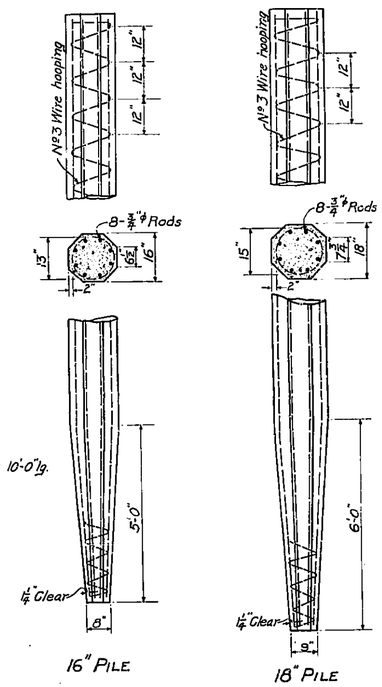



| | Preferred range | Absolute limit |
|---|---|---|
| Regular bents | 12.2 to 13.0 | 11.0 to 13.2 |
| Expansion | 10.5 to 11.0 | 10.0 to 11.2 |
| 4-Cluster Piles | 4.2 to 4.8 | 4.0 to 5.0 |

PILE CUT-OFF ELEVATIONS




SECTION AT A-A




16" PILE

18" PILE

| Elevation of Natural Ground | Length of Sheet Piles | Thickness of Sheet Piles |
|---|---|---|
| -5 to -17.5 | 27'-0" | 12" |
| below -17.5 | To give 4 1/2' penetrat | 12" |

City of Los Angeles
Bureau of Harbor Improvement
Homer Hamlin Chief Engr.

OUTER HARBOR WHARF
TYPICAL PANEL

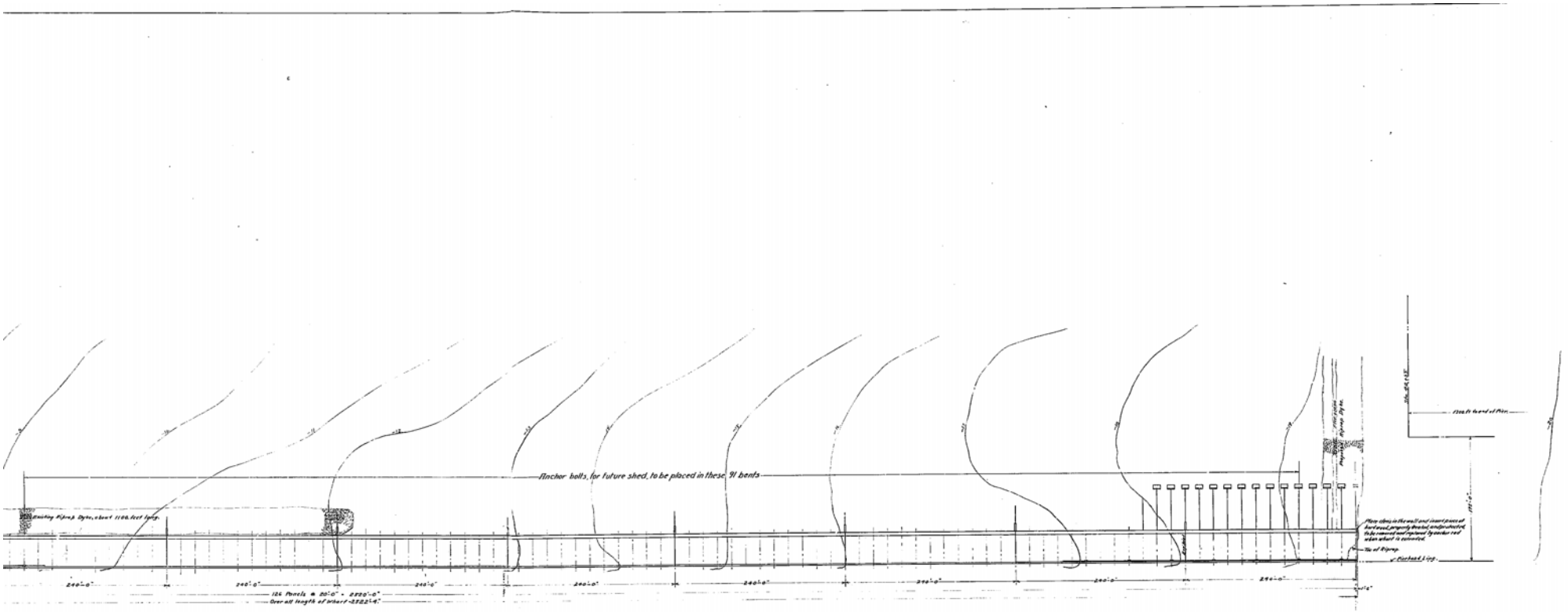
Scale 1/4" = 1'-0" May-3-13.

Dr.-H.S.
Tr.-H.S.
Ch.-J.W.L.

S. A. Jubb
Asst. Chf. Engr.

Retraced Nov. 19-1926 P.M.S. Revised May 27-1913

1170-B




ACCEPTED BY BOARD OF PUBLIC WORKS OF THE CITY OF LOS ANGELES, OCT 16 1912

APPROVED Oct. 16, 1912,
Board of Harbor Commissioners

# - BUREAU OF HARBOR IMPROVEMENT -
# - CITY OF LOS ANGELES -
# - OUTER-HARBOR-WHARF -
## - GENERAL PLAN -

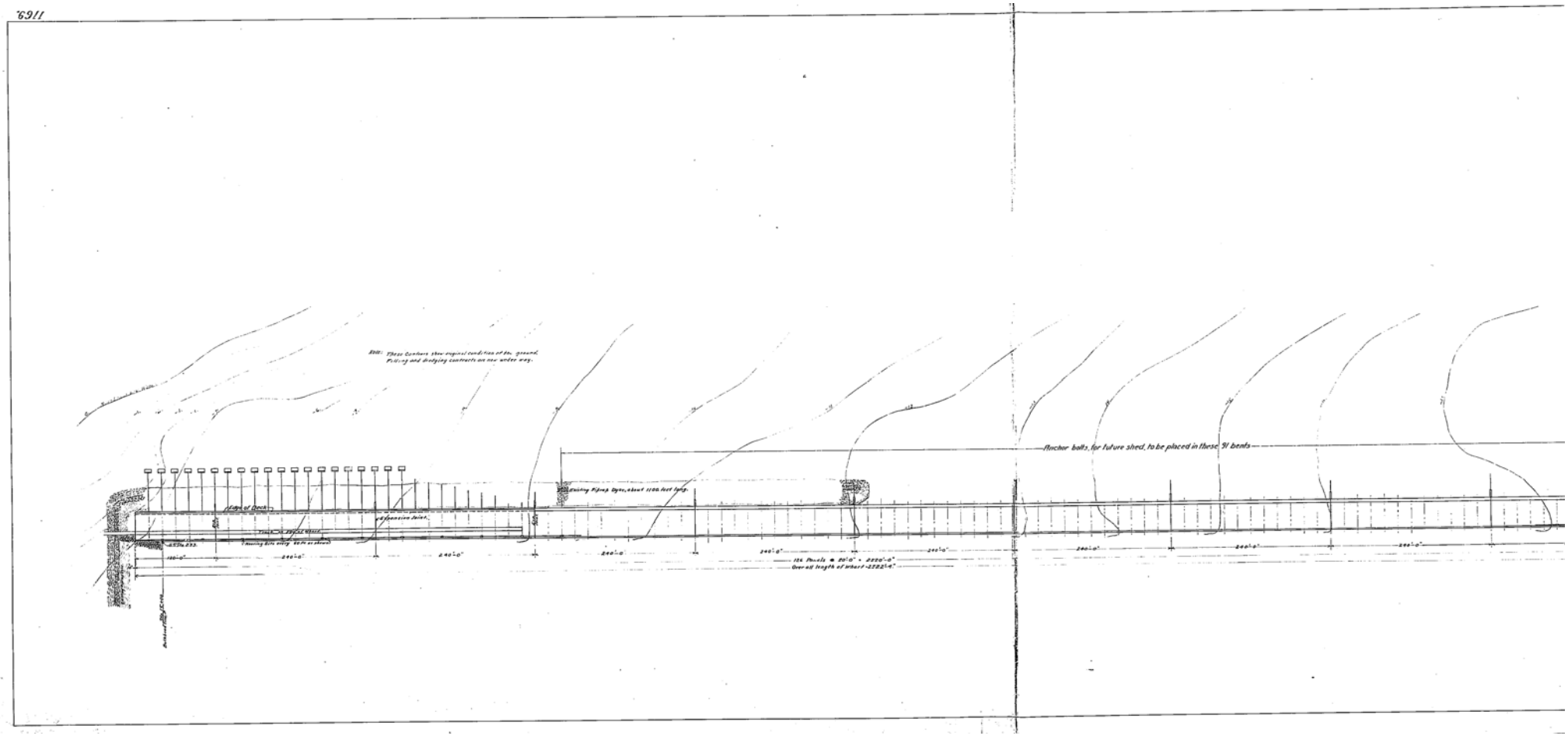
- Scale: 1 inch = 50 feet -

- Aug. 1912. -

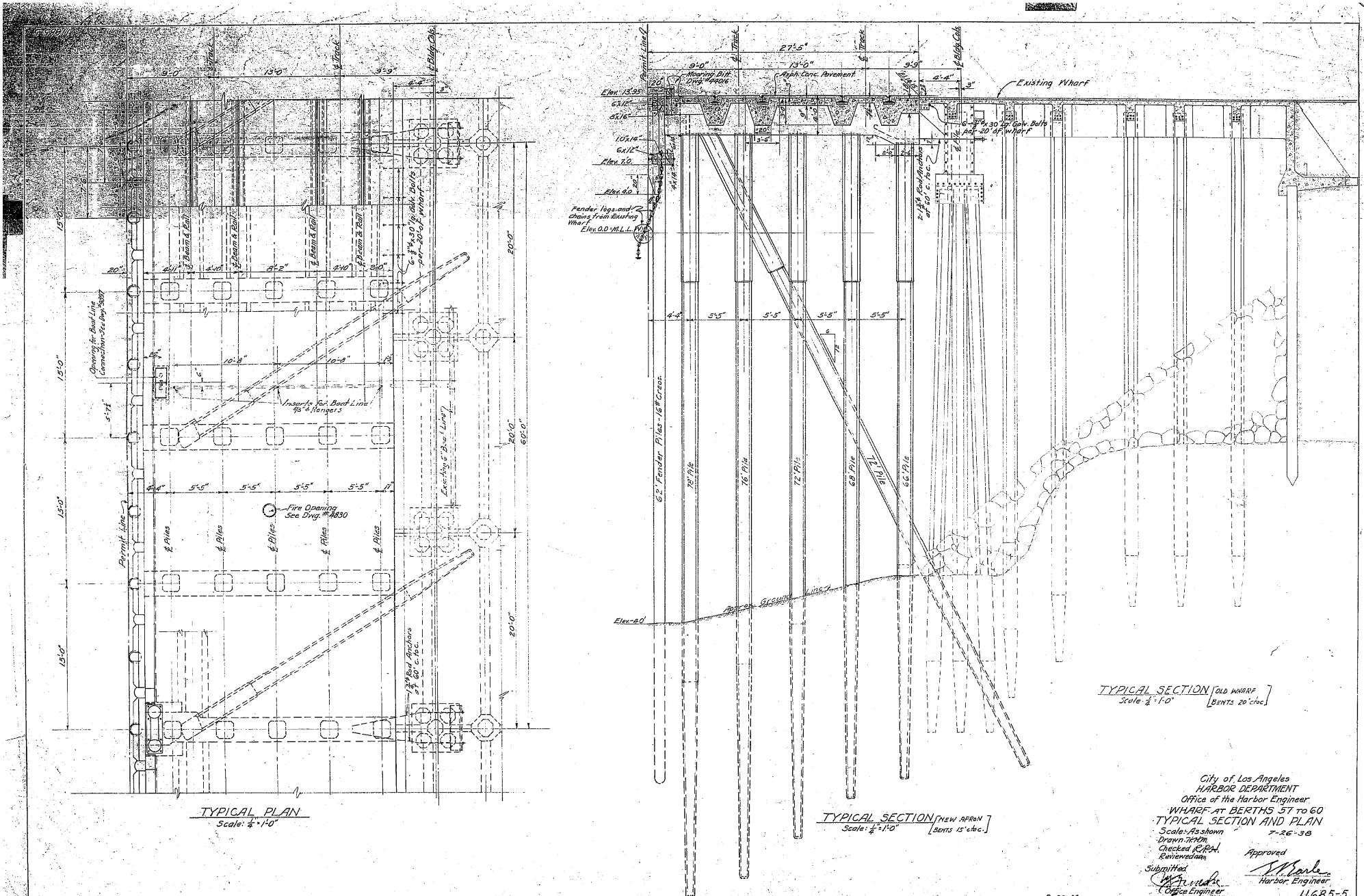
Approved:

Consulting Engineer.

1169


Note: These Contours show original condition of the ground.
Filling and dredging contracts on new water way.
Anchor bolts, for future shed, to be placed in these 91 bents
Existing Riprap Dyke, about 1100 feet long.
Edge of Deck
Expansion Joint.
Track to Top of Wharf
Flooring Bolts every 60 ft as shown
Bulkhead Wall
240'-0"
240'-0"
240'-0"
240'-0"
240'-0"
240'-0"
240'-0"
240'-0"
240'-0"
126 Panels @ 20'-0" = 2520'-0"
Over all length of Wharf = 2522'-4"

1169.



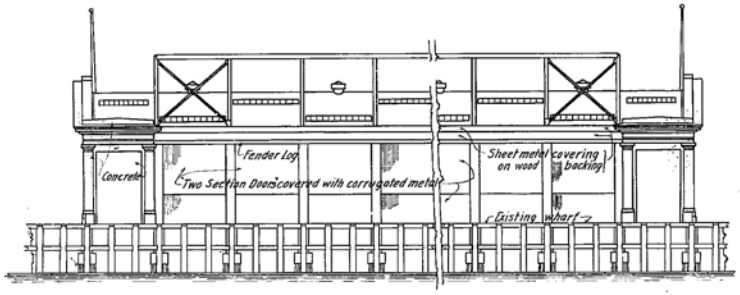

TYPICAL PLAN
Scale: 1/4" = 1'-0"

TYPICAL SECTION [NEW APRON BENTS 15' c to c.]
Scale: 1/4" = 1'-0"

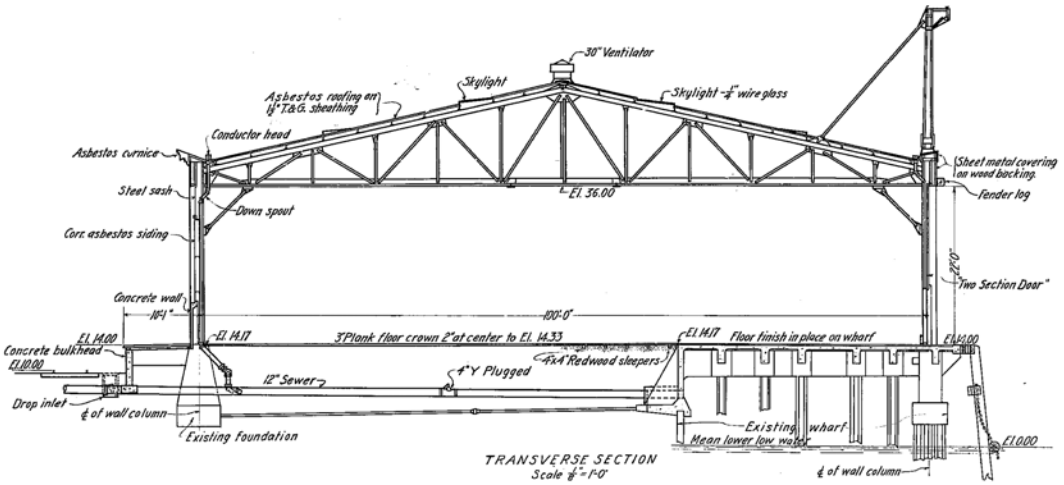
TYPICAL SECTION [OLD WHARF BENTS 20' c to c.]
Scale: 1/4" = 1'-0"

City of Los Angeles
HARBOR DEPARTMENT
Office of the Harbor Engineer
WHARF AT BERTHS 57 TO 60
TYPICAL SECTION AND PLAN
Scale: As shown 7-26-38
Drawn W.H.M.
Checked R.R.H.
Reviewed
Approved
Submitted
Office Engineer
Harbor Engineer
11685-5
8-29-38

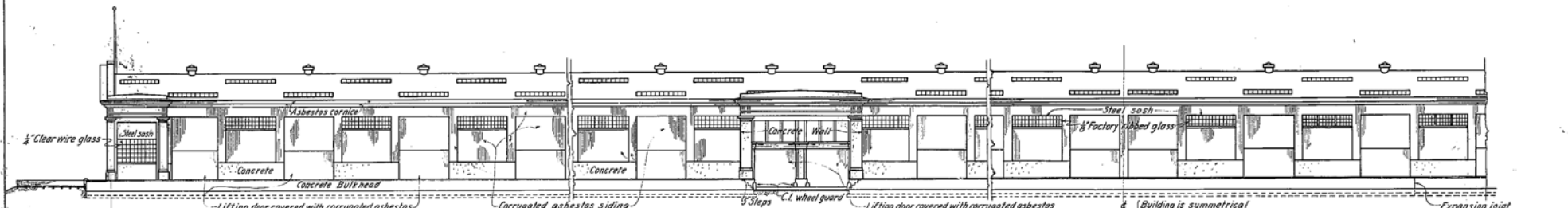
1273



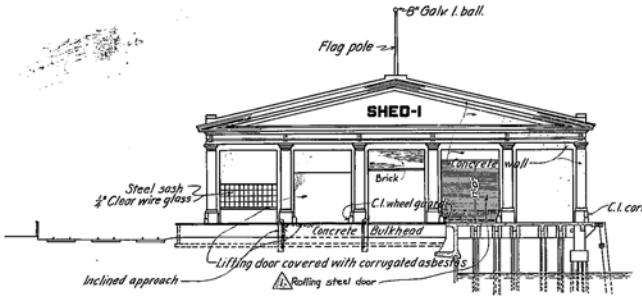

PARTIAL WEST ELEVATION
Scale 1/8" = 1'-0"



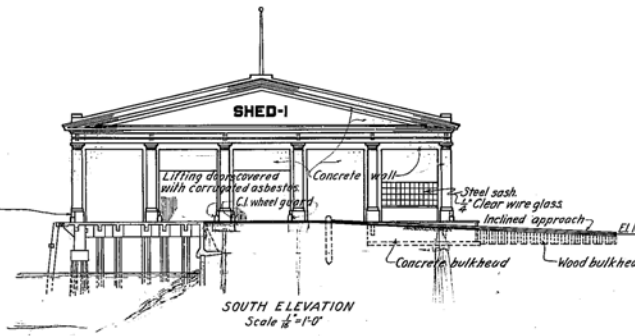

TRANSVERSE SECTION
Scale 1/8" = 1'-0"




PARTIAL EAST ELEVATION
Scale 1/8" = 1'-0"




NORTH ELEVATION
Scale 1/8" = 1'-0"




SOUTH ELEVATION
Scale 1/8" = 1'-0"

—Note—
For details of structural steel, see sheets No. 1266 to 1270 inc.

| No. | Date. | Drawn | Revisions | Appd. |
|---|---|---|---|---|
| 1 | 10-10-14 | D.Mc. | Increase opening height of one (1) door @ North end and install new electric operated steel rolling door. | [illegible] |

City of Los Angeles
Harbor Department
Homer Hamlin - Harbor Engineer

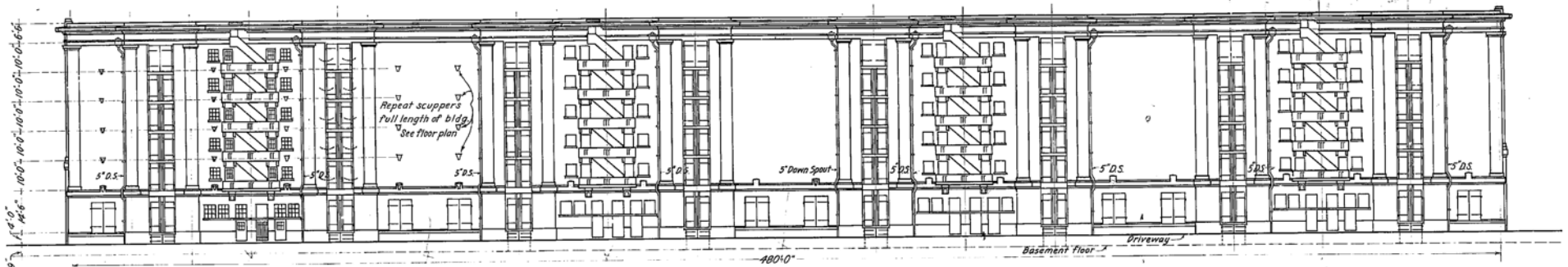
MUNICIPAL DOCK NO. 1 SHED NO. 1
ELEVATIONS & TRANSVERSE SECTION

Scale - as noted
Drawn - PF
Traced - R.D.V.
Checked -

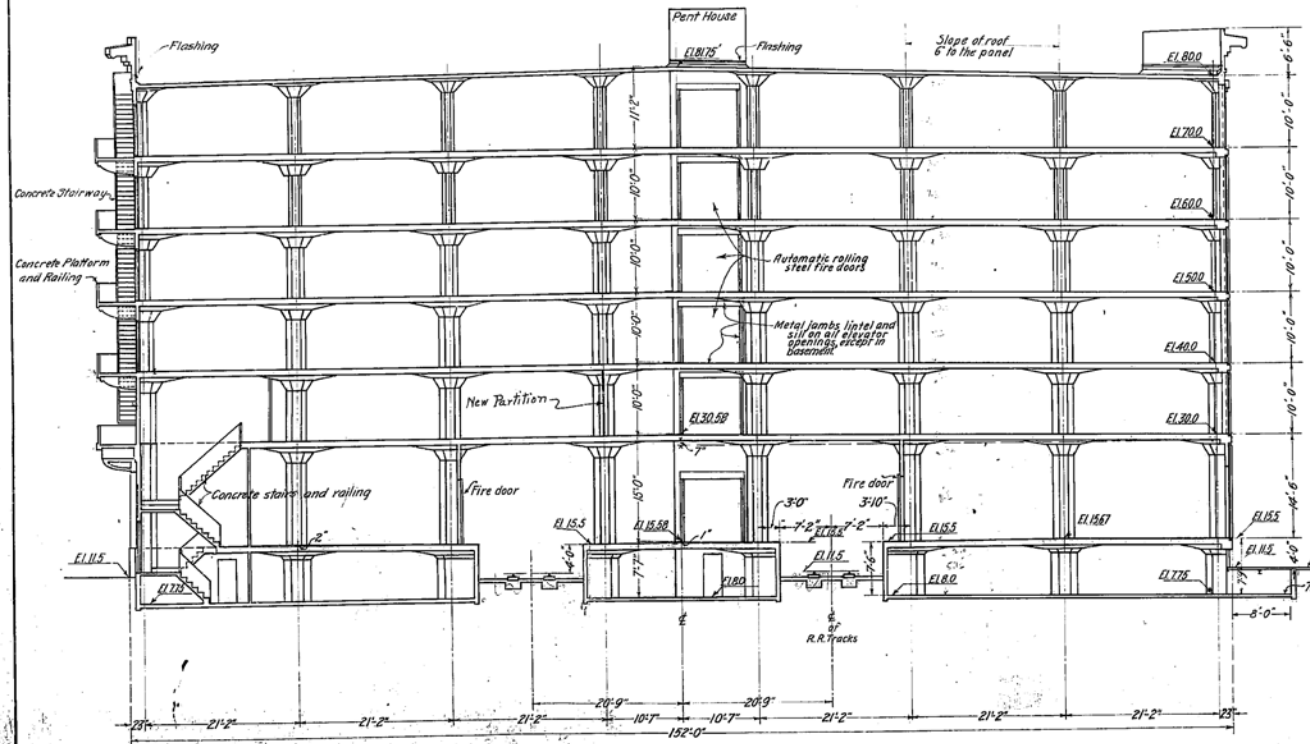
Aug. 12-1914

Asst. Harbor Engineer

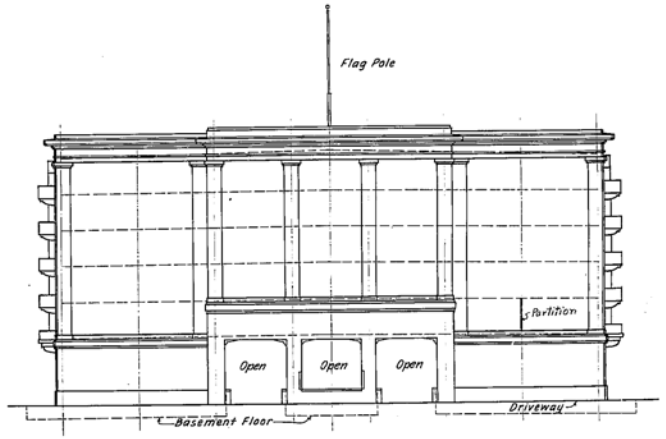
3 of 7 1273




WEST SIDE ELEVATION
Scale 1/16" = 1'-0"
East Side Elevation opposite hand




TRANSVERSE SECTION A-A
Scale 1/8" = 1'-0"




NORTH AND SOUTH ELEVATION
Scale 1/16" = 1'-0"

Note: See Plan# 1422 for Plan and Section of New Partition.

City of Los Angeles
HARBOR DEPARTMENT
Homer Hamlin, Harbor Engineer

M.D. NO. 1 - WAREHOUSE NO. 1
ELEVATIONS & TRANSVERSE SECTION

Scale as noted — Sept. 10, 1915 (N)
Drawn — P.F.
Traced — R.M.
Checked — R.R.
Assistant Harbor Engineer
Revised 8-4-16 R.M.
Rev. 11-2-28
1424

F

# SEWER CAPACITY STUDY

FORM GEN 160 (Rev. 6-80)

# CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

SC.MI

DATE: January 26, 2012

TO: Christopher Cannon, Director
Environmental Management
Port of Los Angeles

Adrienne Fedrick, Civil Engineering Associate
Environmental Management
Port of Los Angeles

FROM: Ali Poosti, Division Manager
Wastewater Engineering Services Division
Bureau of Sanitation

SUBJECT: **CITY DOCK NO. 1 MARINE RESEARCH CENTER SEWER CAPACITY STUDY**

The Wastewater Engineering Services Division (WESD) has conducted a sewer capacity analysis for the proposed City Dock No. 1 Marine Research Center Development located at the Port of Los Angeles. Enclosed is a memorandum detailing the results of our analysis.

If you have any questions regarding this report or this request, please contact Kwasi Berko at (323)342-1562 or Fernando Gonzalez at (323) 342-6267.

Thank you for your cooperation.

Cc w/encl: Carmelo Martinez
Fernando Gonzalez

Enc: Technical Memorandum No. 2012-001 (SC.MI)

\Div Files\SCAR\CEQA Review\CEQA Analysis Files\EIR LTR - Hydraulic Analysis\City Dock No 1 Marine Research Center Project\ReportTechMemo_Num_2012_001-City Dock No1 Marine Research Center Study Cover.doc

FORM GEN. 160 (Rev. 6-80)

**CITY OF LOS ANGELES**
INTER-DEPARTMENTAL CORRESPONDENCE

SC.MI

TECHNICAL MEMORANDUM NO. 2012-001

SUBJECT: City Dock No. 1 Marine Research Center Sewer Capacity Study

PREPARED BY: Rowena Lau, P.E.
Kwasi Berko, P.E.

DATE: January 26, 2012

## INTRODUCTION

### Overview

The purpose of the City Dock No. 1 Marine Research Center Sewer Capacity Study is to determine if there is available capacity within the sewers to accommodate a proposed redevelopment project by the Port of Los Angeles (POLA). The project developer has received comments on March 4, 2011 regarding the impacts on the sewer system determined statically. A dynamic capacity study is required to determine the overall effects on the local collection system upon discharge from the proposed project.

### City Dock No.1 Marine Research Center Project

The City Dock No.1 Marine Research Center Project site is located within the San Pedro Waterfront Plan area, which encompasses approximately 400 acres along the western boundary of the Port, adjacent to the community of San Pedro. The project activity is focused on City Dock No. 1, which encompasses approximately 28 acres and is bounded by the Main Channel on the east, the East Channel on the west, East 22$^{nd}$ Street to the north, and Los Angeles Harbor to the south. The project site as shown in Figure 1 contains Berth 56; Berth 57; Berth 58 through 60; a water taxi service located beyond Berth 60 at the end of City Dock No. 1; and Berths 70 through 71 (the Westway Terminal site).

## Figure 1: Project Site Map

The four (4) areas of proposed development which are designated as Berths 56 and 57, Berths 58–60, Berths 59-60, and Berths 70-71 are served by two existing 8-inch lines on Signal St and Signal St RW. The sewage from both 8-inch lines feed into the Signal Pumping Plant on Signal St. The sewage then continues north into the 22nd & Signal Pumping Plant on Signal St before discharging into a 33-inch sewer line on Beacon St. Ultimately, this sewage flow will be conveyed to the Terminal Island Treatment Plant (TITP).

The anticipated flows of the proposed development are derived from the Bureau of Sanitation Sewer Facility Charges (SFC) Rate Tables. Based on the project description and the SFC Rate Tables, the estimated project flows are as follows:

| Type Description | Average Daily Flow per Type Description (GPD/UNIT) | Proposed No. of Units | Average Daily Flow (GPD) |
|---|---|---|---|
| **BERTHS 56 AND 57** | | | |
| ***Proposed*** | | | |
| SCMI Research Facility | 100 GPD/1000 SQ.FT | 50,100 SQ.FT | 5,010 |
| Faculty Office Space | 150 GPD/1000 SQ.FT | 758 SQ.FT | 114 |
| Teaching Laboratories | 100 GPD/1000 SQ.FT | 3,600 SQ.FT | 360 |
| Research Laboratories | 100 GPD/1000 SQ.FT | 13,849 SQ.FT | 1,385 |
| Lab Support Space | 100 GPD/1000 SQ.FT | 2,300 SQ.FT | 230 |
| Administrative Suite | 150 GPD/1000 SQ.FT | 3,381 SQ.FT | 507 |
| Staff Support Facilities | 250 GPD/1000 SQ.FT | 1,964 SQ.FT | 491 |
| Building Support Facilities | 20 GPD/1000 SQ.FT | 6,870 SQ.FT | 137 |
| Outdoor Teaching/Outreach Classroom | 200 GPD/1000 SQ.FT | 1,997 SQ.FT | 399 |
| Outside Storage Space | 20 GPD/1000 SQ.FT | 6,150 SQ.FT | 123 |
| Hallways, Walkways | 80 GPD/1000 SQ.FT | 5,634 SQ.FT | 451 |
| Learning Center | 200 GPD/1000 SQ.FT | 11,500 SQ.FT | 2,300 |
| Facilities Tank | | | 219,178 |
| | | Berths 56 and 57 Total | **230,685** |
| **BERTHS 58—60** | | | |
| ***Proposed*** | | | |
| SCMI and Partners Research Facility | 100 GPD/1000 SQ.FT | 60,000 SQ.FT | 6,000 |
| Marine Science Business Park/Incubator Space | 100 GPD/1000 SQ.FT | 70,000 SQ.FT | 7,000 |
| NOAA Space | 100 GPD/1000 SQ.FT | 50,000 SQ.FT | 5,000 |
| | | Berths 58—60 Total | **18,000** |
| **BERTHS 59-60** | | | |
| ***Proposed*** | | | |
| Waterfront Café | 300 GPD/1000 SQ.FT | 280 SQ.FT | 84 |
| Public Plaza/Viewing Platform | 80 GPD/1000 SQ.FT | 4,000 SQ.FT | 320 |
| | | Berths 59-60 Total | **404** |
| **BERTHS 70-71** | | | |
| ***Proposed*** | | | |
| NOAA Admin and Research Facility | 100 GPD/1000 SQ.FT | 50,000 SQ.FT | 5,000 |
| | | Berths 70-71 Total | **5,000** |

| Type Description | Average Daily Flow per Type Description (GPD/UNIT) | Proposed No. of Units | Average Daily Flow (GPD) |
|---|---|---|---|
| **SUMMARY FLOWS FOR PROJECT** | | | |
| | | **Total Proposed Flow** | **254,089** |

## PUMP STATIONS

There are two pump stations located within the vicinity of the project location: Signal Pump Station and the 22nd and Signal Pump Station. The specifications of each pump station are detailed below:

| Pump Station | Capacity (GPM) | Peak Flow (GPM) | Average Flow (GPM) |
|---|---|---|---|
| Signal | 200 | 35 | 3 |
| 22nd and Signal | 100 | 100 | 70 |

According to the specifications of 22nd and Signal Pump Station, during peak flows the maximum capacity of this pump is reached. This situation can be prolonged leading to operational challenges should more discharges come on line in this area in addition to this proposed project.

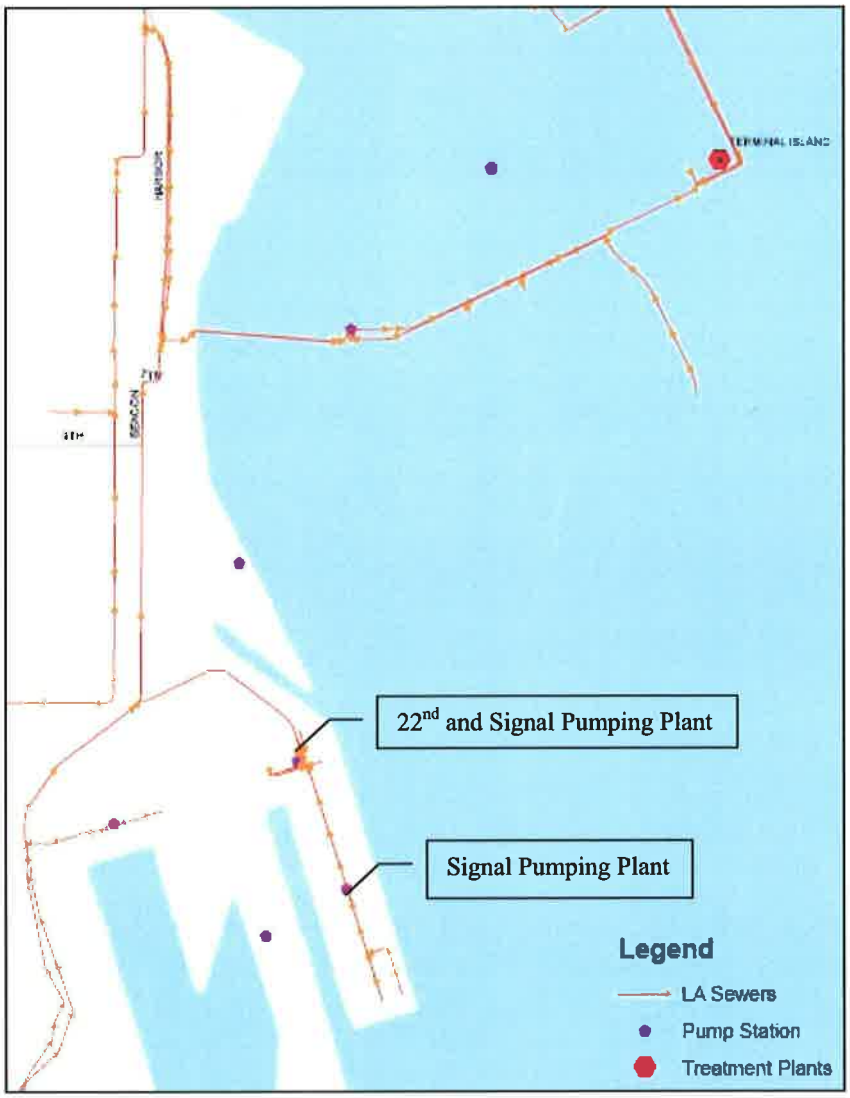
## MODELING APPROACH

MIKE URBAN hydrodynamic modeling was used to analyze following:

1. Verify the current flow conditions in the local sewer system.
2. Determine the hydraulic conveyance adequacy of the collection system using the anticipated project discharges.

A calibrated MIKE URBAN hydrodynamic model of the project area was generated to determine the existing flow conditions and the hydraulic conveyance impact of the project discharge to the existing condition and Year 2050.

## Figure 2: Modeling Area



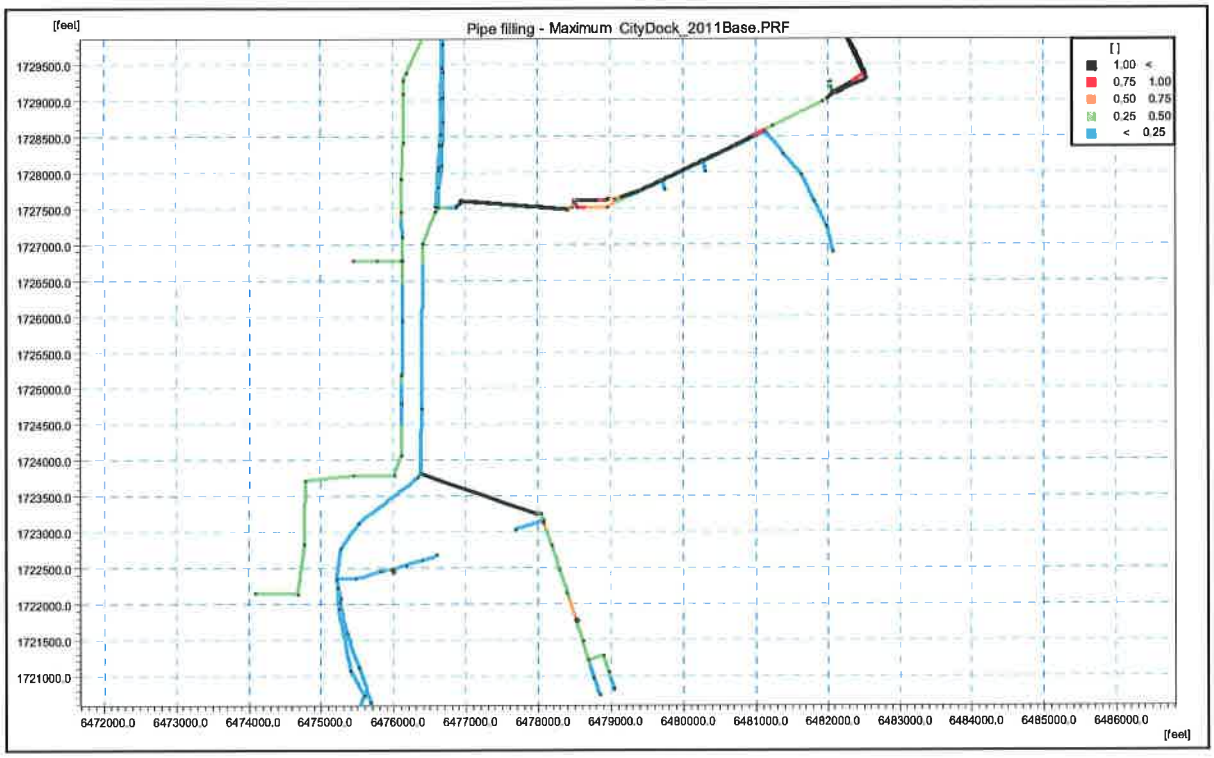

## MODELING SCENARIOS AND RESULTS

2011 Current Configuration

The 2011 Current Configuration model run is used to verify the local sewer response to existing flow conditions. A comparison between MIKE URBAN and recent pump station data shows acceptable agreement.

Figure 3 illustrates the current flow conditions within the collection system. The five (5) black/red areas are either siphons or force mains. Since siphons and force mains flow under pressure, the pipe filling (d/D) shows as full.

## Figure 3: 2011 Flows with Current Configuration

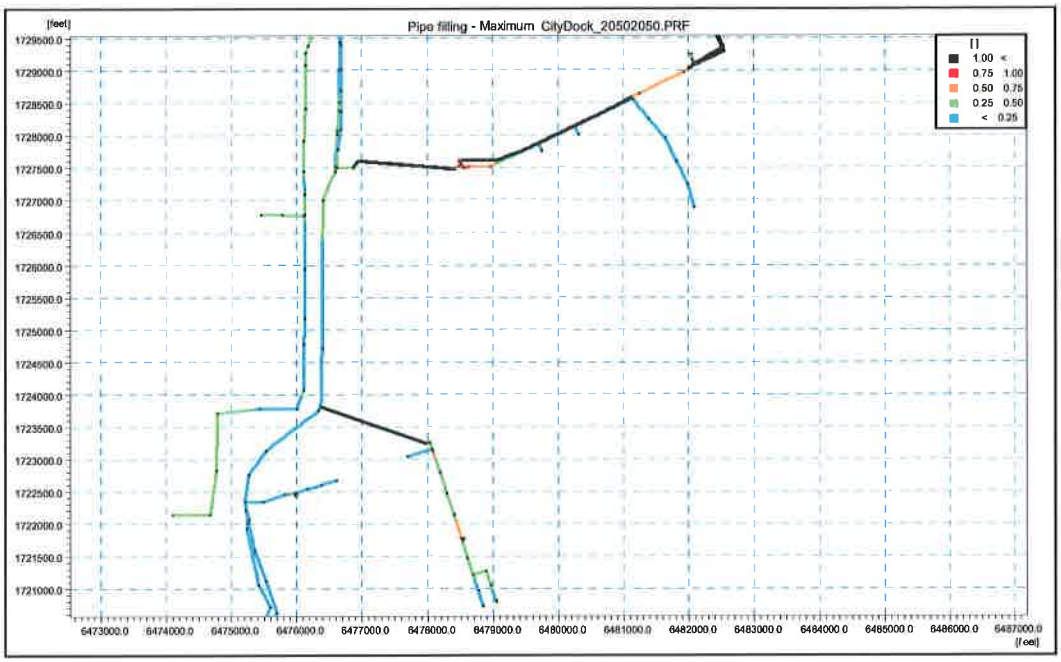



## 2011 Current Configuration with Proposed Project

This model run scenario uses the current (2011) configuration with the anticipated project flows to determine the impact of the project on the local sewer system.

Based on results from this scenario, the proposed project will cause no significant impact to the hydraulic conveyance adequacy of the local sewer system, as shown in Figure 4. The depth of flow is projected to be as high as 72% with peak discharge of 1.34 cubic feet per second (cfs).

## Figure 4: 2011 Flows with Proposed Project

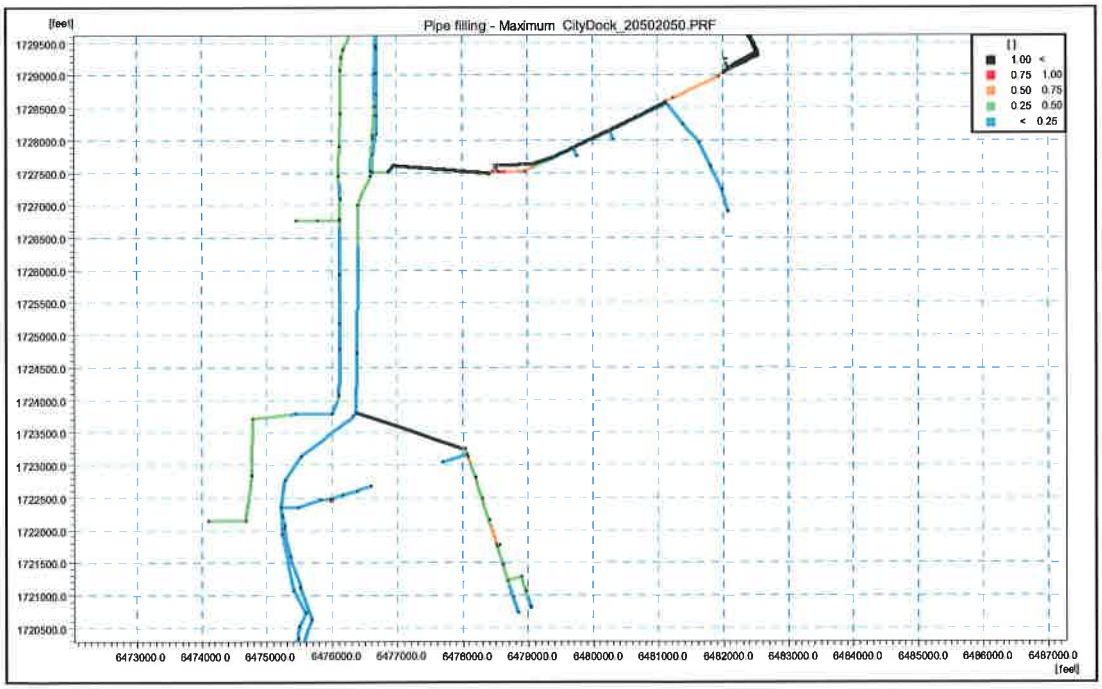



## 2050 Configuration with Proposed Project

This model run scenario uses the future (2050) configuration with the anticipated project flows to determine the impact of the project on the local sewer system.

Based on results from this scenario, the proposed project will cause no significant impact to the hydraulic conveyance adequacy of the local sewer system, as shown in Figure 5. The depth of flow is projected to be as high as 72% with peak discharge of 1.34 cubic feet per second (cfs).

## Figure 4: 2050 Flows with Proposed Project



## CONCLUSION

Based on the MIKE URBAN modeling results, WESD staff determined that the City Dock No.1 Marine Research Center project will not have no major impact on the local collection system provided no significant dischargers connect ahead of the project.

According to the specifications of 22nd and Signal Pump Station, during peak flows the maximum capacity of the pumps is reached. If the project discharge flows prolong the peak hours of the pump station, the developer may be required to upgrade the pump capacity or regulate the discharge rate so as not to strain the operation of the sewer system. A final approval for sewer capacity and connection permit will be made during the permit process phase.