Revised
Notice of Preparation

Berths 167-169 [Shell] Marine Oil Terminal Wharf Improvements Project

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THE PORT OF LOS ANGELES

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Purpose of this Revised Notice of Preparation

The Los Angeles Harbor Department (LAHD) circulated for public review a Notice of Preparation (NOP) of an Environmental Impact Report for the proposed Berths 167-169 [Shell] Marine Oil Terminal Wharf Improvements Project (the proposed Project). The Project site is located at Berths 167-169 adjacent to Slip 1 near the Turning Basin in the Los Angeles Harbor.

The NOP was released on June 30, 2015 and the comment period concluded on July 31, 2015. A public scoping meeting was conducted during the comment period on July 15, 2015.

The 2015 NOP described the baseline throughput as 10.17 million barrels of petroleum product (in calendar year 2014), and projected that terminal throughput would grow by two (2) percent per year (from the baseline level) to reach approximately 19.1 million barrels by 2046. Subsequent to the circulation of the NOP, it was determined that in 2015 the Shell Marine Oil Terminal handled approximately 20.58 million barrels of petroleum products, which is substantially higher than 2014 throughput, and more importantly, higher than the previously projected throughput for the terminal (19.1 million barrels). It was therefore determined that because of the fluctuations (lows and highs) of the throughput associated with the Shell Marine Oil Terminal from year to year, that a five-year average (2011 through 2015) would better represent the baseline period. This change results in a higher baseline and higher future throughput projections. This is discussed in further detail in Section 2.4, CEQA Baseline. Because the revised baseline and future throughput would be higher than previously assumed, this 'Revised NOP' is being recirculated to reflect the most current information.

The purpose of this Revised NOP is to inform public agencies and members of the public of the aforementioned changes. Furthermore, this Revised NOP serves to inform interested parties of LAHD's intent to prepare a Draft EIR on the proposed Project as revised and solicits comments regarding the proposed scope and content of the environmental studies and other information that will be included in the Draft EIR. LAHD will also consider the comments previously received on the 2015 NOP.

The LAHD has prepared, as part of this Revised NOP, a revised Initial Study 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 Initial Study Checklist is attached to this Revised NOP for public review and comment.

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Berths 167-169 [Shell] Marine Oil Terminal Wharf Improvements Project
Revised Notice of Preparation

1.0 Project Overview and Background

1.1 Project Overview

The LAHD administers the Port of Los Angeles (Port) under the California Tidelands Trust Act of 1911 and the Los Angeles City Charter. The LAHD develops and leases Port property to tenants who operate the facilities. The Port encompasses approximately 7,500 acres and 43 miles of waterfront and provides a major gateway for international goods and services. With 23 major cargo terminals, including dry and liquid bulk, container, breakbulk, automobile, and passenger facilities, the Port handled about 176 million metric revenue tons of cargo in fiscal year 2013/2014 (July 2013–June 2014), of which approximately 10.5 million metric revenue tons were liquid bulk cargo (POLA, 2016). In addition to cargo business operations, the Port is home to commercial fishing vessels, shipyards, boat repair facilities, as well as recreational, community, and educational facilities.

There are seven tenants at the Port operating marine oil terminals under separate leases. The Shell Marine Oil Terminal at Berths 167-169 has been in operation at Mormon Island since 1923 as a marine liquid bulk terminal (unloading and loading of petroleum products). The existing Harbor Department permit/lease for Berths 167-169 (Permit No. 634) became effective in February 1988, and expires in February 2023.

1.2 Project Background

The primary goal of the proposed Project is to comply with the Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) to protect public health, safety and the environment. The MOTEMS are comprehensive engineering standards for the analysis, design and inspection/maintenance of existing and new marine oil terminals. The MOTEMS were approved by the California Building Standards Commission on January 19, 2005 and are codified as part of California Code of Regulations Title 24, Part 2, Marine Oil Terminals, Chapter 31F. These standards apply to all existing marine oil terminals in California and include criteria for inspection, structural analysis and design, mooring and berthing, geotechnical considerations, fire, piping, and mechanical and electrical systems. MOTEMS became effective on January 6, 2006 (CSLC, 2005). The MOTEMS are reviewed and updated every three years and Shell is required to comply with the most recent version. The California State Lands Commission (CSLC) oversees the MOTEMS program. Through ongoing discussions with the CSLC, the Harbor Department developed an implementation strategy to comply with the necessary MOTEMS requirements. The Shell Marine Oil Terminal is one of the seven existing marine oil terminals at the Port that requires upgrades to its facility.

The MOTEMS require each marine oil terminal to conduct an audit to determine the level of compliance and an evaluation of the continuing fitness-for-purpose of the facility. Depending on the results, terminal operators must then determine what actions are required to meet the standards, and provide a schedule for implementation of deficiency corrections and/or rehabilitation. The standards define criteria in the following areas:

- Audit and Inspection
- Structural Loading
- Seismic Analysis and Performance Based Structural Design
- Mooring and Berthing Analysis and Design
- Geotechnical Hazards and Foundations
- Structural Analysis and Design of Components
- Fire Prevention, Detection and Suppression
- Piping and Pipelines
- Electrical and Mechanical Equipment

The MOTEMS audit process continues through the life of the marine oil terminal, including, but not limited to, initial and subsequent audits and inspections, maintenance of all equipment, and updated and new analyses. Updated and new analyses and documentation are required for any significant changes to the facility. With the results of these investigations, marine oil terminal operators must then determine what compliance actions are necessary, and provide a schedule for implementation of deficiency corrections and/or rehabilitation.

The initial audit performed for the Shell Marine Oil Terminal at Berths 167-169 in 2010 identified several items that require upgrading. The audit identified several necessary structural and seismic improvements; as well as berthing/mooring improvements at the site. Most of the berthing/mooring improvements were addressed by a previous improvement project. The geotechnical evaluations indicated that no improvements are needed to maintain terminal operations; however, measures are needed to meet seismic requirements (AECOM, 2010).

The MOTEMS also require the marine oil terminal to establish Terminal Operating Limits (TOLs), which are berthing system operating limits primarily based on their audit assessments. These TOLs are terminal-specific restrictions, addressing vessel size, berthing, mooring, gravity loading and other operating limitations.

The MOTEMS require that each marine oil terminal have a Tsunami Plan that includes far-field versus near-field tsunami events, notifications and communications, tsunami warning system and notification details, tsunami response actions, tidal levels, currents and seiche conditions, loss of utilities, tsunami plan accessibility and training, and post-event inspection. The Tsunami Plan is to be revised at least every three years. The MOTEMS also require that each marine oil terminal consider the predicted sea level rise over the remaining life of a terminal.

The proposed Project consist of a new MOTEMS compliant wharf and mooring system for the Shell Marine Oil Terminal at Berths 167-169. Other Project elements include seismic ground improvements along the northwest portion of the terminal, and topside equipment replacement. The tenant, Shell Oil Company, has also applied to the Port for a new 30-year lease through the year 2046 to allow continued operations of its existing marine oil terminal. The new lease would contain provisions for further minimizing the potential release of petroleum products, beyond existing controls and measures, through the implementation of a Source Control Program Plan (SCP Plan) by Shell that complies with the LAHD's Source Control Program. The proposed Project elements are detailed in Section 2.5 below.

2.0 Project Description

2.1 Project Objectives

The proposed Project would address the Project objectives, as summarized below.

- Comply with MOTEMS requirements, which would ensure better resistance to earthquakes, protect the public and the environment, and reduce the potential of an oil spill, and consequently maintain the operation and viability of the marine oil facility (primary objective).
- Optimize the use of existing land at the terminal and associated waterways in a manner that is consistent with the LAHD's public trust obligations.
- To continue reliability and availability of operations which contribute to Southern California's energy needs given evolving market conditions and business cycle variability.
- Maintain the existing facility's throughput capabilities and operational parameters.
- Comply with the LAHD's Source Control Program, which requires inspections and added controls to tanks and related facilities that further minimize the potential for accidental product releases.

Together, these five objectives define the need for the proposed Project.

2.2 Project Location

2.2.1 Regional Setting

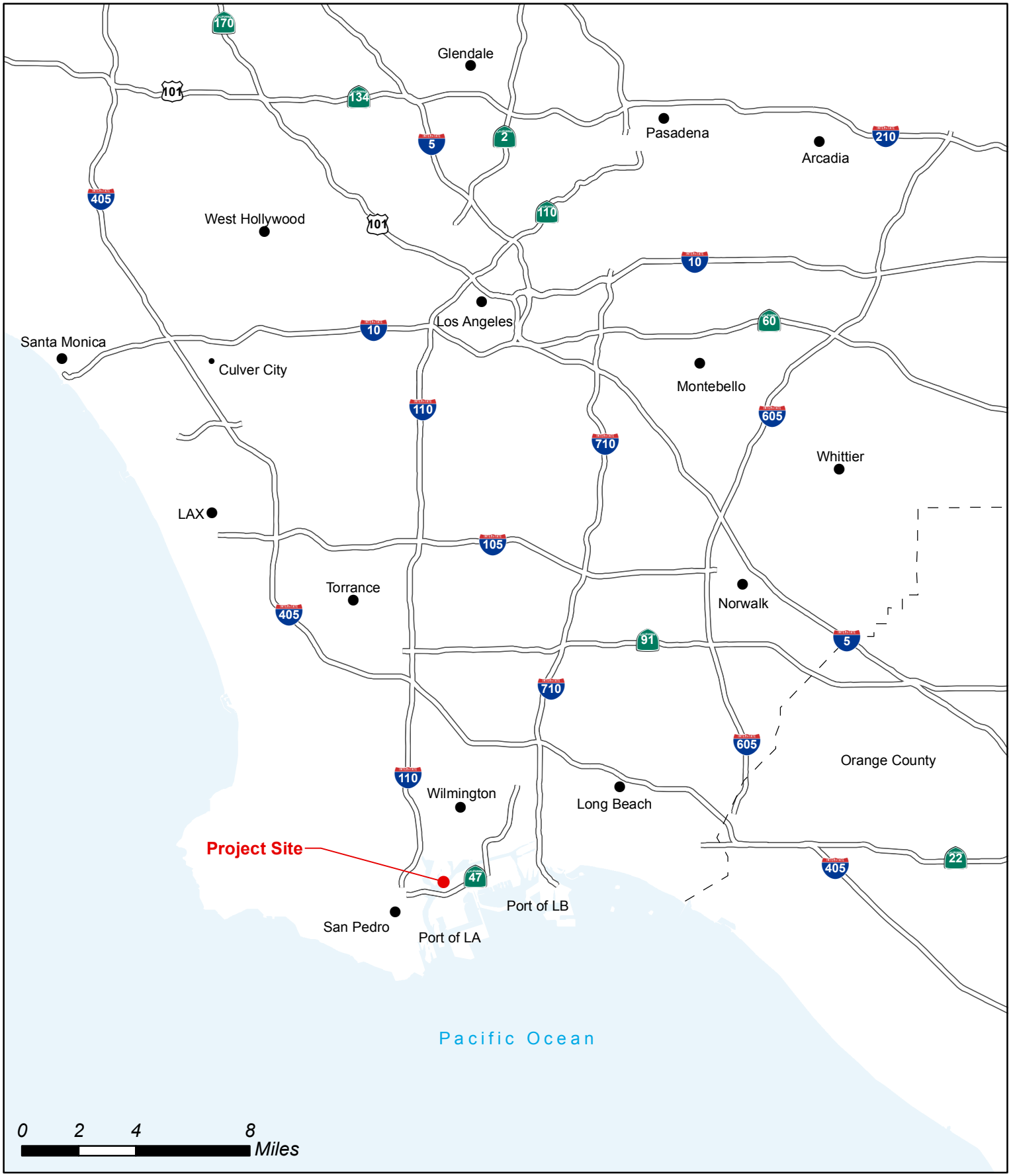
The Port is located in San Pedro Bay and encompasses approximately 7,500 acres of land and water along 43 miles of waterfront, approximately 20 miles south of downtown Los Angeles (Figure 1). It features 24 passenger and cargo terminals, including automobile, breakbulk, container, dry and liquid bulk, and warehouse facilities that handle billions of dollars' worth of cargo each year. In addition to cargo terminals, the Port includes the World Cruise Center (a passenger terminal), Ports O' Call Village, fanfare fountains and water features, Angeles Gate Lighthouse, 22nd Street Park, and Fish Harbor.

2.2.2 Project Setting

The Project site is located within the Port of Los Angeles Community Plan area in the City of Los Angeles, which is adjacent to the City of Los Angeles communities of San Pedro and Wilmington. The Project site occupies the southwestern end of a peninsula on Mormon Island along the east side of Slip 1, and is generally bounded by Rio Tinto Minerals to the north, Slip 1 to the west, the Turning Basin to the south, and Berths 170 – 173 to the east (East Basin Channel) (Figure 2).

The Project site is also situated north of the Yusen Terminals, Inc. (YTI) Container Terminal (across the East Basin Channel) located along Berths 212-224.

Land access to and from the Project site is provided by a network of freeways and arterial routes. The freeway network consists of the Harbor Freeway (I-110), the Long Beach Freeway (Interstate [I]-710), the San Diego Freeway (I-405), and the Terminal Island Freeway (State Route [SR]-103/SR-47).



Basemap Source: U.S. Census Bureau, Geography Division, 2010

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Figure 1
Regional Location Map

Berths 167-169 [Shell] Marine Oil Terminal Wharf Improvements Project

Basemap Source: U.S. Census Bureau, Geography Division, 2010

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Figure 2
Project Vicinity Map

Berths 167-169 [Shell] Marine Oil Terminal Wharf Improvements Project

CDM Smith

2.3 Project Site

2.3.1 Land Use and Zoning

The Project site is located at Berths 167-169 in Planning Area 2, as designated in the Port Master Plan (Port of Los Angeles, 2013a). According to the Port Master Plan, Planning Area 2 designates the Project site for liquid bulk uses.

The Project site is identified as Los Angeles County Assessor's Parcel Number (APN) 7440019908 and is zoned for heavy industrial uses ([Q] M3-1) by the City of Los Angeles Zoning Ordinance. [Q] M3-1 is designated as "quasi-heavy industrial" uses (City of Los Angeles, 2013).

The overall character of the surrounding area is primarily bulk material handling (liquid and dry bulk). The properties to the north and east of the Project site are also zoned as [Q] M3-1.

2.3.2 Existing Terminal Operations

The existing marine terminal occupies a land area of approximately nine acres, an over water area of approximately three acres, and has two operating berths (Berths 168 and 169),[1] 11 hydrocarbon storage tanks of various sizes, parking, and several ancillary buildings. Berth 168 has been the main operating berth with Berth 169 used occasionally as needed. Employees at the Project site consist of six full-time and one part-time employees. The existing 1,240 foot timber wharf can accommodate two tankers. The marine terminal has been leased by Shell Oil Company and operated as a marine oil terminal since 1923. Both Berth 168 and Berth 169 have a design depth of 40 feet and a length of 850 feet allowing for vessels with a capacity of up to 86,000 deadweight tons (dwt). While the berths allow for ships with maximum cargo sizes of about 425,000 barrels, more typical cargo sizes range from 150,000 to 325,000 barrels. The marine terminal currently only handles refined petroleum liquids (e.g., gasoline, diesel, ethanol, and jet). Maximum vessel flow rates allow up to 10,000 barrels per hour (bph) per system product line. During the five-year period from 2011 through 2015, an average of 86 vessel calls occurred annually at the existing marine terminal.

The marine terminal's 11 hydrocarbon storage tanks range in capacity from 4,455 barrels to 98,993 barrels, and have a total combined storage capacity of approximately 490,000 barrels. Liquid bulk cargo that is unloaded from vessels at the marine terminal is pumped to the nearby Shell Carson Distribution Facility (approximately six miles away in the city of Carson) via a network of underground pipelines. Product from the Shell Carson Distribution Facility storage and distribution facility can also be pumped to the marine terminal for loading onto vessels. Although the Shell Carson Distribution Facility and associated underground pipelines are connected to the Shell Marine Oil Terminal, they are not located within the Project site and are not part of the proposed Project.

The existing terminal has a maximum permitted throughput of up to 242,000 barrels per day. Table 1 shows the actual volumes of commodities handled by the facility from 2011 to 2015.

[1] Historically, the terminal was subdivided into three berths (167, 168, and 169), which would accommodate the ships of the 1920's. The terminal was divided roughly into thirds, arranged with Berth 167 at the north end, and Berth 169 at the south end. The facility currently operates as a two-berth facility (168 and 169). Despite operating as a two berth facility, the wharf structure is typically referred to by its original designations (Berths 167-169). When referring to the berth area as a whole, Berths 167-169 is used. When referring to the specific functional berths as they exist today, Berths 168 and 169 are used.

Table 1: Throughput Volume and Vessel Calls by Year

Year	Throughput (barrels)*	Annual Vessel Calls
2011	12,244,870	90
2012	11,539,497	77
2013	11,716,522	78
2014	10,170,144	65
2015	20,584,414	121
2011-2015 Average	13,251,089	86

*Throughput volumes are for all commodities (which include gasoline, diesel, ethanol and jet refined petroleum products)
Source: Shell Inc., 2016

2.4 CEQA Baseline

CEQA provides for an EIR to assess the significance of a project's impacts in comparison to a baseline that consists of the existing physical environmental conditions at and near the Project site. Baseline conditions are normally measured at the time of commencement of environmental review of the proposed project. CEQA Guidelines, Section 15125, subdivision (a), provides:

> *An 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, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant.*

Courts have recognized that there may be instances in which conditions existing at the time of the NOP do not accurately represent existing conditions. The courts have reasoned that by using the qualifying term, "normally," the Guidelines recognize that in appropriate situations a lead agency has discretion in representing the baseline.

Supply and demand for petroleum and other energy products are subject to wide fluctuations based on variations in global/local economic activity, business cycles (e.g., recessions and recovery), and planned and unplanned or unforeseen supply disruptions. Due to these various factors, the Shell Marine Oil Terminal has experienced wide fluctuations in throughput during the past several years, ranging from 10.2 million barrels in 2014 to 20.6 million barrels in 2015. Although the throughput described in the 2015 NOP accurately represented the existing conditions for the baseline year of 2014, the revised baseline captures the year-to-year volatility of throughput at the terminal. Therefore the "existing" conditions are based on average conditions over a wider timeframe than the set of conditions at the time the 2015 NOP was circulated. The CEQA baseline takes into account the operational activity and throughput over a five-year period in order to provide a more accurate and representative characterization of baseline activity level that occurs due to variations in global/local economic activity and/or production and distribution infrastructure, which in this case does not correlate with a more common definition of baseline conditions under CEQA.

Using a five-year average (January 2011 through December 2015) for the baseline for the proposed Project consists of a throughput of approximately 13.25 million barrels and 86 annual vessel calls, and the Project site includes the existing Shell Marine Oil Terminal at Berths 167-169 on Mormon Island. This facility encompasses a land area of approximately nine acres, an

over water area of approximately three acres, and has two operating berths (Berths 168 and 169), a 1,240-foot timber wharf that accommodates two tankers, 11 storage tanks of various sizes, parking, and several ancillary buildings. Employees at the Project site consist of six full-time and one part-time employees.

2.5 Proposed Project Elements

The proposed Project consists of various wharf and seismic ground improvements to Shell Marine Oil Terminal at Berths 167-169 on Mormon Island that are required in order to comply with MOTEMS, as well as other elements not required by MOTEMS. The proposed Project would not increase the capacity of the terminal. In general, the proposed Project would demolish the existing timber wharf (with two berths) and replace it with two new loading platforms, access trestles (to the platforms), mooring dolphins and catwalks, and provide seismic ground improvements along the landside portions of the terminal adjacent to both operating berths. Additionally, the proposed Project includes implementation of a SCP Plan and issuance of a new 30 year lease. Figure 3 shows the proposed Project site and a plan view of the proposed wharf improvements, Figure 4 shows a profile of the new loading platform, and Figure 5 illustrates the seismic ground improvements.

The proposed Project consists of the following components to meet MOTEMS requirements:

- Seismic ground improvements along the western boundary of the terminal via grout injection (controlled injection of grout material into the ground) in order to strengthen the soil beneath the existing pipeline system adjacent to the shore, at each operating berth.
- Demolition of the existing timber deck, access trestles, and approximately 900 creosote-treated timber piles of existing timber wharfs at Berths 167-169. Existing piles that cannot be extracted would be cut at the mudline.
- Construction of new loading platforms at Berths 168 and 169, installation of new mooring dolphins, approach trestles, catwalks, and installation of topside equipment required for loading and unloading operations at and adjacent to the new loading platforms.

In addition, the proposed Project would include the following elements that are not related to MOTEMS compliance:

- Under the LAHD's Source Control Program, a SCP Plan is to be provided and implemented by Shell as part of the new 30-year lease. The SCP Plan would include commitments for certain improvements (e.g. adding double bottoms, installing leak detection systems) to existing storage and pipelines to meet the LAHD's Source Control Program. These improvements would further minimize the potential for release of petroleum products.
- New lease for a total of 30 years, allowing operations to continue from 2016 through 2046 (the existing lease terminates in 2023).

The MOTEMS and non-MOTEMS elements of the proposed Project are described below.

Legend

	Seismic Ground Improvement Zone
ATB	Articulated tug and barge
BD	Berthing dolphin
CW	Catwalk
DWT	Deadweight ton
EX	Existing
FDC	Fire Department Connection
LOA	Length overall
LP168	Loading platform at Berth 168 (124'-0" x 30'-0")
LP169	Loading platform at Berth 169 (124'-0" x 30'-0")
MD	Mooring dolphin
	New catwalk
MD2 (EX)	Exist mooring point
MD1	New mooring point
	Future construction

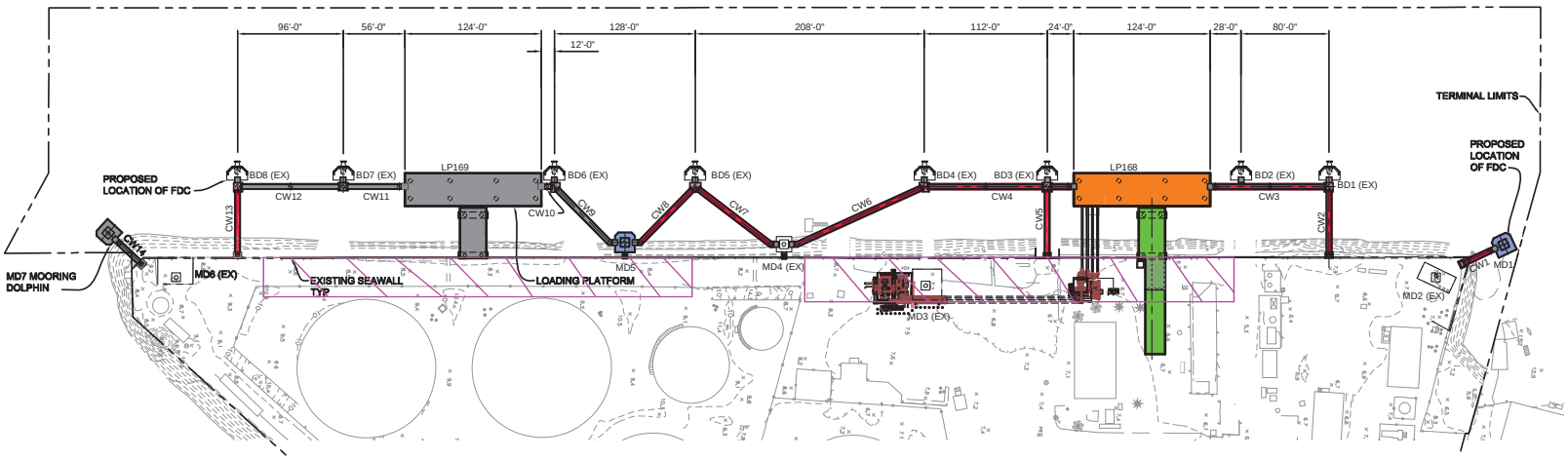

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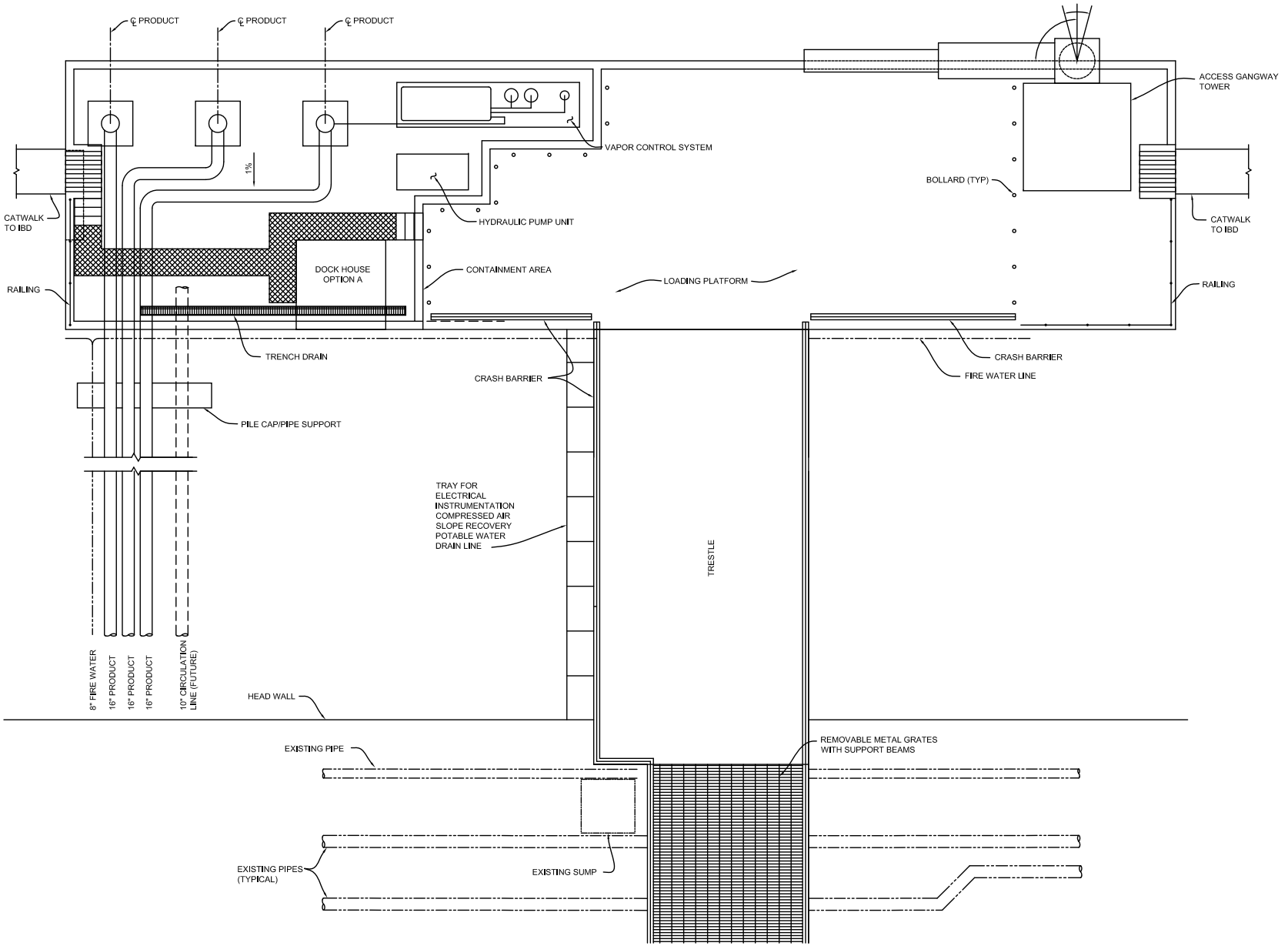
Figure 3
Proposed Project



Note:
The layout for the proposed Berth 169 platform is pending; however, it would be configured similar to what is presented in this figure.

Source: AECOM, 2016

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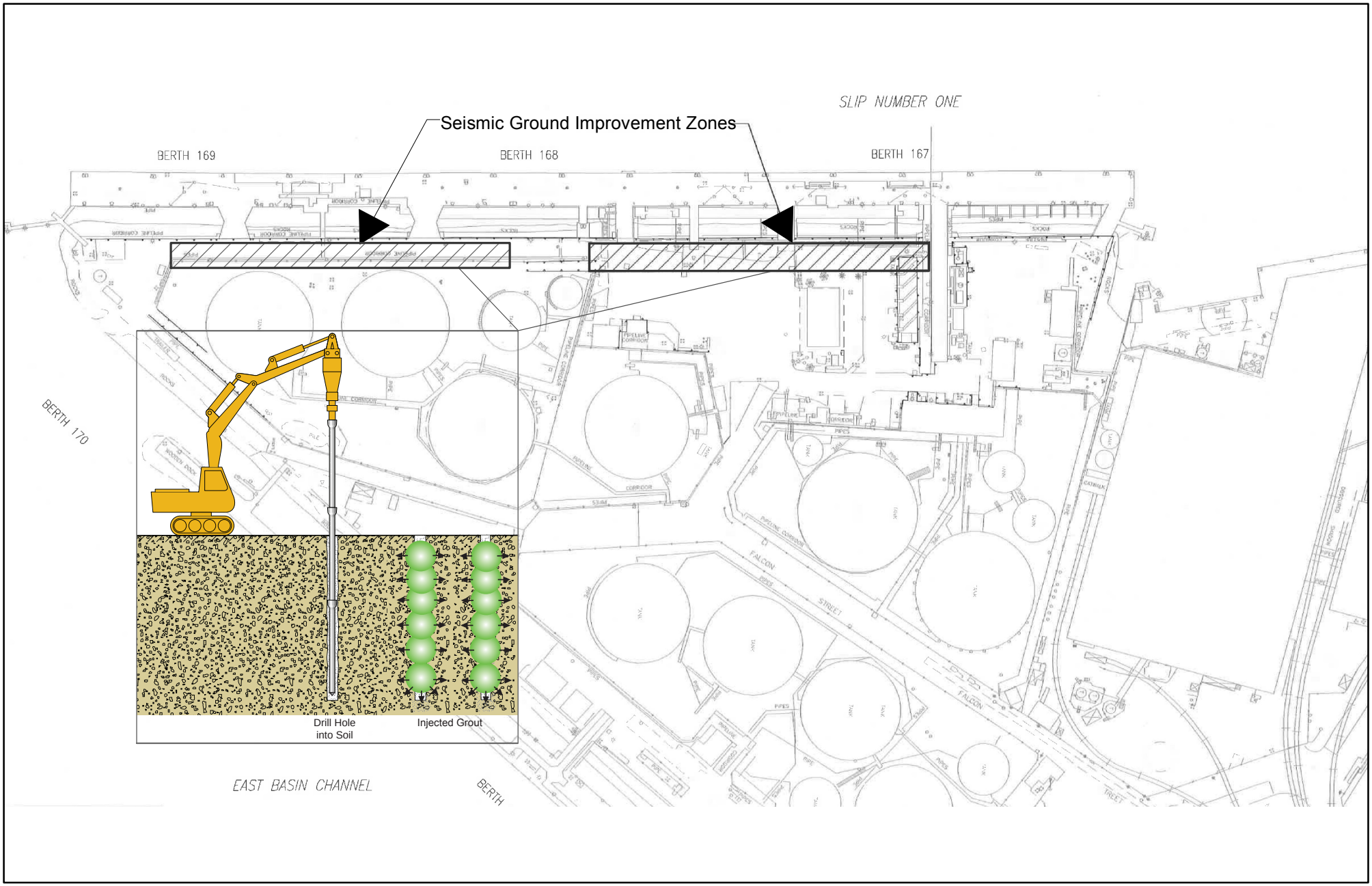
Figure 4
General View of New Loading Platform and Equipment



Source: CDM Smith, 2014; AECOM, 2014

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Figure 5
Seismic Ground Improvement and Grout Injection Process

Berths 167-169 [Shell] Marine Oil Terminal Wharf Improvements Project

2.5.1 Project Elements for MOTEMS Compliance

2.5.1.1 Seismic Ground Improvements

Two areas along the western boundary of the existing terminal at each operating berth (beneath existing piping) would be improved through injection of grout, which would compact the subsurface soil and improve ground and slope stability. These seismic ground improvements would increase the terminal's ability to withstand ground displacement during an earthquake. Grout injection would occur prior to the construction of each new platform in a zone approximately 33-feet wide and 400-feet long (one grout injection zone adjacent to each operating berth). Figure 5 shows seismic ground improvement area where grout injection would occur. Grout would be injected via 6-inch diameter holes drilled to a depth of up to approximately 40 feet deep on 4.5-foot centers. It is anticipated that approximately 650 drilled injection points would be required in each of the injection zones.

Booming would be installed in adjacent harbor waters prior to the commencement of the grout injection, which would retain any free hydrocarbon product that could potentially be released during the grout injection within the boomed area. The boomed area would be monitored daily, and as needed, absorbents would be deployed, maintained, and changed out. The boom would be maintained until two weeks after seismic ground improvement work has been completed. The seismic ground improvements that would be completed at Berth 169 have not been fully scoped or designed; however, those improvements would be similar in nature to those mentioned for Berth 168.

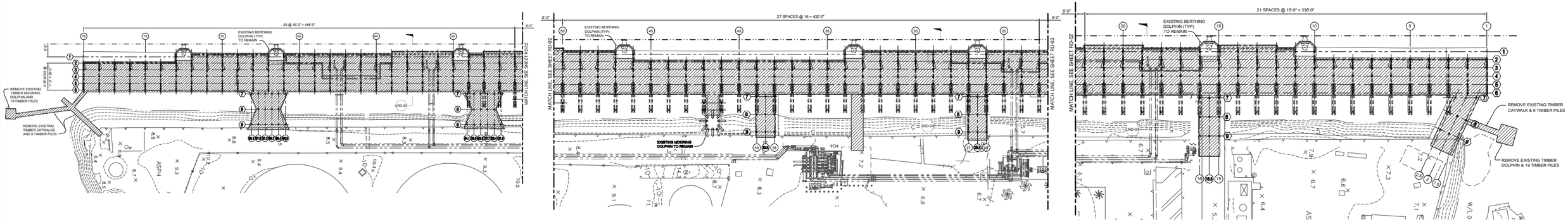
2.5.1.2 Wharf Demolition and Replacement with Platform/Equipment

Under the proposed Project, the existing 1,240-foot by 40-foot timber wharf would be demolished and replaced with new loading platforms to meet MOTEMS. Demolition would include removal and disposal of the timber deck (cap beam, joists, decking, etc.) and approximately 900 creosote-treated timber support piles, which would be extracted or cut at the mudline. Demolition of the approximately 64,400 square-foot wharf is expected to result in approximately 2,385 cubic yards[2] of timber debris. Figure 6 shows details of the wharf demolition.

Existing topside equipment along Berth 168 would be decommissioned, followed by the demolition of the northern half of the terminal's existing wharf (Berth 168). The southern half of the existing wharf (Berth 169) would be demolished after the Berth 168 improvements becomes operational.

Once the northern portion of the existing wharf is removed, a new 124-foot by 30-foot loading platform would be constructed at Berth 168 (Figure 3). The loading platform would be comprised of a concrete deck supported on eight 48-inch diameter steel pipe piles. An access trestle would be constructed to provide pedestrian and vehicular access to the loading platform. The multi-span access trestle would consist of either pre-cast members or a cast-in-place member at each span. The trestle would be supported by one bent, founded on two 42-inch diameter pipe piles, another bent founded on two 48-inch diameter piles, and an abutment supported on two 36-inch diameter pipe piles. The existing topside equipment at Berth 168 would be replaced with new equipment on and adjacent to the new loading platforms. Equipment to be installed or constructed as part of the topside work includes:

[2] Assumes 64,400 square feet x 1-foot thick, and 27 cubic feet per cubic yard.



Source: AECOM, 2012

Figure 6
Details of the Wharf Demolition
Berths 167-169 [Shell] Marine Oil Terminal Wharf Improvements Project

- A gangway tower used by operations personnel and vessel crew to access the loading platform from the vessel and from the loading platform jetty to the vessel.
- Marine loading arms, which are used in the loading and offloading of petroleum products from transport vessels to land based storage tanks. This equipment is capable of developing a secure connection with the vessel manifold and has the ability to articulate in all directions to compensate for any movement from the vessel during the transfer process.
- Piping between the marine loading arms and the landside manifold to convey the various petroleum products to or from vessels.
- A vapor control system to manage vapors displaced from vessel tanks during loading operations, consisting of the following components: 1) a skid-mounted vapor enrichment system to inert vapors collected from vessel tanks, and 2) an emission control system involving vapor recovery or thermal oxidation.
- A fire protection system that includes automated fire detection and sensing system, automatic fire alarm, fire hydrant, and fire monitors.
- A wet utility line, such as water, which would be used on the platform for an eyewash, safety shower and general use. A 2-inch diameter supply line would likely be required.
- Dry utility lines such as electrical lines, communication lines, and compressed air lines to facilitate loading and unloading operations.
- A single dock house measuring approximately 12 feet wide x 9 feet deep x 10 feet high on the deck of the new platform. The dock house would be used by the operations personnel while vessels are berthed and petroleum products are being transferred. The dock house would be climate controlled and have power and communication lines to support operations.

Upon completion of the platform and topside equipment at Berth 168 and its commissioning, the southern half of the existing wharf (Berth 169) would be demolished. Piles and catwalks would be installed to maintain access to the existing berthing dolphins. Grout injection along the landside portion of Berth 169 would occur in a similar manner as for Berth 168; and the second new loading platform and topside equipment at Berth 169 would be similar to the loading platform at Berth 168. The improvements along Berth 169 would be constructed at a future yet-to-be-determined date based on throughout demands. This analysis assumes that the Berth 169 platform would be needed approximately four years from the completion of the Berth 168 platform; therefore, the Berth 169 platform is assumed to occur in 2023.

2.5.1.3 Mooring Dolphins

As shown on Figure 3, two new mooring dolphins (MD1 and MD5) would be constructed at the north end of Berth 168 (MD1) and at the north end of Berth 169 (MD5), following demolition of the existing wharf. The new mooring dolphins would provide a foundation for triple quick release hooks. Each mooring dolphin structure would consist of an 18-foot by 18-foot by 18-inch thick precast concrete deck supported on a single steel pipe pile. The pipe pile diameter would be 72 inches for MD1 and 60 inches for MD5. In addition, a new mooring dolphin (MD7) could be installed at the southern end of Berth 169 (on an up to 72-inch diameter pipe pile).

The existing mooring dolphin (MD4) located just south of the new loading platform at Berth 168 would be modified to provide access from the shore.

2.5.1.4 Steel Catwalks

Steel catwalks would be constructed to provide pedestrian access from the new loading platforms and the shore to the eight existing berthing dolphins and the two new mooring dolphins. Approximately 915 feet of new catwalks would be constructed. The catwalks would have a 4-foot-wide clear distance between girders. The new catwalks would be supported intermittently by up to twenty-four 42-inch diameter steel pipe piles with concrete caps. Abutments supported by 42-inch diameter steel pipe piles and concrete caps would provide transition between the catwalks and the shore at four locations.

Installation of the new catwalks would occur in stages. In the first stage, catwalks would be installed between the new loading platform at Berth 168, four of the existing eight berthing dolphins (northern-most), and the new mooring dolphins. Following completion of the catwalks at Berth 168, the southern portion of the existing wharf would be demolished, and catwalks would be installed between the remaining berthing dolphins along Berth 169 and the terminal. An additional mooring dolphin and catwalks would be installed when the second loading platform at Berth 169 is constructed in the future.

2.5.1.5 Dredging

During pile installation and wharf demolition, there is a potential for sediment along the existing slope to slough off and settle along the harbor bottom. If necessary, up to 4,000 cubic yards of such sediment would be dredged from the berths (approximately 2,000 cubic yards from each operating berth area) after construction of the two loading platforms and associated structures to return the berths to their original designed water depths. Dredged spoils would be transported by barge to the confined disposal facility (CDF) at Berths 243-245.

2.5.2. Other Project Elements

2.5.2.1 New Lease

The existing terminal lease expires in 2023. The proposed Project would include a new 30 year lease that is expected to begin in 2016 and extend through 2046.

The new lease would contain provisions for the Shell Oil Company to comply with the Port's Source Control Program, through the development and implementation of a SCP Plan, which would further minimize the potential release of petroleum products at the terminal through leak protection measures and added safeguards.

2.5.2.2 Source Control Program Plan

The LAHD requires that liquid bulk cargo tenants comply with its Source Control Program by developing a SCP Plan to further minimize the potential for petroleum product releases to the environment for new leases. Compliance with the SCP Plan would be a provision in the new lease, and the lease would specify timeframes for compliance. The requirements of the SCP Plan are consistent with various standards required by the American Petroleum Institute (API). Key elements of the SCP Plan include inspections of and certain improvements to above ground tanks that are used to store petroleum products (e.g., adding a double bottom, installation of leak detection systems, and maintenance and/or upgrades to cathodic protection systems). One of the terminal's tanks has been upgraded with a double bottom and a continuous leak detection system, and two additional tanks have been inspected and are scheduled to be upgraded in the near future. Inspections and added controls to the remaining eight tanks would occur after the tanks are temporarily removed from service for routine maintenance. Facility piping upgrades

would occur on a case-by-case basis, and could include their relocation aboveground where feasible and/or new leak detection systems. Added controls and improvements would occur within five years of the start of the new lease, in accordance with the SCP Plan.

2.6 Proposed Project Schedule

Construction of the proposed Project is expected to begin in 2017 and occur over a three year period in the following nine phases to allow the terminal to continue to operate while improvements are being made:

Phase I: Seismic Ground Improvements – Berth 168

Phase II: Prepare Berth 169 for Stand-Alone Operation

Phase III. Berth 168 Demolition and Improvements

Phase IV: Clean-up Dredging for Berth 168

Phase V: Berth 169 Demolition and Improvements

Phase VI: Future Seismic Ground Improvements – Berth 169

Phase VII: Future Platform at Berth 169 and Improvements

Phase VIII: Clean-up Dredging for Future Platform at Berth 169

Phase IX: Source Control Program Plan

The construction schedule is subject to some variations. Up to 20 workers would be required at the site at any given time, depending on the construction phase.

Details regarding each phase of construction are provided below.

Phase I: Seismic Ground Improvements – Berth 168

Improvements to the ground beneath existing piping along the northwestern boundary of the existing terminal (adjacent to Berth 168) would take approximately nine months to complete, and would include several sub-phases, which includes: mobilization; placement of booming along the northern wharf area (along the shore side of the berthing line), pre-drilling; injection grouting; disposal of spoils; ground repair, and boom removal.

Phase II: Prepare Berth 169 for Stand-Alone Operation

Berth 169 is currently operational; however some infrastructure (e.g. electrical lines) will need to be extended to Berth 169 so that it can function as a stand-alone berth. Berth 168 would be decommissioned once the infrastructure at Berth 169 is in place.

Phase III: Berth 168 Demolition and Improvements

Construction associated with Phase III would take approximately 12-18 months, and would include several sub-phases: wharf demolition along Berth 168; pile and abutment construction; loading platform and mooring dolphin construction; trestle and catwalk construction; and, topside

equipment replacement. Following the improvements, the new platform at Berth 168 would be commissioned.

Phase IV: Clean-up Dredging for Berth 168

During pile driving and other construction activities, sediment may slough off the slope to the harbor bottom, reducing the water depth at the berths. If necessary, a barge mounted clamshell dredge would remove up to 2,000 cubic yards of sediment to restore the original water depth at the berth. The dredged sediment would be placed in a second barge and transported two miles by water to an authorized CDF within the Port of Los Angeles at Berths 243-245. Clean-up dredging is expected to take less than one week.

Phase V: Berth 169 Demolition and Improvements

Construction of Phase V would take approximately five months, and would include decommissioning of Berth 169, wharf demolition (along Berth 169); pile installation (for catwalks); and catwalk installation.

Phase VI: Future Seismic Ground Improvements – Berth 169

Improvements to the ground beneath existing piping along the southwestern boundary of the existing terminal (adjacent to Berth 169) would take approximately nine months to complete, and would include several sub-phases: mobilization; placement of booming along the northern wharf area (along the shore side of the berthing line), pre-drilling; injection grouting; disposal of spoils; ground repair, and boom removal.

Phase VII: Future Platform at Berth 169 and Improvements

Construction of the loading platform at Berth 169 and associated new mooring dolphin is anticipated to last approximately 12-14 months, and would be similar to Phase III, which includes the following sub-phases: pile installation (for new platform, catwalks and mooring dolphin); loading platform and dolphin construction; trestle and catwalk construction; and topside improvements. Following the improvements, the new platform at Berth 169 would be commissioned.

Phase VIII: Clean-up Dredging for Future Platform at Berth 169

As described under Phase IV above, during pile driving and other construction activities sediment may slough off the slope to the harbor bottom reducing the water depth at the berths. If necessary, a barge mounted clamshell dredge would remove up to 2,000 cubic yards of sediment to restore the original water depth at Berth 169. The dredged sediment would be placed in a second barge and transported two miles to an authorized CDF within the Port of Los Angeles at Berths 243-245. Clean-up dredging is expected to take less than one week.

Phase IX: Source Control Program Plan

As noted in Section 2.5.2.2 above, one of the terminal's 11 tanks has been upgraded with a double bottom, and a continuous leak detection system, and two additional tanks have been inspected and are scheduled to be upgraded in the near future. Inspections and added controls would be performed to the remaining eight tanks over a five-year period when each remaining tank is temporarily removed from service for routine maintenance. Tank improvements for SCP Plan compliance could include upgrading the tanks with new tank bottoms, double bottoms, replacing

steel shell sections, installing leak detection systems, and installing or upgrading cathodic protection systems. Improvements to facility piping would occur on a case-by-case basis, and could include relocation to aboveground, and upgraded or new leak detection systems.

2.7 Terminal Operations

The proposed Project is required in order to bring the existing terminal into compliance with MOTEMS and would be comprised of replacing the existing two-berth timber wharf with two loading platforms (one at each berth) and ancillary improvements. The improvements under the proposed Project would not facilitate an increase in capacity or throughput (i.e., barrels and vessel calls) during the new 30 year lease period. However, the proposed Project would allow the terminal to remain in operation through 2046 and the annual throughput could be affected over the lease period due to market fluctuations.

Although future total throughput cannot be forecasted with any level of certainty, for the purposes of the analysis, it is projected that the peak annual throughput of the terminal during the term of the new lease would be up to approximately 24.5 million barrels (the approximate annual throughput based on Shell's two percent compound annual growth rate projection). At an annual throughput of 24.5 million barrels, the terminal is projected to accommodate up to 159 annual vessel calls (comprised of both tankers and barges; 50 percent for each vessel type). The largest vessels that could be accommodated at the terminal would remain the same as existing conditions, approximately 86,000 dwt tankers. The increased throughput would not require additional employees.

Since the proposed Project would not increase the existing terminal's capacity to handle petroleum products or affect the types of products handled, the proposed Project would not require installation of any other pipeline, storage, or refining projects. The proposed Project therefore would not affect the operations of any other facilities, including those that are connected via pipelines (e.g., the Carson Distribution Facility). Thus, the proposed Project is deemed to have independent utility, and represents a rational end-point for a marine oil terminal project and for the review of the environmental impacts.

3.0 Project Alternatives

According to the State CEQA Guidelines, Section 15126.6, an EIR need only examine in detail those alternatives that could feasibly meet most of the basic objectives of the proposed Project. The primary objective of the proposed Project is to meet MOTEMS safety requirements for an existing marine oil terminal as established by the CSLC. Most of the physical improvements are associated with MOTEMS requirements, which are legal requirements that must be met to continue operation of the marine oil terminal at the Project site. Therefore, no alternative is being considered that would reduce MOTEMS required elements. In addition to the MOTEMS compliance objective, the other Project objectives described in Section 2.1 above apply. Alternatives being considered in the Draft EIR include the following:

3.1 Alternative 1 - No Project

The No Project Alternative required by CEQA represents what would reasonably be expected to occur in the foreseeable future if the proposed Project were not approved. Under this alternative, the existing marine oil terminal would not be compliant with all MOTEMS requirements. Because the facility would not be completely MOTEMS compliant, the tenant (Shell Oil Company) would cease operation at the Project site at some time in the future. For purposes of the EIR, terminal operations are assumed to grow at an annual rate of two percent and reach approximately 15.5 million barrels and 101 vessel calls annually when the existing terminal lease expires in 2023, at which time operations would cease. Upon cessation of the existing terminal on the site, the tenant would clear the site; and existing structures would be removed. This site would then be available for use consistent with its zoning (heavy industrial uses) and Port Master Plan designated land use (liquid bulk facility); however, any subsequent use of the site, once identified, would be subject to additional environmental review.

3.2 Alternative 2 - Reduced Project – One Platform

Under Alternative 2, only Berth 168 would be improved. Berth 169 would become non-operational once construction of Berth 168 is complete. As with the proposed Project, construction would be expected to begin in 2017 and occur over a three year period. A new 30-year lease would be issued and the terminal would continue to operate as a fully functional marine oil terminal using one berth (Berth 168) through 2046. Similar to the proposed Project, this reduced platform alternative would generally be capable of accommodating the anticipated future throughput (i.e., approximately 24.5 million barrels and 159 vessel calls annually). However, in certain circumstances throughput would be limited. Two berths would be required to accommodate temporary peaks in throughput. There would also be situations where a second berth would add redundancy to allow for undisrupted terminal operation when one berth becomes temporarily inoperable (e.g., during routine maintenance activities that shutdown a berth or a platform). However, to provide a conservative analysis and disclose maximum potential impacts, it is assumed that Alternative 2 will handle the same throughput as the proposed project over the course of the lease term.

4.0 Anticipated Project Approvals and Permits

The approvals or permits that could be required for the proposed Project include, but are not limited to, the following agencies:

- Los Angeles Building Department - approval of mechanical, electrical, demolition, and building permits
- Los Angeles Fire Department - approval of fire suppression system changes (topside equipment)
- SCAQMD - permits for applicable topside equipment
- State Water Resources Control Board – issuance for coverage under General Permit for Stormwater Associated with Construction Activities
- Regional Water Quality Control Board - issuance of Waste Discharge Requirements, approval of terminal work that could influence remediation efforts
- USACE – Letter of Permission and authorization under Section 10 of the Rivers and Harbors Act.
- CSLC – review of Project design elements for compliance with MOTEMS.

INITIAL STUDY CHECKLIST

1. Project Title:	Berths 167-169 [Shell] Marine Oil Terminal Wharf Improvements Project
2. Lead Agency Name and Address:	LAHD Environmental Management Division 425 South Palos Verdes Street San Pedro, CA 90731
3. Contact Person and Phone Number:	James Bahng (310) 732- 0363
4. Project Location:	Berths 167-169 (Mormon Island), Port of Los Angeles
5. Project Sponsor's Name and Address:	LAHD Engineering Division 425 South Palos Verdes Street San Pedro, CA 90731
6. Port Master Plan Designation:	General/Bulk Cargo (Non Hazardous Industrial and Commercial)
7. Zoning:	[Q]M3-1
8. Description of Project:	The proposed Project consists of various wharf improvements to Shell Oil Company's marine oil terminal at Berths 167-169 on Mormon Island, in order to comply with MOTEMS. In general, the proposed Project would complete seismic ground improvements, demolish the existing timber wharf and replace the structure with new loading platforms, topside equipment, access trestles (to the platforms), mooring dolphins and catwalks. The proposed Project also includes the implementation of a SCP Plan and a new lease for a total of 30 years, allowing operations to continue from 2016 through 2046 (the existing lease terminates in 2023).

Environmental Factors Potentially Affected:

The environmental factors checked below would potentially be affected by this 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.

	Aesthetics		Agriculture and Forest Resources	X	Air Quality
X	Biological Resources		Cultural Resources		Geology/Soils
X	Greenhouse Gas Emissions	X	Hazards and Hazardous Materials		Hydrology/Water Quality
	Land Use/Planning		Mineral Resources		Noise
	Population/Housing		Public Services		Recreation
	Transportation/Traffic		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 proposed 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 proposed Project, nothing further is required.

Christopher Cannon
Director of Environmental Management Division

Date 04-08-16

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.

10. The evaluations with this Initial Study assume compliance with all applicable federal, state, and local laws, regulations, rules, and codes. In addition, the evaluation assumes that all conditions in applicable agency permits are complied with, including but not limited to local permits, air quality district permits, water quality permits and certifications, USACE permits, and other agency permits, as applicable.

Potential impacts associated with the proposed Project are addressed in the Initial Study Checklist and impact discussions below.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I.	**AESTHETICS.** Would the project:				
a.	Have a substantial adverse effect on a scenic vista?			X	
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?			X	
c.	Substantially degrade the existing visual character or quality of the site and its surroundings?			X	
d.	Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?			X	

Discussion:

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

Less Than Significant Impact. The following analysis addresses the degree to which Project-related features interfere with a scenic vista, either by physically screening the vista from view, or by blocking access to a formerly available public viewing position. The following describes critical public views of the Port available from public and private vantage points that have views of the Project site. As described below, the critical views would not be obstructed by the elements of the proposed Project such as the construction of new loading platforms, installation of new mooring dolphins, loading trestles, catwalks, and topside equipment.

The Project site consists of large storage tanks, a timber wharf, an office, and other associated buildings. It is an industrial site within a working port and the site is not within any protected or designated scenic vistas. Further, the Project site is surrounded by other port uses, including container terminals and other liquid bulk facilities, and it is not an individually prominent feature from any scenic vista in the area as described in greater detail below.

The Port of Los Angeles Master Plan Update Draft Environmental Impact Report (POLA, 2013b) identified important and representative public views, including views with panoramic views of Pacific Ocean to near and distant views that are representative of a working port environment, including vessels, wharves, cranes, and other dockside facilities. These critical views occur from points including the Main Channel and the San Pedro Waterfront, Harbor Freeway, Banning's Landing, San Pedro Bluffs and Lookout Point Park, Wilmington Waterfront Park, and "C" Street residential area in Wilmington. Due to topography and intervening development, visibility of the Project site is limited from

many of these locations, and from higher locations, it blends into the panorama of the working port uses and activities.

Figure 7 depicts the locations of pictures taken of the Project site throughout the Port area. View 1 is from Friendship Park and is characteristic of the views from higher locations within the adjacent (to the west) community of San Pedro and parts of the City of Rancho Palos Verdes. View 2 identifies the Project site when viewed from Ports O'Call Village.

View 1 – Looking east from Friendship Park toward the Port

Construction of the proposed Project includes demolition of existing wharf along the terminal and the construction of loading platforms, catwalks, and topside equipment. Construction equipment (i.e., cranes and barges) would temporarily alter views of the Project site; however, this equipment would not obscure views, would be consistent with activities within the Port, and would be used over a short duration. Therefore, construction of the proposed Project would not represent a new visual element that could have a substantial adverse effect on a scenic resource.

The primary element of the proposed Project that could be visible from off-site would be the new loading platforms, catwalks, and topside equipment. The loading platforms and catwalks would have relatively low profiles and be visually unobtrusive as seen from a distance, and would not be visually prominent. Additionally, replacement of topside equipment with newer, possibly higher profile equipment, is expected to be consistent with existing terminal features given the existing visual backdrop of higher profile structures at the Project site (i.e., storage tanks) and throughout the Port (such as storage tanks, gantry cranes, and stacked shipping containers).

Aerial Source: USDA-FSA, 2012

N

Figure 7
Key View Map

Berths 167-169 [Shell] Marine Oil Terminal Wharf Improvements Project

Further, the replacement loading platforms, catwalks, and topside equipment would be at the same location as the existing wharf and similar in appearance; thus, the Project improvements would not result in a substantive change in the visual character or quality of the site. Other project elements, such as the mooring dolphins and SCP Plan improvements, would not be readily visible from off-site and would not affect the visual character or the site or surrounding area. The proposed Project would be aesthetically consistent with the existing visual context of a working port and would not change or obstruct any scenic vistas (as shown in Views 1 and 2).

View 2 – Looking northeast from northern end of Ports O'Call Village (from the Acapulco restaurant parking lot), south of the Los Angeles Maritime Museum

Once constructed, the proposed Project could accommodate an increase in vessel calls at the terminal. Operation of the proposed Project would continue to occur at two berths with a maximum of two vessels at the terminal, and the additional vessels that moor at the new loading platforms would be consistent in height, length and scale as those that currently moor at the terminal wharf. Because any additional vessels that visit the terminal would be consistent with existing terminal operations and a working port, increased vessel calls would not result in significant impact to views of the site or any scenic vista.

As such, the proposed Project would not represent a new visual element that could alter or obstruct recognized and valued views and would not have a substantial adverse effect on a scenic vista. This impact is considered less than significant and will not be addressed 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?

Less Than Significant Impact. The Project site is not located near an eligible or designated state scenic highway, nor are there scenic resources located at the Project site; therefore, the proposed Project activities would not have the potential to damage scenic resources within a state scenic highway. The California Department of Transportation (Caltrans) is responsible for the official nomination and designation of eligible scenic highways. The nearest officially designated state scenic highway is located approximately 26 miles north of the proposed Project (State Highway 2, from approximately three miles north of Interstate [I]-210 in La Cañada to the San Bernardino County Line) (California Department of Transportation, 2013). The nearest eligible state scenic highway is approximately 10 miles northeast of the proposed Project (State Highway 1, from State Highway 19 near Long Beach to I-5 south of San Juan Capistrano) (California Department of Transportation, 2013). The Project site is not visible from either of these locations; therefore, proposed Project activities would not affect the quality of scenic views from these locations.

The City of Los Angeles has City-designated scenic highways that are considered for local planning and development decisions which include several streets that are in the vicinity of the proposed Project (City of Los Angeles, 1999). John S. Gibson Boulevard, Pacific Avenue (from Crescent Avenue to Paseo del Mar), Front Street, and Harbor Boulevard (between Front Street and Crescent Avenue) are City-designated scenic highways because they afford views of the Port and the Vincent Thomas Bridge. View 3 below depicts the view of the Project site from a point along the City-designated scenic highway Harbor Boulevard (just north of Crescent Avenue).

View 3 – Looking northeast from Harbor Boulevard and approximately 13th Street

Views of the Project site from City-designated scenic highways are either very limited or non-existent due to topography and/or intervening development, including buildings, gantry cranes, and stacked containers. The visual elements associated with the proposed Project have either a low profile (replacement loading platforms, catwalks and associated improvements) or would be consistent with existing terminal features (topside equipment and SCP Plan improvements), and would not have any impact on the views of the Vincent Thomas Bridge or from a City-designated scenic highways.

The Vincent Thomas Bridge is not a designated scenic route, but provides brief panoramic views of the Main Channel, West Turning Basin, and Port, including the Project site to observers traveling on the bridge. Although the views are panoramic of the Port (as shown in View 4) and of the Pacific Ocean to the west, views from the bridge are generally fleeting and highly obstructed by its structure (i.e., alignment, median, and fencing). Furthermore, the bridge is accessible to vehicles only and no provisions are made for pedestrian or bicycle use. The relatively narrow traffic lanes of the bridge are the primary features of forward views.

View 4 – Looking north from the westbound lane on the Vincent Thomas Bridge (State Route 47)

The proposed Project could accommodate an increase in vessel calls to the terminal. However, additional vessels that moor at the new loading platforms would be consistent in height, length and scale as those that currently moor at the terminal wharf. Because any additional vessels that visit the terminal would be consistent with existing terminal operations (e.g., there would remain two berths) and a working port, increased vessel calls would not have an impact on the fleeting views from the Vincent Thomas Bridge or City-designated scenic highways.

The Project site is developed with an existing marine oil terminal. No scenic trees or rock outcroppings exist at the Project site. Construction and operation associated with the proposed Project, including the replacement loading platforms, catwalks, topside

equipment, and SCP Plan improvements would be consistent with the existing visual context of a working port and would not alter scenic resources visible from a City-designated scenic highway. Therefore, impacts from the proposed Project on the existing visual character or quality of the site and its surroundings would be less than significant and will not be addressed further in the EIR.

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

Less Than Significant Impact. The landscape at the Port is highly engineered, reflecting more than a century of construction of breakwaters, dredging of channels, filling for creation of berths and terminals, and construction of the infrastructure required to support Port operations. The appearance of many Port operations is functional in nature and is characterized by exposed infrastructure, open storage, the use of unfinished or unadorned building materials, and the use of safety-conscious high-visibility colors such as orange or red for mobile equipment such as cranes, containers, and railcars.

The existing visual quality at and in the vicinity of the Berths 167-169 is low due to the dominance of equipment and facilities used in marine oil terminal activities. The existing features or elements of the visual character of the Project site include the existing timber wharf, above-ground oil and product storage tanks, office building and other associated infrastructure.

Construction activities associated with the proposed Project would be temporary, are common within the harbor environment, and would generally resemble the existing setting in character; thus, the proposed Project would not be incompatible with the general character of the surrounding areas.

The primary element of the proposed Project that would be visible from off-site would be the replacement loading platforms, catwalks, and topside equipment. The platforms, catwalks, and topside equipment would be at the same location as the existing features, similar in appearance, and would not result in a substantive change in the visual character or quality of the site. Other project elements, such as the mooring dolphins and SCP Plan improvements, would not be visually prominent and would not affect the visual character.

The proposed Project could accommodate an increase in vessel calls to the terminal. However, additional vessels that moor at the new loading platforms would be consistent in height, length and scale as those that currently moor at the terminal wharf. Because any additional vessels that visit the terminal would be consistent with existing terminal operations and a working port, increased vessel calls would not result in significant impact to the visual character of the site or its surroundings. Further, the proposed Project would be aesthetically consistent with the existing visual context of the working Port.

No historical resources as defined in State CEQA Guidelines Section 15064.5 were found at the Project site (as described in the Cultural Resources Report prepared for the proposed Project, which is Appendix A of this Initial Study), and thus no substantial adverse change in the visual significance of a historical resource or its setting would occur from implementation of the proposed Project. Therefore, the proposed Project would not degrade or otherwise significantly impact the existing visual character or quality of the sites and surroundings. This impact is considered less than significant and will not be addressed further in the EIR.

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

Less Than Significant Impact. The Port is an area of high ambient lighting that includes approximately 32 terminals and other facilities, all of which are illuminated at night. The overall lighting environment includes two types of light sources: 1) fixed or stationary light sources associated with terminals (including crane lights), parking lot and backland light standards, building security lighting, and terminal access road or rail spur lighting; and 2) mobile light sources associated with ship, rail and truck traffic, cargo-moving equipment, and other vehicles on interior Port roadways.

The Project site has existing security and general nighttime lighting on the property and along the wharf, but lighting levels are generally lower as compared to container terminals which typically have much higher lighting levels associated with illuminated backlands, dockyards, and gantry cranes. Mobile light sources at the Project site include ships berthed at the wharf, trucks, and cars on-site and the access road leading to the site.

Proposed Project construction would not occur during nighttime hours and thus no construction lighting would be required.

Under the proposed Project, existing wharf lighting would be replaced with new lighting (including use of light-emitting diode [LED] bulbs) on the replacement loading platforms, along the catwalks, and on some topside equipment. The new lighting levels would be similar to existing levels. Further, the new lighting would comply with the standards of the Port of Los Angeles Terminal Lighting Design Guidelines, established by Engineering Division and stipulated in the Port of Los Angeles Terminal Lighting Design Guidelines (POLA, 2012), including the requirement to direct light toward the interior to minimize off-site spillover. Thus, the proposed Project would not result in a substantive increase in light emissions.

The proposed Project could accommodate an increase in vessel calls to the terminal, and the additional vessels would have safety lighting. However, the lighting on the additional vessels would be similar to that on existing vessels and would not represent a substantial new light source. Further, the new vessels would be consistent with existing terminal operations and a working port.

The proposed Project would not include elements that can cause glare, such as windows, light-color building surfaces, or metal or other reflective surfaces. Therefore, the proposed Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. This impact is considered less than significant and will not be addressed further in the EIR.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II.	**AGRICULTURE AND FOREST RESOURCES.** In determining whether impacts on 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. 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 Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in the 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 maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b.	Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?				X
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)) or timberland (as defined in PRC Section 4526)?				X
d.	Result in the loss of forest land or conversion of forest land to non-forest use?				X

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e.	Involve other changes in the existing environment that, 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?				X

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) develops maps and statistical data to be used for analyzing impacts on California's agricultural resources. The FMMP categorizes agricultural land according to soil quality and irrigation status; the best quality land is identified as Prime Farmland. According to the FMMP, the proposed Project site is an area designated as Urban and Built-Up Land, which is defined as land occupied by structures that have a variety of uses including industrial, commercial, institutional facilities, railroad or other transportation yards (California Department of Conservation, 2010 and 2011b). There is no Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Farmland of Local Importance in the Project vicinity. No Farmland currently exists on the Project site or in the vicinity and, therefore, none would be converted to accommodate the proposed Project. Therefore, there would be no impact on designated farmland and this issue will not be addressed further in the EIR.

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

No Impact. The Project site is zoned for heavy industrial uses ([Q]M3-1) and there are no agricultural zoning designations or agricultural uses within the Project limits or adjacent areas. The Williamson Act applies to parcels consisting of at least 20 acres of Prime Farmland or at least 40 acres of land not designated as Prime Farmland. The Project site is not located within a Prime Farmland designation, nor does it consist of more than 40 acres of farmland (California Department of Conservation, 2010 and 2011b). No Williamson Act contracts apply to the Project site. Therefore, there would be no impact on agricultural zoning or a Williamson Act contract and this issue will not be addressed further in the EIR.

c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)) or timberland (as defined in PRC Section 4526)?

No Impact. The Project site is zoned for heavy industrial uses ([Q]M3-1) and therefore would not conflict with existing zoning for, or cause rezoning of, forest land or timberland. Therefore, there would be no impact on land zoned for forest land and this issue will not be addressed 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 improvements would occur at an existing marine oil terminal which has no forest land. The proposed Project would not result in the loss of forest land or conversion of forest land to non-forest use. Therefore, there would be no impact on forest land and this issue will not be addressed further in the EIR.

e. Would the project involve other changes in the existing environment that, due to their location or nature, could individually or cumulatively result in loss of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. As discussed above, no farmland or forest land is located within the surrounding area or at the Project site. The proposed Project would not involve the disruption or damage of the existing environment that would result in the loss of Farmland to non-agricultural use or conversion of forest land to non-forest use. Therefore, there would be no impact on agricultural or forest land uses or activities and this issue will not be addressed further in the EIR.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III.	**AIR QUALITY.** When 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?	X			
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	X			
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a non-attainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	X			
d.	Expose sensitive receptors to substantial pollutant concentrations?	X			
e.	Create objectionable odors affecting a substantial number of people?			X	

Discussion:

a. Would the project conflict with or obstruct implementation of the applicable air quality plans?

Potentially Significant Impact. The proposed Project would result in increased emissions of criteria air pollutants associated construction and terminal operations (increased vessel calls and facility throughput) relative to baseline conditions. Emission from operations would occur over the duration of the lease term, though 2046. The EIR will evaluate whether the proposed Project could conflict with applicable air quality plans, including the Air Quality Management Plan and the Clean Air Action Plan.

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

Potentially Significant Impact. Project construction would result in combustion exhaust emissions from construction equipment and fugitive dust emissions. Project operation may result in increased emissions of criteria air pollutants associated with increased vessel calls and facility throughput compared with current levels of activity. Therefore, the

EIR will evaluate whether the proposed Project would violate any air quality standard or contribute substantially to an existing or project air quality violation.

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. Due to the elevated concentrations of air pollutants that currently occur in the SCAB, the proposed Project, in conjunction with other related projects, has the potential to make a substantial contribution to significant cumulative air quality impacts. Therefore, the EIR will evaluate whether the proposed Project would result in a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment.

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

Potentially Significant Impact. Sensitive receptors represent members of the population that are more susceptible to health impacts from air emissions. Construction activities may expose nearby sensitive receptors to air pollution in the form of combustion exhaust and fugitive dust. Operational activities, primarily increased vessel calls, may also expose nearby sensitive receptors to increased levels of air pollution. In addition, both construction and operational activities may expose sensitive receptors to increased levels of toxic air contaminants. Therefore, the EIR will evaluate whether the proposed Project would expose sensitive receptors to substantial pollutant concentrations.

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

Less Than Significant Impact. Short-term odors from the use of diesel powered heavy equipment and tugs may occur during construction. Odors from operation of the proposed Project would be similar to odors produced from existing marine oil terminal operations and related activity, and would be primarily associated with vessels moored at the terminal. For export of petroleum products, air displaced from tankers would be processed through vapor control units, which would control petroleum odors. The existing tanks that store volatile product (gasoline) have external floating roofs that control the emissions of volatile organic compound emissions – the pollutant category most likely to contain odorous vapors. Emissions of VOC from sealed piping components (e.g., valves and flanges) would be minimal and also unlikely to cause changes in the odors around the facility.

Diesel exhaust from hoteling vessels and barges would be the most mobile source of odor and generate the most obvious odors. Some individuals might find diesel combustion emissions to be objectionable in nature, although quantifying the odorous impacts of these emissions to the public is difficult due to the complex mixture of chemicals in the diesel exhaust, the differing odor thresholds of these constituent species, and the difficulty quantifying the potential for changes in perceived odors even when air contaminant concentrations are known. The mobile nature of most Project emission sources would help to disperse proposed Project emissions. Additionally, the distances between proposed Project emission sources and the nearest sensitive receptors (approximately 590 feet from the Berths 243-245 CDF, and 4,300 feet from the terminal wharf) is expected to be far enough to allow for adequate dispersion of emissions to below objectionable odor levels. Activities anticipated at Berths 243-245 CDF would be temporary, and consistent

with existing dredge disposal practices. No new odor sources are anticipated at Berths 243-245. Furthermore, the existing industrial setting of the proposed Project represents an already complex odor environment. For example, existing nearby container terminals and other marine oil terminals include vessel calls and terminal activities that use diesel equipment that generate similar diesel exhaust odors as would the proposed Project. Within this context, the proposed Project would not likely result in changes to the overall odor environment in the vicinity or at residential locations. This impact is considered less than significant and will not be addressed further in the EIR.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV.	**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?	X			
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	X			
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, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?				X
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?				X
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
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?				X

Discussion:

a. Would the project have a substantial adverse impact, 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 Wildlife or the U.S. Fish and Wildlife Service?

Potentially Significant Impact. No candidate, sensitive, or special-status species are known to occur on the Project site. Federal and state listed threatened and endangered species are found in the Los Angeles Harbor; however, there is no federally designated critical habitat in the harbor. The California least tern (*Sterna antillarum browni*), a federally and state listed endangered species, nests and forages within the Port. A 15-acre California least tern nesting area is located on Pier 400, approximately 2.2 miles south-southeast of the Project site. The California brown pelican (*Pelecanus occidentalis californicus*) roosts on the outer breakwater, plunge-dives for fish or rest on open waters within and outside the harbor, and the peregrine falcon (*Falco peregrinus*) nests on certain bridges within the harbor area; both these species have been removed from the federal and state endangered species lists.

Other special-status species (designated by the California Department of Fish and Wildlife [CDFW] and/or U.S. Fish and Wildlife Service [USFWS]) with the potential to occur in the Project area include: black oystercatcher (*Haematopus bachmani)*, black skimmer (*Rynchops niger)*, Caspian tern (*Hydroprogne caspia)*, elegant tern (*Thalasseus elegans)*, common loon (*Gavia immer*) double-crested cormorant (*Phalacrocorax auritus)*, loggerhead shrike (*Lanius ludovicianus*), merlin (*Falco columbarius*), osprey (*Pandion haliaetus*), and burrowing owl (*Athene cunicularia)* (SAIC, 2010). Several of these species are known to nest, roost, and/or forage (feed) within the harbor, such as the double-crested cormorant, elegant tern, and Caspian tern.

Due to the heavy industrial use within the Project area and the developed nature of the existing terminal, the Project site is not a likely nesting area for most of these species of special concern. Double-crested cormorant was one of the ten most abundant bird species observed during monthly bird surveys throughout the Port Complex in 2008 (the year for which the most recent Port-wide bird data are available), and were found nesting on transmission towers in the Port of Long Beach (approximately 1.9 miles east of the Project site) (SAIC, 2010). There are no transmission towers present on the Project site. The only other special-status birds species observed adjacent to the Project site during monthly surveys in 2008 were elegant tern (one individual) and Caspian tern (one individual). There is a designated California least tern nesting area located 2.2 miles south-southeast from the Project site on Pier 400. Based on the paucity of observations, the distance from a designated nesting area, and the nesting habitats required by these species (bare ground, such as sand/soil) (Kaufman, 1996; Shuford and Gardali, 2008), which is lacking at the Project site, no impact on terns is anticipated. Therefore, because of the lack of habitat conducive to nesting associated with special-status bird species, no impact on nesting is anticipated as a result of the proposed Project.

Roosting and/or foraging by Federal and state listed threatened and endangered species could be disrupted during construction due to the increased activity and pile removal. However, these effects would be temporary and limited to the immediate area of construction, which does not support critical habitat. In addition, there is suitable roosting/foraging habitat in adjacent areas (and throughout the Port Complex). Therefore, potential impacts on federally and state listed endangered species found in the harbor are considered less than significant and no mitigation is required.

Marine mammals, including dolphins, seals, and sea lions, are protected by the Marine Mammal Protection Act (MMPA) of 1972. Marine mammals may forage in the harbor but do not breed there because breeding occurs on islands from the Gulf of the Farallones down to Baja California, including some of the Channel Islands off Southern California. Sightings of marine mammals were recorded during the 2008 biological surveys of the Port Complex (SAIC, 2010). During 2008 California sea lions (*Zalophus californianus*) were observed throughout the Los Angeles-Long Beach Harbor, including near the Project site, while harbor seals (*Phoca vitulina*) were limited to Outer Harbor waters. Neither of these pinniped species is endangered, and there are no designated significant ecological areas for either species within the Port Complex.

Installation of steel pipe piles required to support the loading platforms, access trestles, catwalks, and mooring dolphins is anticipated to result in underwater sounds levels that could adversely affect marine mammals. The Project site is located in the Los Angeles Harbor, which is designated as Essential Fish Habitat (EFH) and which supports species managed under the Coastal Pelagic Species and Pacific Groundfish Management Plans. The EIR will further evaluate potential impacts to special-status species, including whether the proposed Project would have a substantial adverse impact on marine mammals or EFH. The EIR will also evaluate potential impacts related to construction noise and vibration on marine wildlife, risk of upset, as well as potential impacts associated with invasive species from hull coatings related to a possible increase in vessel calls during the lease extension.

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

Potentially Significant Impact. There is no riparian habitat at the Project site or in the vicinity. Wharf demolition and replacement activities would temporarily impact marine biota through resuspension of sediments and disturbance of benthic communities. However, the impact would be limited in areal extent and duration (limited to the period of construction). After construction, the soft-bottom benthic communities would begin colonizing the substrate. As a consequence, these activities would not result in a substantial adverse impact to marine biota, and a significant impact would not occur. However, eelgrass occurs in several locations in Los Angeles and Long Beach Harbors, including adjacent to Berth 169. The distribution of eelgrass (*Zostera marina*) is limited in California, and this species is protected by the California Eelgrass Mitigation Policy (NMFS, 2014). The proposed construction of the proposed Project could adversely affect eelgrass, and this issue will be evaluated in the EIR.

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, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. The proposed Project would not affect federally protected wetlands (as defined by Section 404 of the Clean Water Act [CWA]) during in-water construction activities (i.e., wharf demolition and replacement) because there are no federally protected wetlands in the Project area. The only federally protected wetlands in the Los Angeles Harbor are the Anchorage Road Salt Marsh and the Cabrillo Salt Marsh, 1.2 miles and 2.6 miles from the Project site respectively. Neither of these wetlands would be affected or

otherwise disturbed by the proposed Project. Therefore, there would be no impact to protected wetlands, and this issue will not be addressed 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 wildlife nursery sites?

No Impact. There are no known terrestrial migration corridors within the Port Complex, including the Project site because the Port is not located between natural resource areas that terrestrial wildlife would need to traverse. In addition, the Project site is located at the end of a peninsula on Mormon Island, which is also not located between wildlife areas. Therefore, the proposed Project would not interfere with terrestrial wildlife migration.

Regarding fish migration, there are only a few species in Southern California with true migrations (salmonids), and they are not known to occur in the Port Complex. Migratory fishes, such as white sturgeon and several species of salmon do not occur in or near the Port Complex (Miller and Lea, 1972; SAIC, 2010). Therefore, the proposed Project would not interfere with migratory fish.

The terminal area is developed and offers minimal area for wildlife or bird nesting (as described in detail in Item IV(a) above). The nearest wildlife nesting area is the designated California least tern nesting area is located 2.2 miles south-southeast from the Project site on Pier 400, and no direct or indirect impacts to this nesting area are anticipated.

Therefore, the proposed Project would not interfere with the movement of any native resident or migratory fish or wildlife species, and this issue will not be addressed 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 only biological resources protected by City of Los Angeles ordinance (City of Los Angeles, 2006b) pertain to certain tree species. A permit is required for removal or relocations of the following trees:

- Oak tree including valley oak (*Quercus lobata*)
- California live oak (*Quercus agrifolia*)
- Any other tree of the oak genus indigenous to California but excluding the scrub oak (*Quercus dumosa*)
- Southern California black walnut (*Juglans californica* var. *californica*)
- Western Sycamore (*Platanus racemosa*)
- California bay (*Umbellularia californica*).

The Project site is industrialized, paved and occupied by an existing oil terminal. It does not contain any known or protected biological resources. The proposed Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; therefore, there would be no impact and this issue will not be addressed further in the EIR.

f. Would the project conflict with the provisions of an adopted habitat conservation plan, natural communities conservation plan, or any other approved local, regional, or state habitat conservation plan?

No Impact. The Project site is not 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 CDFW 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. There is only one NCCP approved near the Port, located approximately four miles to the southwest of the proposed Project in the City of Rancho Palos Verdes and it was designed to protect coastal scrub habitat (Palos Verdes Peninsula Sub-Regional Plan, 2014).

HCPs are administered by the USFWS and are designed to identify how impacts would be mitigated when a project would impact endangered species or designated critical habitat. There are no HCPs in place for the Port. A Memorandum of Understanding (MOU) is in place for the LAHD, CDFW, USFWS, and USACE to protect the California least tern, and requires a 15-acre nesting site to be protected during the annual nesting season (May to October). The site is on Pier 400 and is being considered for designation as a Significant Ecological Area (SEA) by the County of Los Angeles (County of Los Angeles, Department of Regional Planning, 2013).

The proposed Project would have no impact on HCPs, NCCPs, the MOU, or the proposed SEA for California least tern. The Project site is located approximately 2.2 miles south-southeast from the California least tern nesting site and does not contain nesting habitat or foraging habitat; therefore, there would be no impact and this issue will not be addressed further in the EIR.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V.	**CULTURAL RESOURCES**. Would the project:				
a.	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?				X
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?				X
c.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
d.	Disturb any human remains, including those interred outside of formal cemeteries?				X

Discussion:

a. Would the project cause a substantial adverse change in the significance of a historical resource as defined in State CEQA Guidelines §15064.5?

No Impact. An evaluation of historical resources was conducted for the Project site in 2009 (SWCA, 2009) and updated in 2014 (SWCA, 2014), which found no historical resources as defined in State CEQA Guidelines Section 15064.5 at the Project site, and no contributors to an existing or potential historic district. A summary of the evaluation (Appendix A of this Initial Study contains both the 2009 evaluation, and the 2014 update) is provided below.

The Shell Oil terminal was fully operational in 1924, with a timber wharf (Berths 167-168), ancillary buildings, a pump house, and nine tanks used for oil storage. The site underwent substantial changes following an explosion of the oil tanker S.S. Markay which was docked at Berth 168 and damaged much of the wharf and existing buildings and infrastructure in 1947. The Project site was expanded in 1959 when the bulkhead behind Berths 168 and 169 was extended and filled in. Many of the on-site buildings and structures have been altered and repaired over the years with new technologies and changing environmental and safety regulations.

According to the 2009 historic resources evaluation, a Phase II cultural resources reconnaissance survey was prepared by Fugro West/San Buenaventura Research Associates in 1996 (Fugro West, 1997). The unpublished report found the timber wharf at Berths 167-169 as eligible for the National Register under Criterion A, as a contributor to a historic district associated with the development of the Los Angeles Harbor. The report identified the period of significance for the historic district as 1901 to 1945 and assigned the property National Register Status Code “4D2” indicating that it “[m]ight become eligible for listing if more historical or architectural research is performed on the district.” The resources discussed in the report were not assigned primary or trinomial

numbers by the California Historical Resources Information System (CHRIS), and no evidence was located to demonstrate State Historic Preservation Officer concurrence with the findings.

As discussed below, the evaluation conducted in 2009 (SWCA, 2009) and updated in 2014 (SWCA, 2014) , which constituted " … more historical or architectural research …" as indicated under National Register Status Code 4D2, determined that the wharf, which was constructed in segments between approximately 1938 and 1947, has undergone major damage and repairs and has thus suffered a loss of integrity of materials, workmanship, design, and feeling, further, the wharf and other structures on the Project site are not eligible for listing separately or as contributors to a larger historic district.

The evaluation determined that the industrial nature of the oil terminal facility and constant requirements for maintenance have resulted in numerous alterations to the extant buildings and structures on the Project site. The most prominent feature of the property is the timber wharf, which would be replaced under the proposed Project. The wharf, constructed in segments between approximately 1938 and 1947, has undergone major damage and repairs that entailed replacement of at least 50 percent of the original timber decking. Other alterations have included the replacement of support pilings, ramps, equipment, and ancillary buildings. Although ongoing replacement and maintenance of the timber wharf may be a matter of routine maintenance, the wharf was rebuilt after the 1947 Markay explosion (described below) and as a result underwent major modifications; the wharf decking has been cut back in areas, equipment added and mooring dolphins installed along the face of the wharf. As a result, the wharf has suffered a loss of integrity of materials, workmanship, design, and feeling. The Project site is thus not eligible for listing in the National Register, the California Register, or as local landmarks, separately or as contributors to a larger historic district.

Although the property is associated with the 1947 Markay oil tanker explosion, the event is not regarded as a significant moment in American history sufficient to warrant listing under National or California Registers for its connection to events important in our past. The explosion did not lead to a trend or pattern that contributed to community, state, or national development. Moreover, many of the extant buildings and structures on the property did not exist at the time of the Markay explosion. The property has not been directly associated with persons significant in our past. The buildings and structures on the property are utilitarian resources that are ubiquitous to oil production and industrial operations; they do not embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, nor do they represent a significant and distinguishable entity whose components lack individual distinction. Lastly, the property is not expected to yield important information about prehistory or history. Therefore, the property should not be considered a historic property, as defined in Section 106 of the National Historic Preservation Act of 1966, as amended, nor does it qualify as a historical resource as defined by CEQA (Public Resources Code, Section 5024.1 and Section 15064.5 of the State CEQA Guidelines). Further, the property does not qualify for listing as a City of Los Angeles Historic-Cultural Monument (HCM), nor does it warrant consideration as a contributor to a Historic Property Overlay Zone (HPOZ).

In response to the 2015 NOP, the Los Angeles Conservancy asked the LAHD to consider preserving the existing timber wharf structure at the facility. Although maintaining the existing timber wharf was investigated as an option early in the conceptual design phase and, based on the analysis (which is summarized below), the existing wharf was found to be seriously structurally deficient and highly susceptible to the risk of fire. Consequently,

it was determined that it was not feasible to explore further the option of keeping the existing timber wharf.

The Los Angeles Conservancy noted a precedent for the structural rehabilitation of timber-framed infrastructure at terminal facilities that are MOTEMS compliant, including the recent 2013 rehabilitation of the timber approach trestle at the refinery terminal in Martinez, California. The example given involved a timber approach trestle, which is very different in function and operational standards from a wharf at a marine oil terminal. Specifically an approach trestle and wharf have vastly different structural loading criteria, such as for dead loads, live loads, seismic loads, and mooring/berthing loads. Unlike an approach trestle that might be required to hold at a maximum the weight of a vehicle, a wharf must meet standards for the mooring and berthing of several ranges of marine oil vessels. The existing timber wharf at Berths 167-169 is structurally inadequate to continue to function as an operational terminal that meets the MOTEMS code requirements. This structural inadequacy includes concerns over seismic loading conditions

As noted above, timber facilities (whether a trestle or wharf) are susceptible to fire. The timber wharf structure presents an added fire risk to a facility already very concerned with flammability. Replacing the timber wharf structure with a concrete one eliminates a source of fuel for a potential fire at the marine oil terminal, a point of particular concern to the Port. The destructiveness and difficulty of extinguishing the recent timber wharf fire at Berths 177-178 at the Port clearly demonstrates that this is a very legitimate concern.

To implement the improvements covered under the proposed Project, it would be infeasible to retain any components of the existing timber wharf. New loading platforms, mooring dolphins, approach trestles, catwalks, and topside equipment require removal of significant portions of the existing timber wharf, further compromising its structural integrity and any possible historic value. The remaining timber components would continue to be seismically inadequate to comply with the MOTEMS requirements, and if left in place would interfere with the operations of the berths if they were to collapse in the channel after a MOTEMS level seismic event. Further, the remaining timber components would be highly susceptible to fire.

In light of these facts, retaining the timber wharf would not meet the main objective of the proposed Project and is therefore not a viable option for the Shell facility.

Because no historic properties are located on-site, no substantial adverse change in the significance of a historical resource would occur from implementation of the proposed Project; therefore, there would be no impact and this issue will not be addressed further in the EIR.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to State CEQA Guidelines §15064.5?

No Impact. Mormon Island is composed of both natural land mass and artificial fill. The proposed Project would result in minor amounts of ground-disturbing activities (i.e., seismic ground improvements, installation of steel pipes during wharf replacement, and installation of topside equipment). However, these areas are highly disturbed. As part of the 2009 historic evaluation of the Berth 167-169 terminal, a records search was conducted of the CHRIS at the South Central Coastal Information Center located on the campus of California State University, Fullerton. The search included previously recorded cultural resources and investigations within a 0.5-mile radius of the Project area. The records search results indicate that there are no previously recorded cultural resources located within the area of potential effects associated with the proposed Project. The

eligibility of the existing buildings and structures at Berths 167-169 was reconsidered in 2014 and confirmed that no significant historic resources are present at the Project site (see Appendix A of this Initial Study).

The proposed Project would occur in and over the harbor waters, removing the existing wharf decking and 900 piles, to be replaced with two loading platforms, catwalks, approximately 20 steel piles and mooring dolphins. The Project area has been routinely dredged over the history of the Port to create shipping channels and increase or maintain the design depth at the berths. If sloughing of material from the shoreline slope occurs during construction, up to approximately 4,000 cubic yard of sediment would be dredged to return the berths to their design depth of 40 feet. Some ground-disturbing improvements would occur; however, the site is disturbed and archaeological resources are not likely present. The proposed Project would not result in any dredging into undisturbed sediments and with lack of known archeological resources in the Project area there would be no impact. This issue will not be addressed further in the EIR.

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

No Impact. The geologic formation within the Project site consists of artificial fill, engineered fill over natural landforms, and disturbed natural landforms constructed in the 20th century. Before improvements were made to the harbor (beginning in the 19th century), the Project area was covered by harbor waters or mudflats. The Project area has been routinely dredged and filled in the 20th century to create shipping channels and increase or maintain the design depth at the berths destroying any stratigraphy of the Project area, any unique paleontological resources and any unique geologic features. The proposed Project would occur in or over the harbor waters, removing the existing wharf and replacing it with two loading platforms, catwalks and mooring dolphins. Maintenance dredging would only be undertaken if needed to restore the waters of the area to their design depth (40 feet). Seismic ground improvements, SCP Plan improvements, and topside equipment installation would occur only within recently deposited sediment and not any geologic layer that could yield unique paleontological resources. Therefore, there would be no impact to unique paleontological resources or unique geologic features, and this issue will not be addressed further in the EIR.

d. Disturb any human remains, including those interred outside of formal cemeteries?

No Impact. No known cemeteries or burials are known to have occurred at the Project site and the Project area is composed of both disturbed natural areas and man-made engineered material constructed in the 20th century. The proposed Project would occur in or over the harbor waters, removing the existing wharf and replacing it with two loading platforms, catwalks and mooring dolphins. In addition, seismic ground improvements and topside equipment installation would occur on the terminal site, which is not a known burial ground. The Project site is entirely paved, which the exception of small landscaped planters.

The Native American Heritage Commission (NAHC) was contacted on March 25, 2014 to request a review of their Sacred Land File. The NAHC responded on March 28, 2014, stating that the Sacred Land File search identified the presence of Native American sacred lands or traditional cultural properties within the immediate study area (Appendix A of this Initial Study). The NAHC also provided a contact list of nine Native American individuals or tribal organizations that may have knowledge of cultural resources in or near the study area, and information regarding any known Native American cultural resources within or immediately adjacent to the study area were solicited from these contacts. On April 10,

2014, letters were sent to the NAHC-listed Native American contacts requesting information regarding any known Native American cultural resources within or immediately adjacent to the study area. Subsequent follow-up calls were also made to the Native American contacts. Two responses were received. One respondent indicated that he had received the letter and would be providing a response, but additional correspondence has not been received thus far. The second respondent stated that the there was a Native American cemetery within 0.5-mile from the Project area and recommended that ground disturbances are monitored and requested notification if ground disturbance takes place.

However, as mentioned above, much of the terminal site is man-made fill, and not a known burial ground. Therefore, seismic ground improvements, SCP Plan improvements, and topside equipment installation are not expected to encounter human remains. There may be dredging required to restore the design depth of the berths to 40 feet if there is sloughing of sediment during the wharf demolition or new platform and related construction. The Project area has been routinely dredged over the historic of the Port to either increase or maintain the design depth at the berths. Due to the disturbed nature of the Project site and its underwater location, no human remains would be disturbed by the proposed Project; therefore, there would be no impact and this issue will not be addressed further in the EIR.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI.	**GEOLOGY AND SOILS.** 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.				X
	ii.) Strong seismic ground shaking?			X	
	iii.) Seismic-related ground failure, including liquefaction?			X	
	iv.) Landslides?				X
b.	Result in substantial soil erosion or the loss of topsoil?				X
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 an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?			X	
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?			X	
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?				X

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?

No Impact. Southern California is one of the most seismically active areas in the U.S. Numerous active faults and fault zones are located within the general region, including the active Palos Verdes Fault that traverses the harbor area, as well as the Newport-Inglewood, Elysian Park, Whittier-Elsinore, and Santa Monica-Raymond faults within 25-miles. The harbor area, as with the Southern California region as a whole, cannot avoid earthquake-related hazards, such as liquefaction, ground rupture, ground acceleration, and ground shaking. However, no defined active or potentially active faults underlie the Project site (Earth Mechanics, 2008); therefore, no identified fault rupture hazards or impacts to project are anticipated. There would be no impact and this issue will not be addressed further in the EIR.

Potential impacts associated with seismically generated tsunamis are addressed under Section IX, Hydrology and Water Quality, Item IX(j) below.

(ii.) Strong seismic ground shaking?

Less Than Significant Impact. Although no faults within the Port area are currently zoned under the Alquist-Priolo Act, potential hazards exist due to seismic activities associated with the Palos Verdes Fault Zone and the presence of man-made engineered fill. The exposure of people to seismic ground shaking is a potential risk with or without the proposed Project. The risk of seismic hazards such as ground shaking cannot be avoided. Building and construction design codes are meant to minimize structural damage resulting from a seismic event. The proposed Project would comply with the applicable engineering standards and building codes, including the MOTEMS regulations, Port engineering criteria, and applicable sections of the Los Angeles Building Code. Emergency planning and coordination would also contribute to reducing injuries to on-site personnel during seismic activity. With incorporation of emergency planning and compliance with current regulations and standard engineering practices, this impact is considered less than significant and will not be addressed further in the EIR.

(iii.) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. The harbor area, including the Project site, is identified as an area susceptible to liquefaction in the City of Los Angeles General Plan, Safety Element because of the presence of recent alluvial deposits and groundwater less than 30 feet below ground surface (City of Los Angeles, 1996).

Construction of the proposed Project is required to adhere to seismic performance requirements specified in the MOTEMS regulations (Chapter 31F, Title 24, Part 2, California Code of Regulations), which includes standards intended to limit the probability of occurrence and the severity of consequences from geological hazards, such as earthquakes. Under the MOTEMS regulations, annual inspections and periodic audits (of a maximum of three years apart) occur that include engineering and structural evaluations. The audits include seismic

structural evaluation. Should any deficiencies be identified during the audits, remedial actions and a time frame for completing are identified. Emergency planning and coordination would also contribute to reducing injuries to on-site in the event of a seismic event. In addition, SCP Plan improvements would comply with applicable standards stablished by the American Petroleum Institute (API). With compliance with appropriate MOTEMS requirements, engineering standards, and building codes, this impact is considered less than significant and will not be addressed further in the EIR.

(iv.) Landslides?

No Impact. The proposed Project would be constructed and operated on Mormon Island, which is relatively flat with no significant natural or graded slopes. The proposed Project is not located near any landslide hazard areas; therefore, there would be no impact and this issue will not be addressed further in the EIR.

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

No Impact. The Project site is entirely paved, which the exception of small landscaped planters. Construction of the proposed Project would include removal and replacement of wharf piles and decking, and would result in only minor and temporary disturbance of the pavement associated with seismic ground improvements and topside equipment installation. Pavement disturbances would be repaired following construction, which would prevent soil erosion from the site, and operation would continue similar to the existing terminal. Therefore, the proposed Project would not result in soil erosion or the loss of topsoil and there would be no impact and this issue will not be addressed further in the EIR.

c. Is the project 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-site or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse?

Less Than Significant Impact. The Project site is constructed on artificial fill, which could be subject to lateral spreading, subsidence, liquefaction, or collapse. As part of the MOTEMS audit in 2008, a geotechnical evaluation was performed of the terminal site and determined that portions of the terminal are subject to slope deformations under certain seismic conditions. However, the proposed Project features would not cause or accelerate geologic hazards, and the seismic ground improvements part of the proposed Project would address the slope issues identified in the MOTEMS audit. Because the proposed Project would address the existing potential for portions of the terminal to deform during seismic events, the proposed Project would improve the soil conditions at the site compared to current conditions. Therefore, this impact is considered less than significant and will not be addressed further in the EIR.

d. Is the project located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994),[3] creating substantial risks to life or property?

Less Than Significant Impact. Expansive soils generally result from specific clay minerals that expand when saturated and shrink when dry. These expansive clay minerals are common in the geologic deposits in the adjacent Palos Verdes Peninsula. Clay minerals in geologic deposits within the Project area could be expansive, and previously imported fill soils could be expansive as well. However, based on the site specific geotechnical investigation (Earth Mechanics, 2008), the clay minerals underlying the Project site are isolated in pockets within the fill and are generally 10 feet below the surface or deeper. The proposed Project features would not cause or accelerate risks associated with these isolated pockets of expansive soils and would be constructed and operated in accordance with design and engineering criteria, including MOTEMs regulations and applicable building and safety requirements (such as the building standards contained in the most recent edition of the LAMC and CBC). With incorporation of modern engineering and safety standards and compliance with current building regulations, this impact is considered less than significant and will not be addressed further in the EIR.

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

No Impact. The Project site is connected by sanitary sewer system to the City of Los Angeles Bureau of Sanitation's Terminal Island Water Reclamation Plant (TIWRP). During the construction phase, portable toilets would be brought to the site for the construction crew and wastewater from the portable toilets would be disposed of into the sewer system at a designated off-site facility. None of the project improvements would generate wastewater that would be treated by an alternative wastewater disposal system. The potential for an increase in vessel calls because of the wharf improvements and lease extension under the proposed Project would not result in the need for an alternative wastewater disposal system. Therefore, the proposed Project would not impact soils supporting alternative wastewater disposal systems, and this issue will not be addressed further in the EIR.

[3] The State of California provides minimum standards for building design through the California Building Code (CBC). The CBC is based on the International Building Code (formerly known as the Uniform Building Code), established by the International Code Council (formerly known as the International Council of Building Officials), which is used widely throughout the U.S. (generally adopted on a state-by-state or agency-by-agency basis), and has been modified for conditions within California. Therefore, this Initial Study assumes compliance with the CBC.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII.	**GREENHOUSE GAS EMISSIONS**. Would the project:				
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	X			
b.	Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	X			

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 in the atmosphere and result from both natural processes and human activities. GHG emissions would be released from combustion sources associated with the proposed Project during both construction and operation. Impacts associated with GHG emissions will be evaluated in the EIR.

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

Potentially Significant Impact. GHG emissions would be released from combustion sources associated with the proposed Project during both construction and operation. The potential for the proposed Project to conflict with plans or policies regarding GHG emission reductions will be evaluated in the EIR.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII.	**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?	X			
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?	X			
c.	Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25-mile of an existing or proposed school?				X
d.	Be located on a site that 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?			X	
e.	Be located within an airport land use plan area or, where such a plan has not been adopted, be within 2 miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area?				X
f.	Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area?				X
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
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?				X

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?

The discussion of hazardous materials in this section includes existing transport and use of hazardous materials at the site, as well as what could be used during construction. For some proposed Project activities, potential impacts are expected to be less than significant, and are addressed under the Less Than Significant Impact heading. Other proposed Project activities that could result in potential significant impacts are addressed under the Potentially Significant Impact heading and will be further evaluated in the EIR.

Less Than Significant Impact. Construction activities associated with the proposed Project are not likely to involve the use of substantial quantities of hazardous materials and the most likely source of hazardous materials would be from vehicles and construction equipment at the site. However, there could be small amounts of hazardous materials, including solvents and lubricants used to maintain equipment for seismic ground improvements, pile installation, platform construction, catwalk installation, topside equipment installation, dredging, and other Project elements such as SCP Plan improvements. These materials would be confined and located on a barge or on land at the terminal. Additionally, construction activities would be conducted using BMPs in accordance with City guidelines, as detailed in the Development Best Management Practices Handbook (City of Los Angeles, 2002), and the Los Angeles Municipal Code regulations (Chapter 5, Section 57, Division 4 and 5; Chapter 6, Article 4). Federal and state regulations that govern the storage of hazardous materials in containers (i.e., the types of materials and the size of packages containing hazardous materials), secondary confinement requirements, and the separation of containers holding hazardous materials, would limit the potential adverse impacts of contamination to a relatively small area. In compliance with the State General Permit for Storm Water Discharges Associated with Construction Activity and a Project-specific Storm Water Pollution Prevention Plan (SWPPP), standard BMPs would be used during construction activities to minimize runoff of contaminants and clean-up any spills. Applicable BMPs include, but are not limited to controls for: vehicle and equipment fueling and maintenance; material delivery, storage, and use; spill prevention and control; and solid and hazardous waste management. Implementation of construction standards would minimize the potential for an accidental release of petroleum products, hazardous materials, and/or explosion during construction activities at the Project site. As a consequence, construction would not create a significant hazard to the public or the environmental through the routine transport, use, or disposal of hazardous materials and this impact is considered less than significant and will not be addressed further in the EIR.

Potentially Significant Impact. The proposed Project could accommodate an increase in vessel calls to the terminal; however, the additional vessels would not result in physical changes to the terminal site (i.e., landside capacity). There could be small amounts of hazardous materials, including solvents and lubricants used to maintain the vessels; however, such materials would be properly stored, and would be not be transferred to the terminal while vessels are at berth. Significant impacts associated with the routine use of small amounts of hazardous materials during vessel operations are not anticipated. In addition, SCP Plan improvements such as adding double bottoms to the terminal's storage tanks, relocating underground pipelines within the terminal to aboveground, and installation of leak detections systems would have the effect of lessening the potential for the terminal to result in releases of petroleum hydrocarbons to the environment compared

to baseline conditions. Therefore, significant impacts associated with incidental hazardous materials used for vessel maintenance, and the SCP Plan improvements are not expected.

As a result of an increase in throughput and vessel calls, the project would accommodate an increase in the routine transport, handling, loading and unloading of bulk petroleum products at the terminal. The associated increase in the transport and handling of bulk hazardous materials (petroleum products) has the potential to create a significant hazard to the public or the environment, which will be addressed further in the EIR.

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

The discussion of hazardous materials in this section includes existing contamination at the Project site, hazardous materials that could be used during construction, and risk of accidental release of hazardous materials into the environment. For some proposed Project activities, potential impacts are expected to be less than significant, and are addressed under the Less Than Significant Impact heading. Other proposed Project activities that could result in potential significant impacts are addressed under the Potentially Significant Impact heading and will be further evaluated in the EIR.

Less Than Significant Impact. Groundwater beneath the Project site is known to be contaminated with various hydrocarbon contaminants related to past uses at the terminal. Contaminants generally include petroleum, fuels, oils, and more specifically include (but are not limited to) light non-aqueous phase liquid (LNAPL), diisopropyl ether (DIPE), 1,2,4-trimethylbenzene, methyl t-butyl ether (MTBE), and tert-butyl alcohol (TBA), benzene. Remediation activities to address groundwater contamination at the existing terminal have been ongoing primarily since 1995. Much of the LNAPL has been cleaned up, although some still remains. In addition, various dissolved phase hydrocarbons are still present in the groundwater beneath the terminal. Ongoing remediation efforts include LNAPL Recovery via air injection and absorbent socks (URS, 2012). Various groundwater monitoring wells and remediation (extraction) wells are present on site, and are used to monitor the extent of contamination (contamination isopleths for the contaminants of concern are presented semi-annually in groundwater monitoring reports that are submitted to the RWQCB for the review and oversight). The latest report publically available from the RWQCB (on the GeoTracker website, described under discussion 'd' below), is the 2013 Semi-Annual Groundwater Monitoring Report July Through December 2013, Shell Mormon Island Terminal Port Of Los Angeles, California (URS, 2014), which is incorporated herein by reference. Based on isoconcentration contour maps in this monitoring report, dissolved phase contaminants: DIPE, TBA, MTBE, benzene (Figures 4, 5, 6, and 7, respectively, of the 2014 URS Groundwater Monitoring Report), and residual LNAPL are present in the groundwater beneath the terminal, including along the western boundary of the terminal (near the junction of the existing wharf and the terminal) (URS, 2014). In addition, a site assessment was prepared in 2012 (URS, 2012) to document the vertical extent of groundwater contamination beneath the Project site. The site assessment found that a fine particulate clay layer underlies the Project site between 32 feet and 44 feet below ground surface, and this layer has largely minimized contaminant travel below that layer. However, the site assessment also tested several groundwater samples below 30 feet, which identified some high levels of MTBE and TBA. The site assessment determined that those high contaminant levels seems anomalous compared to samples from other locations, and could have been cause by drag down of contaminants from residual LNAPL from above (URS, 2012).

Although groundwater contamination is present beneath the Project site, the contamination is not expected to pose a risk to the public from Project construction due to the minimal potential for exposure. Construction of the proposed Project would demolish the existing wharf (which is on the waterside of the groundwater contamination), and replace it with new loading platforms, access trestles, catwalks, and mooring dolphins. This work would occur on the waterside of the terminal, and would not involve exposure or extraction of groundwater.

Construction would include the driving of steel piles in the ocean floor and the slope to the west of the terminal's western boundary. Although the steel piles may extend into some subsurface contaminated groundwater, the groundwater would not be drawn or extracted to the surface. Once installed, the piles would be capped, and the loading platforms, mooring dolphin decks, abutments, access trestles, and catwalks would be installed atop the capped piles. Because the piles would be capped and open excavation to groundwater would not occur, construction of piles under the proposed Project is not expected to create a significant hazard to the public or the environment related to the release of groundwater contaminants and this impact is considered less than significant and will not be addressed further in the EIR.

The above reports were reviewed by a hydrogeologist to examine the potential for pile driving at the Project site to drag down contaminants in higher elevation soils to lower elevation soils. The reports demonstrate that the upper sand unit and the deeper sand unit beneath the Project site are both hydraulically connected to the harbor, which implies that groundwater levels in the lower sand unit are substantially similar to those on the upper sand. This reduces the potential for contaminants to migrate to the lower unit. Because booming and absorbents would be placed between the berthing line and shore to capture any sheen or liquid petroleum product that may enter harbor waters, and because the boomed area would be visually monitored during pile driving, the release of groundwater contamination that could create a significant hazard to the public or the environment is not anticipated.

Seismic ground improvements at the Project site would involve the placement of booming in harbor water west of the existing sea wall, followed by subsurface injection of grout along the landside portion of the terminal just east of and parallel to the western boundary of terminal (next to the sea wall). The sea wall, located along the western and southern boundary of the terminal, separates the landside portion of the terminal from the harbor. Along the waterside of the sea wall, the ground surface slopes down to meet the harbor floor, and groundwater beneath the terminal generally travels beneath the sea wall revetment (see profile in Figure 4) and enters the harbor. Once completed, the seismic ground improvement zones would serve to limit the amount of groundwater that enters the harbor along the western boundary by decreasing the soil permeability within the zone. This is considered a beneficial effect, as there are residual constituents present in the ground water. During construction, the injection of grout within the seismic ground improvement zones would displace and compact the surrounding soil, which could also have the effect of slightly raising the groundwater level in the immediate area of the grout injection. This could in turn temporarily result in groundwater entering the harbor in the vicinity of the grout injection. Because booming and absorbents would be placed between the berthing line and shore to capture any sheen or liquid petroleum product that may enter harbor waters, and because the boomed area would be visually monitored during seismic ground improvements, the grout injection process is not expected to result in the release of groundwater contamination that could create a significant hazard to the public or the environment. The higher pressures from the grout injection would also tend to push

any contaminants on the landside of the seismic ground improvement zone away from the harbor. Therefore, a significant hazardous material impact is not anticipated, and this issue will not be addressed further in the EIR.

In addition, SCP Plan improvements such as adding double bottoms to the terminal's storage tanks, relocating underground pipelines within the terminal to aboveground, and installation of leak detections systems would lessen the potential for the releases of petroleum hydrocarbons to the environment compared to baseline conditions. Therefore, significant impacts associated with the SCP Plan improvements are not expected.

Potentially Significant Impact. The proposed Project could accommodate an increase in vessel calls to the terminal. With an increase in vessel calls transporting liquid bulk cargo, there is a potential for an accidental release of cargo to create a hazard to the public or environment, and this potential impact will be further evaluated in the EIR.

c. Would the project emit hazardous emissions or handle hazardous materials or acutely hazardous materials, substances, or waste within 0.25-mile of an existing or proposed school?

No Impact. There is no existing or proposed school within 0.25-mile of the Project site. The nearest schools to the proposed Project are: George De La Torre, Jr. Elementary School (1.4 miles to the north), Hawaiian Elementary School (1.3 miles to the northeast), Barton Hill Elementary School (1.4 miles to the southwest), and Port of Los Angeles High School (1.2 miles to the southwest). Therefore, there would be no impact and this issue will not be addressed further in the EIR.

d. Is the project located on a site that is included on a list of hazardous material 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?

Less Than Significant Impact. The provisions in Government Code Section 65962.5 are commonly referred to as the "Cortese List" (after the Legislator who authored the legislation that enacted it). Because this statute was enacted over twenty years ago, some of the provisions refer to agency activities that were conducted many years ago and are no longer being implemented and, in some cases; the information to be included in the Cortese List does not exist. While Government Code Section 65962.5 makes reference to the preparation of a "list," many changes have occurred related to web-based information access since 1992 and this information is now largely available on the Internet sites of the responsible organizations (CalEPA, 2014). The California Environmental Protection Agency (CalEPA) has identified the data resources that provide information regarding the facilities or sites identified as meeting the "Cortese List" requirements (Cal EPA, 2014b).

- List of Hazardous Waste and Substances sites from Department of Toxic Substances Control (DTSC) EnviroStor database
- List of Leaking Underground Storage Tank Sites by County and Fiscal Year from State Water Board GeoTracker database
- List of solid waste disposal sites identified by the State Water Board with waste constituents above hazardous waste levels outside the waste management unit.

- List of "active" Cease and Desist Orders (CDO) and Cleanup and Abatement Order (CAO) from the State Water Board[4]
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, identified by DTSC.

The Hazardous Waste and Substance Site List maintained by the DTSC was downloaded from the DTSC EnviroStor website (DTSC, 2014), and reviewed. The Project site is not listed in the Hazardous Waste and Substance Site.

The Leaking Underground Storage Tank (LUST) Cleanup Sites contained in the State Water Resources Control Board (SWRCB) GeoTracker database was queried on July 17, 2014 by facility name components ("mormon," "island" "terminal", and "shell", and city (Los Angeles), and the Project site is not contained in the LUST Cleanup Site list.

The list of solid waste disposal sites identified by the SWRCB with waste constituents above hazardous waste levels outside the waste management unit (CalEPA, 2014c) was reviewed, and the Project site was not contained in the list.

The list of "active" CDOs and CAOs from the SWRCB (SWRCB, 2014b) was downloaded on July 17, 2014 and reviewed (sorted and searched). The Project site was not contained in the list of "active" CDO and CAO. However, the RWQCB issued a cleanup and abatement order to Shell in 1997, and the site is classified as undergoing remediation on Geotracker. Therefore, the site is considered to be under active cleanup and abatement.

The DTSC list of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code (DTSC, 2014b) contains only two facilities, and the Project site is not included in this list.

Based on the reviews of the specific lists that currently comprise the Cortese List, the project site is contained on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5. As discussed above, although remediation of existing groundwater contamination at the site is currently occurring under the oversight of the RWQCB (as discussed under Item VIII(b) above), construction and operation of the proposed Project is not expected to result in the release of groundwater contamination that could create a significant hazard to the public or the environment. Therefore, even though the Project site is contained on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5, a significant hazardous material impact is not anticipated, and this issue will not be addressed further in the EIR.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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 an airport land use plan or within two miles of a public airport or a public use airport. The closest airport is Torrance Municipal Airport, which is approximately five miles from the Project site. The Long Beach Airport and Los Angeles International Airport are approximately eight miles and 15 miles, respectively, from the Project site. The Project site is not within an airport land use plan

[4] This list contains many CDOs and CAOs that do NOT concern the discharge of wastes that are hazardous materials. Many of the listed orders concern, as examples, discharges of domestic sewage, food processing wastes, or sediment that do not contain hazardous materials, but the State Water Boards' database does not distinguish between these types of orders.

or within two miles of a public airport; therefore, there would be no impact. This issue will not be addressed further in the EIR.

f. For a project located 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. A helicopter-landing pad for Island Express is located at Berth 95 approximately 0.5-mile southwest from the Project site, across the Main Channel. Only small helicopters operate from this location and transit primarily via the Main Channel. The proximity of the heliport would not result in a safety hazard for people working in the Project area. The proposed Project would have no effect related to private airstrips; therefore, there would be no impact. This issue will not be addressed further in the EIR.

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

Less Than Significant Impact. The Project site is currently used for the handling and transport of oil and fuel products. Project construction would occur within the Project site boundaries and is not expected to affect emergency response or evacuations. As part of standard procedure for activities occurring on Port property, as well as within the Port area, the contractor would coordinate with the Port Police, LAPD, and fire protection/service providers, as appropriate, on traffic management issues and any Port improvement plans occurring in the vicinity. Traffic control equipment would be in place to direct local traffic around the work area if necessary.

An emergency response action plan has been prepared for the existing terminal, which provides detailed procedures to be followed in the event of an emergency at the terminal. The action plan includes an evacuation plan for the terminal in cases where the emergency necessitates evacuation. Procedures include:

- Sounding an alarm.
- Calling 911.
- Shutting down loading, unloading, pipeline, and marine operations.
- Evacuating trucks from the facility.
- Diverting incoming trucks or vessels to a safe distance from the facility.
- Evacuating all personnel to a safe distance.

During proposed Project operation, Shell, U.S. Coast Guard (USCG), Port Police and Fire emergency response plans are employed as necessary in accordance with the Port's Risk Management Plan and MOTEMS requirements. The proposed Project would implement the most recent engineering standards required by MOTEMS for the design and maintenance of marine oil terminals to better protect public health, safety and the environment. The proposed Project, like the existing wharf and terminal features, can accommodate increased vessel calls. Additional vessels beyond the baseline vessel calls would moor at the new loading platforms (waterside portion of the terminal). The additional vessels would not result in activities that could impede land-based emergency responses to the terminal. Further, additional vessels would not result in changes to the terminals emergency response plan. As a consequence, operations under the proposed Project are not expected to result in adverse physical impacts on the environment that could interfere with emergency responses.

The proposed Project would comply with MOTEMS requirements and would not impair implementation of or physically interfere with an adopted emergency response plan or

emergency evacuation plan. This impact is considered less than significant and will not be addressed further in the EIR.

h. Would the project expose people or structures to the 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. There are no wildlands at or near the Project site. The majority of the site and surrounding area is industrial in nature and paved, and no increased wildland fire hazard is expected as a result of the proposed Project. Therefore, there would be no impact, and this issue will not be addressed further in the EIR.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX.	**HYDROLOGY AND WATER QUALITY.** Would the project:				
a.	Violate any water quality standards or waste discharge requirements?			X	
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in 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 that would not support existing land uses or planned uses for which permits have been granted)?				X
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on site or off site?			X	
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site?			X	
e.	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X	
f.	Otherwise substantially degrade water quality?			X	
g.	Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map or other flood hazard delineation map?				X
h.	Place within a 100-year flood hazard area structures that would impede or redirect flood flows?				X

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			X	
j.	Contribute to inundation by seiche, tsunami, or mudflow?			X	

Discussion:

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

Less Than Significant Impact. Stormwater discharges to the municipal separate storm sewer system of the City of Los Angeles are regulated by the Los Angeles Regional Water Quality Control Board (LARWQCB) under Order Number R4-2012-0175, National Pollutant Discharge Elimination System (NPDES) Permit No. CA S004001, Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges Within the Coastal Watersheds of Los Angeles County, Except Those Discharges Originating from the City of Long Beach (MS4 Permit). The permit identifies the implementation of Watershed Management Programs as a framework for permittees to implement the requirements of the permit in an integrated and collaborative fashion to address water quality priorities on a watershed scale, including complying with total daily maximum load (TMDL) provisions and by customizing certain control measures. The ultimate goal of the Watershed Management Programs is to ensure that discharges from the Los Angeles County MS4 (1) achieve applicable Water Quality Based Effluent Limitations that implement TMDLs, (2) do not cause or contribute to exceedances of receiving water limitations, and (3) for non-storm water discharges from the MS4, are not a source of pollutants to receiving waters. Implementation of the City's programs under the MS4 Permit includes: lessening water quality impacts by using smart growth strategies and safeguarding environmentally sensitive areas; minimizing the amount of impervious surfaces, designing projects to minimize impervious footprints, and employing Low Impact Development (LID) design principles; minimizing pollutant loads from impervious surfaces through properly designed, technically appropriate BMPs and LID strategies; and prioritizing the selection of BMPs to remove stormwater pollutants, reduce stormwater volume, and beneficially reuse stormwater.

The SWRCB issues a statewide General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (GCASP) and a statewide General Industrial Activities Stormwater Permit (GIASP) for projects that do not require an individual permit for these activities. The GCASP was adopted in 2009 and further revised in 2012 (Order No. 2012-0006-DWQ). All construction activities that disturb one acre or more must prepare and implement a construction SWPPP that specifies BMPs to prevent pollutants from contacting stormwater. The intent of the SWPPP and BMPs is to keep all products of erosion from moving off site into receiving waters, eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the U.S., and perform sampling and analysis to determine the effectiveness of BMPs in reducing or preventing

pollutants (even if not visually detectable) in stormwater discharges from causing or contributing to violations of water quality objectives. The most recent GIASP (Order No. 2014-0057-DWQ) requires dischargers to develop and implement a SWPPP to reduce or prevent industrial pollutants in stormwater discharges, eliminate unauthorized non-storm discharges, and conduct visual and analytical stormwater discharge monitoring to verify the effectiveness of the SWPPP and submit an annual report.

Construction of the proposed Project could result in sediment resuspension during demolition, pile installation, platform/decking construction, and dredging. The demolition of the existing timber wharf is not expected to result in the release of contaminants. During removal of existing timber piles, the piles would first be pulled, followed by cutting at the mud line for piles that are not able to be extracted via pulling. While there may be increased debris (potentially including creosote-treated timer debris from existing piles to be removed) in the water during wharf demolition and pile removal (from removing the decking and cutting the timber piles), the demolition contractor would meet water quality requirements in permits issued from the RWQCB (such as waste discharge requirements and a Section 401 Water Quality Certification). This would limit the potential for violations of water quality standards. Removal of the timber piles could resuspend some bottom sediments and create localized and temporary turbidity plumes and associated water quality issues as discussed above. However, such impacts would occur over a relatively small area, which would limit turbidity to waters near the seafloor where work occurs. In addition to turbidity, resuspended sediments could result in slightly reduced dissolved oxygen (DO) and pH levels. Reductions in DO concentrations would be brief and are not expected to persist or cause detrimental effects to biological resources. Further, existing contaminants, including metals and organics, could be resuspended into the water column. However, any increase in contaminant levels in the water is expected to be localized and of short duration. Nutrients could also be released into the water column during sediment resuspension. Release of nutrients may promote nuisance growths of phytoplankton if construction occurs during warm water conditions. Phytoplankton blooms have occurred during previous dredging projects, including the Deep Draft Navigation Improvement Project (USACE and LAHD, 1992). However, there is no evidence that the plankton blooms observed were not a natural occurrence or that they were exacerbated by dredging activities. The Basin Plan limits on biostimulatory substances are defined as "…concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses" (LARWQCB, 1994). Given the limited spatial and temporal extent of proposed Project activities with the potential for releasing nutrients from bottom sediments, effects on beneficial uses of Harbor waters are not anticipated to occur in response to the proposed Project.

For installation of new piles, steel piles would be lowered through the water column, and then driven into the seafloor by both vibratory and impact driving methods. Pile installation could resuspend some bottom sediments and create localized and temporary turbidity plumes and associated water quality issues similar to that discussed above. However, such impacts would occur over a small area due to the relatively small number of piles, and any turbidity would be limited to waters near the seafloor where work occurs. The installation of new piles and the associated sediment resuspension would result in DO, pH levels, metals, organic compounds, and nutrient release effects similar to those discussed above for pile removal and are not expected to adversely affect beneficial uses of harbor waters or result in violations of water quality standards; therefore, this impact is considered less than significant and will not be discussed further in the EIR.

As previously discussed, the seismic ground improvement zones are anticipated to retard groundwater movement toward the harbor along the western boundary by decreasing the soil permeability within the zone. This is considered to be a beneficial effect to harbor waters, as there are residual constituents present in the ground water. The injection of grout within the seismic ground improvement zones would displace and compact the surrounding soil, which could also slightly raise the groundwater level in the immediate area of the grout injection during construction. This could temporarily result in groundwater entering the harbor in the vicinity of the grout injection. However, because booming and absorbents would be placed between the berthing line and shore to capture any sheen or liquid petroleum product that may enter harbor waters, and because the boomed area would be visually monitored during seismic ground improvements, the grout injection process is not expected to result in the release of groundwater contamination that could create a significant hazard to the public or the environment, and is not expected to result in water quality violations or adverse effects to the beneficial use designation of the harbor. Therefore, a significant water quality impact is not anticipated from seismic ground improvements, and this issue will not be addressed further in the EIR.

The proposed Project would include minor clean-up dredging (up to approximately 4,000 cubic yards) to remove soil that might slump from the existing underwater slope during pile driving for the new replacement platforms, catwalks, mooring dolphins, and access trestles. All of the dredged material would be placed in the Berths 243–245 CDF. Minor dredging of slumped material would resuspend some bottom sediments and create localized and temporary turbidity plumes over a relatively small area. Dredging would disturb bottom sediments, and suspend sediments over a relatively small area. Sediments in the dredge footprint were tested to determine the suitability of sediments to be placed at the Berths 243–245 CDF (AMEC, 2011). While there were some elevated levels of some constituents, such as PAHs, none exceeded the California Title 22 criteria for hazardous waste determination, and sediments were deemed acceptable for placement at the CDF. Elutriate testing also indicated no water-soluble contaminants exceeded California Toxics Rule criteria. Sediment testing on the Z-layer (the seafloor that would be exposed after dredging) demonstrated that contaminant levels would be lower than those in the overlying sediments after dredging. Receiving water monitoring studies at other dredge sites in the harbor and other water bodies have documented a relatively small, turbid dredge plume that dissipates rapidly with distance from dredging operations (MBC 2001; USACE and LAHD 2008; POLA 2009a–i, 2010a–d). Suspension of sediments during clamshell dredging occurs during bucket impact, penetration, and removal of the bucket from the sediment, as well as during bucket retrieval through the water column.

Clean-up dredging for the proposed Project would require a Section 10 permit from the USACE and a Clean Water Act Section 401 Water Quality Certification from the LARWQCB. The Water Quality Certification would be required to include monitoring requirements necessary to assure compliance with applicable effluent limitations, or any other Clean Water Act limitation, or with any State laws or regulations. Monitoring requirements typically include measurements of water quality parameters such as DO, light transmittance (turbidity), pH, and suspended solids at varying distances from the dredging operations. These parameters were included in the 2000 Maintenance Dredging Monitoring and Reporting Program (No. 8212) at Berths 167–169. During dredging, as a standard practice, if turbidity levels exceed the threshold established in the Waste Discharge Requirements (WDRs) issued by the LARWQCB, water chemistry analysis would be conducted and the LAHD would immediately meet with the construction manager to discuss modifications of dredging operations to keep turbidity to acceptable levels.

Analyses of contaminant concentrations (such as metals, pesticides, and PAHs) in waters during the dredging operations may also be required in the WDR if turbidity levels are elevated above certain established thresholds. Monitoring data would be used by the Port to demonstrate that water quality limits specified in the permit are not exceeded. This would include alteration of dredging methods, and/or implementation of additional BMPs to limit the size and extent of the dredge plume.

Due to the relatively low volume of marine sediment that may need to be removed (estimated at up to 4,000 cubic yards), some elevated turbidity would occur in the immediate vicinity of the dredge for a few days. The majority of suspended sediments settle within one hour of dredging (Palermo et al., 2008). Transport of suspended particles by tidal currents would result in some redistribution of sediment contaminants. The amount of contaminants redistributed in this manner would be small, and the distribution would be localized in the channel adjacent to the work area. Based on the elutriate testing, any water-soluble contaminants would be below California Toxics Rule criteria (AMEC, 2011). Monitoring efforts associated with previous dredging projects in the harbor have shown that resuspension followed by settling of sediments is low (generally two percent or less) (Anchor Environmental, 2003). In addition, resuspended sediments associated with the clean-up dredging would result in DO, pH levels, metals, organic compounds, and nutrient release effects similar to those discussed above for pile removal and pile installation and are not expected to adversely affect beneficial uses of harbor waters or result in violations of water quality standards. This issue will not be discussed further in the EIR.

In addition to water quality effects related to resuspended sediments, accidents resulting in spills of fuel, lubricants, or hydraulic fluid from equipment used during seismic ground improvements, wharf demolition, pile installation, wharf improvements, topside equipment installation, and dredging could occur during proposed Project construction. However, based on the history for this type of work in the harbor, accidental leaks and spills of large volumes of hazardous materials or wastes containing contaminants during onshore construction activities have a very low probability of occurring because large volumes of these materials typically are not used or stored at construction sites. Further, spill prevention and cleanup procedures associated with construction are addressed in the Project-specific SWPPP, which is prepared in accordance with standard Port guidelines and practices, and submitted to the Port by the construction contractor prior to the notice to proceed with construction operations. The SWPPP would define actions to minimize potentials for spills and provide efficient responses to spill events to minimize the magnitude of the spill and extent of impacts. BMPs would be implemented during construction in accordance with the USACE related to demolition, disposal, and construction requirements. As a consequence, the potential for accidents that result in spills of contaminants during Project construction is not expected to adversely affect beneficial uses of harbor waters or result in violations of water quality standards. This issue will not be discussed further in the EIR.

The onshore storm drain system of the existing marine oil facility would not be modified, and the proposed Project would not increase the amount of impervious surface area of the terminal. Stormwater from the existing wharf flows directly to the Los Angeles Harbor, and once the Project is completed, stormwater on the new replacement platforms would also flow directly into Los Angeles Harbor. Stormwater from the land portion of the existing marine oil terminal is conveyed onsite to a wastewater treatment area located north of the main office. The wastewater treatment area includes the American Petroleum Institute (API) Box 4320, Vessel 2387 (which is no longer in use), and associated piping and

pumps. Storm water is conveyed through to the API Box 4320 (which is utilized during onsite water treatment); followed by its discharge preferentially to the sewer, or under emergency circumstances to the channel (NPDES discharge point). Under the proposed Project, the storm drain system at the terminal would continue to comply with the Industrial Waste Discharge requirements for discharges to the sewer system (the City's Bureau of Sanitation issues permits for industrial discharges to the sewer system), as well as NPDES requirements regarding discharges, and the City's Standard Urban Storm water Mitigation Plan (SUSMP)/LID requirements. Further, as part of the seismic ground improvement activities and top side equipment installation, a SWPPP and associated BMPs would be implemented to manage runoff and prevent impacts to water quality.

The design and operation of the proposed Project would not impede compliance with the MS4 and TMDL requirements. Applicable BMPs would be incorporated into the proposed Project plan that must be approved by the Bureau of Sanitation prior to issuance of building and grading permits. The BMPs would include, as applicable, site design BMPs, source control BMPs, and treatment control BMPs. To the maximum extent feasible, treatment control BMPs would be selected from LID BMPs. Given the limited footprint of the proposed Project, there may be very limited opportunity to incorporate significant site design BMPs, but these will be incorporated where possible. All applicable source control BMPs would be incorporated in the proposed Project design. Feasible treatment control BMPs would be selected from for the list of treatment control categories in the 2010 Stormwater Quality Post-Construction Guidance Manual. Tenants would be required to obtain and meet all conditions of applicable stormwater discharge permits as well as meet all Port pollution control requirements.

In addition, water quality at the Port is also guided by the Water Resources Action Plan (WRAP), which was prepared by the Ports of Los Angeles and Long Beach, in coordination with their cities, US Environmental Protection Agency, and the LARWQCB (POLA and POLB, 2009). The purpose of the WRAP is to provide a programmatic framework to identify mechanisms for the Ports to achieve the goals and targets that will be established in the relevant TMDLs and to comply with the GCASP and GIASP, and municipal permits issued to the ports and their respective cities and tenants through the NPDES program. The WRAP identifies multiple current and potential control measures to minimize effects to water and sediment quality. These include Land Use Control Measures, On-Water Source Control Measures, Sediment Control Measures, and Watershed Control Measures.

The proposed Project could accommodate an increase in vessel calls to the terminal. Ocean-going vessels utilize hull coatings to prevent algal growth, which can result in leaching of contaminants to harbor waters. Proposed project operations also have the potential to result in discharges related to risk of upset, accidental discharges, or ballast water discharges to harbor waters, which could be significant. However, the proposed project operations will adhere to the Vessel General Permit and the NPDES-General Industrial Activities Stormwater Permit to reduce the potential of accidental or incidental discharges to the storm drain and harbor waters.

The proposed Project would implement BMPs during construction (in accordance with the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities - GCASP) and operation, reducing the potential to affect water quality standards or waste discharge requirements. Implementation of the proposed Project would require compliance with all applicable federal, state and local regulations, such as those described above. Therefore, this impact is considered less than significant and will not 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 (i.e., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

No Impact. Groundwater at the Project site is impacted by saltwater intrusion (salinity), and is therefore unsuitable for use as drinking water. The proposed Project would occur in or over the harbor waters, replacing the existing wharf with two loading platforms, catwalks, and mooring dolphins to comply with MOTEMS requirements. Seismic ground improvements would occur on the landside portion of the terminal, but would not adversely groundwater recharge because the terminal is not used as a recharge site, and would not adversely affect drinking water supplies. The proposed Project would not change the amount of paving at the site nor would it substantively alter the land surface; therefore, groundwater recharge would not be changed. The proposed Project would not install any new groundwater wells and groundwater extraction would not occur as part of the proposed Project. Thus, the proposed Project would not affect the existing groundwater supplies, drinking water supplies, groundwater recharge facilities, or aquifers. Therefore, there would be no impact and this issue will not be discussed further in the EIR.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on site or off site?

Less Than Significant Impact. The majority of the Project site is currently developed and paved, and as such is impervious. The amount of impervious surface area and the Project site's flat topography would not change. Additionally, current runoff from the Project site is captured, treated, and conveyed via a stormwater control system into the City's sewer system (under permit from the City's Bureau of Sanitation), or to the harbor under emergency circumstances, and site drainage would not be altered as a result of the proposed Project. Construction would comply with the requirements in the NPDES Permit, which would minimize the amount of runoff from the site and potential for substantial erosion or siltation to occur. In addition, standard BMPs would be implemented during seismic ground improvements and topside equipment installation activities to control runoff, consistent with the SWPPP. Therefore, this impact is considered less than significant and will not be discussed further in the EIR.

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

Less Than Significant Impact. The proposed Project would remove the existing wharf decking and 900 piles to be replaced with two loading platforms, catwalks, approximately 20 steel piles and mooring dolphins to comply with MOTEMS requirements and would not change the landside configuration or operation of the existing facility. The new surface area of the loading platforms and access trestles would be approximately 10,000 square feet and would replace the approximately 64,000 square foot timber wharf. The surface area of the new platforms and access trestles would be reduced compared to the current wharf, reducing the amount of rainwater runoff from the wharf to harbor waters. However, this reduced surface area would continue to allow rain that would have runoff of the current wharf to fall directly into harbor waters. Therefore, the proposed Project would not change

the amount of rainwater entering the harbor waters and would not increase the impervious surface area and associated surface runoff.

The existing storm drain system for the land portion of the terminal would not be affected by the proposed Project and would continue comply with the City's Industrial Waste Discharge requirements (for industrial discharges to the City's sewer system), and NPDES requirements regarding discharges to the harbor from the wharf, including complying with SUSMP requirements. The proposed Project would not alter the existing drainage pattern and result in a substantial increase in surface runoff resulting in flooding. Therefore, this impact is considered less than significant and will not be discussed further in the EIR.

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

Less Than Significant Impact. The majority of the Project site is paved and impervious with an existing storm drainage system. The existing system, which has adequate capacity, discharges runoff from the wharf directly into the harbor, and runoff from the remainder of the terminal is directed to the sanitary sewer system. No changes in the impervious surface area or site topography would occur; therefore, the proposed Project would not exceed the capacity of existing or planned stormwater drainage systems. The storm drain system would continue to comply with the City's Industrial Waste Discharge requirements, and the NPDES requirements regarding discharges, including complying with SUSMP. Runoff would not exceed the capacity of the sewer system, stormwater drainage system or provide an additional source of polluted runoff. This impact is considered less than significant and will not be discussed further in the EIR.

f. Would the project otherwise substantially degrade water quality?

Less Than Significant Impact. The proposed Project would include seismic ground improvement activities, topside equipment installation, and minor clean-up dredging (up to approximately 4,000 cubic yards) to remove soil that might slump from the existing underwater slope during pile driving for the new replacement platforms. Spoils from seismic ground improvements and topside equipment installation would be disposed of at a landfill or other facility in accordance with applicable laws and regulations. All of the dredged material would be disposed of at the Berths 243–245 CDF. The proposed Project would also include removal of existing piles and installation of new steel pipe piles. If the existing piles cannot be extracted, they would be supported by crane, cut at the mudline, and removed. Dredging, wharf demolition, and installation of the pipe piles would disturb the seafloor in a relatively small area, resulting in a short-term increase in suspended sediments. This in-water work would be temporary and occur within a small area and would not substantially degrade water quality as discussed in Item IX(a) above.

The proposed Project would implement the most recent engineering standards required by MOTEMS for the design and maintenance of marine oil terminals to better protect public health, safety and the environment. The proposed Project could accommodate an increase in vessel calls to the terminal; however, the additional vessels would not result in physical changes to the terminal. Therefore, aside from issues discussed under Item IX(a) above, construction and operation of the proposed Project would not otherwise substantially degrade water quality. This impact is considered less than significant and will not be discussed further in the EIR.

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

No Impact. No housing is proposed under the proposed Project; therefore, there would be no impact and this issue will not be discussed further in the EIR.

h. Would the project place within a 100-year floodplain structures that would impede or redirect flood flows?

No Impact. According to Flood Hazard Map FM06037C1945F, the Project site is located in Zone AE which is identified as Special Flood Hazard Area subject to inundation by the one percent annual chance flood, also known as the base flood, which has a one percent chance of being equaled or exceeded in any given year.

The proposed Project would include replacement of the wharf with modern loading platforms. The replacement platforms would be located at the same location as the existing wharf and would not increase the potential for flooding impacts compared to the existing conditions. The Project site is located on the harbor's edge which would allow any excess runoff to flow off-site and thus flood water on the Project site from a large storm event is not expected to be deep enough to cause employees to be harmed or to cause substantial damage to property. Additionally, site elevations and the flat site topography would not change under the proposed Project. Therefore, the proposed Project would not result in impacts by redirecting or impeding flood flows, and this issue will not be discussed 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. There are no levees or dams in the vicinity of the project area that would be subject to failure or would expose people or structures to a significant risk of loss, injury, or death involving flooding associated with levee or dam failure (City of Los Angeles, 1996).

The Project site is within the 100-year flood zone as identified by FEMA as described under Item IX(h) above (FEMA, 2008). During construction, the number of workers on-site would temporarily increase; however, the proposed Project construction would not increase the potential for flooding to occur on-site. Site elevations and the flat site topography would remain the same subsequent to construction. The Project site is located on the harbor's edge (which would allow any excess runoff to flow off-site). Therefore, flood water on the Project site from a large storm event is not expected to be deep enough to cause employees of the terminal to be harmed or to cause substantial damage to property on-site. This impact is considered less than significant and will not be discussed further in the EIR.

j. Would the project contribute to inundation by seiche, tsunami, or mudflow?

Less Than Significant Impact. The proposed Project would not increase impacts associated with seiche, tsunami, or mudflow. The Project site and surrounding area are primarily paved with relatively small elevation differences and thus mudflows would not occur. Seiches are seismically induced water waves that surge back and forth in an enclosed basin and could occur in the harbor as a result of earthquakes. A Port Complex (Port of Los Angeles and Port of Long Beach) model that assessed tsunami and seiche scenarios determined that in each case modeled, impacts from a tsunami were equal to

or more severe than those from a seiche (Moffatt & Nichol, 2007). As a result, the discussion below refers to tsunamis as the worst case of potential impacts. Potential impacts related to seiches would be the same as or less than identified below.

Construction and operation of the proposed Project would not increase the potential for tsunami damage to occur. Under the proposed Project, the existing wharf would be replaced. No other new structures would be constructed that would be subject to damage, including inundation, by tsunami. The number of employees on-site would temporarily increase during construction, and a small number of employees could be added during operations (the terminal currently has six employees). The proposed Project would implement the most recent engineering standards required by MOTEMS for the design and maintenance of marine oil terminals to better protect public health, safety and the environment. The proposed Project (could accommodate an increase in vessel calls to the terminal; however, the additional vessels would not result in physical changes to the terminal. Therefore, the proposed Project would not result in an adverse physical impact on the environment and increase risks associated with tsunami or seiche.

According to the City of Los Angeles Safety Element of the General Plan (City of Los Angeles, 1996), the Project site is within an area susceptible to impacts from a tsunami and subject to possible inundation. However, in the period since publication of the Safety Element a detailed *Tsunami Hazard Assessment for the Ports of Los Angeles and Long Beach* was prepared by Moffatt & Nichol (Moffatt and Nichol, 2007) utilizing a model developed specifically for the Port Complex. Conclusions of the study indicate that under various tsunami scenarios the Project area would not experience inundation or flooding.

The Port Complex model indicates that a reasonable maximum source for future tsunami events within the harbor area would either be a magnitude (M) 7 earthquake on the Santa Catalina Fault or a submarine landslide along the nearby Palos Verdes Peninsula. The tsunami study notes that large offshore earthquakes (M~7.5) in the Port region are very infrequent. Furthermore, not every large earthquake is expected to generate a tsunami based on historical occurrences. Based on the seismicity, geodetics, and geology, a large locally generated tsunami from either local seismic activity or a local submarine landslide would likely not occur more than once every 10,000 years.

Under the maximum future tsunami scenarios, the Port Complex model predicts tsunami wave heights within the harbor area in excess of 23 feet above MSL at the western and southern faces of Pier 400. However, in more protected areas, such as West Basin, the model predicts tsunami wave heights of 1.3 to 5.3 feet above MSL (Moffatt and Nichol, 2007). For the scenarios modeled in the report, the only overtopping expected to occur is along the face of Pier 400 and the Navy Mole in the Port of Long Beach. The report expects a maximum wave height of 2.8 meters (9.1 feet) along the East Basin Channel, which would not overtop the lowest deck elevation at 3.4 meters (11.2 feet) (Moffatt and Nichol, 2007, Table 4-1). The proposed loading platforms would be 15 feet above MSL and thus would be above the predicted maximum wave height.

Nonetheless, the existing marine oil terminal has Tsunami Plan that specifies guidelines to follow in the event of a tsunami warning that include draining and disconnecting cargo lines, securing the terminal, and allowing berthed vessels to depart prior to arrival of a tsunami, if time permits.

A Sea Level Rise Vulnerability Report for the City of Los Angeles (March 2013 Update to State of California Sea-Level Rise Guidance Document prepared in 2010 by the Sea Level Rise Task Force of the Coastal and Ocean Working Group of the California Climate Action Team) presents initial research on the potential impacts of sea level rise and associated

flooding from storms in City of Los Angeles coastal communities. For the period of 2000-2050, the report suggests that the sea level can rise by up to 2-feet by 2050. A maximum tsunami wave height of 2.8 meters (9.1 feet) along the Main Channel on top of a 2-foot sea level rise would result in a combined potential wave height of 11.2 feet above MSL in the vicinity of the Project site. As described above, the replacement platforms would be constructed at 15 feet MSL. Therefore, the proposed Project has been designed so that no overtopping of the replacement platforms at the Project site is anticipated as a result of a tsunami or sea level rise.

Measures to minimize impacts from seiches or tsunamis, such as the breakwater and constructing facilities at adequate elevation, are in place and incorporation of emergency planning in accordance with current state and City regulations would minimize damage to structures and injury to personnel from tsunami inundation. In addition, there is a Portwide emergency notification system in place that provides phone/text/email notification of tsunami warnings or other emergency situations. Further, the existing terminal has a tsunami plan to be followed in the event of a tsunami. The existing tsunami plan identifies steps to follow in the event that a tsunami warning is issued. The procedures identify priorities as the safety of life, both terminal and vessel staff, limitation/mitigation of environmental impact from oil spills and limitation/mitigation of damage to the marine oil terminal. The tsunami plan would remain in effect under the proposed Project.

As described above, no overtopping of the new platforms under the proposed Project is expected should a tsunami occur. Further, the proposed Project is a wharf replacement and seismic ground improvement project that would meet MOTEMS, and is not expected to contribute to an increased potential for inundation by seiche, tsunami, or mudflow. This impact is considered less than significant and will not be discussed further in the EIR.

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

Discussion:

a. Would the project physically divide an established community?

No Impact. The proposed Project is located on Mormon Island, a heavy industrial area of the Port that does not contain any established communities. The nearest residential receptor community is in San Pedro, approximately 4,300 feet (1,500 meters or 0.8- mile) southwest of the Project site (apartment complex along Harbor Boulevard just south of SR-47). Proposed Project improvements would be confined to the existing marine oil terminal (Berths 168 and 169) and would implement the most recent engineering standards required by MOTEMS for the design and maintenance of marine oil terminals to better protect public health, safety and the environment. The proposed Project could accommodate an increase in vessel calls to the terminal; however, the additional vessels would not result in physical changes to the terminal. The proposed Project would not physically divide an established community. Therefore, no impacts involving physically dividing an established community would occur with the implementation of the proposed Project and this issue will not be discussed further 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?

No Impact. The Project site is located on Mormon Island in the Port of Los Angeles Community Plan area; the community of San Pedro is located to the west and southwest and the community of Wilmington is located to the north. The existing marine oil terminal occupies a land area of approximately nine acres, an over water area of approximately three acres, and has two berths (Berths 168 and 169), and 11 storage tanks, as well as administrative offices and other support buildings.

Land uses in the vicinity of the Project site support a variety of cargo handling operations (including container, liquid bulk, dry bulk). Adjacent to the proposed Project are ConocoPhillips across the Turning Basin to the west; Rio Tinto Minerals to the north; vacant land to the east; and YTI Container Terminal across the East Basin Channel to the south.

The Port of Los Angeles Master Plan serves as a long-range plan that establishes policies and guidelines for future development of the Port. The Port Master Plan was originally adopted and certified in 1980 by the California Coastal Commission in conformance with the California Coastal Act. The Port Master Plan was updated in August 2013 to better promote and accommodate commerce, navigation, and fisheries in the national, state, and local public interests, as well as provide for recreation facilities and visitor serving uses. The update was approved by the Board of Harbor Commissioners in August, 2013 and certification by the California Coastal Commission in March 2014. The Project site is designed for liquid bulk uses the updated Master Plan (POLA, 2013a).

The updated Port Master Plan is divided into the five planning areas. The Project site is located within Planning Area 2, which includes the West Basin and Wilmington Area. The land uses in Planning Area 2 includes container terminals (682 acres), recreational boating (29 acres), maritime support (17 acres), institutional (30 acres), visitor-serving commercial (three acres), open space (34 acres) and a mix of breakbulk, dry bulk, and or liquid bulk uses (261 acres) (POLA, 2014).

The Port of Los Angeles Plan is part of the City of Los Angeles General Plan Land Use Element, which serves as the guide for the continued development and operation of the Port (City of Los Angeles, 1982). The Project site has a Non-Hazard Industrial and Commercial land use designation under the Port of Los Angeles Plan. The Project site is zoned [Q]M3-1 (Qualified Heavy Industrial) by the City of Los Angeles Zoning Ordinance. The [Q] designation restricts uses to General Cargo, limited Port-related commercial, industrial, and support uses. The proposed Project would provide for the continuation of the existing use, which is consistent with the [Q]M3-1 zoning of the site.

The proposed Project would implement the most recent engineering standards required by MOTEMS for the design and maintenance of marine oil terminals to better protect public health, safety and the environment. The proposed Project could accommodate an increase in vessel calls to the terminal. The proposed Project would not change the existing use of the site as marine oil terminal. In fact, the proposed Project would include a new lease that would allow the facility to operate as a marine oil terminal through 2046, for a total of 30 years (the current lease expires 2023). The continuation of the site as a marine oil terminal under the proposed Project would be consistent with the surrounding uses, which include other port uses, such as the YTI Container Terminal and Rio Tinto Minerals dry bulk facility.

As described above, the continuation of the marine oil terminal use would be consistent with applicable land use plans and land use designations, including the Port Master Plan, Port of Los Angeles Plan, and zoning code. Consequently, the proposed Project would not conflict with any applicable land use plan, policy, or regulation. Therefore, there would be no impact and this issue will not be discussed further in the EIR.

c. Would the project conflict with any applicable habitat conservation plan or natural communities conservation plan?

No Impact. The Project site does not fall within or near an area covered by a habitat conservation plan or natural communities conservation plan. The proposed Project would implement the most recent engineering standards required by MOTEMS for the design and maintenance of marine oil terminals to better protect public health, safety and the environment. The proposed Project could accommodate an increase in vessel calls to the terminal; however, the additional vessels would not result in physical changes to the terminal. The proposed Project would not conflict with any habitat conservation plan or natural communities conservation plan. Therefore, there would be no impact and this issue will not be discussed further in the EIR.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI.	**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?				X
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?				X

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. The proposed Project is located on Mormon Island, which is made mostly of artificial fill material. No known valuable mineral resources would be impacted by the proposed Project. According to the California Department of Conservation Division of Mines and Geology mineral resource maps, the nearest mineral resources area is located in the San Gabriel Valley.

According to the City of Los Angeles General Plan Safety Element and the California Department of Conservation, Division of Oil, Gas, and Geothermic Resources, the northern portion of the Project site is located within the Wilmington Oil Field but outside of the major drilling area (City of Los Angeles, 1996; California Department of Conservation, 2001 and 2011a). There are no active oil wells on the Project site. Because the proposed Project would not be located within an active oil drilling area and because construction would be at the surface or shallow depths relative to the oil field, no impacts to mineral resources are anticipated. Therefore, no impacts related to the loss of availability of a known valued mineral resources would occur with the implementation of the proposed Project, and this issue will not be discussed 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. According to the City of Los Angeles General Plan Safety Element and the California Department of Conservation, Division of Oil, Gas, and Geothermic Resources, the northern portion of the Project site is located within the Wilmington Oil Field but outside of the major drilling area (City of Los Angeles, 1996; California Department of Conservation, 2001). As described under Item XI(a) above, there are no active oil wells on-site. The proposed Project would implement the most recent engineering standards required by MOTEMS for the design and maintenance of marine oil terminals to better protect public health, safety and the environment. The proposed Project could accommodate an increase in vessel calls to the terminal; however, the additional vessels would not result in physical changes to the terminal. The proposed Project would not result in the loss of availability of a mineral resource recovery site as described under Item

XI(a), above. Therefore, no impact to the availability of a mineral resource would result from construction and operation of the proposed Project, and this issue will not be discussed further in the EIR.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII.	**NOISE.** Would the project:				
a.	Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?			X	
b.	Expose persons to or generate excessive groundborne vibration or groundborne noise levels?			X	
c.	Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d.	Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
e.	Be located within an airport land use plan area, or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?				X
f.	Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels?				X

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?

Less Than Significant Impact. The City regulates construction noise via the Los Angeles Municipal Code (LAMC) (Chapter IV, Article 1, Section 41.40; Chapter XI, Article 2, Section 112.05). Under the noise provisions, construction equipment noise levels are limited to a maximum noise level of 75 dBA (A-weighted decibel) if located within 500 feet of any residential zone of the City, if technically feasible. The City allows construction during the week (Monday through Friday) between the hours of 7:00 a.m. and 9:00 p.m. and specifically prohibits night construction if related noise can disturb persons occupying sleeping quarters in any dwelling, hotel, or residence. In addition, construction within 500 feet of a residence is restricted to the hours of 8:00 a.m. to 6:00 p.m. on Saturdays and national holidays, and prohibited on Sundays. Major public works projects conducted by the City are exempt from this weekend and holiday restriction. The nearest residential

area (apartment located along Harbor Boulevard at the SR-47) to the wharf construction site is approximately 4,300 feet away. The nearest residential use to the Berth 243-245 CDF (Terminal Island Federal Correctional Institute) is approximately 590 feet; therefore, the proposed Project would not be subject to the maximum noise limits in the LMAC. All phases of the proposed Project construction would occur Monday through Friday between the hours of 7:00 a.m. and 9:00 p.m. No construction would occur during prohibited hours. No ordinances would be violated by the proposed Project; therefore, the construction noise impacts would be less than significant and this issue will not be discussed further in the EIR.

The proposed Project would not increase the terminal's handling, storage, or pumping capacity; rather, it would replace the existing timber wharf with two new loading platforms (same number of berths with the same water depth) and replace existing topside equipment with new topside equipment to meet regulatory standards. The proposed Project could accommodate an increase in vessel calls to the terminal; however, only two vessels at a time could berth at the terminal at any given time. Further, residential receptors are located almost one-mile away, and across this distance, vessel noise (such as from tugs boats maneuvering tankers into position) are expected to be attenuated to below significance levels. Therefore, this issue will not be discussed further in the EIR.

b. Expose persons to or generate excessive groundborne vibration or groundborne noise?

Less Than Significant Impact. Construction activities associated with the proposed Project could generate vibration. Construction equipment such as drill rigs, pile installation and driving equipment, compaction equipment, and haul trucks would generate vibrations that could result in groundborne noise or vibration that could affect nearby structures or residences. Transient vibration levels greater than 0.5 inches per second (in/sec) and continuous/frequent intermittent vibration levels greater than 0.3 in/sec have the potential to damage older residential structures. Transient vibration levels greater than 2.0 in/sec or continuous sources greater than 0.4 in/sec would cause severe annoyance to a human (Caltrans, 2013b). In addition, continuous vibration levels of 0.08 in/sec would be "readily perceptible" to humans, whereas transient vibration levels of 0.035 in/sec would be "barely perceptible" to humans. All phases of the construction involve multiple trucks and other vibration producing equipment resulting in vibration levels up to approximately 0.02 in/sec at the closest residences (see Appendix B), which is well below the level where transient vibrations become perceptible, and where continuous vibrations are readily perceptible. Based on this, excessive groundborne vibration and/or groundborne noise are not anticipated. Therefore, a less than significant impact would occur during Project construction and this issue will not be discussed further in the EIR.

The proposed Project could accommodate an increase in vessel calls to the terminal; however, the vessels would be water-based, and would not result in groundborne vibrations or groundborne noise levels. Therefore, operation of the proposed Project would not result in impacts related to groundborne vibration or noise and this issue will not be discussed further in the EIR.

c. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact. The proposed Project would implement the most recent engineering standards required by MOTEMS for the design and maintenance of marine oil terminals to better protect public health, safety and the environment. The proposed Project could accommodate an increase in vessel calls to the terminal; however, only two

vessels at a time could berth at the terminal at any given time. Further, residential receptors are located almost one mile away, and across this distance, vessel noise (such as from tugs boats maneuvering tankers into position) are expected to be attenuated to below significance levels. Therefore, no permanent increase in ambient noise levels would occur under the proposed Project, and this issue will not be discussed 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?

Less Than Significant Impact. For construction projects that last more than 10 days within a three-month period, the City recommends using the threshold of significance of 5 dBA or more increase in noise levels over existing ambient community noise equivalent level (CNEL), which is a type of 24-hour average noise level (City of Los Angeles, 2006). Although the L.A. CEQA Thresholds Guide (2006) does not require a full noise evaluation if construction is not located within 500 feet of a residential zone, a quantitative analysis was still completed to determine if impacts could be significant at the closest receptor (refer to Appendix B of this Initial Study for the Noise Calculation Worksheets).

Construction noise could result in a significant temporary impact to the ambient noise environment. The pile driving phase is anticipated to produce the most noise (up to 101 dBA [Lmax] at 50 feet). The remaining phases of the construction are expected to generate approximately 80 to 99 dBA of noise at 50 feet from the construction activity. Because the residences closest to the proposed Project are approximately 4,300 feet from the construction zone, the outdoor noise level at the nearest residences would be approximately 55 dBA during the pile driving phase when all anticipated equipment are operated, resulting in a CNEL of 52 dBA. Those residences are located near the intersection of Amar Street and Palos Verdes Street are classified as zone RD2-1XL by the City (City of Los Angeles, 2014). As such, the existing ambient noise level at the receptors is assumed to be 50 dBA (City of Los Angeles, 2006); therefore, the pile driving phase would be 2 dBA above the existing level. In addition, dredge spoils would be deposited in the Berths 243–245 CDF. The closest sensitive receptor to the CDF unloading area is approximately 590 feet (Terminal Island Federal Correctional Institution). The noise levels in the vicinity of the prison are estimated to be 65 dBA based on presumed ambient noise levels within the Los Angeles Municipal Code. The unloading of dredge materials at the CDF would last for one day, and would result in a noise level of approximately 71 dBA at the closest part of the prison. Other sensitive noise receptors are located over a mile from the Project site, including Bannings Landing (4,300 feet away), Barton Hill Elementary School (6,700 feet away), San Pedro Branch Library (9,800 feet away), and the Harbor Community Police Station (6,400 feet away). These receptors are located too far from the Project site to be adversely affected by construction noise. Based on the City's significance thresholds for noise during construction (construction activities lasting more than one day that would exceed existing ambient exterior noise levels by 10 dBA or more at a noise sensitive use is considered to be significant; City of Los Angeles, 2006), the increase in ambient noise at the prison (approximately 6 dBA) would not exceed the threshold noise level. Therefore, construction noise impacts would be less than significant and this issue will not be discussed further in the EIR.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The proposed Project is not located within two miles of a public airport. The closest airport, Torrance Municipal Airport, is located approximately five miles to the northwest of the Project site. Long Beach Airport is located approximately eight miles to the northeast of the Project site. Therefore, the proposed Project is not 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. The proposed Project would not expose people residing or working in at the Project site to excessive noise related to a public airport. Therefore, there would be no impact, and this issue will not be discussed further in the EIR.

f. For a project located within 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 is not located within the vicinity of a private airstrip. The closest private facility to the proposed Project is a helipad located at Berth 95 (Island Express), approximately 0.5-mile southwest from the Project site across the Main Channel. Only small helicopters operate from this location and transit primarily via the Main Channel of the Port. Operations associated with the heliport would not expose persons at the Project site to excessive noise levels associated with a private airstrip. Therefore, there would be no impact from implementation of the proposed Project, and this issue will not be discussed further in the EIR.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII.	**POPULATION AND HOUSING.** Would the project:				
a.	Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?				X
b.	Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?				X
c.	Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?				X

Discussion:

a. Would the project induce substantial population growth in an area, either directly (e.g., by proposing new homes and business) or indirectly (e.g., through extension of roads or other infrastructure)?

No Impact. The proposed Project would implement the most recent engineering standards required by MOTEMS for the design and maintenance of marine oil terminals to better protect public health, safety and the environment. The proposed Project could accommodate an increase in vessel calls to the terminal; however, the additional vessels would not result in physical changes to the terminal. The proposed Project would not establish new residential uses within the Port, require extension of roads or other growth-accommodating infrastructure, or result in the relocation of substantial numbers of people from outside of the region. Therefore, the proposed Project would not directly or indirectly induce population growth directly or indirectly through extension of roads or other infrastructure. This issue will not be discussed further in the EIR.

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

No Impact. There is no housing within the Project boundaries that would be displaced as a result of the proposed Project. There is no formal housing within the Port, although there are liveaboards (people living aboard vessels) at some marinas within the Port. The nearest liveaboards to the terminal are located in the Cerritos Channel Marina near the East Basin (just over one mile to the east of the Project site). The nearest housing/residences to the CDF site are located at the Terminal Island Federal Correctional Institution, just less than 600 feet from the western edge of the CDF. The proposed Project would not displace persons incarcerated at this institution. No replacement housing would be needed or required associated with the implementation of the proposed Project. Therefore, no impacts on housing would occur, this issue will not be discussed further in the EIR.

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

No Impact. There is no housing within the proposed Project boundaries that would be displaced as a result of the proposed Project. The proposed Project would not result in the displacement of any persons and the need for replacement housing; therefore, no impacts on housing would occur, and this issue will not be discussed further in the EIR.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV.	**PUBLIC SERVICES.** Would the project:				
a.	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a 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?			X	
	ii.) Police protection?			X	
	iii.) Schools?				X
	iv.) Parks?				X
	v.) Other public facilities?			X	

Discussion:

a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a 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 public services:

i.) Fire Protection

Less Than Significant Impact. The City of Los Angeles Fire Department (LAFD) currently provides fire protection and emergency services to the Project site and surrounding area. LAFD facilities in the Port include land-based fire stations and fireboat companies. The nearest station with direct fireboat access is Fire Station No. 112 located about one mile south of the Project site. This station is equipped with a single engine company and one boat (Fire Boat No. 2). The next closest station is Fire Station No. 49, located to the north at 400 Yacht Street, with an approximately 1.3 mile travel distance to the terminal. This station is equipped with a single engine company and two boats (Fire Boats No. 3, No. 4) at Berth 194. The fire stations listed in Table 2 could respond to an emergency at the Project site.

Table 2: LAFD Stations in the Vicinity of the Proposed Project Area

Fire Stations within Project Service Area	Distance from the Project Site[a]	Type/Facilities
Fire Station No. 112 444 South Harbor Blvd Berth 86 San Pedro, CA	1 mile	Engine Company, Paramedic Ambulance, and Fire Boat No. 2
Fire Station No. 49 400 Yacht Street, Berth 194 Los Angeles, CA	1.3 miles	Fireboats 3 and 4, Engine 49, Basic Life Support Ambulance
Fire Station No. 38 124 East I Street Wilmington, CA	2 miles	Engine Company, Rescue Ambulance
Fire Station No. 48 1601 S. Grand Ave San Pedro CA	5 miles	Assessment Engine, Light Force, Rescue Ambulance, and Haz-Mat Squad
Fire Station No. 110 2945 Miner St Berth 44-A San Pedro, CA	3.5 miles	Fire Boat No. 5 and SCUBA Operations
Fire Station No. 111 1444 Seaside Avenue Berth 260 San Pedro, CA	3.5 miles	Fire Boat No. 1
Fire Station No. 40 330 Ferry St Terminal Island, CA	6 miles	Assessment Engine, Rescue Ambulance, and Rehab Air Tender

[a] The driving distance was measured from the station to the proposed Project's boundary along major routes or direct distance in the case of fire stations with fireboats.

As described above, the Project site is currently served by fire protection and emergency services. Construction of the proposed Project would not increase the need for expanded services. Further, construction would occur within the Project site and harbor and would not affect service ratios, response times, or other performance objectives of the LAFD.

The proposed Project would implement the most recent engineering standards required by MOTEMS for the design and maintenance of marine oil terminals to better protect public health, safety and the environment at an existing marine oil terminal. The MOTEMS

requirements include specifications for fire prevention, detection, and suppression including, preparation of a site-specific fire plan, a permanently installed automated fire detection system, and a fire suppression system that meets provisions of fire-water flow rates, foam supply, and fire extinguishers. The proposed Project would implement the new wharf design, and mooring dolphins, which would not adversely affect fire safety. Further, the SCP Plan improvements would include improved leak detection systems and tank improvements designed to minimize the potential for product leaks to the environment. The proposed Project could accommodate an increase in vessel calls to the terminal; however, the additional vessels would not result in physical changes to the terminal. In addition, vessels would be moored at the loading docks, and would not impede surface transportation routes. As such, operation of the proposed Project would not result in a substantive increase in demand for LAFD personnel, equipment, facilities, or firefighting capabilities, nor would it affect response times which could lead to a substantial adverse physical impact. Further, the proposed Project improvements would, as a standard practice, be reviewed by the LAFD, and any recommendations would be incorporated into proposed Project design.

Construction of the proposed Project would occur in a staged manner along Berth 168 to allow operation at Berth 169 to concurrently occur. Construction activities would include implementation of standard safety requirements, including preparation of an emergency response plan and coordination with emergency service providers, including the LAFD. Based on this, construction of the proposed Project is not expected to result in an increase in demand for LAFD personnel, equipment, facilities, or firefighting capabilities, nor would it affect response times which could lead to a substantial adverse physical impact.

Operation of the proposed Project would comply with MOTEMS fire safety requirements and the state and city fire codes, standards and regulations. Therefore, impacts associated with fire protection services would be less than significant and will not be discussed further in the EIR.

ii.) Police Protection

Less Than Significant Impact. 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 law enforcement agency within the Port of Los Angeles. Specifically, the Port Police is responsible for patrol and surveillance within the Port property boundaries, including Port-owned properties within the communities of Wilmington, San Pedro, and Harbor City. The Port Police maintains 24-hour land and water patrols and enforces federal, state, and local public safety statutes, Port tariff regulations, as well as environmental and maritime safety regulations. The Port Police headquarters is located at 330 Centre Street in San Pedro.

Although the Port Police are first responders in an emergency, since the Port is part of the City of Los Angeles the LAPD also holds responsibility for police services in the Project vicinity. The LAPD Harbor Division is located at 2175 John S. Gibson Boulevard in San Pedro, which is approximately 1.1 miles east of the proposed Project, would serve the Project site, if needed. The Harbor Division Station is responsible for patrols throughout San Pedro, Harbor City, and Wilmington.

Construction of the proposed Project would occur within the Project site and adjacent harbor waters. It is unlikely that street closures would be required; however, should this become necessary, the contractor would be required per the Port's standard contract specifications to coordinate with LAPD and the Port Police to allow for the identification of alternative response routes if necessary during construction activities, thereby preventing

the temporary interruption and/or delays for law enforcement responses. Therefore, Project construction would not affect demand for law enforcement such that new facilities would be required.

The proposed Project would be located within the same operating distance as the existing wharf and therefore, would not increase emergency response times. The proposed Project could accommodate an increase in vessel calls to the terminal; however, the additional vessels would not result in physical changes to the terminal. In addition, vessels would be moored at the loading docks, and would not impede surface transportation routes that could be used by police service providers. In addition, the proposed Project would implement the most recent engineering standards required by MOTEMS for the design and maintenance of marine oil terminals to better protect public health, safety and the environment at an existing marine oil terminal, would not substantively alter terminal activities and would not increase long-term employment or result in indirect growth that would result in need for additional police protection. Accordingly, the proposed Project would not increase the demand for additional law enforcement officers and/or facilities such that the Port Police or LAPD would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects. Therefore, no significant impacts on police protection services would occur with implementation of the proposed Project, and this issue will not be discussed further in the EIR.

iii) Schools

No Impact. The demand for new schools is generally associated with increases in the school-aged population or decreases in the accessibility and availability of existing schools. The proposed Project would implement the most recent engineering standards required by MOTEMS for the design and maintenance of marine oil terminals to better protect public health, safety and the environment at an existing marine oil terminal and would not involve schools or include residential development that could increase school age population. Therefore, no impacts to existing schools, or need for new school facilities would occur with implementation of the proposed Project, and this issue will not be discussed further in the EIR.

iv) Parks

No Impact. The proposed Project would implement the most recent engineering standards required by MOTEMS for the design and maintenance of marine oil terminals to better protect public health, safety and the environment at an existing marine oil terminal and does not include the creation of new parks or reduction in existing park facilities. In addition, proposed Project improvements would be confined to the Project site within the Port and would not induce growth that could result in increased demand for parks beyond that which currently exists. Therefore, no impacts to existing parks, or need for new parks would occur from implementation of the proposed Project, and this issue will not be discussed further in the EIR.

v) Other Public Facilities

Less Than Significant Impact. The USCG is a federal agency responsible for a broad range 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. The USCG's primary responsibility is to ensure the safety of vessel traffic in the channels of the Port and in coastal waters. The 11th USCG District maintains a post on Terminal

Island, south of the Project site. The USCG, in cooperation with the Marine Exchange, also operates Vessel Traffic Information Systems, which is intended to enhance vessel safety in the main approaches to the Port. The proposed Project would implement the most recent engineering standards required by MOTEMS for the design and maintenance of marine oil terminals to better protect public health, safety and the environment at an existing marine oil terminal and would not result in impacts to USCG facilities or operations. In addition, the proposed Project would accommodate an increase in annual vessel calls to the terminal to 159 vessels, an increase of 73 annual vessel calls over the average annual vessel calls to the terminal over the last five years (86 annual vessel calls). Although the proposed Project would accommodate an increase in annual vessel calls, the increase is not considered substantial compared to historic levels at the terminal and compared to the 2,088 vessel calls to the Port in 2014 (POLA, 2013c), and is not expected to require expansion of the Vessel Traffic Information Systems. Therefore, the proposed Project is not expected to result in an increase in demand for other public facilities, including the USGS, which could lead to a substantial adverse physical impact. Potential impacts would be less than significant and this issue will not be discussed further in the EIR.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV.	**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 facility would occur or be accelerated?				X
b.	Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?				X

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 facility would occur or be accelerated?

No Impact. The proposed Project would implement the most recent engineering standards required by MOTEMS for the design and maintenance of marine oil terminals to better protect public health, safety and the environment at an existing marine oil terminal and does not involve new residential development that would increase use of existing parks or recreational facilities, or create a need for new recreational opportunities. Therefore, the proposed Project would not directly or indirectly result in physical deterioration of parks or other recreational facilities and no impact would occur. This issue will not be discussed further in the EIR.

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

No Impact. The proposed Project would implement the most recent engineering standards required by MOTEMS for the design and maintenance of marine oil terminals to better protect public health, safety and the environment at an existing marine oil terminal and does not include recreational facilities or new residential development that would require construction or expansion of existing recreational facilities. Therefore, no new or expanded recreational facilities would be constructed and no impact would occur. This issue will not be discussed further in the EIR.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI.	**TRANSPORTATION/TRAFFIC.** Would the project:				
a.	Exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			X	
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?			X	
c.	Result in a change in marine vessel traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?			X	
d.	Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e.	Result in inadequate emergency access?				
f.	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X

Discussion:

a. Would the project increase the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Less Than Significant Impact. The proposed Project, which would improve the existing marine oil terminal and its berths, would not increase the capacity of the existing circulation

system based on the applicable measures of effectiveness as designated by the City of Los Angeles General Plan or the Port of Los Angeles Plan. This includes the infrastructure for all modes of ground transportation modes such as intersections, streets, highways and freeways, pedestrian and bicycle facilities and transit stations and services. The proposed Project could accommodate an increase in vessel calls to the terminal; however, the additional vessels would not result in physical changes to the terminal. Liquid cargo loaded and unloaded at the terminal is conveyed to and from the terminal via pipelines, and an increase in vessel calls would not result in a substantive increase in ground transportation to and from the terminal. A small increase in the number of terminal employees from the current six employees would not substantively increase traffic. Therefore, the proposed Project would not significantly impact the existing circulation system, and this issue will not be discussed further in the EIR.

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?

Less Than Significant Impact. The proposed Project could accommodate an increase in vessel calls to the terminal; however, the additional vessels would not result in physical changes to the terminal. Liquid cargo loaded and unloaded at the terminal is conveyed to and from the terminal via pipelines, and an increase in vessel calls would not result in a substantive increase in ground transportation to and from the terminal. As a consequence, the proposed Project would not result in an increase in ground transportation and traffic patterns that could result in a conflict with an applicable congestion management program or other performance standards of ground transportation facilities. Analysis was conducted to determine the potential impact of trips associated with the proposed Project's construction period (see Appendix C for the construction traffic worksheets). That analysis was based on the maximum construction period number of vehicle trips generated by the proposed Project in the AM and PM peak hours of travel as prescribed in the City of Los Angeles Traffic Analysis Guidelines and the Los Angeles County Congestion Management Program. In addition, the midday peak hour was also analyzed as it represents the peak trip generation (vehicles entering and exiting) for the San Pedro Bay ports. The intersections along the route between the proposed Project site and the regional freeway facility serving the area, I-110, were analyzed for the additional traffic generated by the proposed project during its construction period and were found to have their operations unaffected by the proposed project construction period. Therefore, the proposed Project would not result in significant traffic impacts during construction or operation, and this issue will not be discussed further in the EIR.

c. Would the project result in a change in marine vessel traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Less Than Significant Impact. The proposed Project is comprised of seismic ground improvements along the terminal's northwestern boundary, and the of the replacement of the existing two-berth timber wharf with two new concrete loading platforms, access trestles, catwalks, mooring dolphin improvements, and replacement of topside equipment. The proposed Project could accommodate an increase in vessel calls to the terminal; however, the additional vessels would not result in physical changes to the terminal. It is projected that the peak annual throughput associated with the proposed lease extension would be up to approximately 24.5 million barrels, which equates to future vessel calls to the terminal increasing to approximately 159 annual vessel calls. Given that vessels

entering the harbor are piloted by Port Pilots or by a federally licensed pilot, and that vessels would utilize the Vessel Traffic Service operated jointly by the Coast Guard and Marine Exchange of Southern California, the increase in vessel calls to the terminal is not expected to result in significant safety risks. In addition, an increase in annual vessel calls associated with the lease extension would not translate into changes to the existing marine vessel traffic lanes or affect existing anchorage locations. Therefore, the proposed Project would not result in significant marine vessel traffic impacts, and this issue will not be discussed further in the EIR.

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

No Impact. The proposed Project would implement the most recent engineering standards required by MOTEMS for the design and maintenance of marine oil terminals to better protect public health, safety and the environment. The proposed Project could accommodate an increase in vessel calls to the terminal; however, the additional vessels would not result in physical changes to the terminal. The proposed Project would not affect roadway design or use or include modification of any roadways or access roads to or within the Project site or vicinity, or other alter the existing use of the site or implement design features that would be incompatible with the current zoning or land use designation. Therefore, the proposed Project would not increase roadway hazards and no impact would occur. This issue will not be discussed further in the EIR.

e. Would the project result in inadequate emergency access?

No Impact. The proposed Project would not change the capacity of the existing terminal. Although the proposed Project would replace the existing two-berth wharf with two loading platforms, and make other improvements to comply with MOTEMS, it would not include capacity increasing facilities such as new pipeline capacity to and from the terminal or new storage tanks. Rather, the improvements under the proposed Project, would maintain the terminal's existing capacity while upgrading key components to meet MOTEMS or environmental protection requirements of the LAHD (i.e., SCP Plan). The proposed Project could accommodate an increase in vessel calls to the terminal; however, the additional vessels would not result in physical changes to the terminal. As a consequence, the proposed Project would not result in an increase in ground transportation and traffic patterns that could result in inadequate emergency access to the proposed Project site or any other site. This issue will not be discussed further in the EIR.

f. Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

No Impact. The Project site is located on Mormon Island within the Port, an area which supports industrial uses related to the transfer of liquid bulk and containers from ocean-going vessels to land-based modes of transportation (e.g., trucks, rail). The proposed Project does not include any modifications to existing roadways on Mormon Island that support current or future bike lanes or bus stops. The proposed Project would also not include construction of new pedestrian facilities associated with commercial and visitor-serving uses and amenities that would benefit from alternative modes of transportation. The proposed Project would not impact alternative transportation policies or facilities, and this issue will not be discussed further in the EIR.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII.	**UTILITIES AND SERVICE SYSTEMS.** Would the project:				
a.	Exceed wastewater treatment requirements of the applicable regional water quality control board?			X	
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?			X	
c.	Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
d.	Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?			X	
e.	Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
f.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g.	Comply with federal, state, and local statutes and regulations related to solid waste?			X	

Discussion:

a. Would the project exceed wastewater treatment requirements of the applicable regional water quality control board?

Less Than Significant Impact. Wastewater generated at the terminal is conveyed to and treated at the Terminal Island Water Reclamation Plant (TIWRP). A small increase in staffing levels associated with proposed construction and operation would generate minor increases in wastewater flows. Aside from the minor increase in wastewater

generation, wastewater treatment requirements would not change, as no changes in use would occur.

Existing sewer and wastewater infrastructure exists within the proposed Project area, and wastewater would continue to flow to the Terminal Island Treatment Plant, which is operated by the City's Department of Public Works Bureau of Sanitation, and which is required to comply with all applicable wastewater standards set forth by the LARWQCB. Therefore, this impact is considered less than significant and will not be addressed further 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?

Less Than Significant Impact. The proposed Project would not substantively increase the demand for potable water or wastewater generation such that development of new water or wastewater treatment facilities or the expansion of existing facilities would be required.

TIWRP has a capacity of 30 million gallons per day (mgd). TIWRP currently operates at 58 percent capacity, treating approximately 17.5 mgd (City of Los Angeles Department of Public Works, Bureau of Sanitation, 2014). The City projects that by 2020, wastewater flows in the TIWRP service area will grow from the current 17.5 mgd to 19.9 mgd (City of Los Angeles Department of Public Works, Bureau of Sanitation and LADWP, 2006). Therefore, approximately 10 mgd in daily capacity at TIWRP would remain unused and available for future years. The negligible increase in wastewater flows from the proposed Project associated with construction activities would not exceed the daily capacity of the TIWRP or conveyance system (e.g., sewer trunk lines in the Project vicinity or other off-site infrastructure or facilities) over the long-term.

The proposed Project would implement the most recent engineering standards required by MOTEMS for the design and maintenance of marine oil terminals to better protect public health, safety and the environment. Construction on land would not require extensive open excavations that could require water for dust suppression; however, seismic ground improvement activities could require the use of some potable water during grout preparation and injection. Due to one-time nature and limited extent of the grout injection zone, seismic ground improvements are not expected to require substantial amounts of water that could in turn require construction of new water treatment or distribution facilities. In addition, no water demand from construction personnel is expected, as the twenty workers are expected to utilize portable toilets during any stage of construction.

The proposed Project could accommodate an increase in vessel calls to the terminal; however, the additional vessels would not result in physical changes to the terminal that could result in generation of additional water demand or wastewater generation. A small increase in staffing levels associated with proposed operation (the existing terminal employs 6 people) and terminal uses would generate minor increases in wastewater flows; however, the increase would be minor and would not substantively affect water demand or wastewater generation.

As discussed above, the proposed Project would result in a small increase in wastewater generation and water demand from construction activities and operations, however existing facilities can accommodate this small increase and no construction or expansion of new water or wastewater treatment facilities would be required. Therefore, impacts to

water or wastewater treatment facilities would be less than significant and will not be discussed further in the EIR.

c. Would the project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. The Project site is currently served by an existing on-site storm drainage system that collects and routes runoff from the terminal to a treatment unit, followed by discharge to the sewer system. Storm drains are located throughout Mormon Island and the harbor area and are maintained by the LAHD, City, and Los Angeles County.

The proposed Project would not change or exceed the capacity of existing stormwater drainage systems. The proposed Project would not increase the amount of permeable surface areas on the Project site, or affect drainage patterns or stormwater drainage systems. Therefore, no impacts on stormwater drainage facilities would occur with the implementation of the proposed Project, and this issue will not be discussed further in the EIR.

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?

Less Than Significant Impact. The Los Angeles Department of Water and Power (LADWP) provides water service to the Project area. The LADWP is responsible for supplying, treating, and distributing water for domestic, industrial, agricultural, and firefighting purposes within the City. Water sources utilized by the LADWP include local sources, such as groundwater, wells and recycled water (for non-potable uses), and imported sources, including the Los Angeles Aqueducts and purchases from the Metropolitan Water District of Southern California (MWD). In Fiscal Year 2009-2010, LADWP supplied 555,477 acre-feet of water in its service area and a yearly average of 621,700 acre-feet during Fiscal Year 2006-2010 (LADWP, 2010).

In a continuing effort to ensure a reliable water supply for future years, LADWP prepared the Urban Water Management Plan (UWMP), which was updated and adopted on April 11, 2011 (LADWP, 2010). The UWMP is updated every five years, as required by the California Water Code (Section 10621a). The UWMP is designed to serve as the City master plan for water supply and resources management. This plan provides the basic policy principles that guide the LADWP decision-making process to secure an adequate sustainable water supply for the entire City area of 464 square miles, including the Port, through the year 2035.

Specific supply-and-demand management strategies are designed to provide a hedge against droughts and variability of surface water. LADWP's UWMP uses a service-area-wide method in developing City water demand projections. This methodology does not rely on individual development demands to determine area-wide growth. Rather, the growth in water use for the entire service area was considered in developing long-term water projections for the City to 2035, including water use by Port tenants. The driving factors for this growth are demographics, weather, and water conservation.

Demographic projections for LADWP's service area are based on the 2008 Regional Transportation Plan forecast generated by the Southern California Association of

Government (SCAG).[5] Total LADWP demand for water is predicted to be 701,200 acre-feet in 2030 and 710,800 acre-feet in 2035. Nonetheless, the LADWP expects a 15 percent lower water demand trend than what was projected in the 2005 UWMP. LADWP would be able to meet this demand by increasing local water supplies and water conservation from the current 12 percent to 43 percent by 2035, reducing its reliance on the purchased MWD water supply by one-half (LADWP, 2010).

Construction water use would come primarily from seismic ground improvement activities. The construction contractor is likely to provide temporary toilet facilities for its workers, and therefore, no additional water consumption beyond ground improvement activities would likely occur.

Seismic ground improvement activities and elements of the topside equipment installation would occur on the landside portion of the terminal, and the remaining construction would take place in or over the water. Some water would be required during seismic ground improvements to prepare grout for injection (an estimated 767,715 gallons for each grout injection zone based on the number of grout columns).[6] Two grout injection zones would occur for an estimated one-time water usage of approximately 1.5 million gallons (approximately 4.7 acre-feet). Water usage during construction would be temporary and insubstantial and would not exceed the existing supply. Therefore, construction of the proposed Project would not result in significant impacts to water supply.

Regarding operation, the proposed Project would implement the most recent engineering standards required by MOTEMS for the design and maintenance of marine oil terminals to better protect public health, safety and the environment. The proposed Project could accommodate an increase in vessel calls to the terminal; however, the additional vessels would not result in physical changes to the terminal that could result in generation of additional water demand. A small increase in staffing levels associated with proposed operation (the existing terminal employs 6 people) and terminal uses would generate minor increases in wastewater flows; however, the increase would be minor and would not substantively affect water demand. No new or expanded water supply entitlements would be needed. Therefore, no impacts on the City's water supply would occur from operation of the proposed Project, and this issue will not be discussed further in the EIR.

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?

No Impact. As discussed above, the City of Los Angeles Department of Public Works, Bureau of Sanitation, provides sewer service to all areas within its jurisdiction, including the Project site. Wastewater would flow through existing sewer and wastewater infrastructure within the Project site to TIWRP, which is maintained by the Bureau of Sanitation. As described under Item XVII(b) above, the construction phase of the

[5] Chapter 11.4 Water Supply Assessments of the UWMP is incorporated by reference and is available at LAHD, Environmental Management Division 222 W. 6th Street, Suite 1080 , San Pedro, California, and online at: http://www.ladwp.com/ladwp/cms/ladwp014334.pdf

[6] The estimated water usage was based on the proposed 650 grout columns associated with seismic ground improvements. Each of the grout columns would have a volume of approximately 9.3 cubic yards. The total columns (650) x 9.3 cubic yards equals 6,045 cubic yards of area being grouted. At 127 gallons of water per cubic yard (127 x 6,045 for the entire process), injection grouting would use 767,715 gallons of water in each grout injection zone.

proposed Project would result in a small, short-term increase in wastewater generation and the TIWRP has adequate capacity available to accommodate this increase.

The proposed Project would implement the most recent engineering standards required by MOTEMS for the design and maintenance of marine oil terminals to better protect public health, safety and the environment. The proposed Project could accommodate an increase in vessel calls to the terminal; however, the additional vessels would not result in physical changes to the terminal that could result in generation of wastewater. No increase in staffing levels would occur with proposed operations (the existing terminal employs 6 people) and terminal uses would not increase wastewater flows. Further, no increase in impervious surface area at the terminal would occur under the proposed Project; therefore, the Project would not increase the amount of runoff that is conveyed to the City's sewer and treatment system. As such, operation of the proposed Project would not require additional wastewater treatment capacity. Therefore, no impacts to wastewater treatment capacity would occur with the implementation of the proposed Project and this issue will not be discussed further in the EIR.

f. Is the project served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant Impact. Construction of the proposed Project would generate a construction debris, including dredged material and piles and debris from the existing wharf. Seismic ground improvements would generate approximately 450 cubic yards of spoils per zone, for a total of approximately 900 cubic yards of spoils. Demolition of the existing wharf and access trestles would result in generation of demolition debris associated with the approximately 64,400 square feet of timber decking and about 900 timber piles. Additional debris would be generation from modification to mooring dolphins, and well as construction debris associated with the new loading platforms, access trestles, catwalks, mooring dolphins, and topside equipment installation.

The dredged material (up to 4,000 cubic yards) would be placed at the Berths 243–245 CDF. By confining the sediment in the CDF, the dredged material would not affect landfill capacity and would therefore not affect solid waste disposal facilities.

The generation of landfill waste would also be reduced by recycling demolition debris to the extent feasible. A small amount of asphalt/concrete waste may be generated during construction activities associated with ground repair (after seismic ground improvements and topside equipment installation). The LAHD maintains an asphalt/concrete recycling facility at the intersection of East Grant Street and Foote Avenue in eastern area of the adjacent community of Wilmington. Any asphalt/concrete debris from construction activities would be crushed at the facility or elsewhere in the Port for construction reuse within the Port.

Solid waste associated with seismic ground improvements and demolition of the existing wharf and new construction that would require disposal at a landfill is not expected to substantially reduce landfill capacity due to the relatively small volume of spoils from seismic ground improvement activities, and limited dimensions of the existing timber wharf, and replacement platforms, access trestles, and catwalks. Further, only minimal solid wastes are expected to be generated from construction of SCP Plan improvements. Because of this, construction of the proposed Project is not anticipated to significantly impact the permitted landfill capacity at Chiquita Canyon Landfill, Sunshine Canyon Landfill, or other local or regional disposal facility that could accept construction waste from the proposed Project. There is currently sufficient inert waste disposal capacity available in Los Angeles County (LADPW, 2013). Further, there are a number of

operations within Los Angeles County that recycle construction and demolition material and the Port, as standard conditions of approval, requires recycling of construction materials and use of materials with recycled content to minimize impacts to solid waste. Demolition debris would not be substantial and would not exceed landfill capacity; therefore, impacts associated with disposal of construction debris would be less than significant.

Solid waste generated by existing terminal operations consists primarily of nonhazardous materials, such as food and beverage containers, paper products, and other miscellaneous personal trash disposed of by on-site staff. There would be no substantive changes in solid waste generation under the proposed Project. The proposed Project would implement the most recent engineering standards required by MOTEMS for the design and maintenance of marine oil terminals to better protect public health, safety and the environment. The proposed Project could accommodate an increase in vessel calls to the terminal; however, the additional vessels would not result in physical changes to the terminal that could result in generation of solid waste. Staffing would remain at the current six employees, which would not result in a substantive increase in solid waste generation. As such, operation of the proposed Project would not result in significant impacts on solid waste.

In summary, construction is anticipated to generate relatively small amount of waste requiring disposal in a landfill and the proposed Project would comply with applicable waste reduction requirements, and operation of the proposed Project would not result in an increase in solid waste generation. As noted above, the proposed Project would be served by a landfill with sufficient permitted capacity to accommodate the solid waste disposal needs and would comply with federal, state, and local statutes and regulations related to solid waste. As such, impacts related to solid waste disposal would be less than significant and will not be discussed further in the EIR.

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

Less Than Significant Impact. The proposed Project would comply with federal, state, and local statutes and regulations related to solid waste. More specifically, the proposed Project would be compliant with all applicable codes pertaining to solid waste disposal. These codes include, Chapter VI Article 6 Garbage, Refuse Collection of the City of Los Angeles Municipal Code, Part 13 Title 42 - Public Health and Welfare of the California Health and Safety Code, and Chapter 39 Solid Waste Disposal - of the United States Code. The proposed Project would also be compliant with AB 939, the California Solid Waste Management Act, which requires each city in the state to divert at least 50 percent of their solid waste from landfill disposal through source reduction, recycling, and composting. AB 341 builds upon AB 939 and requires jurisdictions to implement mandatory commercial recycling with a statewide 75 percent diversion rate (from landfill disposal) by 2020. Most construction/demolition debris is crushed and/or reused for other construction projects in the Port. The portions of the timber wharf that are treated would require disposal in a landfill and could not be recycled or reused. However, disposal of waste during construction is not expected to affect diversion rates within the City due to its relatively small percentage of all wastes generated in the City and County.

The proposed Project could accommodate an increase in vessel calls to the terminal; however, the additional vessels would not result in physical changes to the terminal that could result in increased solid waste generation. Terminal operations would not increase staffing from the current six employees and would therefore not result in a substantive

increase in solid waste generation. As such, operation of the proposed Project would not result in significant impacts on solid waste diversion rates and related regulations.

The proposed Project would implement and be consistent with the procedures and policies detailed in the codes identified above, Port-wide standard conditions of approval requiring recycling of construction materials, the City's recycling and solid waste diversion efforts, and related laws pertaining to solid waste disposal. As such, impacts related to solid waste disposal would be less than significant and will not be discussed further in the EIR.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII.	**MANDATORY FINDINGS OF SIGNIFICANCE**				
a.	Does 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?	X			
b.	Does 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.)	X			
c.	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	X			

Discussion:

a. Does 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. As set forth above, the proposed Project has the potential to degrade the quality of the environment with regard to several resource areas, which include: air quality, biological resources, greenhouse gases, and hazards and hazardous materials. The EIR will evaluate the potential for the proposed Project 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, or reduce the number or restrict the range of a rare or endangered plant or animal.

b. Does 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. The proposed Project, in conjunction with other past, present, and reasonably foreseeable future related projects, has the potential to result in significant cumulative impacts when the independent impacts of the proposed Project and the impacts of related projects combine to create impacts greater than those of the proposed Project alone. The cumulative impacts addressed in the EIR will be the same as the individual resource areas to be evaluated in the EIR, which include Initial Study Checklist Items associated with: air quality (criteria b, c and d), biological resources (criteria a and b), greenhouse gas emissions (criterion a), and hazards and hazardous materials (criteria a and b).

The proposed Project would not contribute to cumulative impacts for those environmental issues that were demonstrated by this Initial Study to be less than significant or to have no impact, as follows:

Aesthetics (Criteria a through d)

The Project site is an existing marine oil terminal adjacent to other active port uses and operations. Views of the highly industrialized area within the Port from surrounding view points, including scenic routes and scenic vantage points, are often fleeting, distant, and/or obstructed by intervening topography and development. The space within the Port has already been graded and developed and related projects visible at the Port would generally be built on previously developed land within the existing Port boundaries, and would be consistent with the surrounding operations and uses. Further, while the past, present, and reasonably foreseeable future projects and the proposed Project would increase the level of development visible within the Port, the visual changes would be consistent with the overall Port setting (the working port environment) and they would not obstruct or detract from scenic vista's (such as the Main Channel, San Pedro Waterfront, San Pedro Bluffs Residential Area, and Lookout Point Park), available views of the working port and horizon beyond nor would they block views of scenic resources and thus no significant cumulative impacts would occur.

The proposed Project would be located within the visual backdrop of the working port. It would be visually consistent with existing on-site and surrounding uses. It would not degrade the existing visual character or views from a scenic viewpoint, nor would it remove or obstruct scenic resources, thus the proposed Project would not contribute to cumulatively considerable impact relative to visual resources.

Past, present, and reasonably foreseeable future projects would contribute new sources of light to highly lit working Port environment. As with the proposed Project, related projects within the Port would be required to meet the standards of the Port of Los Angeles Terminal Lighting Design Guidelines (POLA, 2006b) which would reduce potential offsite lighting spillage.

The proposed Project would have minimal new lighting in relation to the existing lighting on-site and harbor area as a whole. The new lighting would be directional and designed to avoid light spillage off-site. The proposed Project would not make a

distinguishable contribution to ambient lighting and thus would not contribute to a cumulatively considerable impact relative to lighting.

As described above, the proposed Project would not have a significant impact and would not contribute to a cumulatively considerable impact on Aesthetics.

Agriculture and Forest Resources (Criteria a through e)

The Project site is in a highly urbanized area with no agriculture and forest land or uses in the vicinity. Like the proposed Project, other developments occurring within the Project vicinity would largely occur on previously disturbed land and would not have an impact associated with these resources. The proposed Project would have no impact on agricultural or forest resources and thus would not contribute to a cumulatively considerable impact relative to Agriculture and Forest Resources.

Air Quality (Criteria e)

The Project site is in a highly urbanized area which is an existing industrial setting with an already complex odor environment. The proposed Project would not likely result in changes to the overall odor environment in the vicinity of the Project site. In addition, the distance between proposed Project emission sources and the nearest sensitive receptor is expected to be far enough to allow for adequate dispersion of these emissions to below objectionable odor levels. Like the proposed Project, past, present, and reasonably foreseeable projects would largely occur within the highly urbanized and industrial Port; however, some past, present, and reasonably foreseeable projects may be closer to sensitive receptors. The proposed Project would not result in a significant impact and thus would not contribute to a cumulatively considerable impact related to the creation of objectionable odors affecting a substantial number of people.

Biological Resources (Criteria c, d, e, and f)

The proposed Project would not affect federally protected wetlands (as defined by Section 404 of the CWA), the Project site does not contain any known or protected biological resources, and is not located within an adopted habitat conservation plan, natural community conservation plan, or any other approved local, regional, or state habitat conservation plan, habitat and conservation plan or natural community conservation plan. Therefore, the proposed Project would have no impact and would not contribute to a cumulatively considerable impact relative to federally protected wetlands, would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and would have no impact and would not contribute to a cumulatively considerable impact relative to an adopted habitat conservation plan, natural community conservation plan, or any other approved local, regional, or state habitat conservation plan habitat and conservation plan or natural community conservation plan.

There are no terrestrial or aquatic migration corridors within the Port Complex, including the Project site, and thus, the proposed Project is not expected to interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors. Like the proposed Project, past, present, and reasonably foreseeable projects would largely occur within the highly urbanized and industrial Port and thus no cumulative impacts related to migration corridors is expected to occur.

Cultural Resources (Criterion a through d)

The Project site is an existing marine oil terminal that is built on engineered fill, and which has been extensively disturbed. No historic resources are located at the Project site, and due to the level of site disturbance and its make-up (engineered fill), the likelihood of archaeological or paleontological resources present at the site is minimal. Further, no historic district or overlay zones encompasses the Project site. The potential impacts on human remains from ground disturbance associated with past, present and reasonably foreseeable future projects would depend on whether such activities occur within artificial fill materials (low likelihood of impact) or intact soil deposits (higher likelihood of impact). The geologic formation within the Project site consists of man-made engineered fill, engineered fill over natural landforms, and disturbed natural landforms constructed in the early 20th century. Any soil excavation under the proposed Project would disturb imported soils in a previously disturbed area, or previously disturbed landforms, and therefore would not be expected to disturb human remains interred outside of formal cemeteries. The activities associated with the proposed Project would not result in a significant impact and would not contribute to a cumulatively considerable impact to historic resources, or cultural resource impacts related to the unanticipated discovery of archaeological resources, paleontological resources, or human remains.

Geology/Soils (Criteria a through e)

All of the present and reasonably foreseeable future projects that would result in increased infrastructure, structures, and numbers of people working on site in the cumulative geographic scope would potentially contribute to geological impacts as those projects would expose workers to seismic or other geological hazards. However, as with the proposed Project, with incorporation of modern construction engineering and safety standards and compliance with building codes adopted by the local regulatory bodies, would minimize impacts associated with geological hazards and combined impacts would not result in significant cumulative impacts relative to Geology/Soils.

The proposed Project features would not cause or accelerate geologic hazards, including landslides. Further, given compliance with engineering standards, building codes, and other requirements, including emergency planning and tsunami preparedness, the proposed Project would not result in significant impacts, nor would it contribute to a cumulatively considerable impact relative to Geology/Soils.

Hazards and Hazardous Materials (Criteria c, d, e, f, g, and h)

All past, present, and reasonably foreseeable projects that would involve the handling of hazardous materials would be subject to the same regulations regarding waste handing, removal, transport, and storage as the proposed Project. Implementation of these preventative measures would minimize the potential for risks associated with hazardous materials, including routine handing and risk of upset during construction, emitting of potential hazardous emissions within 0.25-mile of a school, as well as maintain implementation of an adopted emergency response plan or emergency evacuation plan, such that no significant cumulative impacts would occur. The proposed Project would not result in significant impacts, nor would it contribute to a cumulatively considerable impact relative to a Cortese List site, and relative to emitting hazardous emissions within 0.25-mile of a school.

The proposed Project would not be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area, be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area, nor would it 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. Therefore, the proposed Project would have no impacts nor contribute to a cumulatively considerable impact relative to hazards near airports, airstrips, or wildland fires.

Hydrology and Water Quality (Criteria a through j)

Construction of the Project elements is not expected to result in water quality violations, as discussed under Checklist Item IX.a. Further, operation of the proposed Project is not expected to result in violations of water quality standards related to increased vessel calls. Like the proposed Project, related projects would be subject to the same regulatory controls and standard practices as the proposed Project that would minimize their potential to adversely affect water quality. Therefore, the proposed Project would not contribute to a cumulatively considerable impact to water quality.

No groundwater extraction occurs within or adjacent to the Project site and no substantial change in impervious surface area would occur that could affect groundwater recharge. In addition, the proposed Project would not place housing within a 100-year flood hazard area. Therefore, the proposed Project would not contribute to a cumulatively considerable impact regarding groundwater recharge or the placement of housing within a 100-year flood hazard area.

The potential impacts of the proposed Project, past, present and reasonably foreseeable projects on existing drainage patterns, increase in runoff water that exceeds stormwater drainage systems, impeding flood flows within a 100-year flood hazard area, exposure of people and structures to significant loss, injury or death involving flooding, and contributing to inundation by seiche, tsunami or mudflow, would depend on whether such activities would substantially alter existing drainage and stormwater systems associated with that site or area. The proposed Project would not result in a significant impact and, therefore, would not contribute to a cumulative considerable impact relative to Hydrology and Water Quality.

Land Use and Planning (Criteria a through c)

All past, present, and reasonably foreseeable projects are subject to the land use regulations and density designations stipulated in the Port Master Plan, the Port of Los Angeles Plan, and the zoning code, thereby ensuring compatibility and minimizing impacts on surrounding areas. Thus no significant cumulative impacts relative to land use would occur.

The proposed Project would not result in a change in the existing land use and it would comply with the Port Master Plan and other relevant land use plans, policies, and regulations. The proposed Project would not result in a significant impact and would not contribute to a cumulative considerable impact relative to Land Use and Planning.

Mineral Resources (Criteria a and b)

The Project site is in a highly urbanized area with no mineral resources or mineral resource extraction occurring in the vicinity with the exception of the Wilmington Oil Field, which is not likely to be affected by present and reasonably foreseeable future projects. Like the proposed Project, past, present, and reasonably foreseeable projects would largely occur on previously disturbed land that is not appropriate or available for mineral extraction and thus no cumulative impacts would occur. The proposed Project would not impact mineral resources or mineral resource extraction and would not contribute to a cumulative considerable impact relative on Mineral Resources.

Noise (Criteria a through f)

Construction and operation of the proposed Project would not result in noise levels or groundborne noise or vibration levels at sensitive receptor sites in excess of established thresholds. Past, present, and reasonably foreseeable projects within the Port would be located far enough from sensitive receptors or separated in time from the proposed Project such that cumulative noise impacts would not occur or would not be significant. Therefore, the proposed Project would not make a cumulative considerable contribution to a significant cumulative noise impact. The proposed Project is not located within an airport land use plan or within the vicinity of an airport or airstrip. The proposed Project would have no impact and would not contribute to a cumulatively considerable impact relative to an airport land use plan, or being located in the vicinity of an airport or airstrip.

Population and Housing (Criteria a through c)

The majority of past, present, and reasonably foreseeable projects within the vicinity of the Project site would occur within the working Port and would not result in a direct effect on population or housing. However, past, present, and reasonably foreseeable projects could increase the employment opportunities at the Port and possibly within the greater Los Angeles County region as a whole. This growth in employment opportunities would occur within an existing urbanized area that has established infrastructure, well-developed transportation network, and existing public services. Given that the area is part of a well-established urban community connected by an existing transportation network and large labor pool and housing market, the combined related projects is not expected to significantly impact population growth, resulting in the need for new housing in the Port area or the region.

The proposed Project would not remove housing or support new construction of housing. It would involve a small increase in employment opportunities but given that it is located within a well-established urban community with an existing housing stock and established infrastructure, it would not result in the need for construction of new housing. The proposed Project would not result in an impact related to population and housing and would not contribute to a cumulatively considerable impact on Population and Housing.

Public Services (Criteria a(i) through a(v))

The past, present, and reasonably foreseeable projects are all located in a highly urbanized area within a well-developed network of existing public service providers and facilities, including police, fire, schools and parks. The past, present, and reasonably foreseeable projects could increase demand for public services. Service providers continuously evaluate levels of services and funding sources to meet

demand, typically based on development and population growth projections. Service providers would continue to consider existing service requirements and reasonably foreseeable development in their long-range planning in order to ensure that adequate service would be provided to all existing and future project sites within their service area. Therefore, the combined related projects are not expected to significantly impact Public Services.

Neither construction nor operation of the proposed Project would result in substantive increases in demand for fire and police services that could require construction of new public facilities. Further, the proposed Project would be designed and constructed to meet all applicable state and local codes and ordinances pertaining to fire protection, emergency access and safety and security. In addition, none of the improvements under the proposed project would result in street closures or adverse effects to the transportation system. Therefore, the proposed Project and related projects are not expected to adversely affect emergency response times.

The proposed Project would not result in a significant impact and would not contribute to a cumulatively considerable impact on Public Services.

Recreation (Criteria a and b)

The majority of related projects within the vicinity of the Project site would occur within the working Port and would either not result in substantial demand for recreational facilities or services in the Port or result in additional available recreational opportunities. Thus, past, present, and reasonably foreseeable projects would not result in a significant cumulative impact to recreational resources.

The proposed Project would not directly or indirectly result in substantial increases in population growth that could increase demand for recreational facilities. Additionally, construction activities and operations would not remove or otherwise interfere with existing recreational opportunities, such as watercraft activities, within the Port. The proposed Project would not result in an impact and would not contribute to a cumulatively considerable impact on Recreation.

Transportation/Traffic (Criteria a through f)

The proposed Project would not result in substantial additional traffic either during construction or from operation, and would therefore not make a considerable contribution to cumulative traffic impacts. The proposed Project would not conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks); therefore, the proposed Project would have no impact and would not contribute to a cumulatively considerable impact relative to transportation policies, plans and programs.

The proposed Project, as well as past, present, and reasonably foreseeable projects are subject to review and approval of their plans by the LAFD, Port Police and LAPD, as applicable, to ensure compliance with applicable access requirements. Compliance with these requirements would minimize the potential for inadequate emergency access. The proposed Project would not result in inadequate emergency access and would not contribute to a cumulatively considerable impact on emergency access.

Utilities and Service Systems (Criteria a through g)

The past, present, and reasonably foreseeable projects are all located in a highly urbanized area within a well-developed network of existing utility service providers and facilities, including water, wastewater, stormwater management, and solid waste. The past, present, and reasonably foreseeable projects could increase demand for utility services. Utility service providers continuously evaluate levels of services and funding sources to meet demand, typically based on development and population growth projections. Service providers will continue to consider existing utility service level requirements and reasonably foreseeable development in their long-range planning in order to ensure that adequate service would be provided to all existing and future project sites within their service area. Therefore, the combined related projects are not expected to significantly impact Utilities and Service Systems.

The proposed Project would result in a minimal increase in water demand, and minimal or no wastewater generation, storm runoff increases, and solid waste generation. The minor and temporary increase in water demand (during construction) will not require new water supplies or facilities. All infrastructure improvements would comply with the City municipal code and would be performed under permit by the City's Building Department, Bureau of Engineering and/or LADWP. The proposed Project impact would not result in a significant impact and would not contribute to a cumulatively considerable impact on Utilities and Service Systems.

Therefore, cumulative impacts associated with these resource areas and criteria will not be addressed further in the EIR.

c. Does 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 adverse impacts on human beings, either directly or indirectly. This issue will be addressed in the EIR

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U.S. Government Code, Title 33, Sections 1401 et seq. (Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972.)

U.S. Government Code, Title 33, Sections 403 et seq. (Section 10 of the Rivers and Harbors Act of 1899)

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Appendix A – Cultural Resources Report

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SWCA
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May 15, 2014

Ms. Dorothy Meyer
Principal Planner
CDM Smith
111 Academy Way, Suite 150
Irvine, CA 92617

RE: Updated Historic Property Technical Report, Berths 167-169 Shell Oil Terminal Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) Improvement Project, Port of Los Angeles (POLA), California

Dear Ms. Meyer,

SWCA Environmental Consultants (SWCA) was retained by CDM Smith to conduct an updated historic property assessment to identify and assess potential cultural resources that may be affected by planned development activities in the defined project area of potential effects (APE) or study area. The proposed project involves a number of improvements to the existing Shell Oil Terminal. These include demolition of the existing timber wharf and its replacement with a new concrete loading platform, access trestle, mooring dolphins, and steel catwalks. The current two-berth wharf structure will be replaced with a single berth at the north end of the site. The project APE consists of a 9.1-acre industrial property that has been used as an oil distribution terminal since 1923. The subject property is the Shell Oil terminal facility, located at Berths 167-169, on Mormon Island in the main channel of the Port of Los Angeles, in the City and County of Los Angeles, California.

The project is located within the jurisdiction of the United States Army Corps of Engineers (Corps) and will require issuance of a Section 10 permit since it would affect the waters of the United States. As the project would demolish and replace existing Berths 167-169, it would require a Department of the Army Permit . As such, the project meets the definition of an "undertaking." This report complies with the regulations defined by the Advisory Council on Historic Preservation (ACHP) (revised January 11, 2001) for the identification of historic properties as required by 36 Code of Federal Regulations (CFR) Part 800, as well as the regulations implementing Section 106 of the National Historic Preservation Act of 1966, as amended. In addition, this assessment was prepared to ensure compliance with the California Environmental Quality Act (CEQA), Public Resources Code (PRC) Section 5024.1, Section 15064.5 of the Guidelines, and Sections 21083.2 and 21084.1 of the Statutes of CEQA (Governor's Office of Planning and

Research 1998); Resolution No. 13-7479, Built Environment Historic Architecture and Cultural Resource Policy, issued by the City of Los Angeles's Harbor Department (Harbor Department) on April 24, 2013; and the City of Los Angeles Municipal Code, Chapter 9, Article 1, Cultural Heritage Ordinance.

BACKGROUND AND APPROACH

In 2009, SWCA prepared a Historic Property Technical Report for the project APE for CDM Smith. The report presented the results of a cultural resources records search, field survey, historic research, and an assessment of all built environment resources within the APE. Intensive-level survey carried out in support of the 2009 Historic Property Technical Report found that no built environment resources (including buildings, structures, objects, sites, or districts) contained within the APE were eligible for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR). The property was also found ineligible for designation as a City of Los Angeles Historic-Cultural Monument (HCM) or as a contributor to a Historic Property Overlay Zone (HPOZ).

In addition, research carried out for the 2009 study demonstrated that the southern tip of Mormon Island had been altered over the years by the addition of imported fill material prior to the construction of Berths 167-169. Because the project included minimal ground disturbance, the potential to encounter archaeological resources was very low. The report provided mitigation recommendations to minimize impacts to archaeological resources to less than significant levels (Attachment F).

Because the scope of work for the current project only involves demolition of the timber wharf, which was previously found ineligible for historic designation and ground disturbance within an area previously noted as containing artificial fill, SWCA staff members carried out a focused update to the previous cultural resources study. This included preparation of an Area of Potential Effects (APE) Map, Section 106 consultation and a field visit. Although the project improvements are largely focused on the replacement of the wharf, for the purposes of this historic property update, the APE is defined as the entire property boundary (Attachment A, Figures 1 and 2). The eligibility of the existing buildings and structures at Berths 167-169 was reconsidered in accordance with the Harbor Department's *Built Environment Historic Architecture and Cultural Resource Policy* and the *Draft Historic Context Statement, SurveyLA Industrial Development Context*.

SECTION 106 CONSULTATION

Native American Contact Program

SWCA initiated a Native American contact program for this project on March 25, 2014. As part of the process of identifying cultural resources in or near the study area, SWCA Cultural Resources Specialist Brandi Shawn contacted the Native American Heritage Commission (NAHC) to request a review of their Sacred Land File. The NAHC faxed a response on March 28, 2014; the response stated that the search identified the presence of Native American sacred lands or traditional cultural properties within the immediate APE. The NAHC provided a contact list of nine Native American individuals or tribal organizations that may have knowledge of cultural resources in or near the study area. SWCA prepared and mailed letters to each of the NAHC-listed contacts on April 10, 2014 requesting information regarding any known Native American cultural resources within or immediately adjacent to the study area. Follow-up phone calls were made on April 29. 2014 and May 9, 2014. The results of the follow-up calls is listed in Table 1 of Attachment A and copies of the SLF response and NAHC letters are in Appendix B.

Historic Group Coordination

Letters were sent to each of the eight groups listed below on March 31, 2014. SWCA followed up with each local historic group via telephone on April 14, 2014 and on April 29, 2014. The results of the follow-up calls is listed in Table 2 of Attachment A and copies of the historic group consultation letters are in Appendix C.

SURVEY RESULTS

Built Environment Survey Update

On May 5, 2014, SWCA Architectural Historian Shannon Carmack conducted a focused survey of all built environment resources within the APE to verify the site conditions and integrity of the property. The site visit was documented, with detailed field notes discussing the project setting, site characteristics, and other general observations relevant to the proposed project. Digital photographs documenting the current conditions of the APE were taken. The original 2009 report follows this memo as Appendix F.

As established in the 2009 Historic Property Technical Report, the extant buildings, structures, and objects in the subject property were constructed between 1926 and 1983, in support of an oil storage and transport facility that has operated on the property since the early 1920s. However, the industrial nature of the oil terminal facility and constant requirements for maintenance have resulted in numerous, ongoing alterations to buildings and structures on the property. The most prominent feature of the property, the timber wharf, has undergone major damage and repairs. These included the replacement of at least 50 percent of the original timber decking. Other alterations have

included the replacement of support pilings, ramps, equipment, and ancillary buildings. The updated field visit confirms and supports these findings. The buildings, structures, objects, and sites comprising the property have suffered a loss of integrity of materials, workmanship, design, and feeling. Therefore, the buildings, structures, and objects of the subject property at Berths 167-169 are not eligible for listing in the National Register, the California Register, or as local landmarks, either individually or as contributors to a larger historic district.

As the 2009 study further noted, the subject property is associated with the 1947 Markay oil tanker explosion. This updated evaluation finds that this event is still not regarded as a significant moment in American history sufficient to warrant listing under National or California Registers, Criteria A or 1, for its connection to events important in our past. The explosion did not lead to a trend or pattern that contributed to community, state, or national development. Moreover, many of the extant buildings and structures on the property did not exist at the time of the Markay explosion (Criteria A/1). The property has not been directly associated with persons significant in our past (Criteria B/2). The buildings and structures on the property are utilitarian resources that are ubiquitous to oil production and industrial operations. They do not embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, nor do they collectively represent a significant and distinguishable entity whose individual components lack distinction (Criteria C/3). Last, the property is not expected to yield important information about prehistory or history (D/4). Therefore, the property does not appear to qualify as a historic property as defined in Section 106, nor does it qualify as a historical resource as defined by CEQA. Further, the property does not qualify for listing as a City of Los Angeles HCM, nor does it warrant consideration as a contributor to an HPOZ.

In terms of the methodology and context currently being employed by the City of Los Angeles Office of Historic Resources for SurveyLA, this evaluation also considers potential eligibility under the context of industrial development in Los Angeles. Specifically, this relates to the theme "Port of Los Angeles, 1907-1980" and the applicable property type, Port Production, Manufacturing and Processing Plants (Sorrell p. 94). As the *Draft Historic Context Statement, SurveyLA Industrial Development Context* explains, properties significant under this theme reflect the era of early industrial development at the Port of Los Angeles prior to postwar containerization. Considered under Criteria A/1/1, the areas of significance range from commerce, engineering, ethnic heritage, industry, to social history, within the period of significance of 1906 to 1965, which generally marks the end of the pre-containerization era.

In order to qualify under this theme, the property must meet the following eligibility standards: (1) was historically designed for and used for resource extraction or

processing (excluding seafood) or for industrial manufacturing or processing; (2) is associated with the history of the Port of Los Angeles during the period of significance; and (3) retains most of the essential physical features from the period of significance (Sorrel, et al, p. 94). Furthermore, the property must retain sufficient integrity to convey the reasons for its significance; for properties eligible under this theme, this includes retaining at minimum integrity of location, design, association, and materials. As established in the preceding sections, however, the properties of Berths 167-168 do not retain integrity of design or materials, due to extensive, ongoing alterations.

As a result of this update, it is recommended that the appropriate California Historical Resources Status Code remain "6Z, Found ineligible for N[ational] R[egister], C[alifornia] R[egister], or Local designation through survey evaluation" (California Office of Historic Preservation 2003).

Updated versions of the California Department of Parks and Recreation (DPR) Series 523 Forms prepared for this property are contained in Appendix D. The SurveyLA data table prepared for this study follows in Appendix E.

CONCLUSION AND MANAGEMENT RECOMMENDATIONS

SWCA's updated intensive-level survey and evaluation did not result in the identification of any historic properties within the APE. All buildings, structures, objects, and sites within the APE were found ineligible for listing in the National Register of Historic Places and California Register of Historical Resources; moreover, no property within the APE qualifies for consideration as a City of Los Angeles HCM or as a contributor to a HPOZ.

Unanticipated Discovery of Cultural Resources

Review of historic aerial photographs indicated that the southern tip of Mormon Island had been altered by the addition of imported fill material prior to the construction of Berths 167-169. In addition, minimal ground disturbance is proposed for this project. Therefore, the potential to encounter intact native soils is very low.

In the event that cultural resources are exposed during construction, work in the immediate vicinity of the find must stop until a qualified archaeologist can evaluate the significance of the find. Construction activities may continue in other areas. If the discovery proves significant under CEQA, additional work such as testing or data recovery may be warranted.

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Unanticipated Discovery of Human Remains

The discovery of human remains is always a possibility during ground disturbances; State of California Health and Safety Code Section 7050.5 covers these findings. This code section states that no further disturbance shall occur until the Los Angeles County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The County Coroner must be notified of the find immediately. If the human remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify an MLD. The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials

The proposed project, which may include demolition of various buildings, structures and objects on the subject property, would not result in the physical demolition, destruction, relocation, or alteration of any historical resources or historic properties and thus is not expected to cause substantial adverse changes to any identified historical resources. Similarly, because no historic properties were identified, a finding of "No Historic Properties Affected" is appropriate under Section 106. Because no historic properties or other cultural resources were identified, no additional cultural resources mitigation measures beyond conformance with standard archaeological requirements listed above are necessary to ensure conformance with CEQA and Section 106.

If you have any questions regarding this letter report, please do not hesitate to contact me at (626) 240-0587 ext. 6609, or via email at scarmack@swca.com.

Sincerely,

Shannon Carmack
Cultural Resources Project Manger

Attachments:

A. Figures and Tables
B. SLF Response and Native American Contact Program Letters
C. Historical Society Group Outreach
D. Updated State of California Department of Parks and Recreation Series 523 Forms
E. OHR SurveyLA Property Table
F. 2009 Historic Property Assessment

ATTACHMENT A. FIGURES AND TABLES

Figure 1. Project Vicinity

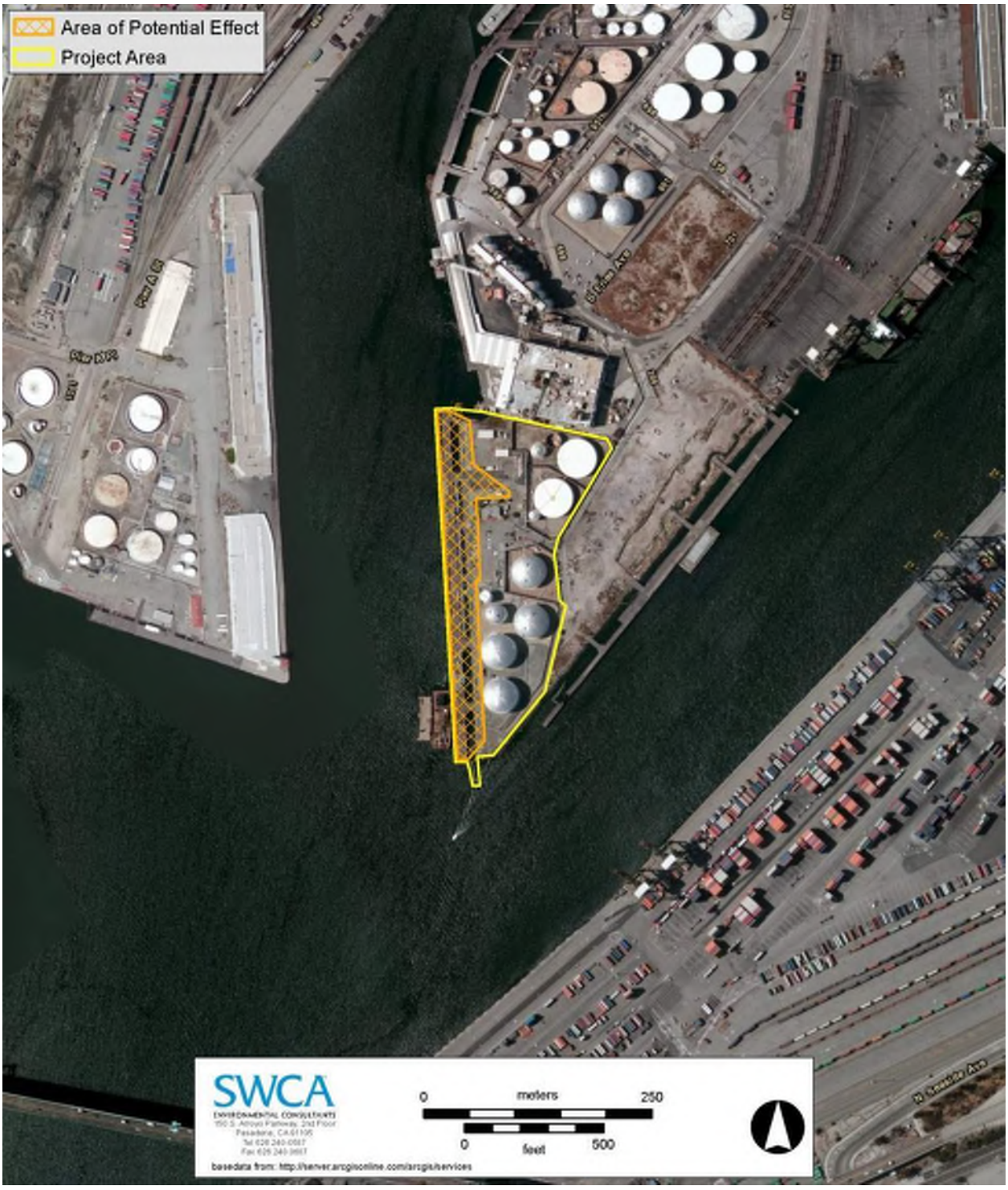

Figure 2. Project Area of Potential Effects

Table 1. Record of Native American Coordination Efforts

NAHC-Provided Contact	Coordination Efforts	Results of Coordination Efforts
Gabrielino Tongva Tribe P.O. Box 180 Bonsall, California 92003 Contact: Bernie Acuna, Co-Chairperson	**04/10/14:** Letter sent via U.S. Mail. **04/25/14:** Follow-up call placed, voicemail left. **05/09/14:** Follow-up call placed, voicemail left.	No further action required
LA City/County Native American Indian Commission 3175 West 6th, St, Rm. 403 Los Angeles, California 90020 Contact: Ron Andrade, Director	**04/10/14:** Letter sent via U.S. Mail. **04/25/14:** Follow-up called placed, voicemail left. **05/09/14:** Follow-up call placed, voicemail left.	No further action required
Gabrielino Tongva Indians of California Tribal Council P.O. Box 490 Bellflower, California 90707 Contact: Robert F. Dorame, Tribal Chair/ Cultural Resources	**04/10/14:** Letter sent via U.S. Mail. **04/25/14:** Follow-up call placed, Mr. Dorame requested a digital copy of the letter be e-mailed to him, and indicated that if we did not receive a response after he received an e-mail copy of the letter that he had no comments. Mr. Dorame contacted Ms. Carmack to inform her that he knew there was a Native American cemetery due north ½ mile from the project area that is considered highly important. He recommended that all ground disturbances are monitored and requested that he is notified if ground disturbance takes place.	Mr. Dorame requested to be contacted if any cultural resources were discovered.
Tongva Ancestral Territorial Tribal Nation Private Address Contact: John Tommy Rosas, Tribal Admin	**04/10/14:** Letter sent via E-Mail. **04/25/14:** Follow-up call placed; Mr. Rosas indicated that he had not yet reviewed the letter, but that he would do so and contact us with a response. **05/09/14:** Follow-up call placed, voicemail left.	No further action required
Gabrieleno/Tongva San Gabriel Band of Mission Indians P.O. Box 693 San Gabriel, California 91778 Contact: Anthony Morales, Chairperson	**04/10/14:** Letter sent via U.S. Mail. **04/25/14:** Follow-up call placed; Mr. Morales requested that a project manager contact him by telephone to discuss the project further. **05/15/14:** Follow-up call placed by Ms. Carmack, voicemail left.	No further action required
Gabrielino-Tongva Nation P.O. Box 86908 Los Angeles, California 90086 Contact: Sandonne Goad, Chairperson	**04/10/14:** Letter sent via U.S. Mail. **04/25/14:** Follow-up call placed, no voicemail option, message not left. **05/09/14:** Follow-up call placed, no voicemail option, message not left.	No further action required
Gabrielino-Tongva Tribe P.O. Box 180 Bonsall, California 92003 Contact: Linda Candelaria, Co-Chairperson	**04/10/14:** Letter sent via U.S. Mail. **04/25/14:** Follow-up call placed, voicemail left. **05/09/14:** Follow-up call placed, voicemail left.	No further action required
Gabrieleño Band of Mission Indians P.O. Box 393 Covina, California 91723 Contact: Andrew Salas, Chairperson	**04/10/14:** Letter sent via U.S. Mail. **04/25/14:** Follow-up call placed. Mr. Salas indicated that he had received the letter, but requested that a PDF copy of letter and attachments sent via E-mail. **05/09/14:** Follow-up call placed. Mr. Salas indicated that he will be responding and will do so ASAP. No response has been received as of 5/15/14.	No further action required

Table 1. Record of Native American Coordination Efforts

NAHC-Provided Contact	Coordination Efforts	Results of Coordination Efforts
Gabrielino Tongva Tribe P.O. Box 180 Bonsall, California 92003 Contact: Conrad Acuna	**04/10/14:** Letter sent via U.S. Mail. **04/25/14:** Copy of letter faxed to number provided by NAHC. **05/09/14:** Copy of letter faxed to number provided by NAHC.	No further action required

Table 2. Record of Historic Group Coordination Efforts

Historic Group	Coordination Efforts	Results of Coordination Efforts
Office of Historic Resources, Department of City Planning 200 N. Spring Street, Room 620 Los Angeles, CA 90012 Contact: Ms. Janet Hansen, Deputy Manager	**3/31/14:** Letter sent via U.S. Mail. **4/14/14:** Follow-up call placed, voicemail left. **4/29/14:** Follow-up call placed, voicemail left.	No further action required
Los Angeles City Historical Society P.O. Box 41046 Los Angeles, CA 90041 Contact: Ms. Ann Shea, President	**3/31/14:** Letter sent via U.S. Mail. **4/14/14:** Follow-up call placed, voicemail option not available. **4/29/14:** Follow-up call placed, voicemail option not available.	No further action required
Los Angeles Conservancy 523 West Sixth Street, Suite 826 Los Angeles, CA 90014 Contact: Mr. Adrian Scott Fine, Director of Advocacy	**3/31/14:** Letter sent via U.S. Mail. **4/14/14:** Follow-up call placed, voicemail left. **4/29/14:** Follow-up call placed, Mr. Fine stated that he may be sending a letter in response. No response has been received as of 5/15/14.	No further action required
Los Angeles Maritime Museum Berth 84 Foot of 6th Street San Pedro, CA 90731 Contact: Mary Francis Trevelli	**3/31/14:** Letter sent via U.S. Mail. **4/14/14:** Follow-up call placed, voicemail left. **4/29/14:** Follow-up call placed, voicemail left. **5/2/14:** Ms. Trevelli contacted SWCA via telephone and indicated that she had no comments.	No further action required
Los Angeles Harbor Department Historical Archives 272 S. Fries Avenue Wilmington, CA 90744 Contact: Tara Fansler, Director of Archives	**3/31/14:** Letter sent via U.S. Mail. **4/14/14:** Follow-up call placed, voicemail left. **4/16/14:** Ms. Fansler returned our call and indicated that she had not received the letter we sent. A PDF copy of the letter was emailed to Ms. Fansler. She later contacted us via telephone and stated that other than the subject property she was not aware of any historic resources in our project area. Ms. Fansler contacted us again to indicate that she had done some research and identified several structures on historic maps that we should know about.	Ms. Fansler recommended that the LA Harbor Deparment Historical Archives be consulted during the preparation of this report.
San Pedro Bay Historical Society 350 W. 5th Street #210 San Pedro, CA 90731 Contact: Anne Hansford, Archivist	**3/31/14:** Letter sent via U.S. Mail. **4/14/14:** Follow-up call placed, voicemail left. **4/14/14:** Via telephone Ms. Hansford indicated that she had yet to read the letter and would later discuss the topic at the Society's board meeting with fellow board members. **5/2/14:** Follow-up call placed. Ms. Hansford indicated that she had no feedback to report.	No further action required
Wilmington Historical Society 309 W. Opp Street Wilmington, CA 90744 Contact: Current President	**3/31/14:** Letter sent via U.S. Mail. **4/14/14:** Follow-up call placed, telephone number no longer in service. **4/29/14:** Follow-up call placed, telephone number no longer in service.	No further action required
Historical Society of Southern California P.O. Box 93487 Pasadena, CA 91109 Contact: Patricia Adler-Ingram, Ph.D., Executive Director	**3/31/14:** Letter sent via U.S. Mail. **4/14/14:** Follow-up call placed, message left with reception. **4/29/14:** Follow-up call placed, message left with reception.	No further action required

ATTACHMENT B. NATIVE AMERICAN CONTACT PROGRAM LETTERS

STATE OF CALIFORNIA Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Boulevard, Suite 100
West Sacramento, CA 95691
(916) 373-3715
Fax (916) 373-5471
Web Site www.nahc.ca.gov
Ds_nahc@pacbell.net

March 28, 2014

Ms. Brandi Shawn
SWCA ENVIRONMENTAL CONSULTANTS
150 South Arroyo Parkway, Second Floor
Pasadena, CA 91154

Sent by FAX to: 646-240-0607
No. of Pages: 4

RE: Sacred Lands File Search and Native American Contacts list for the **"Shell Oil Terminal Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) Improvement Project (#028504);"** located in the South Bay Area at the Port of Los Angeles – San Pedro area; Los Angeles County California

Dear Ms. Shawn:

A record search of the NAHC Sacred Lands Inventory **DID indicate** the presence of Native American traditional cultural places in the Project site(s) or 'areas of Potential effect' (APE), submitted to this office.. Note also that the absence of archaeological resources does not preclude their existence at the subsurface level.

In the 1985 Appellate Court decision (170 Cal App 3rd 604), the Court held that the NAHC has jurisdiction and special expertise, as a state agency, over affected Native American resources impacted by proposed projects, including archaeological places of religious significance to Native Americans, and to Native American burial sites.

When the project becomes public, please inform the Native American contacts as to the nature of the project (e.g. residential, renewable energy, infrastructure or other appropriate type). Attached is a list of Native American tribes, Native American individuals or organizations that may have knowledge of cultural resources in or near the proposed project area (APE). As part of the consultation process, the NAHC recommends that local government and project developers contact the tribal governments and Native American individuals on the list in order to determine if the proposed action might impact any cultural places or sacred sites. If a response from those listed on the attachment is not received in two weeks of notification, the NAHC recommends that a follow-up telephone call be made to ensure the project information has been received.

California Government Code Sections 65040.12(e) defines 'environmental justice' to provide "fair treatment of people...with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations and policies." Also,

Executive Order B-10-11 requires that state agencies "consult with Native American tribes, their elected officials and other representatives of tribal governments in order to provide meaningful input into...the development of legislation, regulations, rules and policies on matter that may affect tribal communities."

If you have any questions or need additional information, please contact me at (916) 373-3715.

Sincerely,

Dave Singleton
Program Analyst

Attachments

Native American Contacts
Los Angeles County California
March 28, 2014

LA City/County Native American Indian Comm
Ron Andrade, Director
3175 West 6th St, Rm. 403
Los Angeles , CA 90020
randrade@css.lacounty.gov
(213) 351-5324
(213) 386-3995 FAX

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Tribal Chair/Cultural Resources
P.O. Box 490 Gabrielino Tongva
Bellflower , CA 90707
gtongva@verizon.net
562-761-6417 - voice
562-761-6417- fax

Tongva Ancestral Territorial Tribal Nation
John Tommy Rosas, Tribal Admin.
Private Address Gabrielino Tongva
,
tattnlaw@gmail.com
310-570-6567

Gabrielino-Tongva Tribe
Bernie Acuna, Co-Chairperson
P.O. Box 180 Gabrielino
Bonsall , CA 92003
(619) 294-6660-work
(310) 428-5690 - cell
(760) 636-0854- FAX
bacuna1@gabrielinotribe.org

Gabrieleno/Tongva San Gabriel Band of Mission
Anthony Morales, Chairperson
PO Box 693 Gabrielino Tongva
San Gabriel , CA 91778
GTTribalcouncil@aol.com
(626) 286-1232 - FAX
(626) 286-1758 - Home
(626) 286-1262 -FAX

Gabrielino-Tongva Tribe
Linda Candelaria, Co-Chairperson
P.O. Box 180 Gabrielino
Bonsall , CA 92003
palmsprings9@yahoo.com
626-676-1184- cell
(760) 636-0854 - FAX

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
P.O. Box 86908 Gabrielino Tongva
Los Angeles , CA 90086
sgoad@gabrielino-tongva.com
951-845-0443

Gabrieleno Band of Mission Indians
Andrew Salas, Chairperson
P.O. Box 393 Gabrielino
Covina , CA 91723
gabrielenoindians@yahoo.
(626) 926-4131

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list s only applicable for contacting locative Americans with regard to cultural resources for the proposed Shell Oil Terminal Marine Oil Engineering and Maintenance Standards (MOTEMS) Project; located in the San Pedro area Los Angeles County, California for which a Sacred Lands File search and Native American Contacts list were requested

Native American Contacts
Los Angeles County California
March 28, 2014

Gabrielino-Tongva Tribe
Conrad Acuna,
P.O. Box 180 Gabrielino
Bonsall , CA 92003

760-636-0854 - FAX

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list s only applicable for contacting locative Americans with regard to cultural resources for the proposed Shell Oil Terminal Marine Oil Engineering and Maintenance Standards (MOTEMS) Project; located In the San Pedro area Los Angeles County, California for which a Sacred Lands File search and Native American Contacts list were requested

SWCA
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Pasadena Office
150 S. Arroyo Parkway, 2nd Floor
Pasadena, CA 91105
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

April 10, 2014

Ron Andrade, Director
LA City/Couny Native American Indian Commission
3175 West 6th St., Rm. 403
Los Angeles, CA 90020

Sent Via U.S. Mail

RE: Cultural Resources Studies for the Berths 167-169 Shell Oil Terminal Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) Improvement Project, Port of Los Angeles, Los Angeles County, California

Dear Mr. Andrade:

SWCA Environmental Consultants (SWCA) has been retained to perform cultural resources services in accordance with Section 106 of the National Historic Preservation Act (NHPA), the National Environmental Policy Act (NEPA) for the Shell Oil Terminal Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) Improvement Project (proposed project). The proposed project area is located at Berths 167-169 at the Port of Los Angeles in Los Angeles County, California.

As part of the process of identifying cultural resources issues for this project, SWCA contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American individuals and/or tribal organizations that may have knowledge of cultural resources in or near the project area. **The NAHC SLF indicated the presence of Native American cultural resources in the immediate project area**. The NAHC therefore recommended that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project.

The project area is located in the City of Los Angeles, at the Port of Los Angeles, on Mormon Island, east of the 110 (Harbor) Freeway and north of SR-47. The project area is depicted on an unsectioned portion of the Torrance, California 7.5′ U.S. Geological Survey Quadrangle (see enclosed Project Location Map). The project involves improvements to the existing Shell Oil Terminal. Historically, this property has been utilized as a shipping yard and since the 1920s, it has operated as an oil transport terminal. The southern segment of the property was created after 1959, when a new bulkhead was constructed and artificial fill laid to create new land for development.

If you have knowledge of any cultural resources that may exist within or near the project area, please contact me via telephone at (626) 240-0587 Ext. 6609; or via email at scarmack@swca.com; or in writing at the above address at your earliest convenience. Thank you for your assistance.

Sincerely,

Shannon Carmack
Project Manager, Senior Architectural Historian

Enclosures: Project Location Map

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Pasadena Office
150 S. Arroyo Parkway, 2nd Floor
Pasadena, CA 91105
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

April 10, 2014

Robert Dorame, Tribal Chair
Gabrielino Tongva Indians of California Tribal Council
P.O. Box 490
Bellflower, CA 90707

Sent Via U.S. Mail

RE: Cultural Resources Studies for the Berths 167-169 Shell Oil Terminal Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) Improvement Project, Port of Los Angeles, Los Angeles County, California

Dear Mr. Dorame:

SWCA Environmental Consultants (SWCA) has been retained to perform cultural resources services in accordance with Section 106 of the National Historic Preservation Act (NHPA), the National Environmental Policy Act (NEPA) for the Shell Oil Terminal Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) Improvement Project (proposed project). The proposed project area is located at Berths 167-169 at the Port of Los Angeles in Los Angeles County, California.

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Shannon Carmack
Project Manager, Senior Architectural Historian

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www.swca.com

April 10, 2014

John Tommy Rosas, Tribal Administrator
Tongva Ancestral Territorial Tribal Nation
tattnlaw@gmail.com

Sent Via E-Mail

RE: Cultural Resources Studies for the Berths 167-169 Shell Oil Terminal Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) Improvement Project, Port of Los Angeles, Los Angeles County, California

Dear Mr. Rosas:

SWCA Environmental Consultants (SWCA) has been retained to perform cultural resources services in accordance with Section 106 of the National Historic Preservation Act (NHPA), the National Environmental Policy Act (NEPA) for the Shell Oil Terminal Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) Improvement Project (proposed project). The proposed project area is located at Berths 167-169 at the Port of Los Angeles in Los Angeles County, California.

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Sincerely,

Shannon Carmack
Project Manager, Senior Architectural Historian

Enclosures: Project Location Map

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www.swca.com

April 10, 2014

Bernie Acuna, Co-Chairperson
Gabrielino-Tongva Tribe
P.O. Box 180
Bonsall, CA 92003

Sent Via U.S. Mail

RE: Cultural Resources Studies for the Berths 167-169 Shell Oil Terminal Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) Improvement Project, Port of Los Angeles, Los Angeles County, California

Dear Mr. Acuna:

SWCA Environmental Consultants (SWCA) has been retained to perform cultural resources services in accordance with Section 106 of the National Historic Preservation Act (NHPA), the National Environmental Policy Act (NEPA) for the Shell Oil Terminal Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) Improvement Project (proposed project). The proposed project area is located at Berths 167-169 at the Port of Los Angeles in Los Angeles County, California.

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Sincerely,

Shannon Carmack
Project Manager, Senior Architectural Historian

Enclosures: Project Location Map

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April 10, 2014

Anthony Morales, Chairperson
Gabrielino/Tongva San Gabriel Band of Mission Indians
P.O. Box 693
San Gabriel, CA 91778

Sent Via U.S. Mail

RE: Cultural Resources Studies for the Berths 167-169 Shell Oil Terminal Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) Improvement Project, Port of Los Angeles, Los Angeles County, California

Dear Mr. Morales:

SWCA Environmental Consultants (SWCA) has been retained to perform cultural resources services in accordance with Section 106 of the National Historic Preservation Act (NHPA), the National Environmental Policy Act (NEPA) for the Shell Oil Terminal Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) Improvement Project (proposed project). The proposed project area is located at Berths 167-169 at the Port of Los Angeles in Los Angeles County, California.

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Sincerely,

Shannon Carmack
Project Manager, Senior Architectural Historian

Enclosures: Project Location Map

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April 10, 2014

Linda Candelaria, Co-Chairperson
Gabrielino-Tongva Tribe
P.O. Box 180
Bonsall, CA 92003

Sent Via U.S. Mail

RE: Cultural Resources Studies for the Berths 167-169 Shell Oil Terminal Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) Improvement Project, Port of Los Angeles, Los Angeles County, California

Dear Ms. Candelaria:

SWCA Environmental Consultants (SWCA) has been retained to perform cultural resources services in accordance with Section 106 of the National Historic Preservation Act (NHPA), the National Environmental Policy Act (NEPA) for the Shell Oil Terminal Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) Improvement Project (proposed project). The proposed project area is located at Berths 167-169 at the Port of Los Angeles in Los Angeles County, California.

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Sincerely,

Shannon Carmack
Project Manager, Senior Architectural Historian

Enclosures: Project Location Map

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www.swca.com

April 10, 2014

Andrew Salas, Chairperson
Gabrielino Band of Mission Indians
P.O. Box 393
Covina, CA 91723

Sent Via U.S. Mail

RE: Cultural Resources Studies for the Berths 167-169 Shell Oil Terminal Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) Improvement Project, Port of Los Angeles, Los Angeles County, California

Dear Mr. Salas:

SWCA Environmental Consultants (SWCA) has been retained to perform cultural resources services in accordance with Section 106 of the National Historic Preservation Act (NHPA), the National Environmental Policy Act (NEPA) for the Shell Oil Terminal Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) Improvement Project (proposed project). The proposed project area is located at Berths 167-169 at the Port of Los Angeles in Los Angeles County, California.

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Sincerely,

Shannon Carmack
Project Manager, Senior Architectural Historian

Enclosures: Project Location Map

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Tel 626.240.0587 Fax 626.240.0607
www.swca.com

April 10, 2014

Conrad Acuna
Gabrielino-Tongva Tribe
P.O. Box 180
Bonsall, CA 92003

Sent Via U.S. Mail

RE: Cultural Resources Studies for the Berths 167-169 Shell Oil Terminal Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) Improvement Project, Port of Los Angeles, Los Angeles County, California

Dear Mr. Acuna:

SWCA Environmental Consultants (SWCA) has been retained to perform cultural resources services in accordance with Section 106 of the National Historic Preservation Act (NHPA), the National Environmental Policy Act (NEPA) for the Shell Oil Terminal Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) Improvement Project (proposed project). The proposed project area is located at Berths 167-169 at the Port of Los Angeles in Los Angeles County, California.

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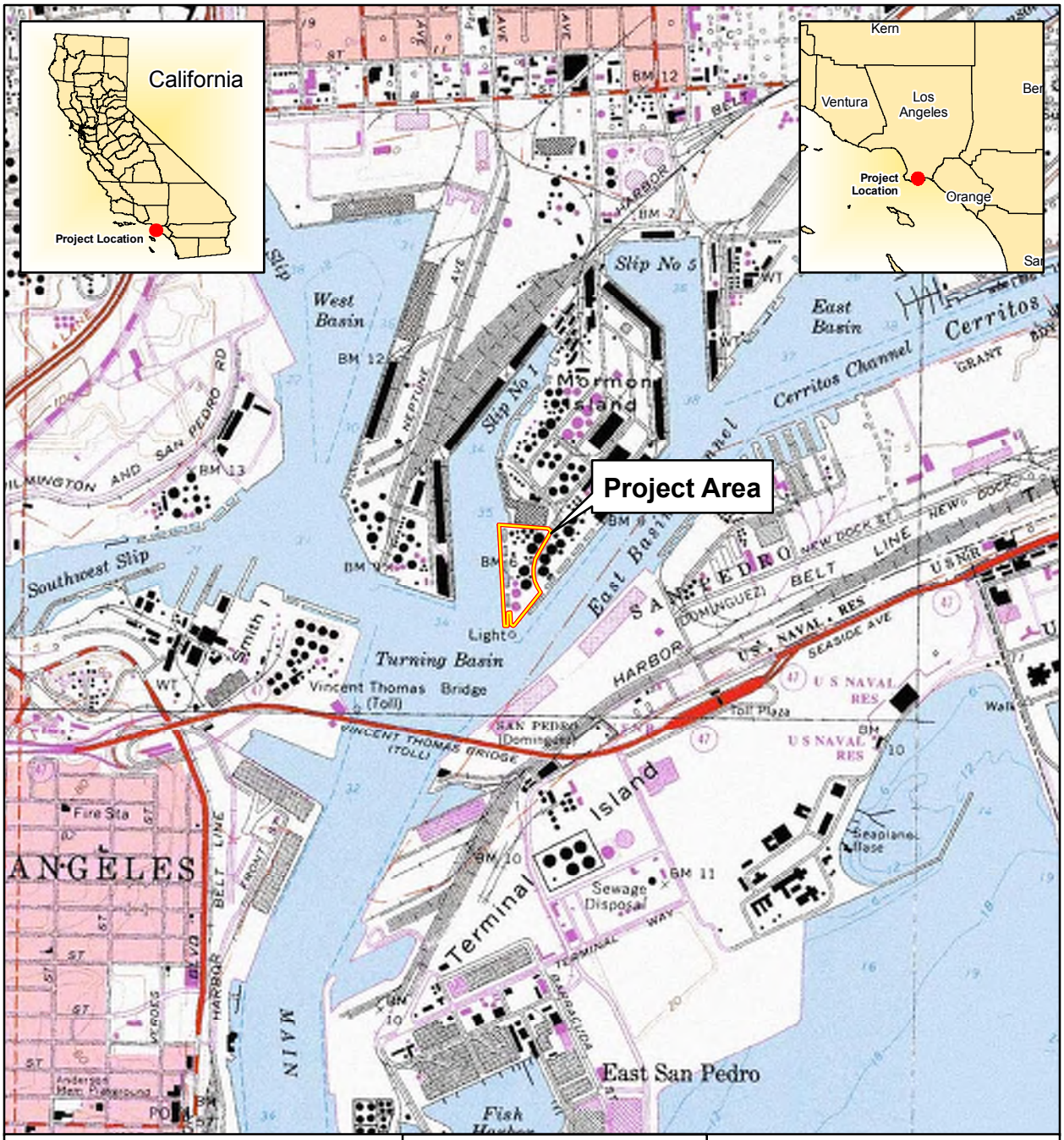
Sincerely,

Shannon Carmack
Project Manager, Senior Architectural Historian

Enclosures: Project Location Map



USGS 7.5' Quadrangle:
Torrance, CA 1966
(Photorevised 1981)
Township: 5S, Range: 13W, Unsectioned

SWCA ENVIRONMENTAL CONSULTANTS

Figure 1

Location Map

Port of Los Angeles
Berths 167-169 Rehabilitation

ATTACHMENT C. HISTORIC GROUP CONSULTATION LETTERS

SWCA
ENVIRONMENTAL CONSULTANTS
Sound Science. Creative Solutions.

Pasadena Office
625 Fair Oaks Avenue, Suite 190
South Pasadena, CA 91030
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

March 31, 2014

Janet Hansen, Deputy Manager
City of Los Angeles
Department of City Planning
200 N. Spring Street, Room 620
Los Angeles, CA 90012

Sent Via U.S. Mail

RE: Port of Los Angeles, Berths 167-169 Improvement Project, City of Los Angeles, Los Angeles County, California

Dear Ms. Hansen:

SWCA Environmental Consultants (SWCA) has been retained to prepare an updated survey and Historic Property Technical Report for the Port of Los Angeles. This study and survey are in support of the Port of Los Angeles Berths 167-169 Improvement Project in the City of Los Angeles, Los Angeles County, California. The project area is a 9.1-acre parcel located in the City of Los Angeles, at the Port of Los Angeles, on Mormon Island, east of the 110 (Harbor) Freeway and north of SR-47 (see enclosed Project Location Map). The project involves improvements to the existing Shell Oil Terminal, including demolition of the existing timber wharf and its replacement with a new concrete loading platform, access trestle, mooring dolphins, and steel catwalks. The current two-berth wharf structure will be replaced with a single berth.

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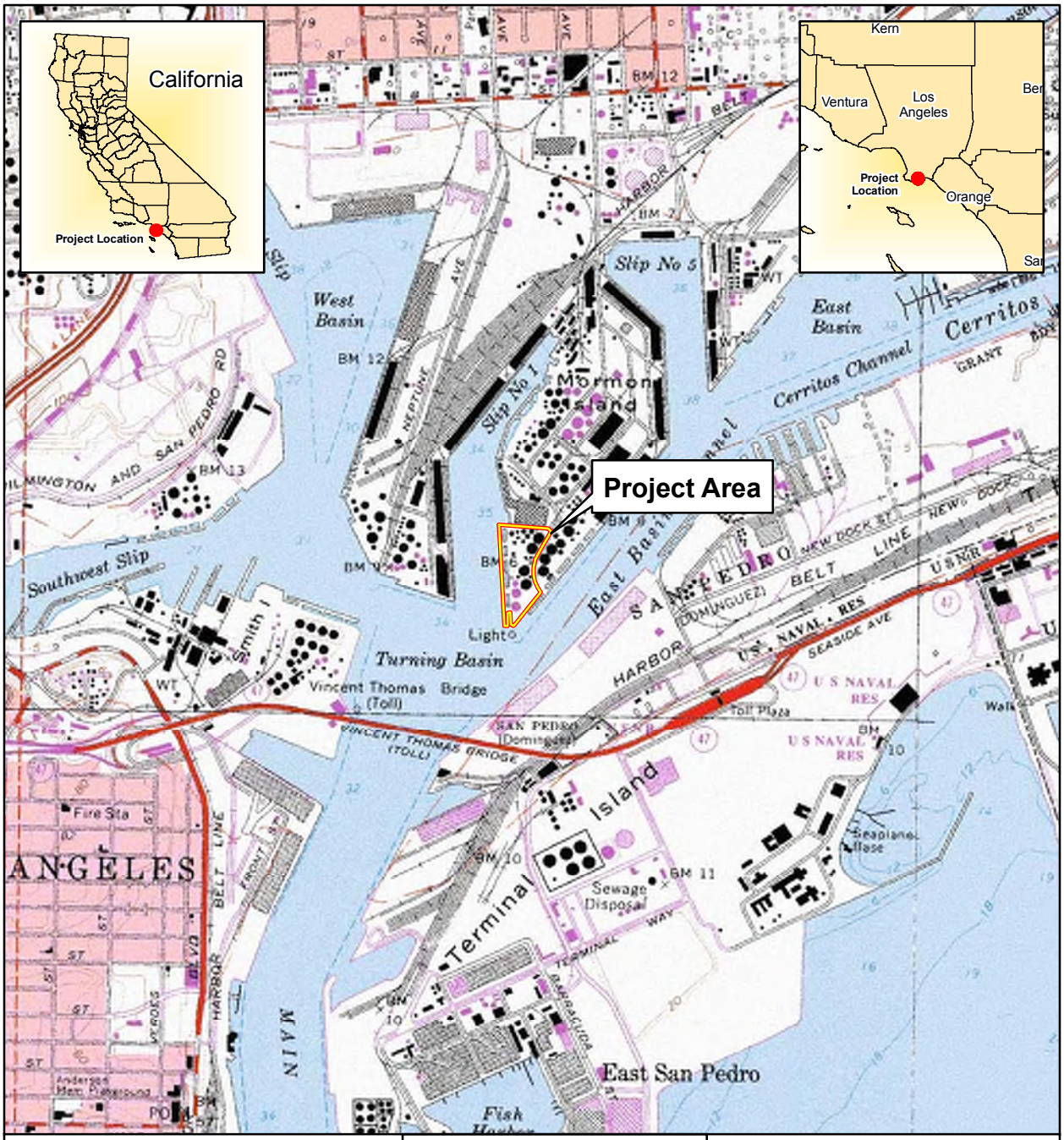
- Phone: (626) 240-0587
- Fax: (626) 240-0607
- E-mail: dhowell@swca.com
- Street address: 150 S. Arroyo Parkway, 2nd Floor, Pasadena, California 91105

Many thanks in advance for your assistance and input.

Sincerely,

Debi Howell-Ardila, MHP, Architectural Historian/ Historian

Enclosures:
Project Location Map



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Torrance, CA 1966
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Township: 5S, Range: 13W, Unsectioned

SWCA ENVIRONMENTAL CONSULTANTS

Figure 1

Location Map

Port of Los Angeles
Berths 167-169 Rehabilitation

SWCA
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Sound Science. Creative Solutions.

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South Pasadena, CA 91030
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

March 31, 2014

Ann Shea, President
Los Angeles City Historical Society
P.O. Box 41046
Los Angeles, CA 90041

Sent Via U.S. Mail

RE: Port of Los Angeles, Berths 167-169 Improvement Project, City of Los Angeles, Los Angeles County, California

Dear Ms. Shea:

SWCA Environmental Consultants (SWCA) has been retained to prepare an updated survey and Historic Property Technical Report for the Port of Los Angeles. This study and survey are in support of the Port of Los Angeles Berths 167-169 Improvement Project in the City of Los Angeles, Los Angeles County, California. The project area is a 9.1-acre parcel located in the City of Los Angeles, at the Port of Los Angeles, on Mormon Island, east of the 110 (Harbor) Freeway and north of SR-47 (see enclosed Project Location Map). The project involves improvements to the existing Shell Oil Terminal, including demolition of the existing timber wharf and its replacement with a new concrete loading platform, access trestle, mooring dolphins, and steel catwalks. The current two-berth wharf structure will be replaced with a single berth.

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- Fax: (626) 240-0607
- E-mail: dhowell@swca.com
- Street address: 150 S. Arroyo Parkway, 2nd Floor, Pasadena, California 91105

Many thanks in advance for your assistance and input.

Sincerely,

Debi Howell-Ardila, MHP, Architectural Historian/ Historian

Enclosures:
Project Location Map

SWCA
ENVIRONMENTAL CONSULTANTS
Sound Science. Creative Solutions.

Pasadena Office
625 Fair Oaks Avenue, Suite 190
South Pasadena, CA 91030
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

March 31, 2014

Adrian Scott Fine, Director of Advocacy
Los Angeles Conservancy
523 West Sixth Street, Suite 826
Los Angeles, CA 90014

Sent Via U.S. Mail

RE: Port of Los Angeles, Berths 167-169 Improvement Project, City of Los Angeles, Los Angeles County, California

Dear Mr. Fine:

SWCA Environmental Consultants (SWCA) has been retained to prepare an updated survey and Historic Property Technical Report for the Port of Los Angeles. This study and survey are in support of the Port of Los Angeles Berths 167-169 Improvement Project in the City of Los Angeles, Los Angeles County, California. The project area is a 9.1-acre parcel located in the City of Los Angeles, at the Port of Los Angeles, on Mormon Island, east of the 110 (Harbor) Freeway and north of SR-47 (see enclosed Project Location Map). The project involves improvements to the existing Shell Oil Terminal, including demolition of the existing timber wharf and its replacement with a new concrete loading platform, access trestle, mooring dolphins, and steel catwalks. The current two-berth wharf structure will be replaced with a single berth.

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Many thanks in advance for your assistance and input.

Sincerely,

Debi Howell-Ardila

Debi Howell-Ardila, MHP, Architectural Historian/ Historian

Enclosures:
Project Location Map

SWCA
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www.swca.com

March 31, 2014

Current President
Los Angeles Maritime Museum
Berth 84
Foot of 6th Street
San Pedro, CA 90713

Sent Via U.S. Mail

RE: Port of Los Angeles, Berths 167-169 Improvement Project, City of Los Angeles, Los Angeles County, California

Dear Current President:

SWCA Environmental Consultants (SWCA) has been retained to prepare an updated survey and Historic Property Technical Report for the Port of Los Angeles. This study and survey are in support of the Port of Los Angeles Berths 167-169 Improvement Project in the City of Los Angeles, Los Angeles County, California. The project area is a 9.1-acre parcel located in the City of Los Angeles, at the Port of Los Angeles, on Mormon Island, east of the 110 (Harbor) Freeway and north of SR-47 (see enclosed Project Location Map). The project involves improvements to the existing Shell Oil Terminal, including demolition of the existing timber wharf and its replacement with a new concrete loading platform, access trestle, mooring dolphins, and steel catwalks. The current two-berth wharf structure will be replaced with a single berth.

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Many thanks in advance for your assistance and input.

Sincerely,

Debi Howell-Ardila, MHP, Architectural Historian/ Historian

Enclosures:
Project Location Map

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www.swca.com

March 31, 2014

Tara Fansler, Director of Archives
Los Angeles Harbor Department Historical Archives
272 S. Fries Avenue
Wilmington, CA 90744

Sent Via U.S. Mail

RE: Port of Los Angeles, Berths 167-169 Improvement Project, City of Los Angeles, Los Angeles County, California

Dear Ms. Fansler:

SWCA Environmental Consultants (SWCA) has been retained to prepare an updated survey and Historic Property Technical Report for the Port of Los Angeles. This study and survey are in support of the Port of Los Angeles Berths 167-169 Improvement Project in the City of Los Angeles, Los Angeles County, California. The project area is a 9.1-acre parcel located in the City of Los Angeles, at the Port of Los Angeles, on Mormon Island, east of the 110 (Harbor) Freeway and north of SR-47 (see enclosed Project Location Map). The project involves improvements to the existing Shell Oil Terminal, including demolition of the existing timber wharf and its replacement with a new concrete loading platform, access trestle, mooring dolphins, and steel catwalks. The current two-berth wharf structure will be replaced with a single berth.

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- Fax: (626) 240-0607
- E-mail: dhowell@swca.com
- Street address: 150 S. Arroyo Parkway, 2nd Floor, Pasadena, California 91105

Many thanks in advance for your assistance and input.

Sincerely,

Debi Howell-Ardila, MHP, Architectural Historian/ Historian

Enclosures:
Project Location Map

Brandi Shawn

From: Fansler, Tara [TFansler@portla.org]
Sent: Wednesday, April 16, 2014 11:51 AM
To: Brandi Shawn
Subject: RE: Berths 167-169 Cultural Resources Studies

Hello Brandi,
After our conversation I dug a little deeper and I think we can identify potential historical resources in the project area. Several historic maps in our collection point to structures or operations in the area before the Shell Oil refinery. I have no idea if any evidence of these structures or operations are still remaining on the property.

Map # 2013.3.10, dated 1899, indicates a possible wharf at that location.
Map # 2013.3.07, dated 1912, indicates an unidentified structure in that area.
Map #2012.27.11, dated 1915, indicates a structure or wharf operated by the Banning Company in that area.
Map #s591, dated 1919, indicates the Ralph J. Chandler Ship Building Company operating at the northern end of Berth 167, with Municipal Belt Line Railway tracks leading to Berth 167.

Hope this is of assistance.

Tara Fansler
Director of Archives & Collections
Port of Los Angeles
310.732.0412
tfansler@portla.org

From: Brandi Shawn [mailto:BShawn@swca.com]
Sent: Wednesday, April 16, 2014 10:16 AM
To: Fansler, Tara
Subject: Berths 167-169 Cultural Resources Studies

Hi Tara,

I have attached a copy of the letter that we spoke about on the telephone and the related map of the project area. We are not making a research request, we are merely soliciting your response, should you have one, regarding potential or identified historic resources the project area that may be effected by the project outlined in the attached letter.

Thank you,

Brandi Shawn
Assistant Architectural Historian

SWCA Environmental Consultants
150 S. Arroyo Parkway, 2nd Floor
Pasadena, California, 91105
P 626.240.0587 | F 626.240.0607

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Sound Science. Creative Solutions.

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Pasadena Office
625 Fair Oaks Avenue, Suite 190
South Pasadena, CA 91030
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

March 31, 2014

Anne Hansford, Archivist
San Pedro Bay Historical Society
350 W. 5th Street, #210
San Pedro, CA 90731

Sent Via U.S. Mail

RE: Port of Los Angeles, Berths 167-169 Improvement Project, City of Los Angeles, Los Angeles County, California

Dear Ms. Hansford:

SWCA Environmental Consultants (SWCA) has been retained to prepare an updated survey and Historic Property Technical Report for the Port of Los Angeles. This study and survey are in support of the Port of Los Angeles Berths 167-169 Improvement Project in the City of Los Angeles, Los Angeles County, California. The project area is a 9.1-acre parcel located in the City of Los Angeles, at the Port of Los Angeles, on Mormon Island, east of the 110 (Harbor) Freeway and north of SR-47 (see enclosed Project Location Map). The project involves improvements to the existing Shell Oil Terminal, including demolition of the existing timber wharf and its replacement with a new concrete loading platform, access trestle, mooring dolphins, and steel catwalks. The current two-berth wharf structure will be replaced with a single berth.

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- Street address: 150 S. Arroyo Parkway, 2nd Floor, Pasadena, California 91105

Many thanks in advance for your assistance and input.

Sincerely,

Debi Howell-Ardila, MHP, Architectural Historian/ Historian

Enclosures:
Project Location Map

SWCA
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Sound Science. Creative Solutions.

Pasadena Office
625 Fair Oaks Avenue, Suite 190
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Tel 626.240.0587 Fax 626.240.0607
www.swca.com

March 31, 2014

Current President
Wilmington Historical Society
309 W. Opp Street
Wilmington, CA 90744

Sent Via U.S. Mail

RE: Port of Los Angeles, Berths 167-169 Improvement Project, City of Los Angeles, Los Angeles County, California

Dear Current President:

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Sincerely,

Debi Howell-Ardila, MHP, Architectural Historian/ Historian

Enclosures:
Project Location Map

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Tel 626.240.0587 Fax 626.240.0607
www.swca.com

March 31, 2014

Patricia Adler-Ingram, Ph.D., Executive Director
Historical Society of Southern California
P.O. Box 93487
Pasadena, CA 91109

Sent Via U.S. Mail

RE: Port of Los Angeles, Berths 167-169 Improvement Project, City of Los Angeles, Los Angeles County, California

Dear Ms. Adler-Ingram:

SWCA Environmental Consultants (SWCA) has been retained to prepare an updated survey and Historic Property Technical Report for the Port of Los Angeles. This study and survey are in support of the Port of Los Angeles Berths 167-169 Improvement Project in the City of Los Angeles, Los Angeles County, California. The project area is a 9.1-acre parcel located in the City of Los Angeles, at the Port of Los Angeles, on Mormon Island, east of the 110 (Harbor) Freeway and north of SR-47 (see enclosed Project Location Map). The project involves improvements to the existing Shell Oil Terminal, including demolition of the existing timber wharf and its replacement with a new concrete loading platform, access trestle, mooring dolphins, and steel catwalks. The current two-berth wharf structure will be replaced with a single berth.

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Many thanks in advance for your assistance and input.

Sincerely,

Debi Howell-Ardila, MHP, Architectural Historian/ Historian

Enclosures:
Project Location Map

ATTACHMENT D. DPR UPDATE

P1. Other Identifier: Berths 167-169

P3a. Description:
This Continuation Sheet presents the results of an updated, context-driven evaluation of the subject property, carried out in April of 2014. The 2014 survey considered all buildings and structures located at the Shell Oil Terminal Facility, in accordance with the themes of significance, eligibility standards, and integrity thresholds for historic districts established in the *Draft Historic Context Statement, SurveyLA Industrial Development, City of Los Angeles, Los Angeles County, California* (Sorrell et. al, 2011).

In 2009, the subject property was recorded on Department of Parks and Recreation (DPR) forms. Since that time, the architectural description prepared for the property remains accurate. In addition, there appear to be no additional visible alterations. The property remains in good/ moderate physical condition.

P5b. Description of Photo: (View, date, accession #)
View of main administration building facing northeast, May 5, 2014, 0563.jpg

P11. Report Citation:
Updated Historic Property Technical Report, Berths 167-169 Shell Oil Terminal Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) Improvement Project, Port of Los Angeles (POLA), California (SWCA Environmental Consultants, 2014, Pasadena, California).

B10. Significance:
The subject property was last evaluated in 2009 (SWCA 2009). At that time, the property was found not eligible for listing in the National Register of Historic Places, the Calfornia Register of Historical Resources or for local designation as a City of Los Angeles Historic Cultural Monument or a contributor to a Historic Preservation Overlay Zone. As a result of this update, it is recommended that the appropriate California Historical Resources Status Code remain "6Z, Found ineligible for N[ational] R[egister], C[alifornia] R[egister], or Local designation through survey evaluation" (California Office of Historic Preservation 2003).

B12. References:
Draft Historic Context Statement, SurveyLA Industrial Development, City of Los Angeles, Los Angeles County, California. On file, Office of Historic Resources. Los Angeles Department of City Planning, Los Angeles, California. (Sorrell, Tanya, Shane Swerdlow, Marissa Moser, Sylvia Schweri, Mary Ringhoff, and April Sommer Rabanera 2011)

Historic Property Technical Report, Berths 167-169 Rehabilitation Project, Port of Los Angeles, City and County of Los Angeles, California (SWCA Environmental Consultants 2009)

B14. Evaluator: Shannon Carmack, SWCA Environmental Consultants, 150 South Arroyo Parkway, 2nd Floor, Pasadena, CA 91105

ATTACHMENT E. SURVEYLA DATA TABLE

RESOURCE NAME	ADDRESS	YEAR BUILT	RESOURCE TYPE	RESOURCE SUBTYPE	ARCHITECTURAL STYLE	CONTEXT	SUBCONTEXT	THEME	SUBTHEME	PROPERTY TYPE	STATUS CODE(S)	CRITERIA	REASON STATEMENT
Supertanker Terminal	Berths 167-169	1926-1983	Industrial-Oil Production	Other	Utilitarian	Industrial Development, 1850-1980	None	Oil and Other Petroleum Products, 1892-1965	None	Industrial	6Z	None	The property no longer retains integrity as a result of its partial reconstruction following an explosion in 1947.

ATTACHMENT F. SWCA 2009 REPORT

Historic Property Technical Report
Berths 167-169 Rehabilitation Project,
Port of Los Angeles,
City and County of Los Angeles, California

ADP No. 080327-034

Prepared for:

CDM

Prepared by:

SWCA Environmental Consultants

April 2009

HISTORIC PROPERTY TECHNICAL REPORT
BERTHS 167-169 REHABILITATION PROJECT,
PORT OF LOS ANGELES,
CITY AND COUNTY OF LOS ANGELES, CALIFORNIA

ADP No. 080327-034

Prepared for

Ms. Nicole Cobleigh
CDM
523 W. 6th Street, Suite 400
Los Angeles, California 90014

Prepared by

Shannon Carmack, Francesca Smith, M.S.
and
Samantha Murray

SWCA Environmental Consultants
625 Fair Oaks Avenue, Suite 190
South Pasadena, California 91030
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USGS 7.5-Minute Topographic Quadrangle
Torrance, CA 1966, (Photorevised 1981)

SWCA Project No. 15301

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MANAGEMENT SUMMARY/ABSTRACT

This report contains results of the historic property assessment conducted for the proposed Berths 167-169 rehabilitation project. Under contract to CDM, SWCA Environmental Consultants (SWCA) conducted a historic property assessment to identify and evaluate built environment resources that may be affected by planned development activities in the defined project area of potential effects (APE) or study area. The project APE consists of a 9.1-acre industrial property that has been used as an oil distribution terminal since 1923. The subject property is the Shell Oil terminal facility, located at Berths 167-169, on Mormon Island, at the Port of Los Angeles, in the City and County of Los Angeles, California.

The project is located within the jurisdiction of the United States Army Corps of Engineers (Corps), and will require issuance of a Section 404 permit; thus, the project meets the definition of an "undertaking." This report was prepared in accordance with the Advisory Council on Historic Preservation (ACHP) regulations (revised January 11, 2001) for the identification of historic properties as required by 36 Code of Federal Regulations (CFR) Part 800 and the regulations implementing Section 106 of the National Historic Preservation Act of 1966, as amended. In addition, this assessment was prepared pursuant to the California Environmental Quality Act (CEQA), Public Resources Code (PRC) Section 5024.1, Section 15064.5 of the Guidelines, and Sections 21083.2 and 21084.1 of the Statutes of CEQA (Governor's Office of Planning and Research 1998), and in accordance with regulations set forth in the City of Los Angeles Municipal Code, Chapter 9, Article 1, Cultural Heritage Ordinance.

The records and literature search revealed that 27 prior cultural resource studies have been conducted within a 1-mile radius of the project APE. One cultural resource was previously recorded within the APE. The timber wharf at Berths 167-169 was identified through reconnaissance survey evaluation as "potentially eligible for the National Register as a contributor by to a district" by San Buenaventura Research Associates in 1997 (San Buenaventura Research Associates 1997). However, because the survey was completed more than five years ago, its findings are updated in this report, in accordance with requirements described in PRC Section 5024.1.

The California Native American Heritage Commission (NAHC) Sacred Lands File search revealed that Native American cultural resources are known in the APE. Letters requesting information on known cultural resources were sent to the Native American identified by the NAHC contacts on April 8, 2009. Letters were also sent to local historic groups requesting information on potential or known historic resources or other cultural resources in the APE on April 10, 2009.

SWCA's intensive-level survey and archival research did not identify any historic properties within the APE. The property was found ineligible for listing in the National Register of Historic Places (National Register) and the California Register of Historical Resources, and to not qualify for designation as a City of Los Angeles Historic-Cultural Monument (HCM) or as a contributor to a Historic Property Overlay Zone (HPOZ). In addition, review of historic aerial photographs indicates that the southern tip of Mormon Island was altered by the addition of imported fill material prior to the construction of Berths 167-169. Minimal ground disturbance is expected to be associated with the proposed project. Therefore, the potential to encounter intact native soils is very low.

Because no historic properties or other cultural resources were identified, no additional cultural resources mitigation measures, beyond standard archaeological conditions, should be necessary. Those include California Health and Safety Code 7050.5, where remains suspected to be Native American are treated under CEQA, Public Resources Code (PRC) Section 15064.5 and Section 5097.98.

This report and any subsequent related reports will be filed with CDM, the South Central Coastal Information Center at California State University, Fullerton, and with SWCA Environmental Consultants. All field notes, photographs, and records related to the current study are on file at the SWCA South Pasadena, California, office.

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INTRODUCTION

Under contract to CDM, SWCA Environmental Consultants (SWCA) conducted a built environment assessment to identify and evaluate historic properties that may be affected by planned development activities within the identified project's area of potential effects (APE). The proposed project would replace the existing berths (167-169) and demolish various buildings and structures. The proposed project is located at the Shell Oil Terminal, Berths 167-169, at the Port of Los Angeles, in the City and County of Los Angeles, California. The proposed project may affect areas that lie within the jurisdiction of the United States Army Corps of Engineers (Corps) and thus will require a Section 404 permit. Therefore, this assessment was prepared in accordance with the Advisory Council on Historic Preservation (ACHP) regulations, revised January 11, 2001, for the identification of historic properties, as required by 36 Code of Federal Regulations (CFR) Part 800, and the regulations implementing Section 106 of the National Historic Preservation Act of 1966, as amended. Under the provisions of the California Environmental Quality Act (CEQA), Public Resources Code (PRC) Section 5024.1, Section 15064.5 of the Guidelines, and Sections 21083.2 and 21084.1 of the Statutes of CEQA were used as basic guidelines for the cultural resources study (Governor's Office of Planning and Research 1998). PRC Section 5024.1 requires the identification and evaluation of historical resources that may be affected by a proposed project. This report was also prepared in accordance with regulations set forth in the City of Los Angeles Municipal Code, Chapter 9, Article 1, Cultural Heritage Ordinance.

Project personnel included Architectural Historian Shannon Carmack, who conducted the built environment survey and historical research, and prepared this report. Cultural Resources Specialist Samantha Murray initiated Native American and local historic group coordination, participated in the built environment survey, photographed the subject property, and assisted in preparation of the report. Cultural Resource Manager Caprice "Kip" Harper made follow-up phone calls to the Native American and local historic groups. GIS Specialist Chad Flynn prepared the maps and figures for the report. The report was edited by Michelle Treviño and reviewed by Senior Architectural Historian Francesca Smith.

PROJECT DESCRIPTION

The project APE is a 9.1-acre parcel located in the city of Los Angeles, at the Port of Los Angeles, on Mormon Island, east of the Interstate 110 (Harbor) Freeway and north of State Route 47. The project area is bounded by San Clemente Avenue to the east, the historic Borax manufacturing plant to the north, and the Pacific Ocean to the south and west. The APE is depicted on an unsectioned portion of Township 5 South, Range 13 West on the U.S. Geological Survey (USGS) Torrance, California 7.5-minute topographic quadrangle (Figure 1).

The project involves improving the existing mooring and berthing system at the Shell Marine Oil Terminal at Berths 167-169 in the Port of Los Angeles. The proposed improvement project will include removal of portions of the existing timber wharf to allow higher ship berthing angles, construction of eight berthing dolphins to isolate berthing forces from the existing timber wharf, and the replacement of submerged mooring hardware with quick-release hooks. Minimal ground disturbance is anticipated to occur as a result of the project (Figure 2).

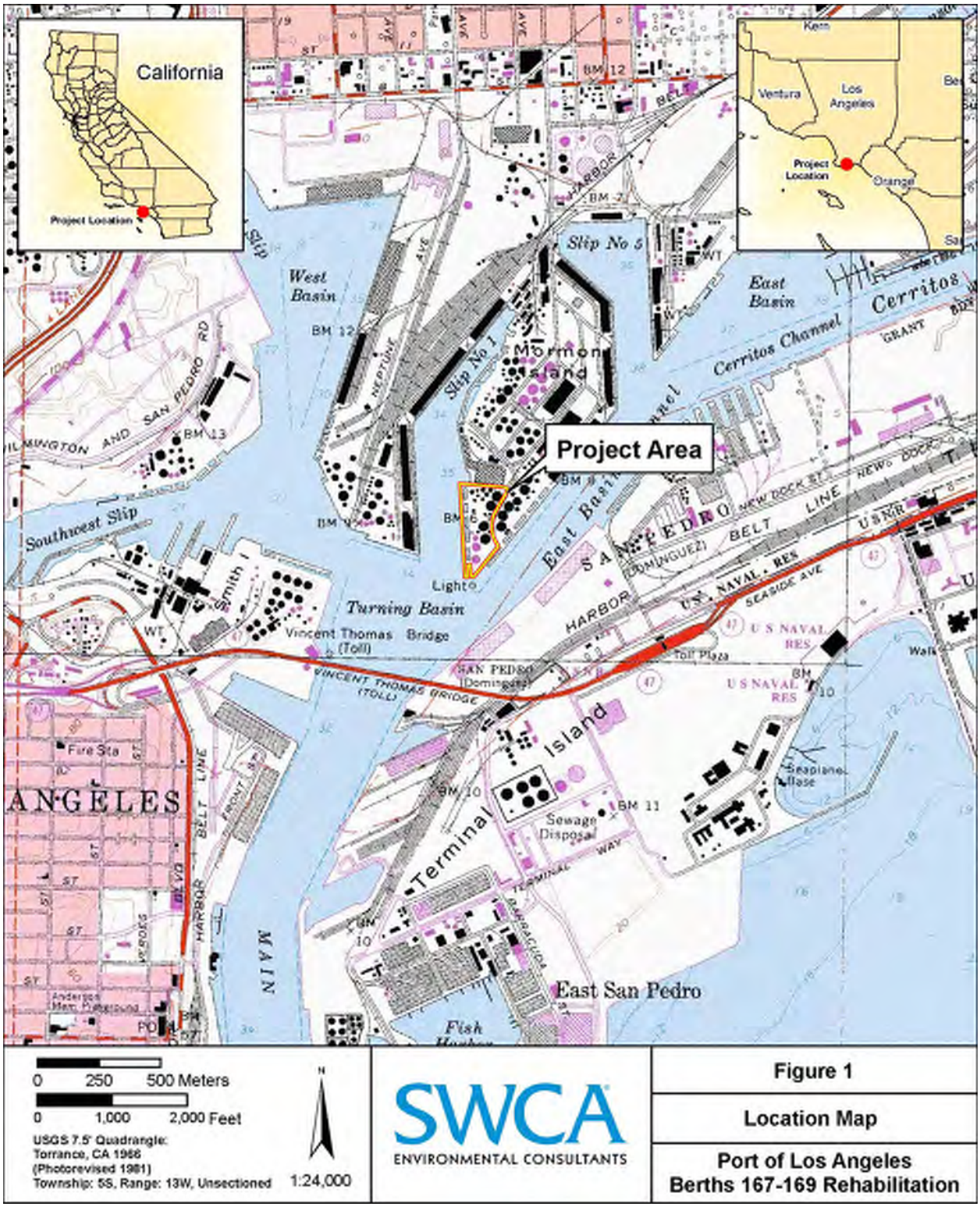


Figure 1. Project Location

Figure 2. Area of Potential Effects: Shell Oil Terminal Facility

REGULATORY FRAMEWORK

This section identifies federal regulations, state legislation, and local statutes, ordinances, and guidelines that govern the identification and treatment of cultural resources and analysis of project-related effects to cultural resources. The lead agency must consider these requirements in making decisions on projects that may affect cultural resources.

FEDERAL

In accordance with 36 CFR Part 800 and the regulations implementing Section 106 of the National Historic Preservation Act of 1966, historic properties are defined as those listed in or determined eligible for listing in the National Register and require review for adverse effects.

National Register of Historic Places

The National Register of Historic Places is the nation's official list of districts, sites, buildings, structures, and objects worthy of preservation. Overseen by the National Park Service (NPS), under the Department of the Interior, the National Register was authorized under the National Historic Preservation Act, as amended. Its listings encompass all National Historic Landmarks as well as historic areas administered by NPS.

National Register guidelines for the evaluation of historic significance were developed to be flexible and to recognize accomplishments of all who have made significant contributions to the nation's history and heritage. Its criteria are designed to guide state and local governments, federal agencies, and others in evaluating potential entries in the National Register. For a property to be listed in or determined eligible for listing, it must be demonstrated to possess integrity and to meet at least one of the following criteria:

> The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:
>
> 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.

Integrity is defined in National Register guidance, *How to Apply the National Register Criteria*, as "the ability of a property to convey its significance. To be listed in the National Register…, a property must not only be shown to be significant under the National Register criteria, but it also must have integrity" (NPS 1990).The seven aspects of integrity are location, design, setting, materials, workmanship, feeling, and association. National Register guidance further asserts that properties be completed at least 50 years ago to be considered for eligibility. Properties completed fewer than 50 years before evaluation must be proven to be "exceptionally important" (criteria consideration G) to be considered for listing.

Effects on historic properties under Section 106 of the National Historic preservation Act are defined in the Assessment of adverse effects in 36 CFR Sections 800.5(a) (1):

> An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.

Adverse effects on historic properties are clearly defined and include, but are not limited to:

(i) Physical destruction of or damage to all or part of the property;

(ii) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines;

(iii) Removal of the property from its historic location;

(iv) Change of the character of the property's use or of physical features within the property's setting that contributes to its historic significance;

(v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;

(vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and

(vii) Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance (36 CFR 800.5 (2)).

To comply with Section 106, the Criteria of adverse effect are applied to historic properties, if any exist in the project APE, pursuant to 36 CFR Sections 800.5 (a)(1). If no historic properties are identified in the APE, a finding of "No historic properties affected" will be made for the proposed project. If there were historic properties in the APE, application of the criteria of adverse effect will result in project-related findings of either "no adverse effect" or of "adverse effect" as described above. A finding of no adverse effect may be appropriate when the undertaking's effects do not meet the thresholds in Criteria of adverse effect 36 CFR Sections 800.5 (a)(1), in certain cases when the undertaking is modified to avoid or lessen effects, or if conditions were imposed to ensure review of rehabilitation plans for conformance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (codified in 36 CFR Part 68). If adverse effects findings were made, resolution of adverse effects, by continued consultation would occur.

Once project effects have been analyzed, a finding of "no historic properties affected" or of "historic properties affected" is made for the proposed project. When a finding of "historic properties affected" is made, application of the Criteria of adverse effect results in a finding of either "no adverse effect" or of "adverse effect." An adverse effect finding is made when the undertaking would directly or indirectly alter, any of the characteristics of historic properties that qualify those properties for inclusion in the National Register, or if adverse effects described in (i) through (viii) enumerated above were expected to

occur. If adverse effects findings were expected to result form the proposed project, mitigation would be required, as were found to be feasible, and resolution of those adverse effects by consultation may occur to avoid, minimize, or mitigate adverse effects on historic properties pursuant to 36 CFR Part 800.6(a).

STATE

In accordance with CEQA Guidelines, properties defined as historical resources are those listed in or eligible for listing in the California Register. Properties eligible for the California Register are those found to meet the criteria for listing in the California Register and National Register or by designation under a local ordinance in a certified Local Government community. CEQA requires the lead agency to determine whether a project may have a significant effect on historical resources.

PRC Section 5024.1, Section 15064.5 of the Guidelines, and Sections 21083.2 and 21084.1 of the Statutes of CEQA were used as the framework for this cultural resources study. PRC Section 5024.1 requires evaluation of historical resources to determine eligibility for listing in the California Register. The California Register was established to serve as an authoritative guide to the state's significant historical and archaeological resources (PRC Section 5024.1). For a property to be eligible for listing in the California Register, it must be found by the State Historical Resources Commission to be significant under at least one of the following four criteria:

> If the resource:
>
> 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.
> 4) Has yielded, or may be likely to yield, information important in prehistory or history.

In addition to possessing one of the above-listed significance characteristics, to be eligible for listing in the California Register, a resource must retain integrity to its period of significance. California Register guidance on the subject asserts "[s]imply, resources must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance" (Office of Historic Preservation 2004). Integrity, although somewhat subjective, is one of the components of professional judgment that comprise the evaluation of a property's historic significance. The requisite conclusion is whether a property retains its integrity, the physical and visual characteristics necessary to convey its significance, or it does not. The concept of integrity is defined in state guidelines as "the authenticity of an historical resource's physical identity evidenced by the physical survival of characteristics that existed during the resource's period of significance." Integrity is described under National Register eligibility elsewhere in this section. To retain its historic integrity, a property must possess several, and usually most, of these aspects.

Substantial Adverse Change

Under CEQA, it is necessary to evaluate proposed projects for the potential to cause significant effects on historical resources. CEQA equates a "substantial adverse change" in the significance of a historical resource with a significant effect on the environment (PRC Section 21084.1). If a proposed project could be expected to cause *substantial adverse change* in a historical resource, environmental clearance for the project would require mitigation measures to reduce impacts. Thresholds of "substantial adverse change"

are established in PRC Section 5020.1 as "demolition, destruction, relocation, or alteration activities *that would impair the significance of the historic resource* (emphasis added)."

A "historical resource" is defined in PRC Section 21084.1 as

> a resource listed in, or determined eligible for listing in, the California Register of Historical Resources. Historical resources included in a local register of historical resources..., or deemed significant pursuant to criteria set forth in subdivision (g) of Section 5024.1, [is] … presumed to be historically or culturally significant for purposes of this section, unless the preponderance of the evidence demonstrates that the resource is not historically or culturally significant.

Material impairment occurs when a project results in demolition, or materially alters in an adverse manner, the physical characteristics that convey a property's historic significance, or is the reason for that property's inclusion in an official register of historic resources (PRC Section 15064.5[b][2]).

The disposition of burials, if necessary, falls first under the general prohibition on disturbing or removing human remains under California Health and Safety Code 7050.5. More specifically, remains suspected to be Native American are treated under CEQA at Section 15064.5 and cite language found at PRC Section 5097.98 that illustrates the process to be followed in the event that remains are discovered. If human remains are discovered during the construction of the proposed project, no further disturbance to the site shall occur and the Los Angeles County Coroner must be notified. If the Coroner determines the remains to be Native American, the coroner shall notify the Native American Heritage Commission (NAHC) within 48 hours. The NAHC shall identify the person or persons it believes to be the Most Likely Descendant (MLD) of the deceased. The MLD may then make recommendations as to the disposition of the remains.

LOCAL

Los Angeles Historic-Cultural Monuments

Local landmarks in the city of Los Angeles are known as Historic-Cultural Monuments and are under the aegis of the Planning Department, Office of Historic Resources. An HCM, monument, or local landmark is defined in the Cultural Heritage Ordinance as:

> Historic-Cultural Monument (Monument) is any site (including significant trees or other plant life located on the site), building or structure of particular historic or cultural significance to the City of Los Angeles, including 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 is identified with historic personages or with important events in the main currents of national, State or local history; or which embodies 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 or her age (Los Angeles Municipal Code Section 22.171.7 Added by Ordinance No. 178,402, Effective 4-2-07).

Historic Preservation Overlay Zones

As described by the City of Los Angeles Office of Historic Resources, the HPOZ Ordinance was adopted in 1979 and amended in 2004:

> to identify and protect neighborhoods with distinct architectural and cultural resources, the City…developed an expansive program of Historic Preservation Overlay Zones... HPOZs, commonly known as historic districts, provide for review of proposed exterior alterations and additions to historic properties within designated districts.

Regarding HPOZ eligibility, City of Los Angeles Ordinance Number 175891 states:

> Features designated as contributing shall meet one or more of the following criteria:
>
> (1) adds to the Historic architectural qualities or Historic associations for which a property is significant because it was present during the period of significance, and possesses Historic integrity reflecting its character at that time; or
>
> (2) owing to its unique location or singular physical characteristics, represents an established feature of the neighborhood, community or city; or
>
> (3) retaining the building, structure, Landscaping, or Natural Feature, would contribute to the preservation and protection of an Historic place or area of Historic interest in the City (Los Angeles Municipal Code, Section 12.20.3).

Regarding affects on federal and locally significant properties, Los Angeles Municipal Code declares the following:

> The department shall not issue a permit to demolish, alter or remove a building or structure of historical, archaeological or architectural consequence if such building or structure has been officially designated, or has been determined by state or federal action to be eligible for designation, on the National Register of Historic Places, or has been included on the City of Los Angeles list of historic cultural monuments, without the department having first determined whether the demolition, alteration or removal may result in the loss of or serious damage to a significant historical or cultural asset. If the department determines that such loss or damage may occur, the applicant shall file an application and pay all fees for the California Environmental Quality Act Initial Study and Check List, as specified in Section 19.05 of the Los Angeles Municipal Code. If the Initial Study and Check List identifies the historical or cultural asset as significant, the permit shall not be issued without the department first finding that specific economic, social or other considerations make infeasible the preservation of the building or structure (Section 91.106.4.5, Permits for Historical and Cultural Buildings).

HISTORIC OVERVIEW

EARLY HISTORY

Spanish explorers and missionaries first arrived in what is now Los Angeles in the late eighteenth century. Following the establishment of Mission San Gabriel Archangel in 1771, the Catholic clergy were granted jurisdiction over a significant portion of southern California. Ten years later, the Pobladores, a group of 12 families from present-day Mexico, founded a community in what is now downtown Los Angeles, naming the area *el Pueblo de Nuestra Señora la Reina de Los Angeles de Porciúncula, translated as The Town of Our Lady the Queen of Angels of the Little Portion*. Prior to becoming one of the world's busiest deep-water ports, the coastline off San Pedro was considered an important place for commerce. The missionaries established San Pedro Bay as a point for commerce with Spanish trading ships, which supplied the *Californios* with necessary goods. On their return to Spain, the ships were loaded with tallow and hides produced from the mission's large cattle holdings.

Activity around San Pedro Bay continued to increase as private land ownership developed throughout the region. Large expanses of the California landscape were granted to the Spanish elite and military as rewards for their service to Spain. Included in these grants was *Rancho San Pedro*, which was awarded to Juan Jose Dominguez in 1784. The grant consisted of 74,000 acres spanning the area from present-day Redondo Beach to San Pedro Bay, including Mormon Island and other unnamed sand spits along the coastline, which formed from years of accumulating alluvium deposits that passed from the San Gabriel River floods (Queenan 1983).

Following Mexico's independence from Spain in 1822, maritime commerce began to flourish off the coast of San Pedro. Under Spanish rule, international trade had been strictly prohibited, thus impeding any real economic development. Once the bay was opened to ships of all nations, San Pedro quickly became the heart of the hide production and trade industry (Queenan 1983).

Subsequent land grants and subdivisions also provided the impetus for growth and expansion at San Pedro Bay in the Mexican period. In 1827, the California Governor Pío Pico granted a section of Rancho San Pedro to the Sepulveda family following years of land disputes between the Sepulveda and Dominguez families, who both laid claim to the land. The Sepulveda land grant was renamed *Rancho Palos Verdes*, and included approximately 31,629 acres (Queenan 1983). A wharf was established by Diego Sepulveda, who later became one of the most successful rancheros of the Mexican period. Adjacent to the Sepulveda wharf, a 42-acre section of the Rancho Palos Verdes waterfront was also set aside by the Mexican government for use as an embarcadero, or public landing (City of Los Angeles Board of Harbor Commissioners 1913).

Harbor and port development within San Pedro bay significantly increased after February 2, 1848, when California was ceded to the United States through the Treaty of Guadalupe Hidalgo. That same year, local merchant John Temple purchased 2 acres of waterfront and opened a general store and shipping service, transporting goods from the shoreline to town by ox and cart. Soon other local amenities emerged, including stagecoach lines, wharves, and ferry services that brought countless new residents to San Pedro Bay. Local entrepreneur Augustus Timms furthered economic development at San Pedro Bay with the establishment of Timms Point, on the former site of the Sepulveda wharf (Queenan 1983).

One of the region's most influential characters, Phinneas Banning, arrived at San Pedro in 1851 from Delaware. Banning quickly found work as a stagecoach driver; by the following year, he had purchased half the interest in Temple's stagecoach firm. Banning began aggressively targeting new business, and as a result found himself in a heated battle with prominent local businessmen Augustus Timms and John J. Tominlison for command of the San Pedro Bay (Weinman and Stickel 1978:29).

In 1857, Banning purchased 2,400 acres of coastal lands of the Rancho San Pedro from Manuel Dominguez for $12,000. In an effort to gain prominence over his competition, Banning constructed a wharf and landing on the property that was located approximately 4 miles northeast of Timms Point. The new wharf was first named New San Pedro, but was later changed to Wilmington in honor of his home state. Banning quickly became the leader in freighting operations along the coast, bringing the Los Angeles & San Pedro Railroad, first railroad in the area, in 1869. The 22-mile rail line secured Banning's control over the port by creating a transportation monopoly that would not be challenged until the 1890s (Weinman and Stickel 1978:29).

Federal improvements to San Pedro Bay began in 1871, largely due to Banning's appeals to Congress to fund harbor improvements. During the next two decades, the Corps completed a series of improvements to the harbor, which increased efficiency and harbor capacity. These improvements included the construction of two jetties, opening of the reef, and the development of a larger, deeper channel that led to the Wilmington landing (Weinman and Stickel 1978:29). A lighthouse at Point Fermin further improved conditions at the harbor in 1874, allowing ships to safely pass and avoid the rocks that surrounded the area known as Deadman's Point.

By the 1880s, San Pedro was gaining importance as a maritime point of entry. A countywide surge in population brought increasing demands for everything from household goods to lumber, a great deal of which was imported from sea and then transported via rail to the city. By the mid-1880s, city officials and local businessmen were urging the federal government to establish a deep-water harbor off the coast of Los Angeles. Predictably, city representatives believed that San Pedro was the appropriate location for the port. However, railroad magnate Collis P. Huntington was actively constructing a port at Santa Monica, where he had purchased a sizable portion of land and established a rail line to Los Angeles. A long and bitter battle ensued that was not resolved until March 1, 1897, when San Pedro was officially selected as the preferred location in a four-to-one decision (Queenan 1983:30).

Port of Los Angeles

Improvements at San Pedro swiftly moved forward after the town was selected to become the official local port. Harbor improvements continued, including dredging and the construction of new bulkheads and wharfs through the Main Channel. The City of Los Angeles also moved quickly to ensure that the port would be a City-owned property. In 1906, a quarter-mile-wide strip of land known as the "Shoestring Strip" was annexed to the City, stretching the boundary from its original southern terminus all the way to the shoreline, to the edge of the towns of Wilmington and San Pedro. Strategically, the move increased the city's presence at the harbor and brought Los Angeles into a position to negotiate annexations with the cities of Wilmington and San Pedro. By 1909, the two harbor cities were annexed to the City of Los Angeles, following an agreement between the three municipalities that Los Angeles would commit $10 million to fund harbor improvements within the next 10 years (City of Los Angeles 1913:33–34).

The Port of Los Angeles was formally established in 1907, when the city council approved an ordinance to create the Board of Harbor Commissioners. In the first few months, the Commission established plans to lay down pier head lines and a breakwater, and to construct a direct highway to downtown. The City received another victory in May 1911, when the State of California passed the Los Angeles Tidelands Act, which granted in trust the rights to the coastal tidelands and submerged lands that bordered the city (Marquez and Turenne 2007:72).

By the early 1910s, the new Port of Los Angeles was fast becoming an important center of commerce. Local demands for oil and lumber were primarily responsible for the traffic at the port. Petroleum was fast replacing coal as the primary energy source throughout the United States. The increasing oil consumption brought important growth to the Port of Los Angeles, with construction of oil refineries, pipelines, and storage tanks in nearby Wilmington. Standard Oil and Union Oil both submitted applications to the Harbor Board to construct processing and storage facilities, bringing the first "tank farms" to the port (Weinman and Stickel 1978:57).

World War I and the completion of the Panama Canal largely provided the impetus for harbor expansion efforts during the first two decades of the twentieth century. During the first World War, the U.S. Navy established a training and submarine base at the port, and became one of the city's largest employers, creating jobs building and repairing ships. Demands for oil escalated during the war, making Los Angeles a major supplier and distributor of the nation's oil. Commercial operations resumed in 1918 at the end of the war, as did port improvement efforts. One immediate development at the time was completion of the Corps dredging of Cerritos Channel, resulting in a 200-foot-wide opening that permanently joined Los Angeles and Long Beach Inner Harbors.

By the 1920s, harbor development became increasingly important to Los Angeles officials. Approximately 1.5 million Americans migrated to Los Angeles County during the decade, causing the economic focus to shift from agriculture to industrial development. Oil was discovered at Signal Hill in 1921, prompting speculators to flock to the region in hopes of exploiting the local oil industry. The abundance of cheap energy, including fuel and electricity, furthered the population boom and sparked a historic housing boom that lasted for 10 years (Queenan 1983:67).

The procurement, sale, and distribution of oil became one of the City's chief economic forces in the twentieth century. With its proximity to the rich oil fields and its state-of-the art facilities, the port quickly became one of the most important locales in the western United States. By 1923, Los Angeles was the second busiest port in the world, just behind New York. Expansion at the port increased substantially as oil production and transportation became a primary focus of commercial activities. The following year, 100 million barrels of oil had left the Port of Los Angeles, and by 1925, 70 percent of imports and exports for the Panama Canal were handled by Los Angeles (Starr 1990).

In 1923, the Greater Harbor Commission was established to design and implement a long-range plan for the port to keep pace with the changing economy. Assisted by a $15 million bond passed by voters in 1923, the Harbor Commission made a number of improvements that increased port capabilities, including doubling wharf spaces and widening the harbor by 1,000 feet. In addition, transportation was dramatically improved by the addition of nearly 60 miles of rail track and more than 20 lineal miles of pavement. The improvements implemented under the plan continued through the 1930s and the Great Depression (Starr 1990:90–91).

World War II brought significant changes to the port and distinction to Los Angeles as an important hub for the U.S. military efforts in the Pacific. The U.S. Navy stepped up its presence by 1937, with the addition of numerous facilities at Terminal Island. Following the 1941 attack on Pearl Harbor, the federal government took exclusive control of the port and mandated all port activities in support of the war. Between 1941 and 1945, more than 90,000 workers were employed at the port in the manufacture and repair of military aircraft and vessels.

After the victory of World War II, Port of Los Angeles officials again focused attention to the expansion and development of the port. By the 1950s, advanced shipping technologies prompted the shift to containerization, a move that dramatically advanced the capabilities and efficiency of port operations. Since that time, the port has continued to expand and modernize, earning it the distinction of handling more containers than any other American port. Currently, the Port of Los Angeles is among the busiest in the world and is a crucial component in the complex structure of the region's economics.

METHODOLOGY

AREA OF POTENTIAL EFFECTS

The proposed project-specific APE was established in accordance with 36 CFR Section 800.16(d), which defines an APE as:

> the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

The proposed project APE was delineated to ensure identification of significant historic and architectural resources that may be directly or indirectly affected by the proposed project and are listed in or eligible for inclusion in the National and California Registers, and for the City of Los Angeles Cultural Heritage-Monument designation program.

The indirect APE includes areas that may be subject to potential project-related effects, including visual or audible effects, and settlement effects that may result from construction or implementation of the proposed project. The direct APE includes areas with permanent site improvements and areas for staging and temporary construction activities.

RECORDS SEARCH

On March 9, 2009, a records search of the California Historical Resources Information System (CHRIS) was conducted at the South Central Coastal Information Center (SCCIC), located at California State University, Fullerton. The search included any previously recorded cultural resources and investigations within a 1-mile radius of the project APE. The CHRIS search also included a review of the National Register, the California Register, the California Points of Historical Interest (CPHI) list, the California Historical Landmarks (CHL) list, the California State Historic Resources Inventory (HRI) list, and the latest City of Los Angeles Historic-Cultural Monuments list. The records search also included a review of all available historic USGS California 7.5- and 15-minute quadrangle maps.

SECTION 106 CONSULTATION

On March 30, 2009, SWCA initiated Native American consultation for the project in compliance with Section 106 of the National Historic Preservation Act. SWCA contacted the NAHC to request a review of the Sacred Lands File and to obtain a list of Native American groups or individuals listed by the NAHC for Los Angeles County (Appendix B). Follow-up letters to the identified Native American groups or individuals were submitted on April 8, 2009.

On April 10, 2009, SWCA sent letters via U.S. mail to seven local government, historic preservation, and history advocacy groups to request information regarding potential historic resources that may be located within the project APE. The letters described the proposed project and its related APE, along with location maps (Appendix C).

HISTORIC RESEARCH

Archival research was completed between March 2009 and April 2009. Research methodology focused on the review of a variety of primary and secondary source materials relating to the history and development of the APE. Sources included, but were not limited to, historic maps, aerial photographs, and written histories of the area. The following repositories, publications, and individuals were contacted to identify known historical land uses and the locations of research materials pertinent to the project site:

- County of Los Angeles Assessor Records
- Archival Collection, Port of Los Angeles, City of Los Angeles
- Engineering Drawings, Berths 167-169. Engineering Division, Port of Los Angeles, City of Los Angeles.
- *Los Angeles Times* Index, ProQuest Database, Los Angeles Public Library, City of Los Angeles
- California Index and various publications, Los Angeles Public Library, City of Los Angeles
- Aerial photographs
- Sanborn Fire Insurance Company Maps
- United States Geological Survey Maps
- City of Los Angeles, Department of Planning, Office of Historic Resources
- Edward Ventura, Operations Supervisor, Shell Oil Terminal/Berths 167-169, Shell Oil Products U.S.
- Dennis Hagner, Environmental Supervisor- Special Projects, Environmental Management Division, Port of Los Angeles, City of Los Angeles
- Lisa Ochsner, Environmental Management Division, Port of Los Angeles, City of Los Angeles
- Other sources as noted in the references list

BUILT ENVIRONMENT SURVEY

On March 12, 2009, SWCA Cultural Resources Project Manager Shannon Carmack and Cultural Resources Specialist Samantha Murray conducted an intensive-level survey of the project area. The purpose of this survey was to establish the APE, and identify and photograph any historical resources that may be affected by the proposed project. The field survey consisted of a visual inspection of all features of the property, including buildings, structures, and associated features. In addition, any previously recorded historic-period resources were resurveyed. All notes, photographs, and records related to the current study are on file at the SWCA South Pasadena, California, office.

RESULTS

RECORDS SEARCH

The results of the SCCIC records search indicates that there are no properties within the APE that are listed in the National or California Registers or are designated California Historical Landmarks or California Points of Historical Interest. In addition, no resources in the APE are listed in the Historic Properties Directory (OHP 2009). Within a 1-mile radius of the project boundaries, 26 cultural resource studies were previously conducted. One of these studies included the APE, and reported negative findings for the presence of cultural resources (Table 1). A complete bibliography of the records search is provided in Appendix A.

Table 1. Previously Conducted Cultural Resources Studies within 1 Mile of the APE

SCCIC Report Number	Study	Author	Year	Proximity to APE
LA-9330	Final Evaluation for Berths 104, 108-109, 115, and 118-120, Port of Los Angeles, Los Angeles County, California	Lassell, S.	2000	Outside
LA-3341	Cultural Resources Evaluation for Site 6-a, Long Beach Naval Station California	Komporlides, D.	1994	Outside
LA-7032	Cultural Resources Summary Report Port of Los Angeles Berths 97-109 China Shipping Yard	Slawson, D. et al.	2003	Outside
LA-3043	Historic and Archaeological Resources Protection (HARP) Plan for Naval Station Long Beach	Hector, S., et al.	1994	Outside
LA-953	An Archaeological Resource Survey and Impact Assessment for the Proposed Container Terminal Berths 121-128 in the Port of Los Angeles, California	Dillon, B.	1981	Outside
LA-5331	Archaeological Survey Report for the 07-LA-110 Harbor Freeway Transitway Corridor Project	Romani, J.	1977	Outside
LA-6061	Architectural Survey and Evaluation of the Historic Union Oil Terminal (berths 148-151) of the Port of Los Angeles	Lanz, M.	2001	Outside
LA-9467	Final Architectural Survey and Evaluation of the Star-Kist Plant Terminal Island, Port of Los Angeles, Los Angeles, California	Lain, K.	2008	Outside
LA-7907	Records Search and Field Reconnaissance Survey for the Proposed Royal Street Communications LLC, Wireless Telecommunications Site La0541a (SCE Wireless) Located at 1435 West Wardlow Road, Long Beach	Wlodarski, R.	2006	Outside
LA-4136	Gatx Leases Renewal Los Angeles Marine Terminal berths 171-173 and Deep Draft Vessel Access at Pier 400	Unknown	1996	Outside

Table 1. Previously Conducted Cultural Resources Studies within 1 Mile of the APE

SCCIC Report Number	Study	Author	Year	Proximity to APE
LA-3707	Preliminary Report of the Potential Impact on Archaeological Resources of the Proposed Gas Transmission Pipeline From Los Angeles Harbor to Yorba Linda- Southern California Gas Co.: Environmental Analysis	Clewlow, W.	1974	Outside
LA-4879	Report of Findings Class 1 and III Historic Architectural, Archaeological and Paleontological Surveys, Terminal Island Treatment Plant Advanced Wastewater Treatment Facility Phase I Distribution Pipeline, Los Angeles Harbor Area, Los Angeles California	Lander, E.	1997	Outside
LA-7031	A Cultural Resources Assessment for the Port of Los Angeles Waterfront Gateway Development Project City of San Pedro Los Angeles County California	Unknown	2003	Outside
LA-1431	Archaeological Survey of Knoll Hill Development	Lagenwalter, P.	1977	Outside
LA-4228	Cultural Resources Investigation for the Proposed Banning's Landing Waterfront Access and Office Development Project Area, Port of Los Angeles, Wilmington, Los Angeles County, California	KcKenna, J.	1995	Outside
LA-4970	Reconstruction Along Route 47 from the Vincent Thomas Toll Plaza to Navy Way	Smith, C.	2000	Outside
LA-9359	Cultural Resources Survey and Historic Architectural Assessment for Sprint Telecommunications Facility Candidate LA54XC7761 (DWP) Facility 161 North Island Avenue, Wilmington, Los Angeles County, California	Bonner, W.	2004	Outside
LA-8504	Archaeological Survey Report for the Toberman village Project, 201-218 North Palos Verdes Street, San Pedro California	Wood, C.	2007	Outside
LA-3583	The Los Angeles Basin and Vicinity: a Gazetteer and Compilation of Archaeological Site Information	Bucknam, B.	1974	Outside
LA-4968	Archaeological Survey Report: 308-324 N. Palos Verdes Street/201 N. Beacon Street, San Pedro	Romani, G.	2000	Outside
LA-4969	Results of the Extended Phase I Investigation, 308-324 N. Palos Verdes Street/201 N. Beacon Street, San Pedro	Romani, G.	2000	Outside
LA-9329	Final Evaluation Report for the Historic Fruit Company terminal and the Port café, Berth 147, Port of Los Angeles, Los Angeles County, California	Lassell, S.	2000	Outside
LA-2399	Los Angeles-Long Beach Harbor Areas Cultural Resources Survey	Winman, et al.	1978	Outside
LA-4455	A Cultural Resource Study for the Los Angeles Harbor Deepening Project	Pierson, L.	1980	Outside
LA-4130	Los Angeles-Long Beach Harbor Landfill Development and Channel Improvement Studied Cultural Resources Appendix	Unknown	1984	Inside
LA-10013	Cultural Resource Survey and Revised Records Search results for Spring Telecommunications Facility Candidate la34xc739a (Harbor Boulevard) 305 North Harbor Drive, San Pedro, Los Angeles County California	Bonner, W.	2003	Outside

In addition to the collection of report maintained at the SCCIC, SWCA reviewed the previously prepared reports maintained by the Port of Los Angeles. SWCA identified a total of 20 additional previously prepared reports located within the vicinity of the project (Table 2).

Table 2. Previously Conducted Cultural Resources Studies within the Vicinity of the APE (On File at the Port of Los Angeles Archives)

Study	Author	Year	Proximity to APE
Architectural Survey and Evaluation of Canner's Steam Company Plant, 249 Cannery Street, Port of Los Angeles	Jones & Stokes	2004	Outside
Report, Architectural Survey and Evaluation of 155 and 215 Cannery Street	Jones & Stokes	2004	Outside
Architectural Survey and Evaluation of Pan-Pacific Fisheries, 350 Sardine Street and 991 Barracuda Street, Port of Los Angeles	Jones & Stokes	2004	Outside
Report, Architectural Survey and Evaluation of 304 Sardine Street	Jones & Stokes	2004	Outside
Final Historical Assessment, Bekins Warehouses	Jones & Stokes	2007	Outside
Architectural Survey and Evaluation of Berths 54-55	Jones & Stokes	2003	Outside
Architectural Survey and Evaluation of Berths 151-157	Jones & Stokes	2003	Outside
Evaluation Report for the Historic California Petroleum Company Terminal, Berths 171–173	Jones & Stokes	2000	Outside
Architectural Survey and Evaluation of Berths 177–178 and Berths 180–181	Jones & Stokes	2002	Outside
Architectural Survey and Evaluation of the Southwest Marine Terminal (Berth 240)	Jones & Stokes	2000	Outside
Final Historical Assessment, Municipal Wholesale Fish Market	Jones & Stokes	2007	Outside
Final Architectural Survey and Evaluation of the Chicken of the Sea Plant	Jones & Stokes	2008	Outside
Architectural Survey and Evaluation of Warehouses 6, 9, and 10	Jones & Stokes	2003	Outside
Southern California International Gateway Railyard (BNSF) Cultural Resource Survey Phase I	Jones & Stokes	2007	Outside
Historical Assessment, National Polytechnic College of Engineering and Oceaneering, Wilmington, California	Jones & Stokes	2007	Outside
Final Historic Assessment, 236 North Avalon, 131 North Avalon, 133 North Avalon, Wilmington, California	Jones & Stokes	2008	Outside
Final Historic Assessment, 711 North Front Street, San Pedro, California	Jones & Stokes	2008	Outside
Final Architectural Survey and Evaluation of Signal Street Properties, Port of Los Angeles, Los Angeles, California	Jones & Stokes	2008	Outside
Final Historic Assessment, 115 North Avalon, Wilmington, California	Jones & Stokes	2008	Outside
Final Phase II Cultural resources Reconnaissance Survey of 7,500 Acres of Land and Water for the Port of Los Angeles, City of Los Angeles, California	Stone, M.	1996	Inside

In 1996, a Phase II cultural resources reconnaissance survey was prepared by San Buenaventura Research Associates (San Buenaventural Research Associates 1997). The unpublished report found the timber wharf at Berths 167-169 as eligible for the National Register under Criterion A, as a contributor to a historic district associated with the development of the Los Angeles Harbor. The report identified the period of significance for the historic district as 1901 to 1945 and assigned the property National Register Status Code "4D2" indicating that it "[m]ight become eligible for listing if more historical or architectural research is performed on the district." The resources discussed in the report were not assigned primary or trinomial numbers by the CHRIS, and no evidence was located to demonstrate State Historic Preservation Officer concurrence with the findings.

National Register status codes were established by the California Office of Historic Preservation (OHP) in 1975 as a database tool. The assigned numbers were used to classify historical resources in the state inventory that had been identified through a regulatory process or local government survey. In November 2004, the California OHP published *Technical Bulletin #8: User's Guide to the California Register Status Codes & Historical Resources Inventory*, which replaced the old National Register status code inventory with the updated California Register status code system. The purpose of its replacement was to rectify errors in the 1975 system and update the process to accommodate the California Register.

According to *Technical Bulletin #8*, National Register Status Code "4" indicated that a property had the *potential* to become eligible for listing the National Register, should circumstances permit (OHP 2004). However, those resources were not actually considered eligible for the National Register. To rectify this error, the OHP converted all National Register Status Code "4" properties to California Register Status Code "7," indicating that those properties need to be re-evaluated using current standards, and applying both National Register and California Register criteria. Specifically, all properties with Status Code "4D2" were reassigned as Status Code "7N1," indicating that those properties must be re-evaluated.

SECTION 106 CONSULTATION

Sacred Lands File Search and Native American Coordination

SWCA received a response from the NAHC on April 7, 2009, stating that the search identified the presence of Native American sacred lands or traditional cultural properties within the immediate APE. Consultation letters to each of the five NAHC-listed contacts were sent on April 8, 2009. Follow-up phone calls were made on April 16, 2009. The results of the coordination are presented in Table 2 below.

Table 3. Coordination with Local Native American Groups

Native American Contact	Letter Sent	Reply Date	Results
Bernie Acuna Gabrielino-Tongva Tribe 501 Santa Monica Blvd. ,#500 Santa Monica, CA 90401	4/8/2009 via U.S. Mail	4/16/09 via telephone	Left message with Tribal Secretary, who said that either Bernie Acuna or Felicia Sheerman would follow-up on 4/16 or 4/17/09. Ms. Sheerman responded via email on 4/15/09 (see below).
Cindi Alvitre Ti'At Society 6515 E. Seaside Walk, #C Long Beach, CA 90803	4/8/2009 via U.S. Mail	4/16/09 via telephone and e-mail	Left telephone message and sent message via e-mail.
Ron Andrade Los Angeles City/County Native American Indian Commission 3175 West 6th Street, Rm. 403 Los Angeles, CA 90020	4/8/2009 via U.S. Mail	4/16/09 via telephone and fax	Left telephone message and sent fax.

Table 3. Coordination with Local Native American Groups

Native American Contact	Letter Sent	Reply Date	Results
Robert Dorame Gabrielino Tongva Indians of California Tribal Council P.O. Box 490 Bellflower, CA 90707	4/8/2009 via U.S. Mail	4/16/09 via telephone and e-mail	Left message. Mr. Dorame returned the call and wanted to know how many sites were recorded in the 1-mile radius. There are 5 archaeological sites recorded within 1 mile of the project site. Mr. Dorame expressed that there were a lot of sites in the vicinity and wanted to know how close the project was to Rattlesnake Island (approximately .75 mile west). Mr. Dorame said that he would send a formal response. No response has been received, to date.
Sam Dunlap Gabrielino Tongva Nation P.O. Box 86908 Los Angeles, CA 90086	4/8/2009 via U.S. Mail	4/16/09 via telephone and e-mail	Mr. Dunlap asserted that he has not picked up his mail yet, and asked that we e-mail him the original letter.
Anthony Morales Gabrielino/Tongva San Gabriel Band of Mission Indians P.O. Box 693 San Gabriel, CA 91778	4/8/2009 via U.S. Mail	4/9/2009 via phone call	4/9/2009: Mr. Morales replied via telephone and stated the following: He considers the area to be sensitive for Native American cultural resources. He knows of a recorded site that contained marine shell near the entrance to the port. He also is aware that human remains were found during excavations related to the Arco Refinery near Alameda and Sepulveda. He did not know of any specific cultural resources in the project area. He would like the construction crew to be cautious during ground disturbances for the proposed project. If any cultural remains are identified during construction, Mr. Morales requests that he be notified of the find(s).
John Tommy Rosas Tongva Ancestral Territorial Tribal Nation tattnlaw@gmail.com	4/8/2009 via e-mail	4/8/2009 via e-mail	4/8/2009: Mr. Rosas replied via e-mail and stated that he would respond soon. No response to date.
Felicia Sheerman Gabrielino-Tongva Tribe 501 Santa Monica Blvd. #500 Santa Monica, CA 90401	4/8/2009 via U.S. Mail	4/15/2009 via e-mail	4/15/2009: Ms. Sheerman replied via e-mail and stated the following: The project is located "within a highly sensitive cultural area that may contain or could contain archaeological or historical items." Recommends that a Native American monitor be present during all excavation activities. Ms. Sheerman will continue to conduct further research.

Historic Group Coordination

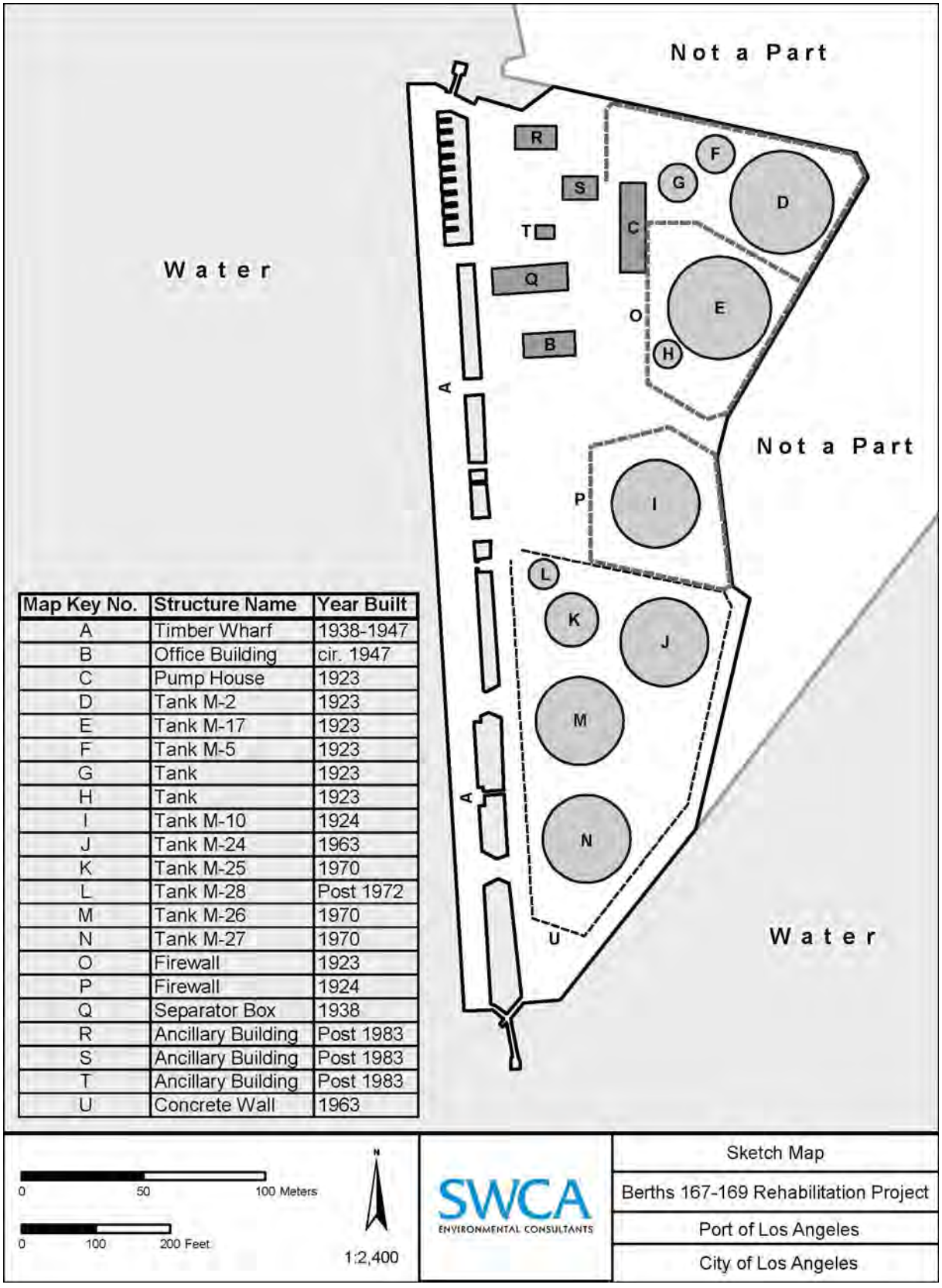
Letters were sent to each of the groups listed below on April 10, 2009. SWCA followed up with each local historic group via telephone on April 16, 2009. The results of the coordination are presented in Table 3 below.

Table 4. Coordination with Local Historic Groups: Government, Historical Society, Historic Preservation, and History Advocacy

Local Group	Letter Sent	Follow-Up	Results
City of Los Angeles Office of Historic Resources, Department of City Planning 200 N. Spring Street, Room 620 Los Angeles, CA 90012 Attn: Mr. Ken Bernstein, Manager	4/10/2009 via U.S. Mail	4/16/2009 via telephone	Mr. Bernstein was out of the office until 4/19/09. Left telephone message.
Los Angeles City Historical Society P.O. Box 41046 Los Angeles, CA 90041 Attn: Ms. Ann Shea, President	4/10/2009 via U.S. Mail	4/16/2009 via telephone and email	Left telephone message and e-mailed letter.
Los Angeles Conservancy 523 West Sixth Street, Suite 826 Los Angeles, CA 90014 Attn: Mr. Mike Buhler, Director of Advocacy	4/10/2009 via U.S. Mail	4/16/2009 via telephone	Mr. Buhler was out of the office until 4/19/09. Left telephone message
Los Angeles Maritime Museum Berth 84 Foot of 6th Street San Pedro, CA 90731 Attn: Current President	4/10/2009 via U.S. Mail	4/16/2009 via telephone	Left message with Francine McClune (museum secretary).
Historical Society of Southern California P.O. Box 93487 Pasadena, CA 91109 Attn: Patricia Ingram, Ph.D., Executive Director	4/10/2009 via U.S. Mail	4/16/2009 via telephone	Dr. Ingram said that Jon Wilkman of Wilkman Productions recently produced a four-part film on the history of the harbor. She referred us to him for further information.
San Pedro Bay Historical Society 350 W. 5th Street #210 San Pedro, CA 90731 Attn: Anne Hansford, Archivist	4/10/2009 via U.S. Mail	4/16/2009 via telephone	Left telephone message.
Wilmington Historical Society 309 W. Opp Street Wilmington, CA 90744 Attn: Current President	4/10/2009 via U.S. Mail	4/16/2009 via telephone	Left telephone message.

BUILT ENVIRONMENT SURVEY

The Shell Oil Terminal was surveyed to determine the presence of built environment resources. The subject property is a triangular-shaped, 9.1-acre parcel situated at the southwestern tip of Mormon Island, within the Port of Los Angeles. Also referred to as Berths 167-169, the property has been leased by the Shell Oil Company since the early 1920s as an industrial oil shipping terminal. The property consists of a long, wood-deck wharf, several ancillary buildings, and 11 large metal storage tanks (Figure 3).



Map Key No.	Structure Name	Year Built
A	Timber Wharf	1938-1947
B	Office Building	cir. 1947
C	Pump House	1923
D	Tank M-2	1923
E	Tank M-17	1923
F	Tank M-5	1923
G	Tank	1923
H	Tank	1923
I	Tank M-10	1924
J	Tank M-24	1963
K	Tank M-25	1970
L	Tank M-28	Post 1972
M	Tank M-26	1970
N	Tank M-27	1970
O	Firewall	1923
P	Firewall	1924
Q	Separator Box	1938
R	Ancillary Building	Post 1983
S	Ancillary Building	Post 1983
T	Ancillary Building	Post 1983
U	Concrete Wall	1963

Figure 3. APE Sketch Map

The primary feature of the property is the narrow, rectangular timber wharf that spans the entire western edge of the property (Photograph 1). Constructed in segments between approximately 1938 and 1947, the wharf measures 1,238 feet in length and approximately 50 feet in width. Berth 169, which comprises the southern portion of the wharf, was constructed in 1938, as indicated by historical aerial photographs and available engineering drawings. The northern segment of the wharf that comprises Berths 167-168 was constructed in 1947 and replaced the earlier 1920s segment of the wharf that was destroyed in the *S.S Markay* tanker explosion. The wharf is supported by tapered timber piles (16 inches in diameter at the top and 10 inches in diameter at the tip) with lengths ranging from 55 to 70 feet. Specialized equipment that assists in the docking and fueling process is affixed to the western, outboard edge of the wharf. This equipment includes 35-foot-tall masts, manifolds, pipe chases, and large cleats. Two small rectangular dock houses of recent construction are situated at northern and southern ends of the dock. These buildings are metal clad and are not historically or architecturally significant. As part of necessary improvements and maintenance, the wharf has been continuously altered throughout the years, resulting in a significant loss to the overall integrity of materials and design.

Photograph 1. Overview of timber wharf, Berths 167-169, view to the south.

Situated at the center of the property there is a small office building that was constructed in 1947. It was likely built to replace the previous ancillary buildings that were damaged as a result of the *Markay* explosion (Photograph 2). The office building is rectangular in plan and is clad in smooth stucco. The building has a flat roof with a continuous parapet. A series of horizontal-slatted vents pierce the façade wall at the eaves. The south-facing primary façade features a band of eight large, steel-frame, fixed multi-light windows with applied muntins. The most notable feature on the building is a narrow, continuous canopy that projects out above the fenestration and beneath the roofline, creating a horizontal emphasis that spans all elevations of the building. Primary entry is via two steel doors on the south façade. The building has undergone considerable alterations over the years, significantly reducing its integrity; the original windows were replaced with metal-frame windows, and one of the façade windows was infilled (dates unknown). In addition, the original wood doors with glass lights were also replaced with steel doors (dates unknown).

Photograph 2. View of office building, to the northeast.

The 11 large metal storage tanks located on the property were constructed between approximately 1923 and 1972. Each of the utilitarian tanks is cylindrical with no ornamentation. The oldest storage tanks, situated at the northeast portion of the property, were constructed between 1923 and 1924 (Figure 3, Map Key Nos. D–I; Photographs 3 and 4). Each tank stands 30 feet tall and is protected by connecting, 17-foot-high reinforced concrete firewalls (Map Key Nos. O and P). The remaining five storage tanks (Figure 3, Map Key Nos. J–M) were constructed between 1963 and 1972 (Photograph 5). Situated at the southeastern portion of the property, the tanks are protected by a 4-foot-tall concrete retaining wall, constructed ca. 1963. Although they are a fairly common resource type, ubiquitous in oil-related properties, the tanks are in fair condition and retain a fair level of integrity.

Photograph 3. View of storage tanks M-2 and M-17, view northeast.

Photograph 4. View of storage tank M-10, view southeast.

Photograph 5. View of storage tanks M-24, M-25, M-26, M-27, and M -28, view to southeast.

A pump house building constructed ca. 1923 is situated at the northeastern corner of the property (Map Key No. C). Rectangular in plan, the building was constructed directly abutting the concrete firewall and features flat sloping roof (Photograph 6). The walls are concrete. Most of the original steel sash multi-light windows throughout the west-facing façade and southern elevation were removed (dates unknown) and are obstructed by industrial pumping equipment. Original metal doors were replaced (dates unknown). The building has undergone numerous alterations since its construction as described, resulting in a significant loss of integrity.

Photograph 6. View of the pump house, view to the north.

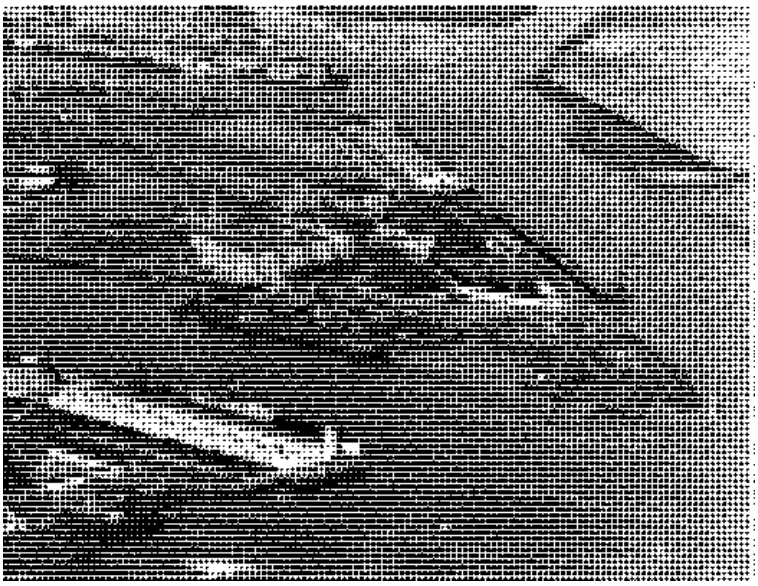
SIGNIFICANCE EVALUATION OF BERTHS 167-169

SHELL MARINE OIL TERMINAL

In January 1923, Shell Oil signed a 21-year lease agreement with the Harbor Commission for the rights to operate a marine oil terminal on 6.7 acres of land located along the southeast end of Slip 1 Channel on Mormon Island. The terms of the lease stated that the Shell Oil would pay the City an annual fee of $4,574 in rent, plus a one-half-cent charge on every barrel of oil handled at the site. In addition, Shell Oil would spend several hundred thousand dollars to construct oil storage tanks, support buildings, and improvements to connect the site with their corporate facilities in Wilmington. In return, the City agreed to spend $100,000 in improvements on the property, including construction of a bulkhead wall, which would be backfilled to stabilize the land and increase the property size, and the addition of an open wharf which would be known as Berths 167-168 (*Los Angeles Times* 1923).

By 1924, the Shell Oil terminal was fully operational, complete with a timber wharf (Berths 167-168), ancillary buildings, a pump house, and nine large storage tanks that were used for oil storage (Photograph 7) (Los Angeles Public Library Photograph Database 1924). One 3-inch and two 10-inch pipelines were installed that transported oil from off-site refineries to the subject property facility for storage in the two 80,000-barrel-capacity, one 20,000-barrel-capacity, and three 10,000-barrel-capacity storage tanks. From there, oil was pumped onto oil tankers that transported the commodity to various facilities along the coastline (City of Los Angeles Harbor Department 1924–25).

Oil import and export operations excelled at the Port of Los Angeles throughout the 1920s, in part because of inexpensive mooring fees and the port's proximity to active oil fields. To keep pace with demands for petroleum, port facilities were updated as new technologies became available. As reported in the 1930 *Annual Report*, "Oil docks and facilities for handling petroleum products are constantly being increased and modernized to maintain the highest possible standard of efficiency" (City of Los Angeles Board of Harbor Commissioners 1930:24). The *Annual Report* also stated that the Shell Oil terminal had storage capacity for 410,000 barrels of oil that could be simultaneously pumped onto three vessels through refinery pipelines.



Photograph 7. View of Shell Oil Terminal, 1924.
(Source: Los Angeles Public Library Photograph Database)

The Shell terminal continued to operate through the 1930s and the early 1940s, with few changes at the terminal; this was most likely a result of the economic effects of the Great Depression followed by World War II (Photograph 8). In 1938, the concrete channel known as the separator box was installed near the northwestern edge of the property, as a measure to prevent drainage runoff. In addition, the southern portion of the timber wharf was expanded by several hundred feet, creating Berth 169 (City of Los Angeles Harbor Department 1938).

Photograph 8. View of Shell Oil Terminal, 1936.
(Source: Port of Los Angeles Archives)

Substantial changes at the Shell Oil terminal did not occur until 1947. In the early morning of June 22, the 11-ton oil tanker *S.S. Markay* was docked at Berth 168, loading oil for shipment to northern California, when it unexpectedly exploded (Photograph 9). In minutes, the wharf, harbor, and nearby structures were engulfed in flames from the burning oil and tanker hull. The blast was so intense that it reportedly shattered windows of shops located 5 miles away. The explosion and its aftermath killed 11 people, and 22 more were injured in what at the time was referred to as the worst fire in San Pedro's history (Tucker 1947).

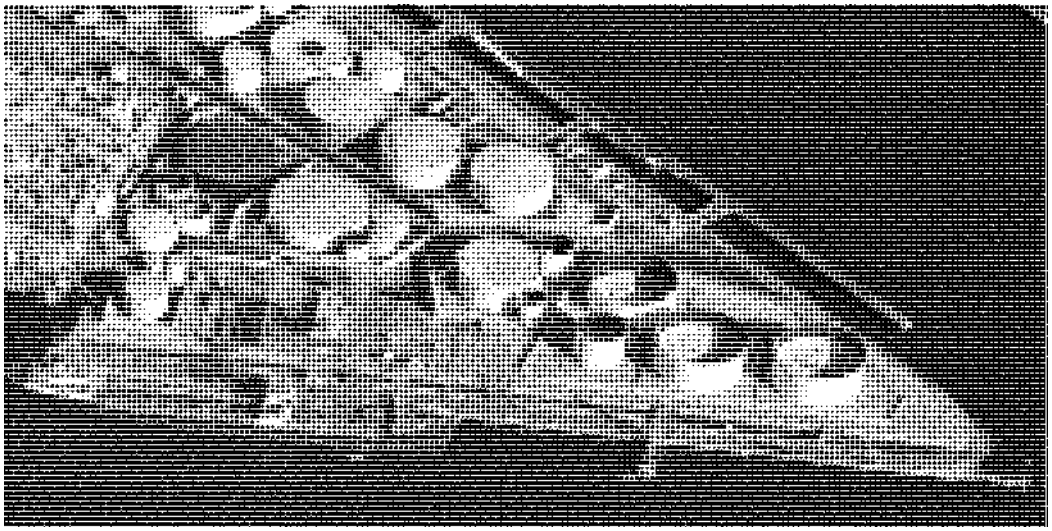
Photograph 9. View of Shell Oil Terminal, 1947.
(Source: Port of Los Angeles Archives)

Damage to the port was reported at $2.5 million, with another $2.5 million attributed to the loss of the tanker. The Shell Oil terminal suffered the most significant losses, reporting damage to pipelines, loading equipment, dock houses, and 900 feet of the timber wharf, which comprised all of Berths 167 and 168. Replacement of the pipelines, equipment, and the timber wharf began immediately (Tucker 1947). In addition to replacing what was damaged by fire, a new office building was constructed at the center of the property (Photograph 10) (Sanborn Fire Insurance Company 1950).

Photograph 10. View of Office Building, ca. 1948.
(Source: Port of Los Angeles Archives)

In the following decades, operations continued to increase and improve at the Shell Oil Terminal. In 1959, the bulkhead behind Berths 168 and 169 was extended and filled in with rock and landfill. This improvement substantially increased the amount of useable land at southern portion of the property, allowing Shell Oil to add five additional storage tanks to the site between 1963 and 1972. In anticipation of the new storage tanks, a 4-foot concrete retaining wall was constructed encompassing the newly developed portion of the site (Photographs 11–12). Since the 1970s, several small ancillary buildings have been added to the north half of the property and many of the buildings and structures have been altered and repaired to keep pace with new technologies and changing environmental and safety regulations.

Photograph 11. Overview, 1949.
(Source: Port of Los Angeles Archives)



Photograph 12. Overview, 1971.
(Source: Port of Los Angeles Archives)

EVALUATION

The existing buildings and structures in the subject property were constructed between 1926 and 1983, in support of the oil transport facility that has continuously operated on the property since the early 1920s. The industrial nature of the oil terminal facility and constant requirements for maintenance have resulted in numerous alterations to the extant buildings and structures on the property. The most prominent feature of the property, the timber wharf, has undergone major damage and repairs that entailed replacement of at least 50 percent of the original timber decking (Lisa Ochsner, personal communication, March 23, 2009). Other alterations have included the replacement of support pilings, ramps, equipment, and ancillary buildings. As a result, the property has suffered a loss of integrity of materials, workmanship, design, and feeling. The subject property, Berths 167-169, is thus not eligible for listing in the National Register, the California Register, or as local landmarks, separately or as contributors to a larger historic district.

Although the property is associated with the 1947 *Markay* oil tanker explosion, the event is not regarded as a significant moment in American history sufficient to warrant listing under National or Califonia Registers, Criteria A or 1, for its connection to events important in our past. The explosion did not lead to a trend or pattern that contributed to community, state, or national development. Moreover, many of the extant buildings and structures on the property did not exist at the time of the *Markay* explosion (Criteria A/1). The property has not been directly associated with persons significant in our past (Criteria B/2). The buildings and structures on the property are utilitarian resources that are ubiquitous to oil production and industrial operations; they do not embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, nor do they represent a significant and distinguishable entity whose components lack individual distinction (Criteria C/3). Last, the property is not expected to yield important information about prehistory or history (D/4). Therefore, the property should not be considered a historic property, as defined in Section 106, nor does it qualify as a historical resource as defined by CEQA. Further, the property does not qualify for listing as a City of Los Angeles HCM, nor does it warrant consideration as a contributor to an HPOZ.

It is recommended that the appropriate California Historical Resources Status Code (Status Code) be "6Z, Found ineligible for N[ational] R[egister], C[alifornia] R[egister], or Local designation through survey evaluation" be assigned (California Office of Historic Preservation 2003).

California Department of Parks and Recreation (DPR) Series 523 Forms prepared for this property are contained in Appendix D.

MANAGEMENT RECOMMENDATIONS

SWCA's intensive-level survey and archival research did not identify any historic properties within the APE. The property was found ineligible for listing in the National Register of Historic Places as well as the California Register of Historical Resources, and does not qualify for consideration as a City of Los Angeles HCM or as a contributor to a HPOZ.

Review of historic aerial photographs indicates that the southern tip of Mormon Island has been altered by the addition of imported fill material prior to the construction of Berths 167-169. In addition, minimal ground disturbance is proposed for this project. Therefore, the potential to encounter intact native soils is very low.

UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES

In the event that cultural resources are exposed during construction, work in the immediate vicinity of the find must stop until a qualified archaeologist can evaluate the significance of the find. Construction

activities may continue in other areas. If the discovery proves significant under CEQA, additional work such as testing or data recovery may be warranted.

UNANTICIPATED DISCOVERY OF HUMAN REMAINS

The discovery of human remains is always a possibility during ground disturbances; State of California Health and Safety Code Section 7050.5 covers these findings. This code section states that no further disturbance shall occur until the Los Angeles County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The County Coroner must be notified of the find immediately. If the human remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify an MLD. The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials

The proposed project, which may include demolition of various buildings, structures and objects on the subject property, would not result in the physical demolition, destruction, relocation, or alteration of any historical resources or historic properties and thus is not expected to cause substantial adverse changes to any identified historical resources. Similarly, because no historic properties were identified, a finding of "No Historic Properties Affected" is appropriate under Section 106. Because no historic properties or other cultural resources were identified, no additional cultural resources mitigation measures beyond conformance with standard archaeological requirements listed above are necessary to ensure conformance with CEQA and Section 106.

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City of Los Angeles Board of Harbor Commissioners

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1942 Downey, California, Topographic Quadrangle. 15-minute series.
1943 Downey, California, Topographic Quadrangle. 15-minute series.
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APPENDIX D:
California DPR Series 523 Forms for
Shell Oil Terminal/Berths 167-169

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 6Z

Other Listings
Review Code Reviewer Date

 ***Resource Name or #:** Shell Oil Terminal

P1. Other Identifier: Berths 167-169

***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: Date:** *Torrance* **T** 5 South **R** 13 West **Unsectioned** S.B. **B.M.**

c. Address: San Clemente Avenue City: Los Angeles Zip: 90744

d. UTM: Zone: ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) APN: 7440-019-908

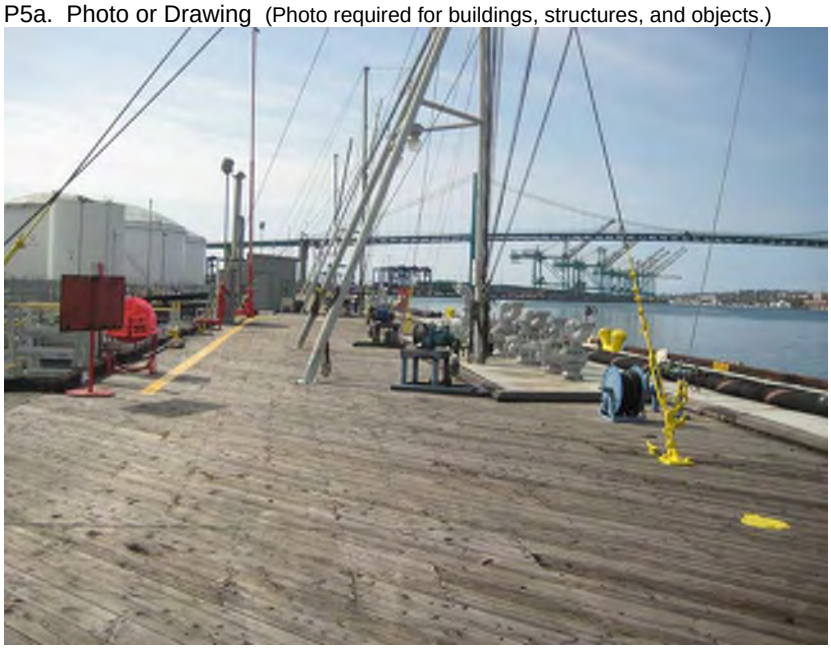
***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The subject property is a triangular-shaped, 9.1-acre parcel situated at the southwestern tip of Mormon Island, within the Port of Los Angeles. Also referred to as Berths 167-169, the property has been leased by the Shell Oil Company (Shell Oil) since the early 1920s as an industrial oil shipping terminal. The property consists of a long, wood-deck wharf, several ancillary buildings and 11 large metal storage tanks.

(See Continuation Sheet)

***P3b. Resource Attributes:** (List attributes and codes) HP4 Ancillary Building; HP8 Industrial Building; HP11 Engineering Structure; HP46 Walls

***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 #)
Wharf, View to the south (Map Key No.A), March 16, 2009, photograph #2701

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐Prehistoric ☐Both
1926-1983, Historic Aerial Photographs and Personal Communication, Edward Ventura, Shell Oil Company

***P7. Owner and Address:**
Port of Los Angeles, City of Los Angeles

***P8. Recorded by:** (Name, affiliation, and address)
S. Murray, S. Carmack, and F. Smith
SWCA Environmental Consultants
625 Fair Oaks Avenue, Suite 190
South Pasadena, CA 91030

***P9. Date Recorded:** March 16, 2009

***P10. Survey Type:** (Describe) Intensive-level

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.")
Historic Property Technical Report, Berths 167-169 Rehabilitation Project, Port of Los Angeles, City and County of Los Angeles, California (SWCA Environmental Consultants 2009)

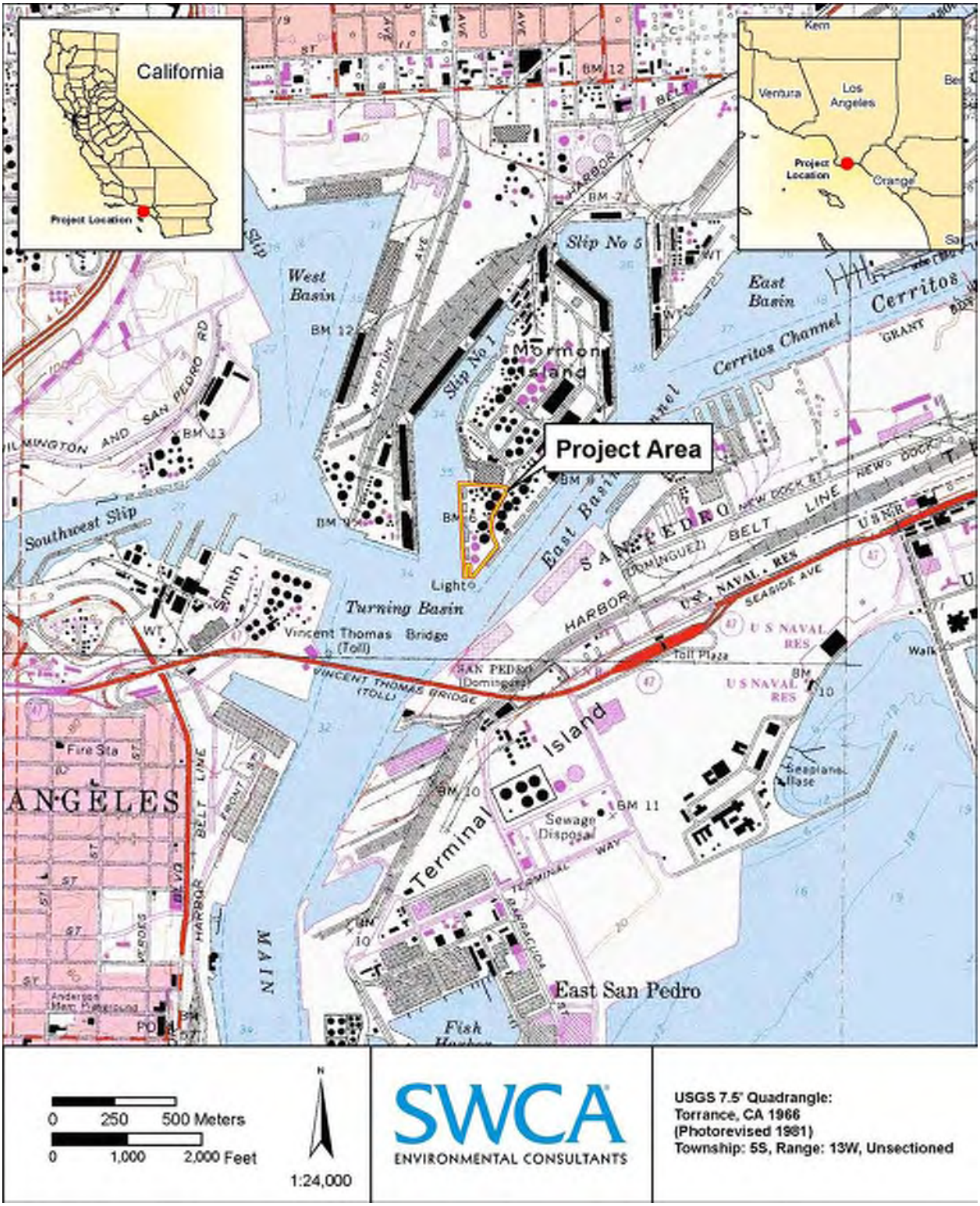
***Attachments:** ☐NONE ☒ Location Map ☒Sketch Map ☒Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ☒District Record ☐ Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #
HRI#
Trinomial

 ***Resource Name or #:** Shell Oil Terminal

***Map Name:** Torrance, CA ***Scale:** 1:24,000 ***Date of Map:** 1966 (Photorevised 1981)



*Required information

***NRHP Status Code:** 6Z

***Resource Name or #** (Assigned by recorder)**:** Shell Oil Terminal

D1. Historic Name: Berths 167-169 D2. Common Name: Berths 167-169, Shell Oil Terminal

***D3. Detailed Description** (Discuss overall coherence of the district, its setting, visual characteristics, and minor features. List all elements of district.): The Shell Oil Terminal property, also referred to as Berths 167-169, is an industrial oil shipping terminal, in use since the 1920s. The property is a triangular-shaped, 9.1-acre parcel situated at the southwestern tip of Mormon Island, within the Port of Los Angeles. The property consists of a long, wood-deck wharf, an office and several ancillary buildings and eleven large metal storage tanks. Associated features include pipes and equipment that support the industrial activities on the property.

***D4. Boundary Description** (Describe limits of district and attach map showing boundary and district elements.):

***D5. Boundary Justification:**

***D6. Significance: Theme:** **Area:**
Period of Significance: **Applicable Criteria:** (Discuss district's importance in terms of its historical context as defined by theme, period of significance, and geographic scope. Also address the integrity of the district as a whole.)

Established in 1923, the Shell Oil Company has continuously operated an oil transfer facility on the property since its inception. The existing buildings and structures in the subject property were constructed between 1926 and 1983, in support of the oil transport facility that has continuously operated on the property since the early 1920s. The industrial nature of the facility and constant requirements for maintenance have resulted in numerous alterations to the extant buildings and structures on the property. The most prominent feature of the property, the timber wharf, has undergone major damage and repairs which entailed replacement of at least 50 percent of the original timber decking. Other alterations have included the replacement of support pilings, ramps, equipment and ancillary buildings. As a result, the property has suffered a loss of integrity of materials, workmanship, design, and feeling. The subject property, the Shell Oil terminal is not eligible for listing in the National Register, the California Register or as local landmarks, separately or a contributor to a larger historic district.

(See Continuation Sheet)

***D7. References** (Give full citations including the names and addresses of any informants, where possible.):

City of Los Angeles Harbor Department. Wharf at Berths 168-169, General Plan. Office of the Harbor Engineer, City of Los Angeles. 1938

City of Los Angeles Harbor Department. Various historic photographs as noted. On file, Port of Los Angeles Archives, City of Los Angeles, California. 1924-1990.

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(See Continuation Sheet).

***D8. Evaluator:** Shannon Carmack **Date:** April 7, 2009
Affiliation and Address: SWCA Inc., 625 Fair Oaks Avenue, Suite 190. South Pasadena, CA 91030

***P3a. Description:** The primary feature of the property is the narrow, rectangular timber wharf that spans the entire western edge of the property. Constructed in segments between approximately 1938 and 1947, the wharf measures 1,238 feet in length and approximately 50 feet in width. Berth 169, which comprises the southern portion of the wharf, was constructed in 1938, as indicated by historical aerial photographs and available engineering drawings. The northern segment of the wharf that comprises Berths 167-168 was constructed in 1947and replaced the earlier 1920s segment of the wharf that was destroyed by the *S.S. Markay* tanker explosion. The wharf is supported by tapered timber piles (16-inch diameter at top and 10-inch diameter at the tip) with lengths ranging from 55 ft to 70 feet. Specialized equipment that assists in the docking and fueling process is affixed to the western, outboard edge of the wharf. This equipment includes 35 foot tall masts, manifolds, pipe chases and large cleats. Two small rectangular dock houses, of recent construction are situated at northern and southern ends of the dock. These buildings are metal clad and are not historically or architecturally significant. As part of necessary improvements and maintenance, the wharf has been continuously altered throughout the years, resulting in a significant loss to the overall integrity of materials and design.

The 11 large riveted steel storage tanks located on the property were constructed between approximately 1923 and 1972. Each of the utilitarian tanks is cylindrical with no ornamentation. The oldest storage tanks, situated at the northeast portion of the property, were constructed between 1923 and 1924. (Map Key Nos. D-I) Each tank stands 30 feet tall and is protected by connecting, 17-foot-high reinforced concrete firewalls (Map Key Nos. O and P). The remaining five storage tanks (Map Key No.s, J-M) were constructed between 1963 and 1972. Situated at the southeastern portion of the property, the tanks are protected by a four-foot tall concrete retaining wall, constructed ca.1963. Although they are a fairly common resource type, ubiquitous in oil-related properties, the tanks are in fair condition and retain a fair level of integrity.

Situated at the center of the property there is a small office building that was constructed in 1947. It was likely built to replace the previous ancillary buildings that were damaged as a result of the Markay explosion. The office building is rectangular in plan and clad in smooth stucco (Map Key No.B). The building has a flat roof with continuous parapet. A series of horizontal-slatted vents pierce the façade wall at the eaves. The south-facing primary façade features a band of eight large, metal-frame multi-light and slider windows. The most notable feature on the building is a narrow, continuous canopy that projects out above the fenestration and beneath the roofline, creating a horizontal emphasis that spans all elevations of the building. Primary entry is via a two steel doors on the south façade. The building has undergone considerable alterations over the years; significantly reducing its integrity. The original windows were replaced with fixed multi-light windows with applied muntins, and one of the façade windows was in filled (dates unknown). In addition, the original wood doors with glass lights were also replaced, with steel doors (date unknown).

A pump house building constructed circa 1923 is situated at the northeastern corner of the property (Map Key No. C). Rectangular in plan, the building was constructed directly abutting the concrete firewall and features flat sloping roof. The walls are concrete. Most of the original steel-frame sash multi-light windows throughout the west-facing façade and southern elevation were removed (dates unknown) and are obstructed by industrial pumping equipment. Original metal doors were replaced (dates unknown). The building has undergone numerous alterations as described, resulting in a significant loss of integrity.

***D6. Significance:** In January 1923, Shell Oil signed a 21-year lease agreement with the Harbor Commission for the rights to operate a marine oil terminal on 6.7 acres of land located along the southeast end of Slip 1 Chanel, on Mormon Island. The terms of the lease stated that Shell Oil would pay the City an annual fee of $4,574 in rent, plus a one-half cent charge on every barrel of oil handled at the site. Additionally, Shell Oil would spend several hundred thousand dollars to construct oil storage tanks, support buildings and improvements to connect the site with their corporate facilities in Wilmington. In return, the City agreed to spend $100,000 in improvements on the property, including construction of a bulkhead wall, which would be backfilled to stabilize the land and increase the property size, and the addition of an open wharf which would be known as Berths 167-168). By 1924, the Shell Oil terminal was fully operational, complete with a timber wharf (Berths 167-168), ancillary buildings, a pump house and nine large storage tanks that were utilized for oil storage. One 3-inch and two 10-inch pipelines were installed that transported oil from their refineries to the facility for storage in the two 80,000, one 20,000 and three 10,000 barrel capacity storage tanks. From there oil was pumped onto oil tankers that transported it to various facilities along the coastline.

By 1924, the Shell Oil Co. terminal was fully operational, complete with a timber wharf (Berths 167-168), ancillary buildings, a pump house and nine large storage tanks that were utilized for oil storage. One three-inch and two 10-inch pipelines were installed from offsite refineries to the subject property facility for storage in the two 80,000, one 20,000 and three 10,000 barrel capacity storage tanks. From there oil was pumped onto oil tankers that transported the commodity to various facilities along the coastline.

***D6. Significance:**

Oil import and export operations excelled at the Port of Los Angeles throughout the 1920s, in part because of inexpensive mooring fees and the port's proximity to active oil fields. In order to keep pace with demands for petroleum, port facilities were updated as new technologies became available. As it was reported in the 1930 Annual Report, "Oil docks and facilities for handling petroleum products are constantly being increased and modernized to maintain the highest possible standard of efficiency." The Annual Report also stated that the Shell Oil terminal was had storage capacity for 410,000 barrels of oil that could be simultaneously pumped onto three vessels through refinery pipelines.

The Shell terminal continued to operate through the 1930s and the early 1940s, with few changes at the terminal; this was most likely a result of the economic effects of the Great Depression followed by World War II. In 1938, the concrete channel known as the separator box was installed near the northwestern edge of the property, as a measure to prevent drainage runoff. In addition, the southern portion of the timber wharf was expanded by several hundred feet, creating Berth 169.

Substantial changes at the Shell Oil terminal did not occur until 1947. In the early morning of June 22, the 11-ton oil tanker, *S.S. Markay*, was docked at Berth 168, loading oil for shipment to northern California when it unexpectedly exploded. In minutes, the wharf, and harbor and nearby structures were in flames coming from the burning oil and the tanker's hull. The blast was so intense it reportedly shattered the windows of shops located five miles away. The explosion and its aftermath killed 11 and 22 more were injured in what, at the time was referred to as the worst fire in San Pedro's history.

Damage to the port was reported at $2.5 million, with another $2.5 million attributed to the loss of the tanker. The Shell Oil terminal suffered the most significant losses, reporting damage to pipelines, loading equipment, dock houses and 900 feet of the timber wharf which comprised all of Berths 167 and 168. Replacement of the pipelines, equipment and the timber wharf began immediately. In addition to replacing what was damaged by fire, a new office building was constructed at the center of the property.

During the following decades, operations continued to increase and improve at the Shell Oil Terminal. In 1959, the bulkhead behind Berths 168-169 was extended and filled in with rock and landfill. This improvement substantially increased the amount of useable land at southern portion of the property, allowing the Shell Oil Company to add five additional storage tanks to the site between 1963 and 1972. In anticipation of the new storage tanks, a four-foot concrete retaining wall was constructed encompassing encompassed the newly developed portion of the site. Since the 1970s, several small ancillary buildings have been added to the north half of the property and many of the buildings and structures have been altered and repaired to keep pace with new technologies and changing environmental and safety regulations.

Although the property is associated with the 1947 *S.S. Markay* oil tanker explosion, the event is not regarded as a significant moment in American history, sufficient to warrant listing under National, California (Criteria A or 1) or local registers, for its connection to events important in our past. The explosion did not lead to a trend or pattern that contributed to community, State of national development. Further, many of the extant buildings and structures on the property did not exist at the time of the *S.S. Markay* explosion (Criteria A/1). The property has not been directly associated with persons significant in our past (Criteria B/2). The buildings and structures on the property are utilitarian resources that are ubiquitous to oil production and industrial operations; they do not embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, nor do they represent a significant and distinguishable entity whose components lack individual distinction (Criteria C/3). Lastly, the property is not expected to yield important information about prehistory or history (D/4). Therefore the property should not be considered a historic property, as defined in Section 106 of the NHPA, nor does it qualify as a historical resource as defined by CEQA. Further, the property does not qualify for listing as a City of Los Angeles Cultural Heritage Monument, nor does the property qualify to be a contributor to an HPOZ. It is recommended that the appropriate California Historical Resources Status Code (Status Code) be "6Z, Found ineligible for N[ational] R[egister], C[alifornia] R[egister], or Local designation through survey evaluation" be assigned (California Office of Historic Preservation 2003).

P5b. Description of Photo: (View, date, accession #) View to the northeast, of the Office Building (Map Key No.B), March 16, 2009, Photograph # 7182

P5b. Description of Photo: (View, date, accession #) View to the north of the Pump House (Map Key No.C), March 16, 2009, Photograph #7185

P5b. Description of Photo: (View, date, accession #) View to southeast of Storage Tanks M-24, M-25, M-26 M-27 and M -28 (Map Key Nos.K-N). March 16, 2009, Photograph #7105

P5b. Description of Photo: (View, date, accession #) View to the southeast of storage tank M-10 and fire-wall (Map Key No.1), March 16, 2009, Photograph # 2734

P5b. Description of Photo: (View, date, accession #) View to the northeast of the office building and storage tanks M-2 and M-17 (Map Key No.s D and E), March 16, 2009, Photograph # 7056

***D7. References**

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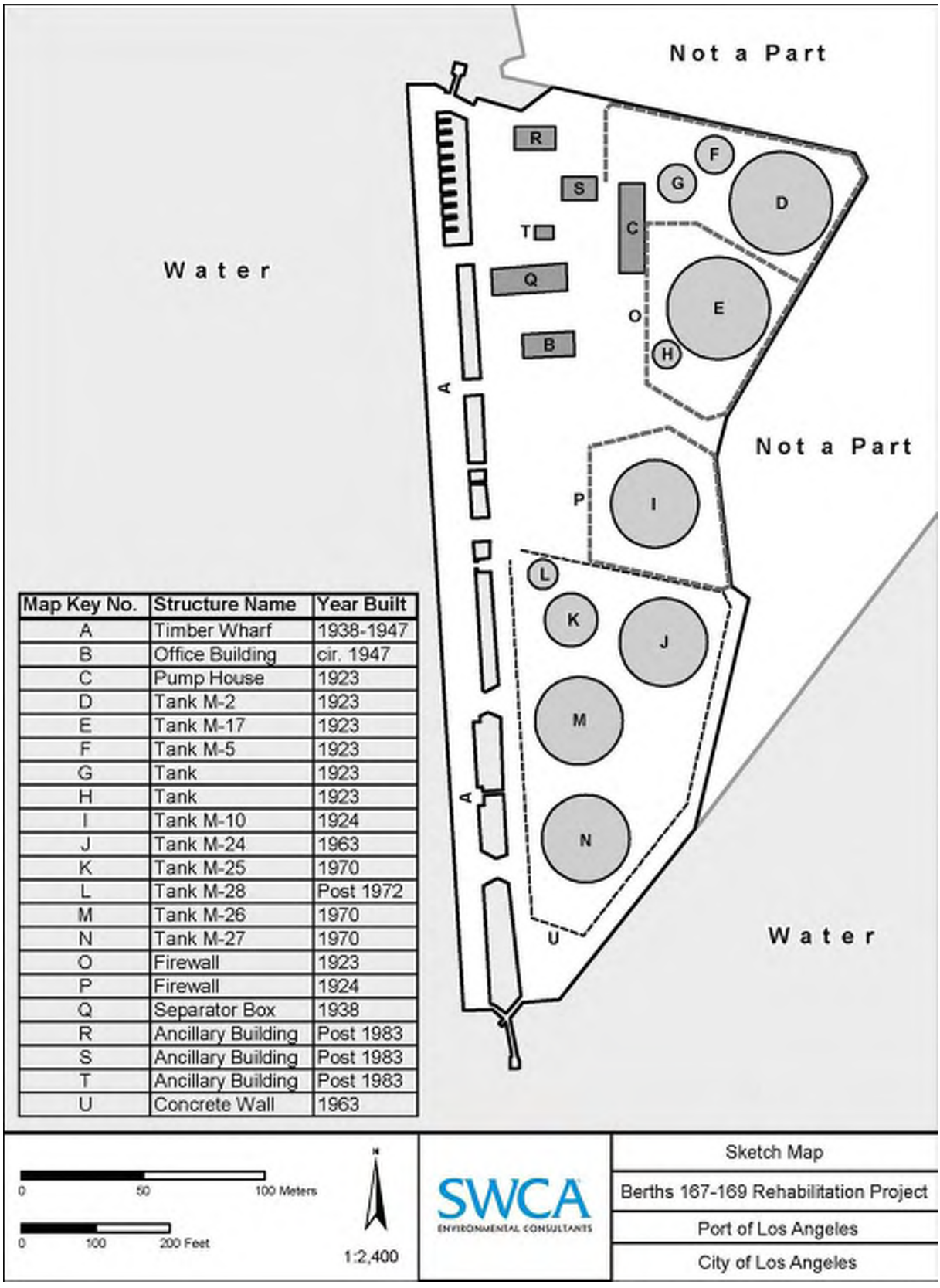
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

SKETCH MAP

Primary #
HRI#
Trinomial

Page 8 **of** 8 ***Resource Name or #** (Assigned by recorder) Shell Oil Terminal
***Drawn By:** Chad Flynn, SWCA ***Date:** 3.16.09



Map Key No.	Structure Name	Year Built
A	Timber Wharf	1938-1947
B	Office Building	cir. 1947
C	Pump House	1923
D	Tank M-2	1923
E	Tank M-17	1923
F	Tank M-5	1923
G	Tank	1923
H	Tank	1923
I	Tank M-10	1924
J	Tank M-24	1963
K	Tank M-25	1970
L	Tank M-28	Post 1972
M	Tank M-26	1970
N	Tank M-27	1970
O	Firewall	1923
P	Firewall	1924
Q	Separator Box	1938
R	Ancillary Building	Post 1983
S	Ancillary Building	Post 1983
T	Ancillary Building	Post 1983
U	Concrete Wall	1963

Appendix B – Noise Calculation Worksheets

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Construction Noise - Equipment

Table B-1. 8-Hour Construction Noise Level at 50 Feet (dBA)

Phase	Equipment Description	RCNM Equipment Types	Usage Factor	Equipment Activity	Equipment Lmax @ 50'	Equipment Leq(h) @ 50'	Total Leq (8-hr) @ 50'	Number of Equipment	Add to Single Source Level (dBA)	Total Lmax @ 50'	Total Leq(h) @ 50'	Total Leq (8-hr) @ 50'
Demolition	CAT 320 excavator	Excavator	40%	100%	81	77	77	1	0	81	77	77
	140 ton crane	Crane	16%	100%	81	73	73	1	0	81	73	73
	Barge generator	Generator	50%	100%	81	78	78	1	0	81	78	78
	Man lift (articulating boom)	Man Lift	20%	50%	75	68	65	1	0	75	68	65
	Tugboat for construction barge	n/a	100%	13%	90	90	81	1	0	90	90	81
	Dump truck to remove concrete	Dump Truck	40%	100%	76	72	72	1	0	76	72	72
	Dump truck to remove timber	Dump Truck	40%	100%	76	72	72	3	5	81	77	77
									Demolition Total	**92**	**91**	**85**
Ground Stabilization												
Injection Activities	Drill Rig	Drill Rig Truck	20%	100%	79	72	72	1	0	79	72	72
	Batch Plant	Concrete Batch Plant	15%	100%	83	75	75	1	0	83	75	75
	Generator	Generator	50%	100%	81	78	78	1	0	81	78	78
									Injection Activities Total	**86**	**80**	**80**
Ground Repair/Spoils Loading	Backhoe/Loader	Backhoe	40%	100%	78	74	74	1	0	78	74	74
									Overlap of Demolition and Injection Activities	*93*	*91*	*86*
									Overlap of Demolition and Ground Repair/Spoils Loading	*92*	*91*	*85*
Pile Driving	Diesel hammer	Impact Pile Driver	20%	50%	101	94	91	1	0	101	94	91
	140 ton crane	Crane	16%	100%	81	73	73	1	0	81	73	73
	Barge generator	Generator	50%	100%	81	78	78	1	0	81	78	78
	Man lift (articulating boom)	Man Lift	20%	50%	75	68	65	1	0	75	68	65
	Tugboat for pile driving barge	n/a	100%	13%	90	90	81	1	0	90	90	81
	Truck for pile delivery	Flat Bed Truck	40%	50%	74	70	67	4	6	80	76	73
									Pile Driving Total	**101**	**96**	**92**
Platform Construction	140 ton crane	Crane	16%	100%	81	73	73	1	0	81	73	73
	Barge generator	Generator	50%	100%	81	78	78	1	0	81	78	78
	Man lift (articulating boom)	Man Lift	20%	50%	75	68	65	1	0	75	68	65
	Tugboat for construction barge	n/a	100%	13%	90	90	81	1	0	90	90	81
	Concrete truck	Concrete Mixer Truck	40%	13%	79	75	66	81	19	98	94	85
	Concrete pump truck	Concrete Pump Truck	20%	100%	81	74	74	1	0	81	74	74
	Misc delivery truck	Flat Bed Truck	40%	13%	74	70	61	2	3	77	73	64
	Forklift	Man Lift	20%	13%	75	68	59	1	0	75	68	59
									Platform Construction Total	**99**	**96**	**87**
Mooring/ Berthing	140 ton crane	Crane	16%	100%	81	73	73	1	0	81	73	73
	Barge generator	Generator	50%	100%	81	78	78	1	0	81	78	78
	Man lift (articulating boom)	Man Lift	20%	50%	75	68	65	1	0	75	68	65
	Tugboat	n/a	100%	13%	90	90	81	1	0	90	90	81
	Misc delivery truck	Flat Bed Truck	40%	13%	74	70	61	2	3	77	73	64
	Forklift	Man Lift	20%	13%	75	68	59	1	0	75	68	59
									Mooring/ Berthing Total	**91**	**90**	**83**
Dredging	**Derrick barge-based dredging equipment - diesel dredge**											
	Derrick barge crane hoist	n/a	16%	100%	88	80	80	1	0	88	80	80
	Derrick barge deck winch	n/a	16%	100%	85	77	77	1	0	85	77	77
	Generator	Generator	50%	100%	81	78	78	2	3	84	81	81
									Derrick barge-based dredging equipment - diesel dredge subtotal	*91*	*84*	*84*
	Derrick barge-based dredging equipment - electric dredge											
	Electric dredge motor	n/a	16%	100%	85	77	77	1	0	85	77	77
	Disposal barge used to remove dredged material											
	Derrick barge crane hoist	n/a	16%	100%	88	80	80	1	0	88	80	80
	Derrick barge deck winch	n/a	16%	100%	85	77	77	1	0	85	77	77
	Generator	Generator	50%	100%	81	78	78	2	3	84	81	81
									Disposal barge used to remove dredged material subtotal	*91*	*84*	*84*
	Marine equipment											
	Tugboat for derrick barge	n/a	100%	100%	90	90	90	1	0	90	90	90
	Tugboat for disposal barge	n/a	100%	100%	90	90	90	1	0	90	90	90
									Marine equipment subtotal	**93**	**93**	**93**
									Diesel dredge total	96	94	94
									Electric dredge total	95	94	94
									Maximum Dredging Total	**96**	**94**	**94**

Table B-1. 8-Hour Construction Noise Level at 50 Feet (dBA)

Phase	Equipment Description	RCNM Equipment Types	Usage Factor	Equipment Activity	Equipment Lmax @ 50'	Equipment Leq(h) @ 50'	Total Leq (8-hr) @ 50'	Number of Equipment	Add to Single Source Level (dBA)	Total Lmax @ 50'	Total Leq(h) @ 50'	Total Leq (8-hr) @ 50'
CDF	Derrick barge crane hoist	n/a	16%	100%	88	80	80	1	0	88	80	80
	Derrick barge deck winch	n/a	16%	100%	85	77	77	1	0	85	77	77
	Generator	Generator	50%	100%	81	78	78	2	3	84	81	81
	Tugboat for disposal barge	n/a	100%	100%	90	90	90	1	0	90	90	90
									CDF Total	**93**	**91**	**91**

Notes:
The use of a diesel dredge and electric dredge are mutually exclusive.
Usage factor for derrick barge deck winch and the electric dredge motor is assumed to be the same as the derrick barge crane hoist.
Usage factor for tugboats estimated.

Table B-2. Construction Noise Level at Receptor (dBA)

Phase Type	Demolition	Pile Driving	Platform Construction	Mooring/ Berthing	Dredging	CDF
Distance from the Center of Construction Activity to a Receptor (ft)	4,300	4,300	4,300	4,300	4,300	590
Distance Divergence (dBA)	38.7	38.7	38.7	38.7	38.7	21.4
Atmospheric Attenuation (dBA)	3.7	3.7	3.7	3.7	3.7	0.5
1-Hour Construction Noise Level						
1-Hour Construction Noise Level at 50 ft (dBA)	91	96	96	90	94	91
1-Hour Construction Noise Level at the Receptor (dBA)	49	53	53	48	52	69
Daytime Unmitigated Leq (Construction Noise + Existing) (dBA)	52	55	55	52	54	71
Daytime Increase Over Existing (dBA)	2.5	4.9	5.0	2.2	4.0	5.6
8-Hour Construction Noise Level						
8-Hour Construction Noise Level at 50 ft (dBA)	86	92	87	83	94	91
8-Hour Construction Noise Level at the Receptor (dBA)	44	49	45	41	52	69
Daytime Unmitigated Leq (Construction Noise + Existing) (dBA)	51	53	51	51	54	71
Daytime Increase Over Existing (dBA)	1.0	2.7	1.2	0.5	4.0	5.6

Note: Demolition value includes overlap with ground stabilization activities.

Existing Noise Levels
Background Noise (dBA)
50 (residences; zoning: RD2-1XL)
65 (penitentiary; zoning: M3-1)

Noise level sources for equipment not listed in RCNM

Derrick barge crane hoist: http://www.portoflosangeles.org/EIR/ALBS/DEIR/Appendix%20F%20-%20Construction%20Noise%20Worksheets.pdf

Tuboats: http://www.portoflosangeles.org/EIR/TraPac/DEIR/Appendix_N_Noise.pdf
84 dBA at 100 feet
-6 distance divergence @ 50'
90 dBA at 50 feet

Derrick barge deck winch/electric dredge motor: http://www.portoflosangeles.org/EIR/TraPac/DEIR/Appendix_N_Noise.pdf (Barge equipment)
79 dBA at 100 feet
-6 distance divergence @ 50'
85 dBA at 50 feet

Table B-3. CNEL Calculation for Pile Driving

Hour	Background (dBA)	Construction (dBA)							CNEL Penalty	CNEL Total (dBA)
		Diesel hammer	140 ton crane	Barge generator	Man lift (articulating boom)	Tugboat for pile driving barge	Truck for pile delivery	Total		
0:00	40	0	0	0	0	0	0	40	10	50
1:00	40	0	0	0	0	0	0	40	10	50
2:00	40	0	0	0	0	0	0	40	10	50
3:00	40	0	0	0	0	0	0	40	10	50
4:00	40	0	0	0	0	0	0	40	10	50
5:00	40	0	0	0	0	0	0	40	10	50
6:00	40	0	0	0	0	0	0	40	10	50
7:00	50	52	31	36	26	48	34	55	0	55
8:00	50	52	31	36	26	0	34	54	0	54
9:00	50	52	31	36	26	0	34	54	0	54
10:00	50	52	31	36	26	0	34	54	0	54
11:00	50	0	31	36	0	0	0	50	0	50
12:00	50	0	31	36	0	0	0	50	0	50
13:00	50	0	31	36	0	0	0	50	0	50
14:00	50	0	31	36	0	0	0	50	0	50
15:00	50	0	0	0	0	0	0	50	0	50
16:00	50	0	0	0	0	0	0	50	0	50
17:00	50	0	0	0	0	0	0	50	0	50
18:00	50	0	0	0	0	0	0	50	0	50
19:00	50	0	0	0	0	0	0	50	5	55
20:00	50	0	0	0	0	0	0	50	5	55
21:00	50	0	0	0	0	0	0	50	5	55
22:00	40	0	0	0	0	0	0	40	10	50
23:00	40	0	0	0	0	0	0	40	10	50
									CNEL	52
									Increase in CNEL	2

Table B-4. CNEL Calculation for Platform Construction

Hour	Background (dBA)	Construction (dBA)									CNEL Penalty	CNEL Total (dBA)
		140 ton crane	Barge generator	Man lift (articulating boom)	Tugboat for construction barge	Concrete truck	Concrete pump truck	Misc delivery truck	Forklift	Total		
0:00	40	0	0	0	0	0	0	0	0	40	10	50
1:00	40	0	0	0	0	0	0	0	0	40	10	50
2:00	40	0	0	0	0	0	0	0	0	40	10	50
3:00	40	0	0	0	0	0	0	0	0	40	10	50
4:00	40	0	0	0	0	0	0	0	0	40	10	50
5:00	40	0	0	0	0	0	0	0	0	40	10	50
6:00	40	0	0	0	0	0	0	0	0	40	10	50
7:00	50	31	36	26	48	52	32	31	26	55	0	55
8:00	50	31	36	26	0	0	32	0	0	50	0	50
9:00	50	31	36	26	0	0	32	0	0	50	0	50
10:00	50	31	36	26	0	0	32	0	0	50	0	50
11:00	50	31	36	0	0	0	32	0	0	50	0	50
12:00	50	31	36	0	0	0	32	0	0	50	0	50
13:00	50	31	36	0	0	0	32	0	0	50	0	50
14:00	50	31	36	0	0	0	32	0	0	50	0	50
15:00	50	0	0	0	0	0	0	0	0	50	0	50
16:00	50	0	0	0	0	0	0	0	0	50	0	50
17:00	50	0	0	0	0	0	0	0	0	50	0	50
18:00	50	0	0	0	0	0	0	0	0	50	0	50
19:00	50	0	0	0	0	0	0	0	0	50	5	55
20:00	50	0	0	0	0	0	0	0	0	50	5	55
21:00	50	0	0	0	0	0	0	0	0	50	5	55
22:00	40	0	0	0	0	0	0	0	0	40	10	50
23:00	40	0	0	0	0	0	0	0	0	40	10	50
								0	0		**CNEL**	51
								0	0		**Increase in CNEL**	1

Table B-5. Vibration Source Amplitudes for Construction Equipment

Equipment	Reference PPV at 25 ft. (in/sec)
Vibratory roller	0.21
Vibratory pile driver	0.65
Large bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003
Crack-and-seat operations	2.4

Source: Caltrans 2013 (p. 37)

$$PPV_{Equipment} = PPV_{Ref}(25/D)^{n}\ (in/sec)$$

Where:

PPV_{Ref} = reference PPV at 24 ft.
D = distance from equipment to the receiver in ft.
n = 1.1 (the value related to the attenuation rate through ground)

Table B-6. Vibration Calculation Results

Phase	Equipment Description	Equipment Type	Number of Equipment	PPV (in/sec) @ 25'	PPV (in/sec) @ receptor
Demolition	CAT 320 excavator	Large bulldozer	1	0.089	0.0003
	140 ton crane	n/a	1	n/a	n/a
	Barge generator	n/a	1	n/a	n/a
	Man lift (articulating boom)	n/a	1	n/a	n/a
	Tugboat for construction barge	n/a	1	n/a	n/a
	Dump truck to remove concrete	Loaded trucks	1	0.076	0.0003
	Dump truck to remove timber	Loaded trucks	3	0.228	0.0008
				Demolition Total	0.0014
Ground Stabilization					
Injection Activities	Drill Rig	n/a	1	n/a	n/a
	Batch Plant	n/a	1	n/a	n/a
	Generator	n/a	1	n/a	n/a
				Injection Activities Total	0.0000
Ground Repair/Spoils Loading	Backhoe/Loader	Small bulldozer	1	0.0030	0.000010
				Overlap of Demolition and Injection Activities	*0.0014*
		Overlap of Demolition and Ground Repair/Spoils Loading			*0.0014*
Pile Driving	Diesel hammer	Vibratory pile driver	1	0.65	0.0023
	140 ton crane	n/a	1	n/a	n/a
	Barge generator	n/a	1	n/a	n/a
	Man lift (articulating boom)	n/a	1	n/a	n/a
	Tugboat for pile driving barge	n/a	1	n/a	n/a
	Truck for pile delivery	Loaded trucks	4	0.304	0.0011
				Pile Driving Total	0.0033
Platform Construction	140 ton crane	n/a	1	n/a	n/a
	Barge generator	n/a	1	n/a	n/a
	Man lift (articulating boom)	n/a	1	n/a	n/a
	Tugboat for construction barge	n/a	1	n/a	n/a
	Concrete truck	Loaded trucks	81	6.156	0.0214
	Concrete pump truck	Loaded trucks	1	0.076	0.0003
	Misc delivery truck	Loaded trucks	2	0.152	0.0005
	Forklift	n/a	1	n/a	n/a
				Platform Construction Total	0.0222
Mooring/ Berthing	140 ton crane	n/a	1	n/a	n/a
	Barge generator	n/a	1	n/a	n/a
	Man lift (articulating boom)	n/a	1	n/a	n/a
	Tugboat	n/a	1	n/a	n/a
	Misc delivery truck	Loaded trucks	2	0.152	0.0005
	Forklift	n/a	1	n/a	n/a
				Mooring/ Berthing Total	0.0005

Table B-6. Vibration Calculation Results

Phase	Equipment Description	Equipment Type	Number of Equipment	PPV (in/sec) @ 25'	PPV (in/sec) @ receptor
Dredging	Derrick barge-based dredging equipment - diesel dredge				
	Derrick barge crane hoist	n/a	1	n/a	n/a
	Derrick barge deck winch	n/a	1	n/a	n/a
	Generator	n/a	2	n/a	n/a
	Derrick barge-based dredging equipment - diesel dredge subtotal				*0.0000*
	Derrick barge-based dredging equipment - electric dredge				
	Electric dredge motor	n/a	1	n/a	n/a
	Disposal barge used to remove dredged material				
	Derrick barge crane hoist	n/a	1	n/a	n/a
	Derrick barge deck winch	n/a	1	n/a	n/a
	Generator	n/a	2	n/a	n/a
		Disposal barge used to remove dredged material subtotal			*0.0000*
	Marine equipment				
	Tugboat for derrick barge	n/a	1	n/a	n/a
	Tugboat for disposal barge	n/a	1	n/a	n/a
			Marine equipment subtotal		*0.0000*
				Diesel dredge total	0.0000
				Electric dredge total	0.0000
				Maximum Dredging Total	0.0000
				MAXIMUM IMPACT	**0.02**

Receptor Distance	4,300 ft

Table B-7. Sound Level 'A' Decibels

Zone	Presumed Ambient Noise Level (dBA)	
	Day	Night
A1, A2, RA, RE, RS, RD, RW1, RW2, R1, R2, R3, R4, and R5	50	40
P, PB, CR, C1, C1.5, C2, C4, C5, and CM 60 55	60	55
M1, MR1, and MR2	60	55
M2 and M3	65	65

Source: City of Los Angeles Municipal Code, Section 111.03 (1982).

Note:

In this chart, daytime levels are to be used from 7:00 a.m. to 10:00 p.m. and nighttime levels from 10:00 p.m. to 7:00 a.m.

Table B-8. Atmospheric Attenuation

Assumptions	
Ambient pressure (kPa)	101.3
Temperature (F)	68
Relative humidity (%)	70
Frequency of noise source (Hz)	500
Air Attenuation Coefficient (α, dB/km)	2.8
(dB/ft)	0.0009

$A_{air} = \alpha d$

Conversion:
0.3048 m/ft
1000 m/km

Weather in Los Angeles County
Average temperature 64.2 °F
Average relative humidity 79.23 %

Reference:
Harris, Cyril M. 1998. Handbook of Acoustical Measurements and Noise Control. 3rd ed. - Chapter 3 Calculation of Attenuation
http://www.usa.com/los-angeles-county-ca-weather.htm

Table B-9. Air Attenuation Coefficient, dB/km, for an Ambient Pressure of 101.3 kPa (One Standard Sea-Level Atmosphere) for Sound Propogation in Open Air

		Frequency, Hz					
Temperature	**Relative Humidity, %**	**125**	**250**	**500**	**1000**	**2000**	**4000**
30°C	10	0.96	1.8	3.4	8.7	29	96
(86°F)	20	0.73	1.9	3.4	6.0	15	47
	30	0.54	1.7	3.7	6.2	12	33
	50	0.36	1.3	3.6	7.0	12	25
	70	0.26	0.96	3.1	7.4	13	23
	90	0.20	0.78	2.7	7.3	14	24
20°C	10	0.78	1.6	4.3	14	45	109
(68°F)	20	0.71	1.4	2.6	6.5	22	74
	30	0.62	1.4	2.5	5.0	14	49
	50	0.45	1.3	2.7	4.7	9.9	29
	70	0.34	1.1	2.8	5.0	9.0	23
	90	0.27	0.97	2.7	5.3	9.1	20
10°C	10	0.79	2.3	7.5	22	42	57
(50°F)	20	0.58	1.2	3.3	11	36	92
	30	0.55	1.1	2.3	6.8	24	77
	50	0.49	1.1	1.9	4.3	13	47
	70	0.41	1.0	1.9	3.7	9.7	33
	90	0.35	1.0	2.0	3.5	8.1	26
0°C	10	1.3	4.0	9.3	14	17	19
(32°F)	20	0.61	1.9	6.2	18	35	47
	30	0.47	1.2	3.7	13	36	69
	50	0.41	0.82	2.1	6.8	24	71
	70	0.39	0.76	1.6	4.6	16	56
	90	0.38	0.76	1.5	3.7	12	43

Temperature List
86
68
50
32

Table B-10. Equipment noise emissions and acoustical usage factors database

Equipment Description	Impact Device?	Acoustical Use Factor	Spec 721.560 Lmax @ 50ft (dBA, slow)	Actual Measured Lmax @ 50 ft (dBA, slow)
All Other Equipment > 5 hp	No	50%	85	N/A
Auger Drill Rig	No	20%	85	84
Backhoe	No	40%	80	78
Bar Bender	No	20%	80	N/A
Blasting	Yes	1%	94	N/A
Boring Jack Power Unit	No	50%	80	83
Chain Saw	No	20%	85	84
Clam Shovel (dropping)	Yes	20%	93	87
Compactor (ground)	No	20%	80	83
Compressor (air)	No	40%	80	78
Concrete Batch Plant	No	15%	83	N/A
Concrete Mixer Truck	No	40%	85	79
Concrete Pump Truck	No	20%	82	81
Concrete Saw	No	20%	90	90
Crane	No	16%	85	81
Dozer	No	40%	85	82
Drill Rig Truck	No	20%	84	79
Drum Mixer	No	50%	80	80
Dump Truck	No	40%	84	76
Excavator	No	40%	85	81
Flat Bed Truck	No	40%	84	74
Front End Loader	No	40%	80	79
Generator	No	50%	82	81
Generator (<25KVA, VMS signs)	No	50%	70	73
Gradall	No	40%	85	83
Grader	No	40%	85	N/A
Grapple (on backhoe)	No	40%	85	87
Horizontal Boring Hydr. Jack	No	25%	80	82
Hydra Break Ram	Yes	10%	90	N/A
Impact Pile Driver	Yes	20%	95	101
Jackhammer	Yes	20%	85	89
Man Lift	No	20%	85	75
Mounted Impact Hammer (hoe ram)	Yes	20%	90	90
Pavement Scarifier	No	20%	85	90
Paver	No	50%	85	77
Pickup Truck	No	40%	55	75
Pneumatic Tools	No	50%	85	85
Pumps	No	50%	77	81
Refrigerator Unit	No	100%	82	73
Rivit Buster/Chipping Gun	Yes	20%	85	79
Rock Drill	No	20%	85	81
Roller	No	20%	85	80
Sand Blasting (Single Nozzle)	No	20%	85	96
Scraper	No	40%	85	84
Shears (on backhoe)	No	40%	85	96
Slurry Plant	No	100%	78	78
Slurry Trenching Machine	No	50%	82	80
Soil Mix Drill Rig	No	50%	80	N/A
Tractor	No	40%	84	N/A
Vacuum Excavator (vac-truck)	No	40%	85	85
Vacuum Street Sweeper	No	10%	80	82
Ventilation Fan	No	100%	85	79
Vibrating Hopper	No	50%	85	87
Vibratory Concrete Mixer	No	20%	80	80
Vibratory Pile Driver	No	20%	95	101
Warning Horn	No	5%	85	83
Welder/Torch	No	40%	73	74

Usage factor is the percentage of time during a construction noise operation that a piece of construction equipment is operating at full power. In case of construction blasting, the equipment gives a very short duration blast and can be quantified by using a 1% usage factor in the RCNM to allow for some prediction.

FHWA. RCNM User's Guide - Table 1. CA/T equipment noise emissions and acoustical usage factors database.

Appendix C – Construction Traffic Worksheets

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Type	Daily	Daily	AM Peak		MD Peak		PM Peak	
	Vehicles	PCE*	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound
Autos	12	12	12					12
Trucks	84	168	21	21	21	21	21	21
Total	96	180	33	21	21	21	21	33

*Passenger Car Equivalent (PCE) is 1.0 for autos and 2.0 for trucks

**Assumes all autos are inbound in the AM peak hour and outbound in the PM peak hour

***Assumes trucks are evenly distributed over an eight hour period in both directions

Trips are distributed through three study intersections:

Figueroa Street at C Street (inbound: eastbound right-turn, outbound: northbound left-turn)

Harry Bridges Boulevard at Figueroa Street (inbound: southbound left-turn, outbound: westbound right-turn)

Harry Bridges Boulevard at Fries Avenue (inbound: eastbound right-turn, outbound: northbound left-turn)

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Fries Ave	Year of Count:	2013	Ambient Growth: (%):	1	Conducted by:	SD	Date:	5/10/2014
9	East-West Street:	Harry Bridges Bl	Projection Year:	0	Peak Hour:	AM	Reviewed by:	SD	Project:	Yang Ming EIR

		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	Project Traffic	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?			3			3			3				3					3
	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?			0			0			0				0					0
	Override Capacity			0			0			0				0					0
NORTHBOUND	Left	82	1	**82**	21	103	**103**		0	0	0		0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	8	1	8		8	8		0	0	**0**		0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	41	1	10		41	10		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	12	1	12		12	12		0	0	0		0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	16	1	16		16	16		0	0	**0**		0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	42	1	**32**		42	**32**		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	20	1	20		20	20		0	0	0		0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	412	2	**206**		412	**206**		0	0	**0**		0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	81	1	40	33	114	63		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	63	1	63		63	63		0	0	0		0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	692	2	**346**		692	**346**		0	0	**0**		0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	11	1	5		11	5		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:*		114	*North-South:*		135	*North-South:*		0		*North-South:*		0		*North-South:*		0	
		East-West:		552	*East-West:*		552	*East-West:*		0		*East-West:*		0		*East-West:*		0	
		SUM:		666	*SUM:*		687	*SUM:*		0		*SUM:*		0		*SUM:*		0	
	VOLUME/CAPACITY *(V/C)* RATIO:			0.444			0.458			0.000				0.000					0.000
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.444			0.458			0.000				0.000					0.000
	LEVEL OF SERVICE (LOS):			A			A			A				A					A

REMARKS:

Version: 1i Beta; 8/4/2011

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:	Fries Ave	Year of Count:	2013	Ambient Growth: (%):	1	Conducted by:	SD	Date:	5/10/2014
9	East-West Street:	Harry Bridges Bl	Projection Year:	0	Peak Hour:	MD	Reviewed by:	SD	Project:	Yang Ming EIR

		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	Project Traffic	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?			3			3			3				3					3
	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	149	1	**149**	21	170	**170**		0	0	0		0	0	0		0	0	0
	Left-Through		0							0				0				0	
	Through	7	1	7		7	7		0	0	**0**		0	0	**0**		0	0	**0**
	Through-Right		0							0				0				0	
	Right	155	1	139		155	139		0	0	0		0	0	0		0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	6	1	6		6	6		0	0	0		0	0	0		0	0	0
	Left-Through		0							0				0				0	
	Through	7	1	7		7	7		0	0	**0**		0	0	**0**		0	0	**0**
	Through-Right		0							0				0				0	
	Right	38	1	**24**		38	**24**		0	0	0		0	0	0		0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	29	1	29		29	29		0	0	0		0	0	0		0	0	0
	Left-Through		0							0				0				0	
	Through	353	2	**177**		353	**177**		0	0	**0**		0	0	**0**		0	0	**0**
	Through-Right		0							0				0				0	
	Right	42	1	0	21	63	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	33	1	33		33	33		0	0	0		0	0	0		0	0	0
	Left-Through		0							0				0				0	
	Through	485	2	**243**		485	**243**		0	0	**0**		0	0	**0**		0	0	**0**
	Through-Right		0							0				0				0	
	Right	12	1	9		12	9		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:		173	North-South:		194	North-South:			0	North-South:			0	North-South:			0
		East-West:		420	East-West:		420	East-West:			0	East-West:			0	East-West:			0
		SUM:		593	SUM:		614	SUM:			0	SUM:			0	SUM:			0
	VOLUME/CAPACITY (*V/C*) RATIO:			0.395			0.409				0.000				0.000				0.000
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.395			0.409				0.000				0.000				0.000
	LEVEL OF SERVICE (LOS):			A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

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:	Fries Ave	Year of Count:	2013	Ambient Growth: (%):	1	Conducted by:	SD	Date:	5/10/2014
9	East-West Street:	Harry Bridges Bl	Projection Year:	0	Peak Hour:	PM	Reviewed by:	SD	Project:	Yang Ming EIR

	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	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	165	1	**165**	33	198	**198**		0	0	0		0	0	0		0	0	0
Left-Through		0							0				0				0	
Through	16	1	16		16	16		0	0	**0**		0	0	**0**		0	0	**0**
Through-Right		0							0				0				0	
Right	169	1	163		169	163		0	0	0		0	0	0		0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	5	1	5		5	5		0	0	0		0	0	0		0	0	0
Left-Through		0							0				0				0	
Through	3	1	3		3	3		0	0	**0**		0	0	**0**		0	0	**0**
Through-Right		0							0				0				0	
Right	54	1	**18**		54	**18**		0	0	0		0	0	0		0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	73	1	73		73	73		0	0	0		0	0	0		0	0	0
Left-Through		0							0				0				0	
Through	752	2	**376**		752	**376**		0	0	**0**		0	0	**0**		0	0	**0**
Through-Right		0							0				0				0	
Right	34	1	0	21	55	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	12	1	12		12	12		0	0	0		0	0	0		0	0	0
Left-Through		0							0				0				0	
Through	751	2	**376**		751	**376**		0	0	**0**		0	0	**0**		0	0	**0**
Through-Right		0							0				0				0	
Right	15	1	13		15	13		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:*		183	*North-South:*		216	*North-South:*			0	*North-South:*			0	*North-South:*			0
	East-West:		752	*East-West:*		752	*East-West:*			0	*East-West:*			0	*East-West:*			0
	SUM:		935	*SUM:*		968	*SUM:*			0	*SUM:*			0	*SUM:*			0
VOLUME/CAPACITY *(V/C)* RATIO:			0.623			0.645				0.000				0.000				0.000
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.623			0.645				0.000				0.000				0.000
LEVEL OF SERVICE (LOS):			B			B				A				A				A

	NB--	SB--	EB--	WB--
Right Turns: FREE-1, NRTOR-2 or OLA-3?	0	0	0	0

No. of Phases	2	2	2	2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	3	3	3	3
ATSAC-1 or ATSAC+ATCS-2?	0	0	0	0
Override Capacity	0	0	0	0

REMARKS:

Version: 1i Beta; 8/4/2011

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 #:	PROJECT TITLE:	Shell Terminal Project - Port of Los Angeles		
4	North-South Street:	Fries Ave	East-West Street:	Harry Bridges Bl
	Scenario:	CEQA Baseline		
	Count Date:		Analyst: Iteris, Inc.	Date: 5/10/2014

		AM PEAK HOUR			MD PEAK HOUR			PM PEAK HOUR		
	No. of Phases			2			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			3			3			3
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0	EB -- 0	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			0			0			0
	Override Capacity			0			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	82	1	0	149	1	0	165	1	0
	Left-Through		0			0			0	
	Through	8	1	**148**	7	1	**272**	16	1	**272**
	Through-Right		0			0			0	
	Right	41	1	128	155	1	168	169	1	168
	Left-Through-Right		0			0			0	
	Left-Right		0			0			0	
SOUTHBOUND	Left	12	1	**235**	6	1	**315**	5	1	**315**
	Left-Through		0			0			0	
	Through	16	1	195	7	1	266	3	1	266
	Through-Right		0			0			0	
	Right	42	1	0	38	1	0	54	1	0
	Left-Through-Right		0			0			0	
	Left-Right		0			0			0	
EASTBOUND	Left	20	1	0	29	1	0	73	1	0
	Left-Through		0			0			0	
	Through	412	2	**0**	353	2	**0**	752	2	**0**
	Through-Right		0			0			0	
	Right	81	1	0	42	1	0	34	1	0
	Left-Through-Right		0			0			0	
	Left-Right		0			0			0	
WESTBOUND	Left	63	1	**144**	33	1	**100**	12	1	**100**
	Left-Through		0			0			0	
	Through	692	2	0	485	2	0	751	2	0
	Through-Right		0			0			0	
	Right	11	1	8	12	1	8	15	1	8
	Left-Through-Right		0			0			0	
	Left-Right		0			0			0	
	CRITICAL VOLUMES		*North-South:*	383		*North-South:*	587		*North-South:*	183
			East-West:	144		*East-West:*	100		*East-West:*	752
			SUM:	527		*SUM:*	687		*SUM:*	935
	VOLUME/CAPACITY *(V/C)* RATIO:			0.370			0.482			0.623
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.270**			0.482			**0.623**
	LEVEL OF SERVICE (LOS):			**A**			**A**			**B**

Version: 1i Beta; 8/4/2011

	LEVEL OF SERVICE				
Time	EXISTING BASELINE	EXISTING PLUS PROJECT	FUTURE CONDITION W/O PROJECT	FUTURE CONDITION W/ PROJECT	FUTURE W/ PROJECT W/ MITIGATION
AM	0.444	0.458	0.000	0.000	0.000
MD	0.395	0.409	0.000	0.000	0.000
PM	0.623	0.645	0.000	0.000	0.000

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Figueroa St	Year of Count:	2013	Ambient Growth: (%):	1	Conducted by:	SD	Date:	5/10/2014
12	East-West Street:	Harry Bridges Bl/JSG Bl	Projection Year:	0	Peak Hour:	AM	Reviewed by:	SD	Project:	Yang Ming EIR

		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	Project Traffic	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?			3			3			3				3					3
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- EB-- 0 WB--		1 3	NB-- 0 SB-- EB-- 0 WB--		1 3	NB-- 0 SB-- EB-- 0 WB--		1 3		NB-- 0 SB-- EB-- 0 WB--		1 3		NB-- 0 SB-- EB-- 0 WB--		1 3
	ATSAC-1 or ATSAC+ATCS-2?			0			0			0				0					0
	Override Capacity			0			0			0				0					0
NORTHBOUND	Left	0	0	0		0	0		0	0	0		0	0	0	0	0	0	0
	Left-Through		1							0				0				0	
	Through	13	0	**13**		13	**13**		0	0	**0**		0	0	**0**	0	0	0	**0**
	Through-Right		1							0				0				0	
	Right	21	0	0		21	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	246	1	**246**	33	279	**279**		0	0	0		0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	65	2	33		65	33		0	0	**0**		0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	146	1	0		146	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	106	1	106		106	106		0	0	0		0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	337	1	**175**		337	**175**		0	0	**0**		0	0	**0**	0	0	0	**0**
	Through-Right		1							0				0				0	
	Right	13	0	13		13	13		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	92	1	92		92	92		0	0	0		0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	551	2	**276**		551	**276**		0	0	**0**		0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	268	1	22	21	289	10		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:*		259	*North-South:*		292	*North-South:*		0		*North-South:*		0		*North-South:*			0
		East-West:		451	*East-West:*		451	*East-West:*		0		*East-West:*		0		*East-West:*			0
		SUM:		710	*SUM:*		743	*SUM:*		0		*SUM:*		0		*SUM:*			0
	VOLUME/CAPACITY *(V/C)* RATIO:			0.516			0.540			0.000				0.000					0.000
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.516			0.540			0.000				0.000					0.000
	LEVEL OF SERVICE (LOS):			A			A			A				A					A

REMARKS:

Version: 1i Beta; 8/4/2011

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:	Figueroa St	Year of Count:	2013	Ambient Growth: (%):	1	Conducted by:	SD	Date:	5/10/2014
12	East-West Street:	Harry Bridges Bl/JSG Bl	Projection Year:	0	Peak Hour:	MD	Reviewed by:	SD	Project:	Yang Ming EIR

		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	Project Traffic	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?			3			3			3				3					3
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- EB-- 0 WB--		1 3	NB-- 0 SB-- EB-- 0 WB--		1 3	NB-- 0 SB-- EB-- 0 WB--		1 3		NB-- 0 SB-- EB-- 0 WB--		1 3		NB-- 0 SB-- EB-- 0 WB--		1 3
	ATSAC-1 or ATSAC+ATCS-2?			0			0			0				0					0
	Override Capacity			0			0			0				0					0
NORTHBOUND	Left	1	0	1		1	1	0	0	0	0		0	0	0		0	0	0
	Left-Through		1							0				0				0	
	Through	25	0	**21**		25	**21**	0	0	0	**0**		0	0	**0**		0	0	**0**
	Through-Right		1							0				0				0	
	Right	16	0	21		16	21	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	162	1	**162**	21	183	**183**	0	0	0	0		0	0	0		0	0	0
	Left-Through		0							0				0				0	
	Through	149	2	75		149	75	0	0	0	**0**		0	0	**0**		0	0	**0**
	Through-Right		0							0				0				0	
	Right	112	1	0		112	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	63	1	63		63	63	0	0	0	0		0	0	0		0	0	0
	Left-Through		0							0				0				0	
	Through	296	1	**155**		296	**155**	0	0	0	**0**		0	0	**0**		0	0	**0**
	Through-Right		1							0				0				0	
	Right	13	0	13		13	13	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	81	1	81		81	81	0	0	0	0		0	0	0		0	0	0
	Left-Through		0							0				0				0	
	Through	369	2	**185**		369	**185**	0	0	0	**0**		0	0	**0**		0	0	**0**
	Through-Right		0							0				0				0	
	Right	323	1	161	21	344	161	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:*		183	*North-South:*		204	*North-South:*		0		*North-South:*		0		*North-South:*		0	
		East-West:		340	*East-West:*		340	*East-West:*		0		*East-West:*		0		*East-West:*		0	
		SUM:		523	*SUM:*		544	*SUM:*		0		*SUM:*		0		*SUM:*		0	
	VOLUME/CAPACITY *(V/C)* RATIO:			0.380			0.396			0.000				0.000					0.000
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.380			0.396			0.000				0.000					0.000
	LEVEL OF SERVICE (LOS):			A			A			A				A					A

REMARKS:

Version: 1i Beta; 8/4/2011

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:	Figueroa St	Year of Count:	2013	Ambient Growth: (%):	1	Conducted by:	SD	Date:	5/10/2014
12	East-West Street:	Harry Bridges Bl/JSG Bl	Projection Year:	0	Peak Hour:	PM	Reviewed by:	SD	Project:	Yang Ming EIR

		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	Project Traffic	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?			3			3			3				3					3
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- EB-- 0 WB--		1 3	NB-- 0 SB-- EB-- 0 WB--		1 3	NB-- 0 SB-- EB-- 0 WB--		1 3		NB-- 0 SB-- EB-- 0 WB--		1 3		NB-- 0 SB-- EB-- 0 WB--		1 3
	ATSAC-1 or ATSAC+ATCS-2?			0			0			0				0					0
	Override Capacity			0			0			0				0					0
NORTHBOUND	Left	14	0	14		14	14	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		1							0				0				0	
	Through	30	0	**44**		30	**44**	0	0	**0**		0	0	**0**		0	0	**0**	
	Through-Right		1							0				0				0	
	Right	44	0	0		44	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	389	1	**389**	21	410	**410**	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	111	2	56		111	56	0	0	**0**		0	0	**0**		0	0	**0**	
	Through-Right		0							0				0				0	
	Right	121	1	0		121	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	97	1	97		97	97	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	583	1	**296**		583	**296**	0	0	**0**		0	0	**0**		0	0	**0**	
	Through-Right		1							0				0				0	
	Right	8	0	8		8	8	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	97	1	97		97	97	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	566	2	**283**		566	**283**	0	0	**0**		0	0	**0**		0	0	**0**	
	Through-Right		0							0				0				0	
	Right	383	1	0	33	416	6	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:		433	North-South:		454	North-South:		0		North-South:		0		North-South:			0
		East-West:		579	East-West:		579	East-West:		0		East-West:		0		East-West:			0
		SUM:		1012	SUM:		1033	SUM:		0		SUM:		0		SUM:			0
	VOLUME/CAPACITY (V/C) RATIO:			0.736			0.751			0.000				0.000					0.000
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.736			0.751			0.000				0.000					0.000
	LEVEL OF SERVICE (LOS):			C			C			A				A					A

REMARKS:

Version: 1i Beta; 8/4/2011

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 #:	PROJECT TITLE:	Shell Terminal Project - Port of Los Angeles		
4	North-South Street:	Figueroa St	East-West Street:	Harry Bridges Bl/JSG Bl
	Scenario:	CEQA Baseline		
	Count Date:		Analyst: Iteris, Inc.	Date: 5/10/2014

		AM PEAK HOUR			MD PEAK HOUR			PM PEAK HOUR		
	No. of Phases			4			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			3			3			3
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	1	NB -- 0	SB --	1	NB -- 0	SB --	1
		EB -- 0	WB --	3	EB -- 0	WB --	3	EB -- 0	WB --	3
	ATSAC-1 or ATSAC+ATCS-2?			0			0			0
	Override Capacity			0			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	1	0	0	14	0	0
	Left-Through		1			1			1	
	Through	13	0	**148**	25	0	**272**	30	0	**272**
	Through-Right		1			1			1	
	Right	21	0	128	16	0	168	44	0	168
	Left-Through-Right		0			0			0	
	Left-Right		0			0			0	
SOUTHBOUND	Left	246	1	**235**	162	1	**315**	389	1	**315**
	Left-Through		0			0			0	
	Through	65	2	195	149	2	266	111	2	266
	Through-Right		0			0			0	
	Right	146	1	0	112	1	0	121	1	0
	Left-Through-Right		0			0			0	
	Left-Right		0			0			0	
EASTBOUND	Left	106	1	0	63	1	0	97	1	0
	Left-Through		0			0			0	
	Through	337	1	**0**	296	1	**0**	583	1	**0**
	Through-Right		1			1			1	
	Right	13	0	0	13	0	0	8	0	0
	Left-Through-Right		0			0			0	
	Left-Right		0			0			0	
WESTBOUND	Left	92	1	**144**	81	1	**100**	97	1	**100**
	Left-Through		0			0			0	
	Through	551	2	0	369	2	0	566	2	0
	Through-Right		0			0			0	
	Right	268	1	8	323	1	8	383	1	8
	Left-Through-Right		0			0			0	
	Left-Right		0			0			0	
	CRITICAL VOLUMES		*North-South:*	383		*North-South:*	587		*North-South:*	433
			East-West:	144		*East-West:*	100		*East-West:*	579
			SUM:	527		*SUM:*	687		*SUM:*	1012
	VOLUME/CAPACITY *(V/C)* RATIO:			0.370			0.482			0.736
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.270**			0.482			**0.736**
	LEVEL OF SERVICE (LOS):			**A**			**A**			**C**

Version: 1i Beta; 8/4/2011

LEVEL OF SERVICE

Time	EXISTING BASELINE	EXISTING PLUS PROJECT	FUTURE CONDITION W/O PROJECT	FUTURE CONDITION W/ PROJECT	FUTURE W/ PROJECT W/ MITIGATION
AM	0.516	0.540	0.000	0.000	0.000
MD	0.380	0.396	0.000	0.000	0.000
PM	0.736	0.751	0.000	0.000	0.000

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Figueroa St	Year of Count:	2013	Ambient Growth: (%):	1	Conducted by:	SD	Date:	5/10/2014
11	East-West Street:	C St/I110NB ramps	Projection Year:	0	Peak Hour:	PM	Reviewed by:	SD	Project:	Yang Ming EIR

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			4			4			4				4				4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			3			3			3				3				3	
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	

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	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	359	1	**359**	33	392	**392**		0	0	0		0	0	0		0	0	0
	Left-Through		0							0				0				0	
	Through	141	2	71		141	71		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
	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
	Left-Through		0							0				0				0	
	Through	131	1	**114**		131	**114**		0	0	**0**		0	0	**0**		0	0	**0**
	Through-Right		1							0				0				0	
	Right	96	0	96		96	96		0	0	0		0	0	0		0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	183	1	**183**		183	**183**		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**
	Through-Right		0							0				0				0	
	Right	475	1	82	21	496	77		0	0	0		0	0	0		0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		1							0				0				0	
WESTBOUND	Left	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**
	Through-Right		0							0				0				0	
	Right	0	1	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:*		473	*North-South:*		506	*North-South:*			0	*North-South:*			0	*North-South:*			0
		East-West:		183	*East-West:*		183	*East-West:*			0	*East-West:*			0	*East-West:*			0
		SUM:		656	*SUM:*		689	*SUM:*			0	*SUM:*			0	*SUM:*			0
VOLUME/CAPACITY *(V/C)* RATIO:				0.477			0.501				0.000				0.000				0.000
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.477			0.501				0.000				0.000				0.000
LEVEL OF SERVICE (LOS):				A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

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:	Figueroa St	Year of Count:	2013	Ambient Growth: (%):	1	Conducted by:	SD	Date:	5/10/2014
11	East-West Street:	C St/I110NB ramps	Projection Year:	0	Peak Hour:	MD	Reviewed by:	SD	Project:	Yang Ming EIR

		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	Project Traffic	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?			3			3			3				3					3
	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	315	1	**315**	21	336	**336**		0	0	0		0	0	0		0	0	0
	Left-Through		0							0				0				0	
	Through	92	2	46		92	46		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
	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
	Left-Through		0							0				0				0	
	Through	110	1	**110**		110	**110**		0	0	**0**		0	0	**0**		0	0	**0**
	Through-Right		1							0				0				0	
	Right	111	0	59		111	59		0	0	0		0	0	0		0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	104	1	**104**		104	**104**		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**
	Through-Right		0							0				0				0	
	Right	328	1	23	21	349	24		0	0	0		0	0	0		0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		1							0				0				0	
WESTBOUND	Left	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**
	Through-Right		0							0				0				0	
	Right	0	1	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:*		425	*North-South:*		446	*North-South:*			0	*North-South:*			0	*North-South:*			0
		East-West:		104	*East-West:*		104	*East-West:*			0	*East-West:*			0	*East-West:*			0
		SUM:		529	*SUM:*		550	*SUM:*			0	*SUM:*			0	*SUM:*			0
	VOLUME/CAPACITY *(V/C)* RATIO:			0.385			0.400				0.000				0.000				0.000
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.385			0.400				0.000				0.000				0.000
	LEVEL OF SERVICE (LOS):			A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

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:	Figueroa St	Year of Count:	2013	Ambient Growth: (%):	1	Conducted by:	SD	Date:	5/10/2014
11	East-West Street:	C St/I110NB ramps	Projection Year:	0	Peak Hour:	AM	Reviewed by:	SD	Project:	Yang Ming EIR

		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	Project Traffic	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?			3			3			3				3					3
	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?			0			0			0				0					0
	Override Capacity			0			0			0				0					0
NORTHBOUND	Left	248	1	**248**	21	269	**269**		0	0	0		0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	137	2	69		137	69		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
	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
	Left-Through		0							0				0				0	
	Through	147	1	**145**		147	**145**		0	0	**0**		0	0	**0**	0	0	0	**0**
	Through-Right		1							0				0				0	
	Right	142	0	142		142	142		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	99	1	**99**		99	**99**		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**
	Through-Right		0							0				0				0	
	Right	307	1	45	33	340	53		0	0	0		0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		1							0				0				0	
WESTBOUND	Left	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**
	Through-Right		0							0				0				0	
	Right	0	1	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:*		393	*North-South:*		414	*North-South:*			0	*North-South:*			0	*North-South:*			0
		East-West:		99	*East-West:*		99	*East-West:*			0	*East-West:*			0	*East-West:*			0
		SUM:		492	*SUM:*		513	*SUM:*			0	*SUM:*			0	*SUM:*			0
	VOLUME/CAPACITY *(V/C)* RATIO:			0.358			0.373				0.000				0.000				0.000
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.358			0.373				0.000				0.000				0.000
	LEVEL OF SERVICE (LOS):			A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

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 #:	PROJECT TITLE:	Shell Terminal Project - Port of Los Angeles		
4	North-South Street:	Figueroa St	East-West Street:	C St/I110NB ramps
	Scenario:	CEQA Baseline		
	Count Date:		Analyst: Iteris, Inc.	Date: 5/10/2014

		AM PEAK HOUR			MD PEAK HOUR			PM PEAK HOUR		
	No. of Phases			4			4			4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			3			3			3
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB -- 0	SB --	0	NB -- 0	SB --	0
		EB -- 0	WB --	0	EB -- 0	WB --	0	EB -- 0	WB --	0
	ATSAC-1 or ATSAC+ATCS-2?			0			0			0
	Override Capacity			0			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	248	1	0	315	1	0	359	1	0
	Left-Through		0			0			0	
	Through	137	2	**148**	92	2	**272**	141	2	**272**
	Through-Right		0			0			0	
	Right	0	0	128	0	0	168	0	0	168
	Left-Through-Right		0			0			0	
	Left-Right		0			0			0	
SOUTHBOUND	Left	0	0	**235**	0	0	**315**	0	0	**315**
	Left-Through		0			0			0	
	Through	147	1	195	110	1	266	131	1	266
	Through-Right		1			1			1	
	Right	142	0	0	111	0	0	96	0	0
	Left-Through-Right		0			0			0	
	Left-Right		0			0			0	
EASTBOUND	Left	99	1	0	104	1	0	183	1	0
	Left-Through		0			0			0	
	Through	0	0	**0**	0	0	**0**	0	0	**0**
	Through-Right		0			0			0	
	Right	307	1	0	328	1	0	475	1	0
	Left-Through-Right		0			0			0	
	Left-Right		1			1			1	
WESTBOUND	Left	0	0	**144**	0	0	**100**	0	0	**100**
	Left-Through		0			0			0	
	Through	0	0	0	0	0	0	0	0	0
	Through-Right		0			0			0	
	Right	0	1	8	0	1	8	0	1	8
	Left-Through-Right		0			0			0	
	Left-Right		0			0			0	
	CRITICAL VOLUMES		*North-South:*	383		*North-South:*	587		*North-South:*	473
			East-West:	144		*East-West:*	100		*East-West:*	183
			SUM:	527		*SUM:*	687		*SUM:*	656
	VOLUME/CAPACITY *(V/C)* RATIO:			0.370			0.482			0.477
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.270**			0.482			**0.477**
	LEVEL OF SERVICE (LOS):			**A**			**A**			**A**

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LEVEL OF SERVICE

Time	EXISTING BASELINE	EXISTING PLUS PROJECT	FUTURE CONDITION W/O PROJECT	FUTURE CONDITION W/ PROJECT	FUTURE W/ PROJECT W/ MITIGATION
AM	0.358	0.373	0.000	0.000	0.000
MD	0.385	0.400	0.000	0.000	0.000
PM	0.477	0.501	0.000	0.000	0.000