Chapter 2
Project Description

2.1 Introduction and Project Overview

This section describes the proposed Project, including its objectives and its key elements; the alternatives, including those carried forward and those considered but dismissed, are described and analyzed in Chapter 5. The proposed Project consists of the construction and operation of a new near-dock intermodal rail facility by BNSF that would handle containerized cargo transported through the Ports of Los Angeles and Long Beach, collectively known as the San Pedro Bay Ports (Ports). The Project would be located approximately four miles to the north of the Ports, primarily on LAHD land in the City of Los Angeles, although portions of the proposed Project would also be located on nearby non-LAHD land in the cities of Carson and Long Beach (Figure 2-1). The proposed Project is consistent with LAHD Resolution 6339 regarding intermodal rail facilities and the San Pedro Bay Ports Rail Update Study (Parsons, 2006; see Section 1.1.1) and has been proposed to meet an identified need for additional rail facilities in the port area as further discussed below.

The proposed Project elements evaluated in this EIR include property acquisition by BNSF, the demolition of existing on-site structures, the termination or non-renewal of leases and movement of some existing businesses to alternate locations being offered as part of the proposed Project, and the construction and operation of a new near-dock intermodal rail facility. The proposed facility would handle cargo containers up to a maximum capacity of 1.5 million lifts or 2.8 million TEUs (as described in Section 1.1.2, a lift is the term used by the railroads to express movement of a single container, and is equal to 1.85 TEU; see sections 1.1.2 and 1.1.3 for more detail on container freight logistics). Major physical features of the proposed Project include loading and storage tracks for trains; electric-powered, rail-mounted gantry cranes (RMGs); container loading and storage areas; administrative and maintenance facilities; lighting and other utilities; paved roadways; and a truck gate complex. Lead tracks and other roadway improvements would be constructed to connect the railyard to the Alameda Corridor and to provide truck access to the proposed Project. Construction of the proposed Project would take approximately three years to complete, assumed for this analysis to be from 2013 through 2015. BNSF would operate the SCIG facility under a new 50-year lease from approximately 2016 to 2066.

The rail system serving the Ports allows for the efficient transport of approximately 40 percent of the nation's container cargo from the SPB Ports to inland destinations. Currently, this intermodal cargo is transferred to and from the rail system through on-dock, near-dock, and off-dock railyards. As discussed in Section 1.1.3.3, on-dock rail is defined as a railyard located directly within the marine terminals; near-dock rail is defined as a railyard located outside of the marine terminals but within five miles of the

Port (for example, the UP ICTF near Carson); and off-dock rail is defined as a railyard located greater than five miles from marine terminals (for example, the BNSF Hobart/Commerce railyard (hereafter, Hobart) and UP's East Los Angeles Railyard, both just east of downtown Los Angeles).

Maximizing the use of on-dock railyards is consistent with the CAAP and the LAHD's Intermodal Rail Policy mainly because on-dock rail eliminates truck trips to near/off-dock railyards, thereby reducing truck emissions and traffic congestion. Consistent with those policies, the LAHD has developed, and is continuing to pursue, development of additional on-dock rail facilities to increase the on-dock rail capacity in the Port of Los Angeles, and is constructing additional rail infrastructure and trackage outside the marine terminals to better connect the on-dock railyards with the Alameda Corridor. This additional rail capacity is important to maximize use of the Alameda Corridor, and consequently reduce the number of truck trips to near-dock and off-dock railyards.

Despite the efforts by the Ports to develop additional on-dock capacity and by the railroads to increase utilization of on-dock rail (see Section 1.1.4), however, a number of factors will continue to limit the overall percentage of intermodal cargo that can be moved via on-dock rail. First, not all intermodal cargo can be handled at on-dock railyards. As described in Section 1.1.3.3, cargo at a marine terminal is sorted by destination. If there are enough cargo containers bound for the same destination (meaning an intermodal facility in the eastern U.S.), a unit train to that destination will be built at the on-dock facility. If, however, there are containers bound for different destinations, they must be either stored in the terminal until enough are collected to form at least one portion of a train, resulting in delays and congestion, or trucked to a near/off-dock facility to be combined with cargo from other marine terminals bound for that same destination.

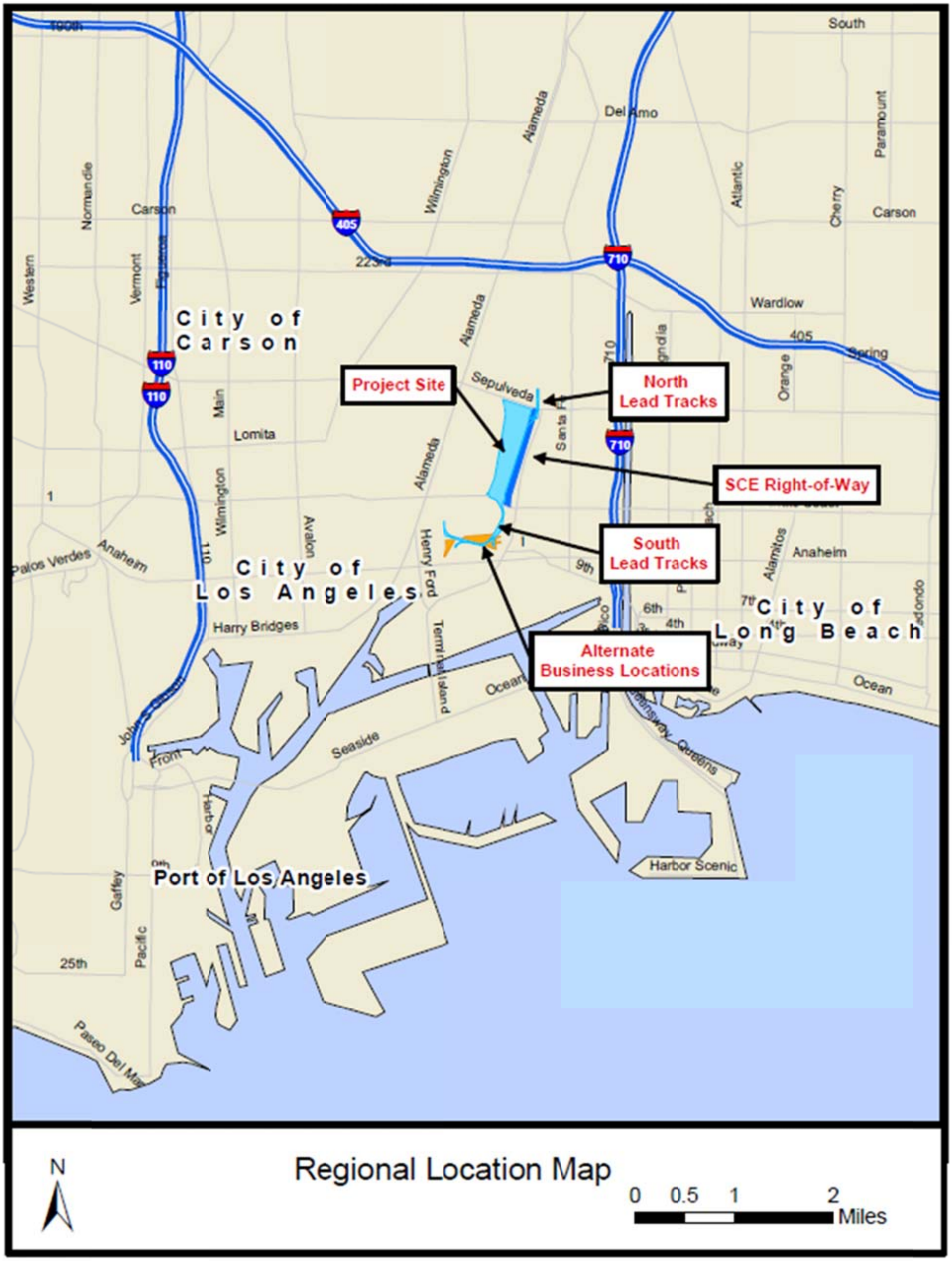
Second, not all marine terminals have, or can have, on-dock railyards. As described in Section 1.1.5.4, constraints of terminal size and configuration can limit the size of on-dock facilities or prevent them from being constructed at all.

Third, as discussed in Section 1.1.5.3, the rail infrastructure within the ports and between the ports and the Alameda Corridor will be inadequate to handle future volumes of intermodal cargo from on-dock railyards, especially those on Terminal Island.

Other limiting factors include shipper and steamship line logistics (e.g. transloading, transportation costs, etc.) and railroad operations (equipment availability, train schedules, and contracts/arrangements with shippers).

Accordingly, there will always be a need for near-dock/off-dock facilities, and expansion of near/off-dock rail capacity will be necessary to accommodate projected increases in intermodal cargo volumes. Along with increasing on-dock capacity, LAHD seeks to increase near-dock capacity over off-dock railyards to decrease truck trips in the region as a whole while accommodating the cargo that cannot be handled at on-dock facilities.

Figure 2-1. Regional Location Map.



2.1.1 Long-Term Cargo Projections and On-Dock Capacity

As discussed in Section 1.1.5, in 2009 the LAHD and the Port of Long Beach prepared an update to the 2007 cargo forecast (Tioga, 2009) as well as an update to on-dock railyard capacities within the Ports. The cargo forecast projects consumer and industry demand, both for the U.S. and for its trading partners, by commodity and cargo handling type. That demand is unconstrained by physical factors such as port capacity or the ability of the region's rail infrastructure (including on-dock, near-dock, and off-dock railyards) and freeways to accommodate trade growth. Accordingly, the Ports also evaluated the ability of the physical infrastructure (port terminal and regional rail) to accommodate the demand. Terminal capacity estimates were developed by each port for existing and planned container terminals. Those estimates reflect key assumptions about how much land will ultimately be available for container use (backland acreage), number and size of the terminal's berths and cranes, and how the terminals will operate (labor rates and gate hours).

To help accommodate the anticipated cargo volumes, the Ports plan to expand existing and construct new on-dock railyards and supporting infrastructure over the next 10 to 15 years. In addition, the Ports will seek to maximize on-dock operations at the marine terminals by encouraging tenants to schedule round-the-clock shifts and optimize labor rules. LAHD's on-dock rail expansion plan is discussed in the San Pedro Bay Ports Rail Study Update (Parsons, 2006) and is summarized in Section 1.1.5.3.

As described in Chapter 1 (Table 1-4), the 2009 forecast estimates that total direct intermodal rail demand coming from the San Pedro Bay ports will be 15.7 million TEUs by the year 2035. This estimate assumes that, consistent with recent trends, direct intermodal will constitute 40 percent of the total San Pedro Bay container capacity of 39.4 million TEUs. Notwithstanding the planned and proposed improvements described in Section 1.1.5.3, on-dock railyard capacity, which is expected to reach a maximum of 11.7 million TEUs (Table 1-4), will be unable to handle that intermodal demand. On-dock capacity in the ports will begin to be exceeded by the demand in the future (largely because that capacity will continue to be well short of the ultimate capacity of 11.7 million TEU pending completion of improvements), and will fall well short of demand by 2035 (Section 1.1.5.3). Detailed rail system simulation (Parsons 2006, 2012 [in Appendix G-2]) has determined that even the movement of containers on trains via "block swap" and "unsorted" operations (see Section 5.2.1.2 for a discussion of these concepts) will not yield higher capacities or greater use of the on-dock facilities. Accordingly, of the 15.7 million TEUs of direct intermodal cargo, only 11.7 million TEUs will be handled by existing and planned on-dock railyards.

2.1.2 Near-Dock and Off-Dock Capacity

Given the limitations of on-dock facilities and the demand for more efficient intermodal transport, the ports expect that near-dock and off-dock facilities will continue to be needed to satisfy the Ports' future intermodal needs related to: (1) overflow traffic due to on-dock capacity constraints, (2) containers that require staging until a train going to the appropriate destination is available, and (3) transload cargo. For these reasons, the LAHD and the Port of Long Beach expect that near-dock and off-dock railyards will continue to handle a significant portion of the intermodal traffic.

The data in Table 1-4 show that under the 2009 forecast, approximately 4.1 million TEUs of direct intermodal cargo will need to be handled by near- and off-dock railyards by the year 2030 because of the shortfall of on-dock capacity. Both UP and BNSF at their various intermodal facilities (see Section 1.1.3) also handle cargo other than direct intermodal; specifically, the railroads handle imported cargo transloaded into domestic containers and pure domestic cargo that has not gone through the ports. The growth of these latter two types of cargo will put additional pressure on regional intermodal capacity. The Port's analysis indicates that at some point in the future, existing near- and off-dock facilities as currently configured will not be able to accommodate future volumes, given the expected growth in domestic and transloaded cargo. Accordingly, additional lift capacity is needed for each railroad. The shortfall in capacity will be addressed either by the proposed Project or by the modification of existing off-dock railyards, as described in the No Project alternative (Section 5.3).

Historically, each of the two Class 1 railroads (i.e., UP and BNSF) has handled about 50 percent of the intermodal cargo from the ports. A basic assumption of the demand model used in the cargo forecasts is that each of the Class 1 railroads will continue to compete for market share, and each will continue to handle 50 percent of the projected demand, including transloaded and domestic cargo. A review of the 2009 cargo forecast suggests that the UP and BNSF at their various facilities will each handle about 2.0 million TEUs of direct intermodal cargo (half of the projected 4.1 million TEUs of near/off-dock direct intermodal cargo) in 2030. In addition to these volumes of direct intermodal cargo, each railroad will handle half of the increased volumes of domestic and transloaded cargo.

It should be emphasized that these forecasts of cargo volumes are predicated upon the following assumptions related to on-dock capacity: (1) all of the proposed/planned POLA/POLB rail infrastructure (including on-dock railyards) is constructed more or less in accordance with the projected timetables; (2) three labor shifts/day occur in the on-dock railyards; and (3) an ILWU labor rule modification allows some railcar movements on adjacent tracks in the on-dock railyards for efficiency gains during loading/unloading of stationary cars. To date none of these assumptions has been met.

This EIR takes a conservative approach: it analyzes the capacity the Project applicant (BNSF) has applied for (a maximum of 2.8 million TEUs, or 1.5 million lifts at full operation), and assumes that market factors would determine the actual demand that it serves. The environmental analysis is based on the 2009 cargo forecast, which predicts that actual demand for the proposed railyard would be less than 2.8 million TEUs, in which case both Class 1 railroads would compete for their share of the market up to a total of 4.1 million TEUs.

2.2 Existing Conditions

2.2.1 Regional Context

The Ports are located approximately 25 miles south of downtown Los Angeles. The port complex is composed of approximately 80 miles of waterfront and 7,500 acres of land and water, with approximately 500 commercial berths. The Ports include: automobile, container, omni, lumber, and cruise ship terminals; liquid and dry bulk terminals; and extensive transportation infrastructure for cargo movement by truck and rail. They also accommodate commercial fishing, canneries, shipyards, and boat repair yards; provide slips for 6,000 pleasure craft, sport fishing boats, and charter vessels; and support community and educational facilities such as a public swimming beach, the Boy/Girl Scout Camp, the Cabrillo Marine Aquarium, the Maritime Museum, and public fishing piers. The Ports are adjacent to the community of San Pedro to the west, the Wilmington community and the City of Carson to the north, the City of Long Beach to the east, and the Pacific Ocean to the south.

The proposed Project site was chosen by BNSF through a screening and analysis process (see Section 1.1.1). It is located in a largely industrial area east of the Wilmington community of the City of Los Angeles, with portions in the cities of Carson and Long Beach, approximately four miles north of the Ports. The general area is characterized by heavy industry (refineries), goods-handling facilities (warehouses, trucking facilities, railroads, and related commercial and industrial establishments), light commercial uses, and residential and institutional uses. Major highways including Interstate-405, Interstate-710, Alameda Street, Pacific Coast Highway, and State Routes 47 and 103 (Terminal Island Freeway) are all within two miles of the proposed Project site.

2.2.2 Project Setting

The proposed Project has three major components: the railyard itself (including the North Lead Tracks), the alternate sites offered for some businesses, and the South Lead Track (Figure 2-2). The site of the railyard component of the proposed Project is located in an area that is zoned for heavy industrial uses, bounded generally by Sepulveda Boulevard to the north, Pacific Coast Highway to the south, the Dominguez Channel to the west, and the Terminal Island Freeway to the east. At present, the site is devoted to warehousing and transloading (see Section 1.1.3.2 for a description of transloading); container and truck maintenance, servicing, and storage; rail service; miscellaneous industrial uses; access roads, an SCE transmission line right of way (part of which is leased to trucking businesses California Cartage and Three Rivers Trucking), the former UP San Pedro Subdivision rail line, and an equipment storage area leased from the City of Long Beach.

The site is surrounded by a variety of land uses (see Section 3.8 for more detail) that include industrial facilities to the north, west, and south, and the Terminal Island Freeway to the east, beyond which are residences, schools, churches, health care facilities, and light commercial and institutional uses (Figure 2-2). Specifically, the area to the north of the railyard site, across Sepulveda Boulevard, consists of the existing ICTF, operated by UP and similar in function to the proposed Project. To the west, across the Dominguez Channel, is a large refinery, owned by Tesoro Corporation, that processes crude oil to produce petroleum products. To the south of the Pacific Coast Highway, in the alternate sites for businesses and South Lead Track component of the proposed Project (Figure 2-2), are a series of container staging and maintenance facilities, a sulfur processing facility, a chemical tank farm, a compressed/cryogenic gases facility, and various other industrial operations. The area to the east, across the Terminal Island Freeway within the West Long Beach area, is predominantly a single-family residential area, but also includes two high schools, a middle school, two elementary schools, two child care centers, a supportive housing complex (Century Villages at Cabrillo), a small medical center, commercial businesses, and several warehousing and light industrial facilities (Figure 2-2).

Additional support areas connected to the railyard component of the proposed Project would accommodate the north and south lead tracks (see Section 2.4.2 for a description of these project elements). The North Lead Tracks would extend through the SCE corridor currently occupied by Three Rivers Trucking and connect to an existing rail line (formerly known as the UPRR San Pedro Branch) jointly owned by the LAHD and Port of Long Beach. The north lead track would extend approximately 1,000 feet to the north from the existing rail bridge at Sepulveda Boulevard. Adjacent to the west of the rail line is the ICTF. To the north is the continuation of the existing rail line which extends beyond I-405. To the east is an industrial warehouse and single-family residences within the West Long Beach area. To the south is the continuation of the SCE corridor, including the portion that is occupied by California Cartage.

The South Lead Track area and the alternate sites being offered to several businesses (Section 2.4.2) are located generally south of Pacific Coast Highway (PCH), west of the Terminal Island Freeway, north of a rail right-of-way and Southern Pacific Drive, and east of the Alameda Corridor. This area consists of land owned and/or occupied by Fast Lane Transportation (terminal services, cargo logistics, and container storage/repair) and a subtenant (California Carbon: carbon production services), a portion of Caltrans right-of-way on PCH, an Alameda Corridor Transportation Authority (ACTA) maintenance facility, vacant parcels, and railroad right-of-way connecting to the Alameda Corridor. To the west is an industrial area occupied by Vopak (liquid bulk logistics), Praxair (industrial gases processing facility), and California Sulfur Works (sulfur processing). To the north is Pacific Coast Highway. To the east are additional areas used for container storage by Fast Lane Transportation, and vacant parcels. To the south are several auto salvage businesses, light industrial uses, and vacant parcels.

Existing uses and a description of their baseline operations are summarized in Table 2-1. In addition, several underground utilities are present in this area, primarily petroleum and petroleum product pipelines but also water, sewer, gas, and electric lines. For a description of existing underground utilities and providers, refer to Section 3.11.

Table 2-1. Existing Land Uses within the Project Site.

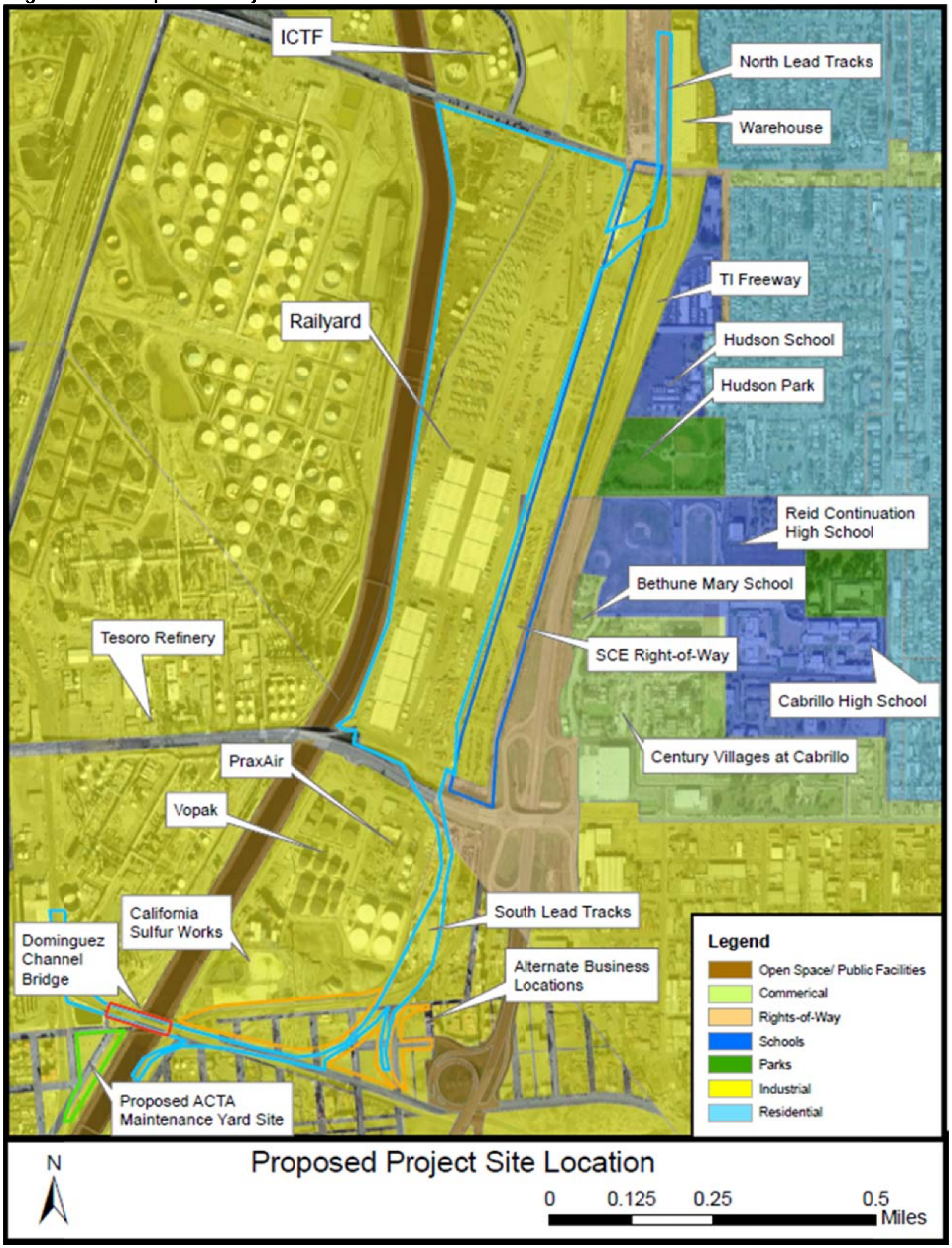
Land Use/ Business Name	Acreage	Land Owner	Activities (2010 Conditions)
California Cartage	86	LAHD	Trucking, warehousing, transloading with an estimated 357,000 total truck roundtrips per year and 260 train roundtrips per year (for combined LAHD and SCE sites)
	19	SCE	Trucking, warehousing, transloading with an estimated 357,000 total truck roundtrips per year and 260 train roundtrips per year (for combined LAHD and SCE sites).
Total Intermodal Services	17	Watson Land Company	Warehousing, transloading with an estimated 15,100 truck roundtrips per year.
Three Rivers Trucking	14.5	SCE	Trucking and transloading with an estimated 15,100 trucks roundtrip per year.
	2	LAHD	Queuing lanes for trucking and transloading
Flexi-Van	6	Watson Land Company	Container refurbishing and logistics services with an estimated 2,300 truck roundtrips per year.
San Pedro Forklift	2.2	LAHD	Cargo-handling equipment and truck rentals, cargo fumigation services; estimated 9,300 truck roundtrips per year.
LA Harbor Grain Terminal/Harbor Transload	2.4	LAHD	Transloading and trucking, estimated 9,300 truck roundtrips per year.

Land Use/ Business Name	Acreage	Land Owner	Activities (2010 Conditions)
Fast Lane Transportation	5.5	Hansen Aggregates/ Fast Lane	Terminal services, cargo logistics, and container storage/repair with an estimated 107,000 truck roundtrips per year [b].
Pacific Coast Highway (PCH) Right-of-Way	6	Caltrans	PCH grade separation right of way.
ACTA Maintenance Yard	10	LAHD/ POLB	Maintenance yard for materials storage with office space.
Access roads/vacant property	14.3	LAHD	Ingress/egress for existing businesses.
Tesoro[a]	0.5	Tesoro (prev Texaco)	Oil refinery
Vacant parcels	0.1	Los Angeles County, Equilon, Harbor Oil Company, BNSF	Vacant parcels in the South Lead Track area along railroad right-of-way connecting to the Alameda Corridor.

a) Small amounts of land would be acquired by BNSF from these businesses, but because the proposed Project would not change their operations in any way, these businesses are not included in the analyses in this EIR.

b) Activity is for all 30 acres of land controlled by Fast Lane, which includes acreage outside but adjacent to the proposed Project site, but does not include Fast Lane’s subtenant, California Carbon, which would be unaffected by the proposed Project.

Figure 2-2. Proposed Project Site Location.



2.3 Project Objectives

The need for additional rail facilities to support current and expected cargo volumes, particularly intermodal container cargo, was identified in several recent studies (see Section 2.1.2). As discussed in those studies, even after maximizing the potential on-dock rail yards, the demand for intermodal rail service creates a shortfall in rail yard capacity (Parsons, 2006). Those studies specifically identified a need for additional near-dock intermodal capacity to complement and supplement existing, planned, and potential on-dock facilities (Parsons, 2006). Furthermore, as discussed in Section 1.1, the need for more efficient, and hence more economical and less polluting, rail-based cargo transportation has prompted state and regional planning agencies to encourage the development of additional near-dock rail facilities.

As described in Section 1.1.5.4, near-dock rail yards provide a necessary complement to on-dock railyards because they have specific logistical advantages, including the ability to combine cargo from various marine terminals and build trains that efficiently transport cargo to specific destinations throughout the country. In addition, near-dock facilities are able to provide needed intermodal capacity with greatly reduced trucking impacts, compared to the more remote off-dock facilities. Any cargo that is moved by train from the Ports benefits the overall transportation system by reducing the truck trips and total truck mileage along with the associated impacts. Movement of containers by train has been determined to be from three to nearly six times as fuel efficient as by truck on a ton-mile basis, which reduces air emissions by a similar amount (Federal Railroad Administration, 2009). However, near-dock usage has remained relatively flat due to the availability of only one near-dock rail yard (the ICTF operated by UP), causing much intermodal cargo to be drayed over 20 miles to the railyards near downtown Los Angeles.

LAHD has expressed its intent to promote increased use of rail in general, and near-dock rail facilities in particular, as indicated in its Rail Policy (Section 2.1.1), and to comply with the Mayor of Los Angeles' goal for the LAHD to increase growth while mitigating the impacts of that growth on the local communities and the Los Angeles region by implementing pollution control measures, including the elements of the CAAP specific to the proposed Project. Similarly, the California EPA has recommended the SCIG project as a preliminary candidate in the 2007 Goods Movement Action Plan, and the Southern California Association of Governments (SCAG) has identified the SCIG project as potentially playing a key role in addressing the growth of high-density truck traffic in its 2008 Regional Transportation Plan Goods Movement Report (SCAG, 2008).

The primary objective and fundamental purpose of the proposed Project is to provide an additional near-dock intermodal rail facility serving the San Pedro Bay Port marine terminals that would meet current and anticipated containerized cargo demands, provide shippers with comparable intermodal options, incorporate advanced environmental controls, and help convert existing and future truck transport into rail transport, thereby providing air quality and transportation benefits.

The following specific project objectives accomplish the primary objective and fundamental purpose:

1. Provide an additional near-dock intermodal rail facility that would:
    a) Help meet the demands of current and anticipated containerized cargo from the various San Pedro Bay port marine terminals, and

   b) Combine common destination cargo “blocks” and/or unit trains collected from different San Pedro Bay Port marine terminals to build trains for specific destinations throughout the country.
2. Reduce truck miles traveled associated with moving containerized cargo by providing a near-dock intermodal facility that would:
   a) Increase use of the Alameda Corridor for the efficient and environmentally sound transportation of cargo between the San Pedro Bay Ports and destinations both inland and out of the region, and
   b) Maximize the direct transfer of cargo from port to rail with minimal surface transportation, congestion and delay.
3. Provide shippers carriers, and terminal operators with comparable options for Class 1 railroad near-dock intermodal rail facilities.
4. Construct a near-dock intermodal rail facility that is sized and configured to provide maximum intermodal capacity for the transfer of marine containers between truck and rail in the most efficient manner.
5. Provide infrastructure improvements consistent with the California Goods Movement Action Plan.

2.4 Proposed Project

2.4.1 Summary

The proposed Project would include construction of a new, state-of-the-art, near-dock intermodal railyard (Figures 2-3a and 2-3b), located approximately four miles to the north of the Ports and connected to the Alameda Corridor. The proposed Project features and operations are summarized in Table 2-2. It is estimated that the proposed Project would handle approximately 570,800 TEUs in its first year of operation in 2016 and increase to its maximum capacity of 2.8 million TEUs, as proposed by the project applicant, by 2035. Construction would take approximately 36 months to complete (2013 through 2015), including crane installation that would occur in 2015 (more detail is provided below). The proposed Project would generate approximately 93 operational jobs starting in 2016 and 450 jobs by full build-out. The SCIG facility would be operated by BNSF under a new lease from LAHD, assumed for the purposes of this EIR to be 50 years.

Because of its location approximately 4 miles from the ports, the proposed Project would eliminate a portion (estimated at 95 percent; see Section 3.10 for details of this assumption) of existing and future intermodal truck trips between the ports and the BNSF’s Hobart/Commerce Yard (hereafter, Hobart Yard), approximately 24 miles north of the ports in the cities of Los Angeles, Vernon, and Commerce, by diverting them to the proposed SCIG facility. As a result, truck traffic on I-710 (the route that trucks currently take to reach the Hobart facility) would be reduced by the number of trucks diverted to the proposed Project. All truck trips between the ports and the SCIG facility would be required to use designated truck routes to avoid local neighborhoods and sensitive receptors. Figure 2-4 illustrates the current primary local truck routes between port facilities and the major transportation corridors leading to BNSF’s Hobart Yard (red/dashed line), and the designated routes between port facilities and the proposed Project (purple/solid line). These changes in traffic patterns, which are evaluated in this EIR, are being proposed in order to shorten a portion of the truck trips that move containers between ships and railcars, thereby easing traffic conditions on local freeways and reducing regional air quality impacts. The proposed Project would provide direct access to the Alameda Corridor and enable the Alameda Corridor to reach its potential in terms of train capacity, thereby further realizing the significant benefits that already result from its use. The estimated number of truck trips and train trips associated with the proposed SCIG Project is also summarized in Table 2-2.

The proposed Project incorporates a number of pollution-reduction features in order to promote the goals of the CAAP (see Section 1.6.1). In addition, elements and requirements of the Memorandum of Understanding (MOU) between the BNSF Railroad and the California Air Resources Board (CARB) would be implemented as part of the proposed Project. The proposed Project would incorporate a state-of-the-art logistics system that BNSF represents would significantly increase the efficiency of truck operations by substantially reducing turnaround times, waiting times, and the proportion of trucks making empty trips. The railyard is designed to reduce the number of train movements needed to assemble and disassemble trains, thereby reducing locomotive emissions, and would employ a new type of electric-powered gantry crane that would generate substantially less emissions than conventional intermodal cranes. The project applicant and LAHD anticipate that additional control technologies would be implemented in future years as they are developed through the CAAP and regional and state-wide initiatives, but such technologies (e.g., fuel-cell-powered trucks or hostlers, non-wheeled container movement systems, non-diesel locomotives) are either not yet available or not yet fully demonstrated at this time.

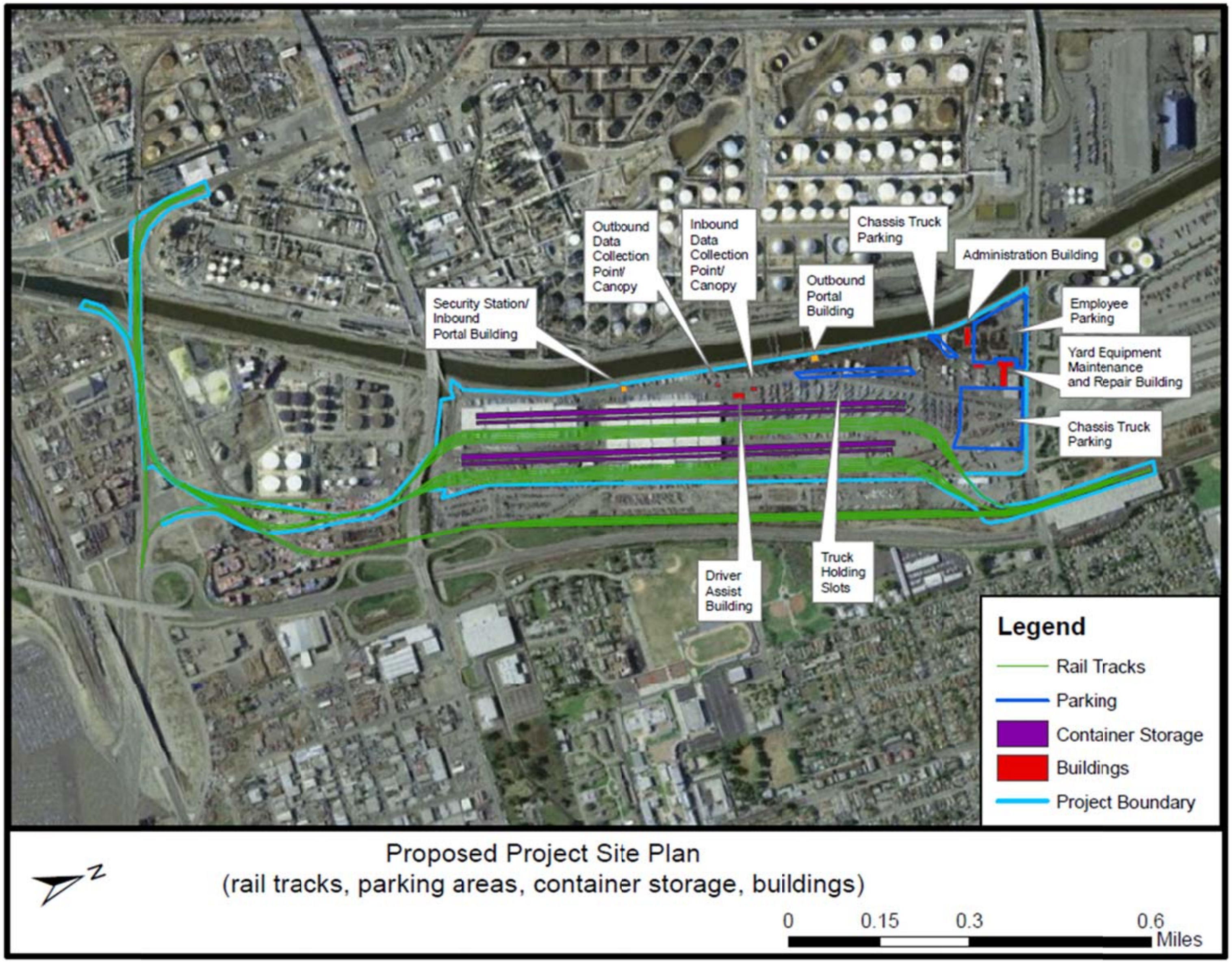
In response to the public comments received on the Notice of Preparation, BNSF has also offered to enhance the following elements:

- The operating contractor would be required to give qualified local residents priority for all new job offers at SCIG;
- BNSF would fund a workforce training program in partnership with local institutions to assist area residents in obtaining these jobs;
- Trucking companies contracted to the facility would be required to operate model year 2007 or newer trucks;
- Trucks serving the facility would be limited to specific non-residential truck routes and be equipped with global positioning system (GPS) recording devices for compliance monitoring.

This document analyzes only impacts that arise as a result of the proposed Project (Public Resources Code 21065 and CEQA Guidelines 15378(a). It therefore does not analyze activities at the Hobart Yard or the Sheila Commerce Mechanical Repair Facility at 6300 Sheila Street, in Commerce (the Sheila facility). Whether or not SCIG is built, domestic traffic (i.e., traffic from non-Port sources) and transloaded cargos to Hobart will likely continue to grow at a rate related to market demand in the United States economy. The distribution of the domestic traffic coming to Hobart indicates that, although some traffic does travel north on the I-710 from the Port area, the domestic truck traffic both to and from Hobart is multidirectional. Because that growth is not dependent on SCIG being built, it is not appropriate to evaluate that growth as part of SCIG, or any truck trips not going to SCIG. The same is true for regional locomotive traffic. This approach is supported by BNSF's representation that they have no current plans to move intermodal business from other regional facilities to Hobart in the event that SCIG is built (BNSF, 2012).

The Sheila facility is a locomotive mechanical shop that primarily supports operations at the nearby BNSF Hobart Railyard. Operations at the Sheila facility include, among other things, locomotive maintenance. This facility would continue to service generally the same volume of locomotives moving domestic and international cargo operating at the SCIG and Hobart railyards as it would if SCIG were not built.

Figure 2-3a. Proposed Project Site Plan.



1 **Figure 2-3b. Proposed Project Site Plan.**

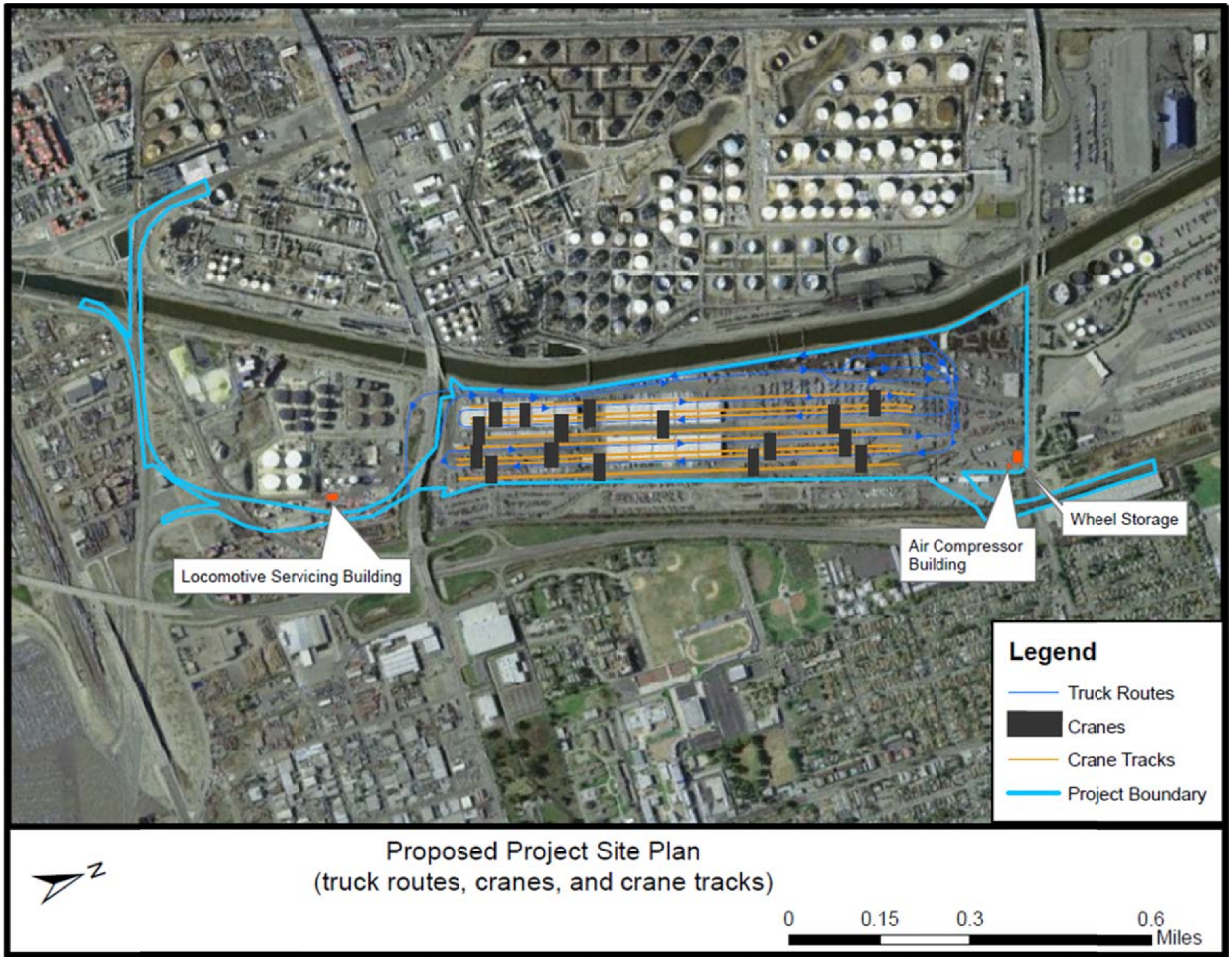
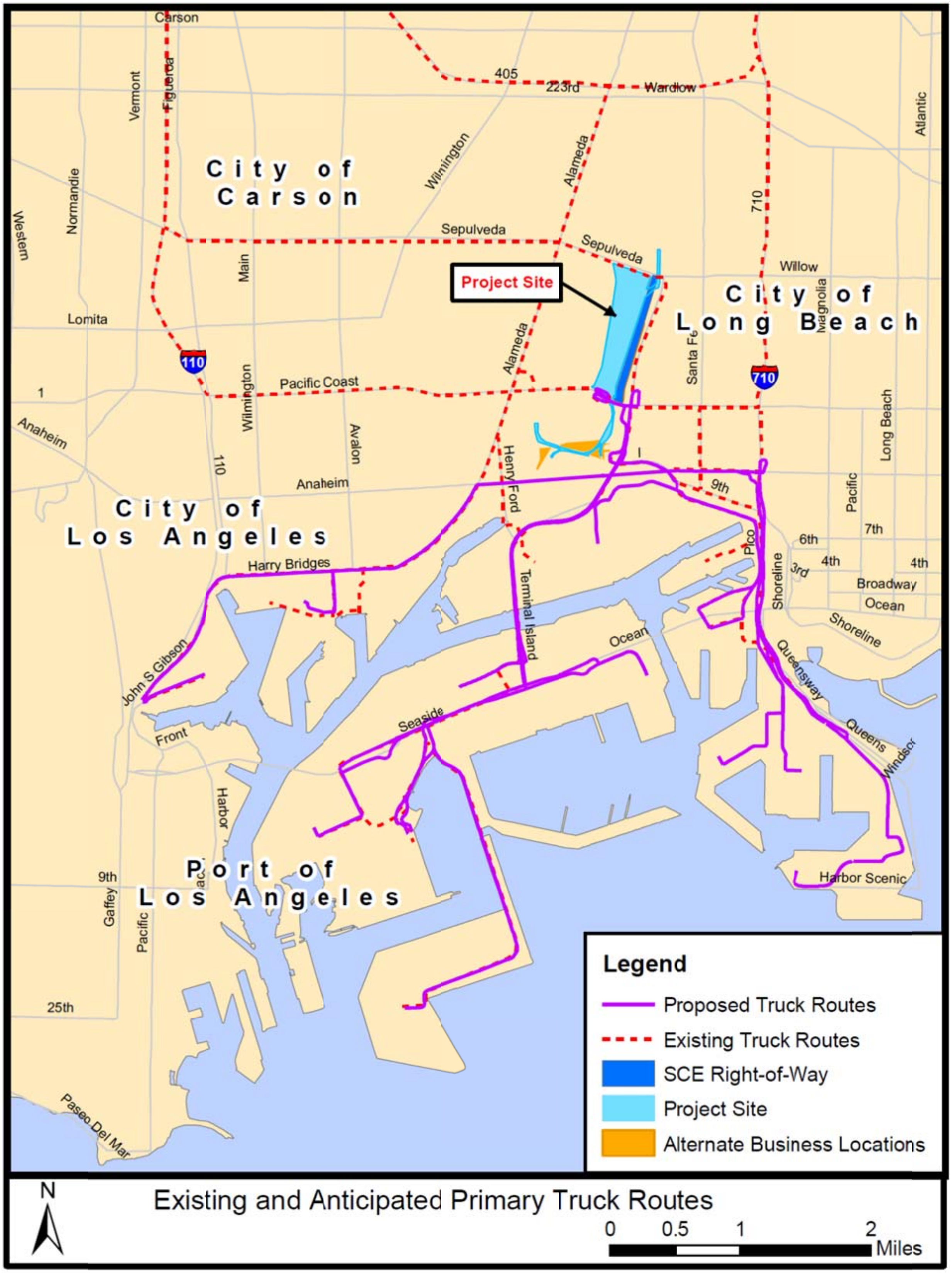


Table 2-2. Summary of Proposed SCIG Railyard Features and Operations.

Element	Description
Railroad tracks	• 12 loading • 2 support • North lead tracks • South lead tracks • 2 service tracks
Electric-powered rail-mounted gantry cranes (RMG cranes)	• 10 loading • 10 stacking • 90-100 feet in height • Regenerative braking technology
Cargo-Handling Equipment	• 10 Liquefied Natural Gas (LNG)-fueled or equivalent technology yard hostlers • One diesel-powered railcar wheel changer
Drayage trucks	• On-road trucks meeting 2007 EPA on-road standards • Compliant with 2010 CAAP • Use of designated truck routes, monitored by GPS
Locomotives	• Low-emitting switching locomotive engines • Line-haul locomotives meeting 1998 SCAQMD MOU, 2005 CARB MOU and EPA linehaul locomotive emissions standards • Ultra-low-sulfur diesel (ULSD) fuel • Automatic idling reduction devices
Lighting	• Forty high-mast light poles, low-glare crane lighting, perimeter lighting, and roadway lighting. • Automation and efficient directional and shielding features
Truck trips per year (one-way) [1, 2]	• 0.4 million in 2016 • 2.0 million by 2035 (at full capacity)
Train trips per year (round trips)[3]	• 720 trips in 2016 • 2,880 trips by 2035 (at full capacity)
Throughput (TEUs/lifts, direct intermodal cargo only)	• 570,808/308,545 annually in 2016 • 2.8 million/1.5 million annually by 2035
Containers per day	• 857 in 2016 • 4,167 by 2035
Employees	• 93 in 2016 • 450 by 2035

1) The number of trucks is greater than the number of containers to allow for a proportion of "bobtail" (i.e., unloaded) trips in cases where a truck is not loaded in both directions. The ratio of truck moves to containers is 1.33:1.
2) Total trips; the number of trips in each direction would be half of the total.
3) A train is assumed to carry 260 containers; the number of train moves per day would be double the number of round trips (i.e., one inbound move, one outbound move).

Figure 2-4. SCIG Designated Truck Routes.



2.4.2 Proposed Project Elements

This section describes the physical elements of the proposed Project. Construction activities and phasing are described in Section 2.4.3 and operational activities are described in Section 2.4.4.

2.4.2.1 Property Acquisition and Disposition of Businesses

The proposed Project requires acquisition or lease of privately-owned properties by the project applicant BNSF and a new lease for the LAHD properties that would result in certain terminations of existing leaseholds and the movement or displacement of businesses occupying those properties. As a result, the LAHD has offered alternate sites that some businesses could elect to move to as part of the proposed Project. However, the LAHD would not purchase any new properties and would not be responsible for constructing any new improvements at the alternate sites. In the case of the ACTA maintenance yard, however, the LAHD would be responsible for moving its operations to a new site as further discussed below.

Of the existing businesses within the proposed Project site (Table 2-3), only three (a portion of California Cartage, a portion of Fast Lane Transportation, and the ACTA maintenance yard) are assumed to move to alternate sites on nearby properties for the purposes of this analysis. In the case of California Cartage and Fast Lane, this assumption is conservative because it accounts for the businesses that have relatively high activity levels and large operating footprints within and adjacent to the proposed Project site. However, the final selection of businesses that would ultimately occupy the alternate sites would be subject to real estate negotiations that are beyond the scope of this EIR. All other remaining businesses within the proposed Project site on LAHD properties would have their leases non-renewed/terminated and those on non-LAHD properties would be removed upon acquisition of the properties by BNSF. The displaced businesses for which no alternate locations were identified as part of the proposed Project or during the time of this analysis are assumed to move to other compatible areas in the general port vicinity as part of their own business operations and plans. Potential future locations identified would be subject to separate environmental review by the lead agency with jurisdiction over a particular site. This issue is considered in more detail in Chapter 3.8 Land Use.

Potential alternate locations for a portion of Fast Lane Transportation, the ACTA maintenance yard, and a portion of California Cartage operations are depicted in Figure 2-5. The ACTA maintenance yard would move to an approximately 4-acre site just west of the Dominguez Channel. This analysis assumes that Fast Lane would move a portion of its operations from within the area of the South Lead Track to an approximate 4.5-acre site just southwest of its current location. Fast Lane would continue to maintain its operations (including the subtenant California Carbon) on the remaining parcels it owns or occupies outside of the South Lead Track area, estimated at approximately 24.5 acres; those parcels are not part of the proposed Project. The 4.5-acre site that Fast Lane is assumed to occupy includes access roads and a rail line. In this analysis the roads are assumed to remain active and in use in order that Fast Lane and other businesses in the immediate vicinity have access to their sites. The rail line, which connects the Long Beach Lead Track to the San Pedro Branch, would also remain active. These features could affect the amount of land available for business operations within the site as a whole. However, this analysis assumes, in order to be conservative, that the maximum amount of land would be 4.5 acres.

This analysis assumes that California Cartage would move a portion of its operation to a 10-acre site where the current ACTA maintenance yard is located near the South Lead Track area. Currently, access to this site is via roads through the 4.5-acre parcel described above. Once the South Lead Track is constructed, this site would be entirely surrounded by active rail lines; the current access would be modified to cross the South Lead Track. Accordingly, although the site would likely experience some access constraints due to rail activity, this analysis assumes that business operations could occur on the 10-acre site. Within the SCE corridor, California Cartage is also assumed to maintain the property it currently leases from SCE, which is estimated to be 19 acres.

For the remaining business on the SCE corridor where the North Lead Track would be located, it is assumed that Three Rivers Trucking would be displaced, given that SCE's operating policies do not allow the construction of any new structures within its right of way, and that Three Rivers Trucking would not be able to operate its business without a new dock and warehouse as indicated in their comment letters received on the Draft EIR (SCE, 2012 and Haft, 2012). BNSF would negotiate a new lease with SCE in order to accomplish the necessary construction for the North Lead Track.

Access to the alternate sites identified as part of the proposed Project and the routes businesses would potentially use in order to connect to the heavy overweight corridor for the movement of 40-foot or larger containers are further discussed in Section 3.10, Transportation.

Table 2-3. Disposition of Existing Businesses.

Business Name	Site Location and Operations
California Cartage	Move to 10-acre site south of PCH currently occupied by the ACTA maintenance yard and maintain 19-acre parcel currently leased from SCE. Operations reduced by 72% based on acreage.
ACTA Maintenance Yard	Move to vacant 4-acre site west of the Dominguez Channel. No change to activity.
Fast Lane Transportation	Move a portion of its operations to a vacant 4.5-acre site immediately southwest of current location. Operations on remaining 24.5 acres stay the same (including subtenant operations by California Carbon). No change to activity.
Total Intermodal Services	Displaced from Project site; no alternate location identified as part of the Project.
Three Rivers Trucking	Displaced from Project site; no alternate location identified as part of the Project.
Flexi-Van	Displaced from Project site; no alternate location identified as part of the Project.
San Pedro Forklift	Displaced from Project site; no alternate location identified as part of the Project.
LA Harbor Grain Terminal/Harbor Transload	Displaced from Project site; no alternate location identified as part of the Project.

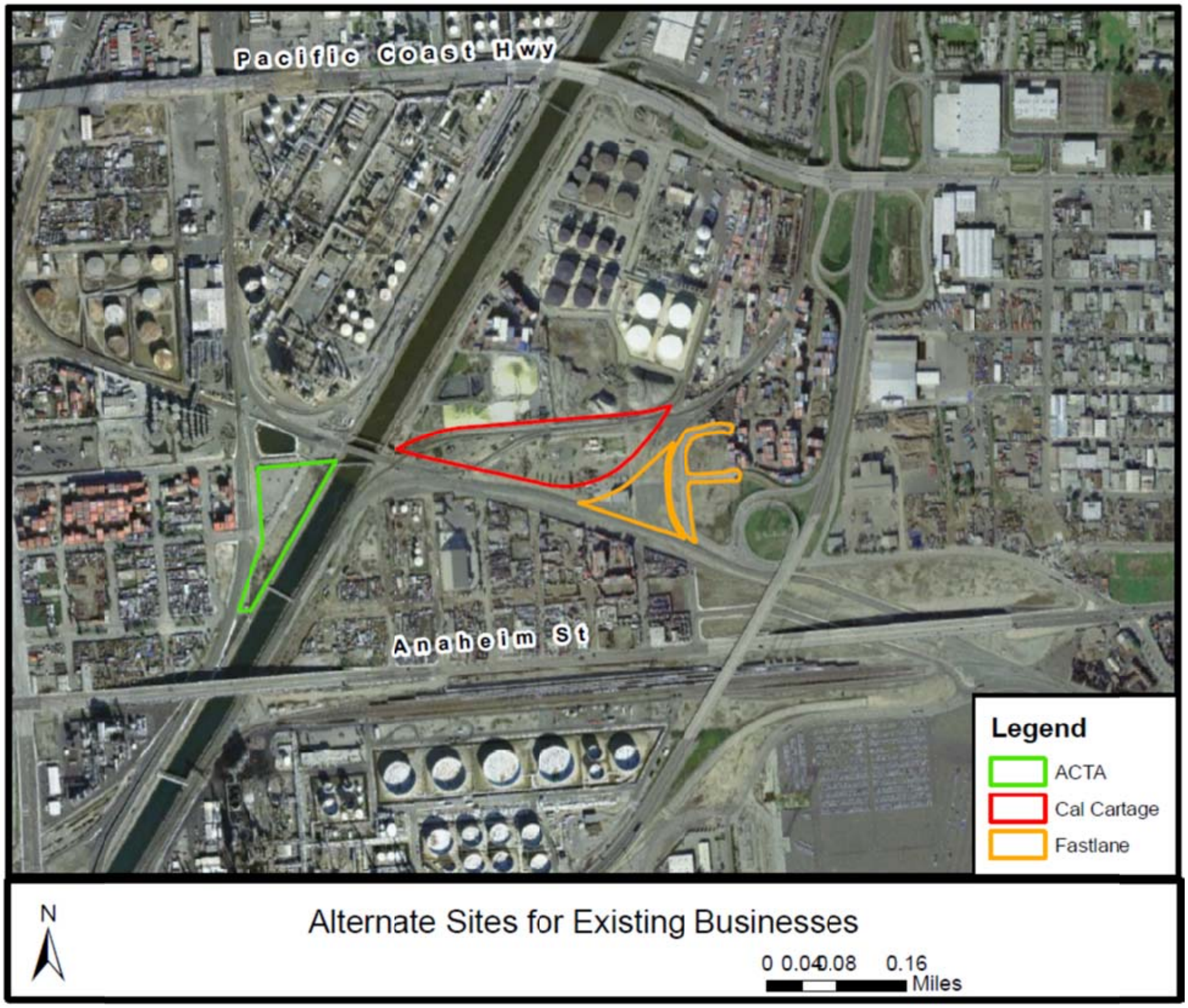
For the purposes of this EIR, the three businesses assumed to move to the alternate sites (a portion of Fast Lane, ACTA maintenance, and a portion of California Cartage) would continue to operate on their existing sites throughout 2013 while construction of their new facilities and certain proposed Project elements proceeded. For the ACTA maintenance yard, the new facility would consist of a maintenance/office building and a storage yard with perimeter fencing. Offices, warehouses, and maintenance facilities for Fast Lane and California Cartage would also need to be constructed by those businesses.

The structures would likely be of modern steel and/or concrete construction and are assumed generally to resemble the existing structures in size and appearance, except that the California Cartage warehouses would be smaller, more modern, and more efficient structures than the existing warehouses, given the large reduction in property acreage and the fact that the existing California Cartage warehouses are very large World War II-era structures that have been adapted to a truck-based transloading operation. Maintenance facilities could include above-ground storage tanks for vehicle fuel. In 2014, it is assumed those businesses would begin operation on their new sites and in combination with their existing sites that would remain in the case of California Cartage and Fast Lane, as described in Table 2-3, while the remaining proposed Project elements were constructed.

This EIR assumes that the businesses that move a portion or all of their operations to alternate locations would operate at the same levels on their new sites as they would have on their existing sites. In the case of California Cartage, LAHD has requested information regarding how California Cartage intends to maintain or scale down their operations at the alternate location in combination with the SCE parcel they lease. At the time of the analysis in the original Draft EIR, California Cartage had provided some information related to truck parking but none related to transloading operations (California Cartage communication, 2009). In their comment letter on the Draft EIR California Cartage stated that they would not be able to conduct a transloading operation on the 10-acre site and that it could only be used for storage and maintenance (Curry, 2012). In order to be conservative, however, this analysis assumes that a transloading operation or operation of a similar intensity could be conducted on the 10-acre parcel and the SCE parcel. Accordingly, the transloading activity at their current 105-acre site is assumed to be reduced by approximately 72 percent based on the available acreage at the new 10-acre alternate location and the existing 19-acre SCE parcel. This is a conservative assumption because it assumes that California Cartage would continue to provide some transloading (including parking) services at the alternate location and on the SCE parcel if permitted by SCE in accordance with their land use policies. California Cartage's access to the 19-acre SCE parcel would be through a new driveway and access road from Sepulveda Boulevard through the SCE right of way which is further discussed in Section 2.4.2.5. BNSF would negotiate a new lease with SCE in order to accomplish the necessary roadway improvements.

Minor property acquisitions by BNSF in the area of the proposed South Lead Tracks would also be necessary in order to provide adequate space for the track alignments as well as construction staging areas. None of those acquisitions would necessitate moving businesses, as all involve small, vacant parcels of land. Those businesses include Tesoro, Praxair, and rights of way owned by Los Angeles County, Equilon, and Harbor Oil Company (see Table 2-1).

Figure 2-5. Potential Alternate Sites for Businesses.



2.4.2.2 New Railyard

The SCIG facility would be centered around a railyard that would consist of trackage for the trains that would move containers in and out of the port area. The railyard would have three major sets of tracks (two sets of loading tracks, one of storage tracks) to support train operations (Figure 2-3a). These tracks would comprise a total of approximately 105,000 feet of track (including the south lead tracks, see below) and at least 37 switches. The railyard would also include a number of support elements as described below.

Loading (Strip) Tracks. The train loading and unloading area would consist of 12 tracks, known as strip tracks, each approximately 4,000 feet long and connected at both ends of the railyard to lead tracks providing access to the regional rail network. The strip tracks would run down the center of the facility in two groups of six tracks each, separated by a paved container staging and storage area. The area between the tracks and on either side of the tracks would be paved with concrete or asphalt to support the trucks, yard tractors, and cranes that would load and unload the trains. The rails themselves would rest on concrete ties set in crushed rock known as ballast, which would represent a permeable surface.

Storage Tracks. Two parallel 4,000-foot-long storage tracks would run along the eastern edge of the railyard, parallel to the existing ports-owned San Pedro Branch tracks, from one of the south lead tracks to the north lead tracks.

Service Tracks. Two 1,300-foot-long tracks for minor servicing of locomotives and rolling stock would be located in the southern part of the railyard site. These tracks would be connected to the south lead tracks. As used in this EIR, the terms “service” and “servicing” when used in connection with locomotives refer to minor upkeep activities, such as fueling via mobile fuel truck, cleaning (e.g., wiping windows, removing trash, etc.) and resupplying (e.g., restocking of towels, napkins, water, etc.) of locomotives, while the term “maintenance” refers to major locomotive repairs, load testing, and periodic maintenance of parts, components, mechanical and electrical systems as needed and as required by the Federal Railroad Administration. At times, this EIR may refer to “major servicing” or “major service;” in such instances, the types of activities referred to by such terms are the equivalent of what is meant by “maintenance.” There would be no locomotive maintenance occurring on site; major service and maintenance would be performed at BNSF’s Sheila Commerce Mechanical Repair Facility, located at 6300 Sheila Street in Commerce near the Hobart Yard east of downtown Los Angeles.

Container Loading and Stacking Areas. Three-lane paved areas adjacent and parallel to the strip tracks would be used for trucks to come alongside the trains for loading and unloading. Partially-paved areas for container staging would be located between the two sets of strip tracks, on the west side of the western strip tracks, and in the northern portion of the site. The staging areas would be used as temporary transfer points between trucks and the intermodal trains. The areas near the tracks would be used for stacking containers up to five high (40-foot height). The northern area would be used for truck parking and for storing chassis-mounted containers ready for pickup by trucks.

A portion of the facility in the southwest corner of the site that is designated to accommodate refrigerated containers would be equipped with electrical plugs so that the diesel-powered or dual diesel/electric-powered portable refrigeration units (TRUs) could be switched off while the containers are in the railyard, thereby reducing emissions. Refrigerated containers are expected to constitute approximately one percent of the containers handled at the facility.

Cargo-Handling Equipment. The railyard would have 20 electric-powered RMG cranes, ten servicing each set of strip tracks (Figure 2-3a and b). These cranes would be of a new design not currently in use at California intermodal facilities (but currently in operation at a new BNSF intermodal facility in Memphis, TN), and would move on steel wheels along steel tracks. Ten of the cranes, which would all be operational on opening day, would be 89 feet high and 210 feet wide, enough to span a group of six strip tracks (rather than the two tracks conventional cranes span), the adjacent truck lanes, and half of the adjacent container staging area. This span would be due to extensions of lifting components of the cranes that would be cantilevered out over the last two tracks on one side and half of the stacking area on the other. These cranes, which would run on their own rails set 120 feet apart, would load and unload the railcars and chassis. The other ten cranes would be 98 feet high and 169 feet wide, enough span the truck lane on the other side of each set of strip tracks and the entire adjacent container stacking area, and would manage the stacks of containers. The cantilevered extensions of these stacking cranes, which would operate on rails set 102 feet apart, would be able to pass over the shorter

RMGs used to load the trains (Figure 2-3a), thereby maximizing the efficiency of the stacking and loading/unloading operations. The stacking cranes would be installed over a period of several years, beginning in 2015, as throughput increased.

The use of electric-powered, rail-mounted gantry cranes rather than the diesel-powered, rubber-tired gantry cranes (RTGs) used in marine terminals and intermodal rail yards is consistent with the terms of the CAAP. The cranes would be a modern design that would include regenerative braking mechanisms that would return power to the grid during braking and the container lowering phase of operations.

A small proportion of the chassis would be drayed between the chassis storage areas and the strip tracks by up to 10 yard hostlers (hostlers are tractors used to haul chassis-mounted containers around inside the facility). The hostlers would be equipped with LNG-fueled or equivalent engines that would not be a source of diesel emissions.

A small, rubber-tired, wheel change machine would be used to change out faulty railcar wheels. This piece of equipment would have a clean diesel engine, consistent with the terms of the CAAP. The facility would also include 14 gasoline-powered service support vehicles for transporting personnel and light equipment around the facility.

Office and Maintenance Area. The office and maintenance area would be located in the northwest portion of the proposed Project site (Figure 2-3a) and would include an administrative office building, a hostler maintenance building, a crane maintenance facility for servicing the rail-mounted and wheeled cranes, and a driver assist facility. Other maintenance elements, which would be located elsewhere in the facility, would include an air compressor building (for supplying compressed air to the train brake systems), a fueling facility (including a 1,000 gallon above-ground storage tank) for yard equipment, and an electrical substation. The use and storage of hazardous materials (fuel, lubricants, paints, and solvents for use in the facility) would be limited to these areas.

The administration building would be a three-story structure with approximately 26,000 square-feet (sq. ft.) of office space to house BNSF and contract personnel. The hostler and crane maintenance building would be a single-story building of approximately 19,000 sq. ft. Given their sizes, both buildings fall under the POLA's LEED (Leadership in Energy and Environmental Design program) criteria. Accordingly, they would be designed to LEED standards to meet energy-efficiency and sustainability goals, including passive heating and cooling design, ecologically sound structural materials and coatings, and energy-efficient heating, lighting, and ventilation systems. The air compressor building would be an approximate 1,000 to 1,500-sq-ft, single-story structure.

Truck Gate Complex. Inbound and outbound gates would form a complex at the northwest end of the facility near Sepulveda Boulevard. Both gates would include access lanes, a portal, and a checkpoint. Trucks and other traffic would enter and leave the facility via paved, 3,500-foot access lanes located along the west boundary of the railyard. The inbound and outbound lanes would connect to PCH just south of the railyard. For most of the distance along the railyard there would be one lane in each direction, but at the north end of the railyard, at the checkpoint, the lanes would widen to eight in each direction.

The in-gate portal would be a small building located next to the inbound access lane midway between the PCH off ramp and the facility checkpoint. The outbound portal would be near the north end of the outbound lanes. The portals would allow trucks to be digitally inspected via cameras using optical character recognition technology to document the condition of the equipment, to check the integrity of the shipping seals, and to verify the identity of the container and chassis.

The inbound checkpoint would be at the end of the queuing lanes, at the entrance to the railyard, and the outbound checkpoint would be a kiosk south of the outbound portal. The inbound checkpoint would consist of approximately twelve (12) gate booths covered by a 222-foot-wide canopy with a small driver assistance building nearby. The portals and checkpoints would not be staffed directly; rather, all transactions would be conducted by computers and cameras linked to operators in the administration building. The driver assistance building would be staffed.

Utilities and Lighting. Electrical service would be provided by either LADWP or SCE, likely via a new 23kVa connection to a nearby substation together with another 23kVa connection to a separate substation for redundancy. The facility would be provided with a modern storm drain system that would meet the requirements of the City of Los Angeles MS4-NPDES. More detail on the storm drain system is provided in sections 3.11 (Public Service and Utilities) and 3.12 (Water Resources). New potable water and on-site sanitary sewer systems would be constructed, but the site's existing sewer mains to the Los Angeles County Department of Public Works facilities would be used (since the site would support fewer workers than at present, the sewers would not need to be upgraded).

The proposed facility would include 40 high-mast light standards, crane lighting incorporating on-demand technology; perimeter lighting; and roadway lighting. The lighting would include automation and efficient directional and shielding features in accordance with LAHD lighting policy/practice in order to minimize light spillover into adjacent facilities and residences and to minimize energy use. The crane lights would illuminate only when the cranes were in operation (moving or actually lifting or placing containers).

Landscaping. Landscaping would be installed around buildings and along fence lines where appropriate and compatible with security. Landscaping would be consistent with LEED standards (low-water plants, of native species where feasible). Landscaping compatible with Caltrans standards (i.e., drought-tolerant, low maintenance ground cover and shrubs) would be installed in the area of the new PCH interchange (Section 2.4.2.5).

In addition, a condition of the proposed Project (Section 3.1.5) will be that BNSF endeavor to install an area of intensive landscaping along the western side of the Terminal Island Freeway, east of the SCE right of way. This feature, would consist of several hundred trees of native species selected to be drought-tolerant and non-invasive.

2.4.2.3 North Lead Tracks

Two north lead tracks, one from each group of six strip tracks, would cross Sepulveda Boulevard on an existing bridge, which would need to be replaced, to connect the proposed Project to the Ports' San Pedro Branch track. These approximately 1,000-foot-long tracks would allow trains to uncouple or couple two train halves on the loading tracks, but they could be used for train access to the railyard from the San Pedro Branch in an emergency in the event the south lead tracks are inoperable. The north lead tracks would cross SCE property, including an access road to the SCE land and SCE businesses (i.e., a portion of California Cartage), via an overpass (Figure 2-8). In addition, several of the electrical lines on SCE property would need to be raised in order to provide clearance for the north lead tracks that would be elevated in this area. To accomplish this, the existing transmission and subtransmission towers would be removed and new towers would be built nearby. SCE would need to relocate its communication line from the existing towers to temporary poles until the new towers were built, at which time the line would be attached to the new towers.

2.4.2.4 South Lead Tracks

The two south lead tracks, each approximately 4,000 feet long, would link the proposed Project to the Alameda Corridor, west of the facility, and would serve as the facility's connection to the regional rail network; normally, all trains would enter and exit the facility on the south lead tracks. These lead tracks would enable an 8,000-foot-long train to exit the Alameda Corridor and enter the facility without interfering with Alameda Corridor main line operations, and conversely, would allow an outbound train to couple two train halves together into one train without interfering with Alameda Corridor main line operations.

After exiting the railyard, the south lead tracks would curve westward under PCH, cross the Dominguez Channel on a reconstructed bridge, and then join the Alameda Corridor mainline tracks. To accommodate the new tracks a number of modifications would be made to existing trackage, including relocating the existing Long Beach Lead tracks and installing switches, widening the Dominguez Channel rail crossing, relocating the industry lead tracks along the Alameda Corridor, and installing switches to connect the lead tracks to the Alameda Corridor.

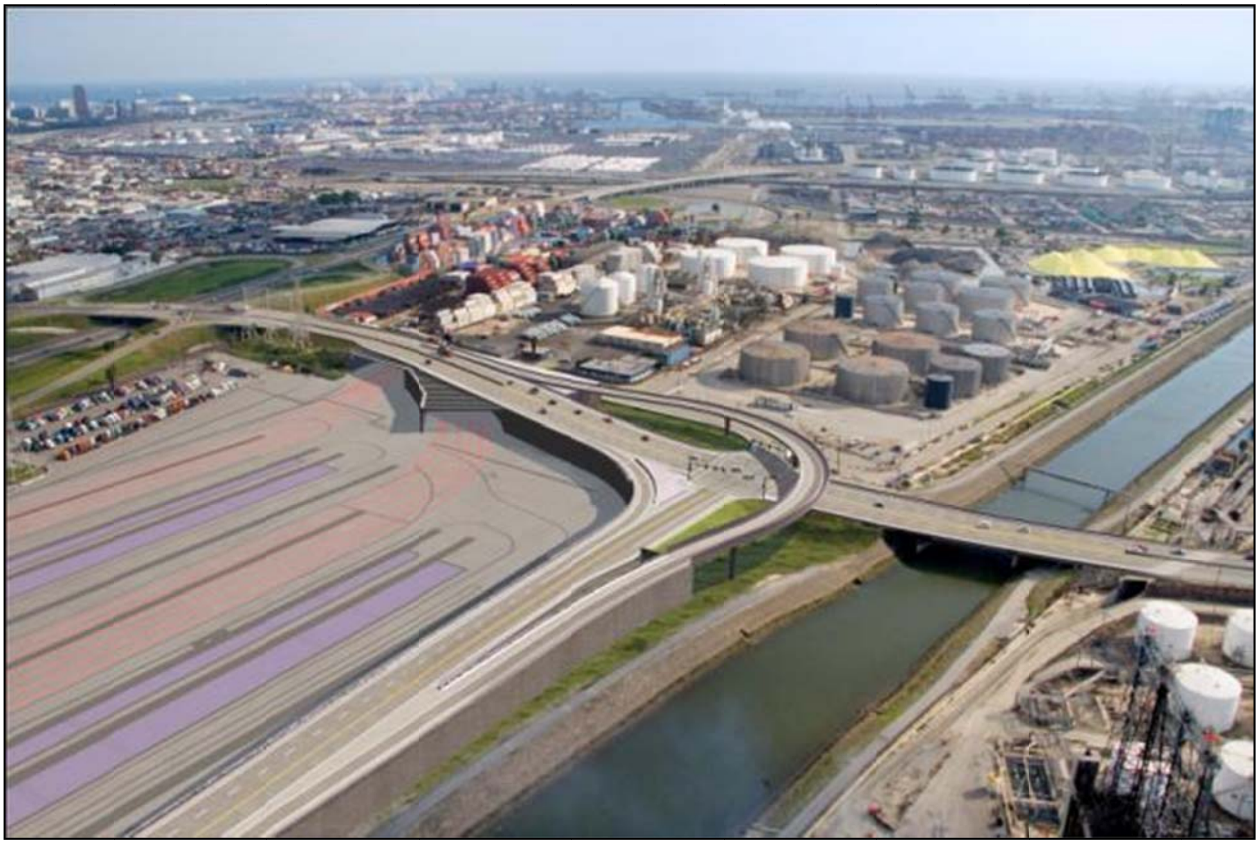
A locomotive service area consisting of two short tracks would be located adjacent to the south lead tracks on land south of PCH. Both the yard switching locomotive and line-haul locomotives would receive minor service, including fueling, interior cleaning, and re-stocking, in this area (major service and maintenance would be performed at BNSF's Commerce Mechanical Repair Facility located –on Sheila Street near the Hobart Yard). Because the fueling would be accomplished by mobile fuel trucks, there would be no fixed fuel tanks at the service area.

2.4.2.5 Roadway and Rail Bridge Access Elements

The proposed Project would include a number of roadway and trackage improvements outside in order to provide truck and train access to the SCIG facility.

Grade Separation at PCH. A new interchange would be constructed on PCH next to the Dominguez Channel (Figure 2-6). The interchange project would include new ramps connecting the SCIG access road to the westbound PCH and a reconstructed interchange connecting the SCIG access road to the eastbound PCH.

Figure 2-6. Proposed PCH Overpass (view to the south).



Although there is an existing road underpass(E Road), there is no existing rail underpass beneath PCH. To accommodate the transition of the twelve strip tracks into the two south lead tracks, it would be necessary to construct a rail underpass that could accommodate eight tracks. The existing PCH bridge spanning the SCIG access road between the eastbound PCH and the proposed Project site would, therefore, need to be lengthened to allow the southern portion of the strip tracks as they join the south lead tracks to pass under the PCH on the way to the Alameda Corridor. In addition, this bridge lengthening would allow the SCIG access road to be widened to two lanes. The new road underpass would allow trucks exiting the facility to proceed eastbound directly onto PCH to the Terminal Island Freeway, thereby facilitating access to designated truck routes. This change would involve relocation of abutments and support piers, replacing the existing bridge spans with new spans of increased length, and constructing new roadway. The new interchange would maintain access from PCH to E Road and the businesses south of PCH (e.g., one of Fast Lane's other sites, Praxair, Vopak's tank farm, California Sulfur Company, and a LAHD aggregate crusher facility).

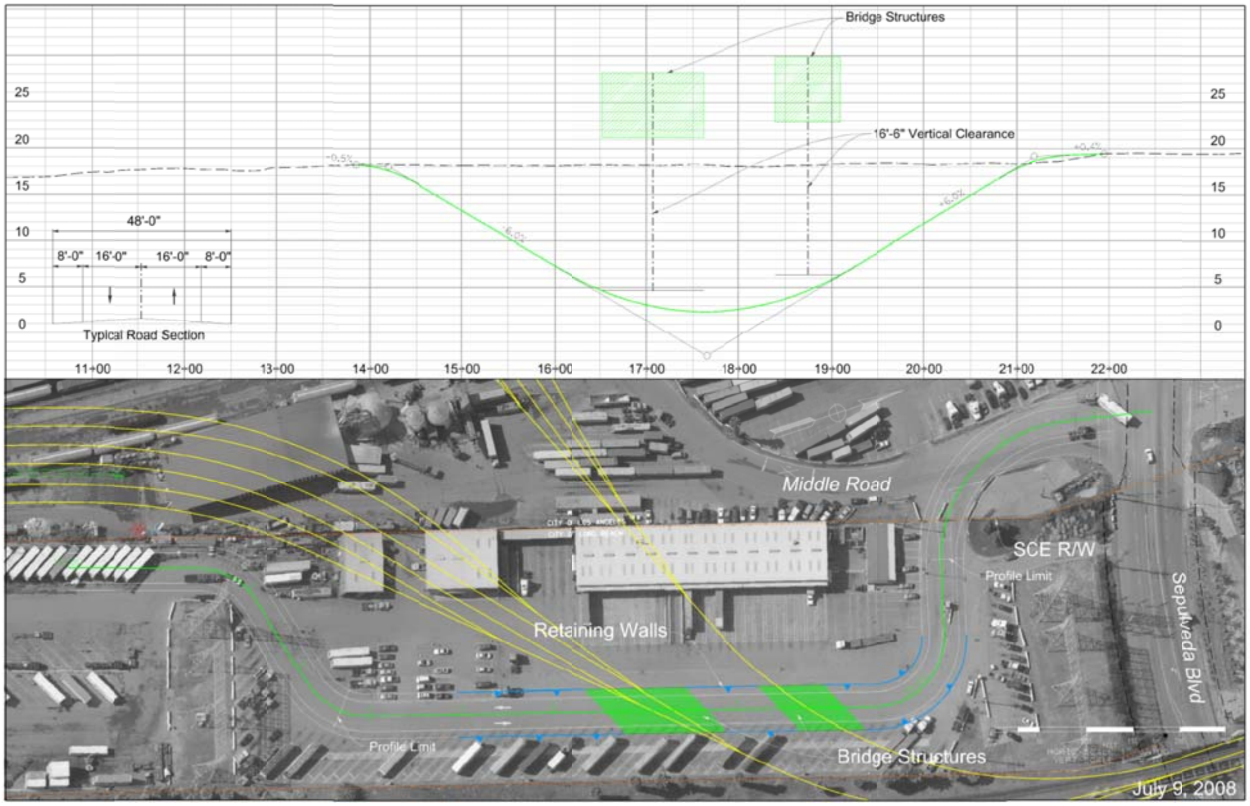
Dominguez Channel Bridge. The rail bridge over the Dominguez Channel would need to be widened to accommodate the south lead tracks as shown in Figure 2-7. This would involve widening the abutments and piers, and placing a new span wide enough to accommodate four tracks.

Figure 2-7. Proposed Dominguez Channel Rail Bridge.

Southern California Edison Access Road. The North Lead Tracks would cross a portion of the SCE property along the east side of the proposed Project site through an easement that BNSF would negotiate (Figure 2-8). A bridge would carry the tracks over an existing access road to the SCE property that is located at the north end of SCE's property. The tracks would be supported by two separate bridge structures. The SCE access road would be upgraded to the standards of AASHTO Edition 5 (2004) to allow it to serve as the primary access for the portion of California Cartage that is assumed to stay on the property leased from SCE and for SCE. The access road would also be dropped below existing grade for a short distance in order to pass under the proposed North Lead Tracks.

The access road would start at the existing intersection of Middle Road and Sepulveda Boulevard, which is located approximately 600 feet west of the Terminal Island Freeway. The road would be approximately 1,400 feet long, with a 700-foot-long depressed section running under the railroad tracks, and 48 feet wide, providing a 16-foot-wide travel lane in each direction and 8-foot-wide shoulders. At the point where it crosses under the tracks the road would have a 16'-6" vertical clearance and a 6% grade through the depressed section, and be supported by retaining walls on each side. Appropriate drainage systems would be provided to maintain accessibility at all times during the rainy seasons. The geometry of the access road would meet design standards for large trucks pulling 45-foot containers and would not interfere with the existing SCE tower legs. It is expected that this access road would be private. In addition, emergency access to the SCE parcel would be provided at several points throughout the proposed railyard.

Figure 2-8. Southern California Edison Access Road.



Sepulveda Boulevard Bridge. The existing railroad bridge over Sepulveda Boulevard would be replaced by a modern bridge capable of carrying three tracks (the existing bridge can only carry one track for modern trains), in order to accommodate the proposed north lead tracks. The new bridge would include widened approaches and abutment areas. This document assumes that the new bridge would be constructed of reinforced concrete in a modern design, but it is possible that noteworthy architectural features of the existing bridge would be salvaged and re-used in the new bridge for aesthetic and cultural preservation reasons.

2.4.3 Construction Activities and Phasing

Construction of the proposed project would occur over approximately a 36-month period from 2013 to 2015, with the erection of cranes occurring in 2015 (Figure 2-9). Construction activities would occur essentially simultaneously in three major areas:

1. The railyard including the north lead tracks and railroad bridge over Sepulveda Blvd;
2. PCH grade separation and interchange;
3. The south lead tracks area along the Long Beach Lead and Alameda Corridor, including the Dominguez Channel Bridge.

Figure 2-9. Construction Schedule.

Depending on the amount of construction activity at any given time, there would be 30 to 150 workers per day, 12 to 30 pieces of construction equipment, and 30 to 150 vehicles transporting workers and materials to and from the various construction areas. Construction would normally occur during one 10-hour shift per day, up to 6 days per week, consistent with City of Los Angeles code requirements to reduce noise (and, for the portion of construction within the City of Long Beach, consistent with the City of Long Beach code requirements). However, this document assumes that nighttime construction would occur on the PCH grade separation as a requirement of local authorities to maintain traffic flow.

Specific construction activities for the proposed Project elements are described in more detail below. Detailed information on the types and numbers of construction equipment are presented in sections 3.2 (Air Quality) and 3.10 (Transportation), and details of construction quantities and techniques are presented in Appendix C.

Activities common to all construction activities would include servicing construction equipment at designated areas; transporting construction workers, supervisors, and inspectors onsite in light-duty trucks and light buses; and controlling dust, track-out, and erosion by following a Construction Storm Water Pollution Prevention Plan that would require storm water best management practices such as wetting, wheel washing, erosion barriers, hazardous materials containment, and site inspections (see Section 2.4.3.1).

In addition to construction of the railyard, construction activities would occur to support moving existing businesses to alternate locations. These would include demolition of existing structures at the alternate business locations and construction of new structures (a maintenance facility and offices for Fast Lane, a maintenance/office building for the ACTA facility, and offices, warehouses, and maintenance facilities for California Cartage) and grading/paving activities for on-road vehicle access (see Section 2.4.2.1 for details of alternate business facilities).

2.4.3.1 General Construction Practices

A number of construction practices would be common to all elements of construction, including storm water management, waste management and pollution control, and staging area management.

Storm Water Management. All construction sites would be managed in accordance with the proposed Project's National Pollution Discharge Elimination System (NPDES) construction storm water permit, which would require a storm water pollution prevention plan (SWPPP) for each site. The SWPPPs would be developed by the LAHD, BNSF, the contractor, and the construction management team, and no construction would start until the SWPPPs had been approved by the LAHD. The SWPPPs would specify the best management practices (BMPs) to be followed at each site to minimize or eliminate discharges of water pollutants to surface and ground water via runoff from construction areas.

BMPs would include both procedural controls and structural controls. Procedural controls would include minimizing the amount of exposed soil at any one time during grading operations; washing dirt off construction vehicles before they leave the site; refueling construction equipment only in designated areas; keeping construction materials, fuels, lubricants, and solvents in designated containment areas; protecting storm drain inlets with covers, filters, or sandbags; and conducting regular inspections of procedures and structures. Structural controls would include installing and maintaining berms, catchment areas, and filters, and installing grates and wheel washers at site exits. Contractors would be required to implement the provision of the SWPPP, and the construction manager would be responsible for ensuring that compliance and for ensuring that the SWPPP is modified as necessary during the construction phase to respond to changing conditions and address ineffective BMPs.

Pollution Control. Construction equipment and practices would conform to CAAP's Construction Activity measure, as implemented by the LAHD's Sustainable Construction Guidelines (adopted February 2008). Specifically, all construction equipment would be fitted with mufflers, all engines would be maintained regularly, the construction contract would specify the use of newer off-road equipment meeting USEPA Tier-2 off-road standards and fitted with diesel emissions control devices, as appropriate, and the use of on-road trucks meeting the 2004 on-road standards, and the contractors would be required to comply with SCAQMD Rule 403.

Dust control would include regular, frequent spraying of exposed soils by water trucks, minimizing the amount of exposed soil by staging excavation and backfill, conducting regular street sweeping and street wash down (employing storm water controls), rinsing soil and dust off vehicles exiting the sties, and potentially applying surface stabilants with spray trucks to areas that must be exposed for prolonged periods.

Non-hazardous recyclable solid wastes generated from construction (piping, welding and coating wastes, scrap lumber and cardboard) would typically be hauled to local recycling centers. Asphalt and concrete would be recycled on-site for use in project construction. Used hydrostatic test water would be treated as required and discharged under permit. Contaminated soils or groundwater could be encountered during the construction of pipelines and. would be sent to a permitted treatment or disposal facility in accordance with local, state, and federal regulations (see Section 3.7 for more detail).

Staging and Storage Areas. Sites for equipment laydown, material storage, construction management, and worker parking and staging would be located on the proposed Project site, Sepulveda Boulevard bridge site, and adjacent to the PCH and Dominguez Channel sites. Storage yards and staging areas would be on sites that have already been improved, with access to large commercial streets to allow easy movement of personnel and equipment. It is anticipated that the majority of materials would be brought in during off-peak traffic hours, with the primary exception being concrete, which must be mixed and delivered within a limited window of time.

Construction material would also be stored at contractors' existing facilities as well as at those of suppliers providing equipment, materials, or labor to the proposed Project. Aggregate, concrete, asphalt, sand, and slurry materials would be purchased locally (when available) and storage would be provided by local suppliers or in one of the designated storage areas. Staging and storage areas would be protected with storm water controls in accordance with the proposed Project's construction storm water permit and Storm Water Pollution Prevention Plan (SWPPP; see Storm Water Management, above).

Hazardous Materials Abatement. Prior to demolition, existing structures would be inspected by qualified personnel for the presence of asbestos-containing materials. If asbestos is found in a material that will become friable during demolition, then these materials would be removed and disposed of in compliance with EPA and Los Angeles County regulations prior to demolition. The appropriate notification would be made to these agencies prior to demolition.

Public Utility Management. Prior to the start of construction BNSF would prepare, or cause to be prepared, a Public Services Relocation Plan that would describe the procedures for minimizing public services and utility service disruptions in the Project area. The Plan would be developed with input from the service providers for the Project site and would be submitted to city regulatory departments (Los Angeles, Long Beach, and Carson) for review and approval**.** The Plan would include the following measures:

- Prior to disconnecting any existing services, new facilities (i.e., water, sewer, communications, gas, and electricity) would be installed. Pipeline installation would occur within existing utility corridors/easements to the extent possible.
- As demolition activities progress, unnecessary facilities and connections would be eliminated and new facilities and connections activated.
- Minor service interruptions (those lasting 1 day or less) could occur during the transition between obsolete and newly installed facilities and services. Affected properties would be properly notified prior to any service interruption.
- Full access to all utilities would be restored upon completion of Project construction.

It is anticipated that similar measures would be undertaken by the alternate business sites during the construction.

Traffic Management Plan. A traffic management plan containing traffic control measures conforming to the requirements and guidance of the Los Angeles Department of Transportation (LADOT), Caltrans, and the cities of Carson and Long Beach, would be required at the time construction permits are obtained. Potential measures may include detour plans, limiting major road obstructions to off-peak hours, coordination with emergency service and transit providers, coordinating access with adjacent property owners and businesses, and advance notice of temporary parking loss or use of detour roads. At a minimum, construction-related traffic would be prohibited from entering residential areas and only local roadways and highways would be utilized. The details of the TMP are described in Section 3.10, Transportation.

2.4.3.2 Construction of the Railyard, North Lead Tracks, and Sepulveda Railroad Bridge

Demolition. The proposed Project site and alternate business sites would be cleared of existing structures and miscellaneous site features such as pavement, curbs, signs and above-ground utilities prior to construction. These structures principally consist of: (a) three warehouses; (b) several small buildings/structures; (c) pavement; and (d) access roads and railroad tracks. The demolition debris would be recycled on-site (asphalt and concrete) or transported to an offsite recycling or disposal facility. The demolition would require approximately four to five months to complete.

Underground Utilities. A number of underground pipelines would need to be relocated or reinforced in place in order to accommodate the configuration, weight, and vibration of the proposed facility. This work would involve trenching both to access the existing pipelines and to construct new alignments, cutting and disposal of pipelines, concrete work, and construction of ancillary features (e.g., cathodic protection, valves, inspection ports). The underground utility work would require approximately four to five months to complete.

Earthwork. Earthwork would include excavating, repositioning, and compacting approximately 325,000 cubic yards of earth and hauling another 175,000 cubic yards offsite for reuse elsewhere or disposal in approved landfills. Some of the soils could require environmental remediation prior to or during the earthwork phase of construction if contamination is discovered. In that case, testing and disposal would be conducted under the oversight of approved environmental professional in accordance with local, state, and federal regulations (see Section 3.7 for more detail). Earthwork would require approximately 9 months to complete.

Drainage and Utility Construction/Relocation. Underground utilities and drainage piping would be installed at the Project site and alternate business sites at the same time as the earthwork takes place. The project would require relocation of the above-ground Los Angeles Department of Water and Power (LADWP) electrical power lines. The existing SCE electrical power lines and towers would not be relocated except, as noted in Section 2.4.2.3, for the SCE electrical lines in the vicinity of the south side of Sepulveda Boulevard that would need to be raised to accommodate California Public Utility Commission vertical clearance requirements where the north lead tracks would traverse the SCE right of way to connect to the San Pedro Branch tracks. The underground utility work would involve opening of trenches, installation of underground services, and closure of trenches, and would require approximately six months to complete.

Fine Grading and Sub-grade Preparation. As the earthwork and drainage/utility phases are completed, fine grading of unpaved areas and sub-grade preparation of areas to be paved would commence. Approximately 245,000 cubic yards of aggregate base course would be delivered to the facility and to alternate business sites as necessary, where it would be spread by bottom dump trucks. This work would require approximately two months to complete.

Paving. Approximately 10,000 cubic yards of reinforced concrete and 310,000 tons of asphalt-concrete would be poured at the site in the construction of roads, truck lanes, parking areas, curbing, crane runways, container stack runways, structure foundations, and building pads. Traffic control barriers would be installed, and the paved areas would be striped. This work would require approximately 3 months to complete.

New Buildings. Buildings and other structures to be constructed at the project site and alternate business sites would include administrative buildings; warehouses; a driver assist building; hostler, crane, and general maintenance structures; checkpoint structures; and light towers. Building construction would require the delivery and installation of structural steel, concrete, siding, roofing, interior paneling, interior utilities, surface coatings, and equipment. This work would require approximately 9 months to complete.

Track Work and Signal Installation. Approximately 46,000 feet of track (consisting of ties, rails, tie plates, joint bars, spikes, and various other small materials), and at least 24 switches would be installed. Aggregate materials (crushed rock and ballast rock) would be placed and the tracks leveled and straightened. Signal equipment necessary to control movement of trains to and from the facility would be installed. Track work would take approximately 3 months with crews working one 10-hour shift per day, up to 6 days per week.

Sepulveda Railroad Bridge. The existing rail bridge over Sepulveda Boulevard/Willow Street would need to be replaced to accommodate additional tracks. This work would include widening the existing overpass abutments and installing a new steel span that would carry three tracks over Sepulveda Boulevard/Willow Street.

Construction would proceed in three phases. In phase 1 the existing bridge and UPRR track would be moved approximately 15 feet west to keep the UPRR track in service, and the easterly portion of the new bridge, along with new approaches and retaining walls, would be constructed. New track would be installed along the eastern half of the new right of way that would become the new UPRR track.

In phase 2 the old UPRR track and the existing bridge would be removed and the western portion of the new bridge, approaches, and retaining walls would be completed. The new BNSF North Lead Track would be installed on the new bridge and approaches to complete construction.

The existing bridge would be either a) moved to another location to be preserved as a historical artifact, b) disassembled and partially salvaged for re-use or display, or c) demolished after historical recordation. Certain features of the existing abutments might be salvaged and re-used in the new bridge (see Section 3.4, Cultural Resources, for details regarding the disposition of the existing bridge).

Other existing structures, pavement, and aggregate would be demolished and recycled or disposed of, new pilings would be installed, new concrete abutments would be constructed, and the new span and tracks would be installed. Construction would take approximately 16 months.

Southern California Edison Access Road. Improvements to the SCE access road would include demolition of most of the existing road, grading to lower the road profile and widen the roadbed, dropping the road below existing grade for a short distance in order to pass under the proposed north lead tracks, installing a bridge to carry the tracks over the road, installing pavement, curbs, and storm drainage, striping the new pavement, and installing signage as necessary. Excavated soil would be either used elsewhere on the Project site or hauled away for appropriate disposal (most likely, sold to a soil broker or used as landfill daily cover). Graders, haul trucks, concrete cutters, paving equipment, concrete trucks, and utility vehicles would be used. An alternative access road approved by the SCE, LADOT, POLA, and Caltrans would be established to maintain access to SCE property during construction. This work would take approximately 120 days.

2.4.3.3 Construction of the Pacific Coast Highway Grade Separation

The existing PCH Bridge that spans the access road off of PCH into the proposed Project site would be modified to accommodate the south lead tracks and access roads. Modifications would include relocation of abutments and support piers, replacement of the existing bridge spans with new, longer spans, and reconstruction of the PCH roadway over the new underpass. Construction would include demolition of the existing structure and pavement, installation of new reinforced-concrete pilings, fabrication of structural steel, construction of new concrete abutments, installation of new reinforced concrete spans, and construction of new asphaltic-concrete pavement, including striping, drainage, and curbing. Traffic detours would be implemented in accordance with a traffic plan that would be approved by the LADOT, POLA, and Caltrans. This work would take approximately 22 months.

2.4.3.4 Construction of South Lead Tracks and Dominguez Channel Bridge

Construction of the south lead tracks would require widening the Dominguez Channel rail bridge to accommodate the additional tracks.

Earthwork and Utilities. Approximately 36,000 cubic yards of soil would be excavated, repositioned, and compacted on the site to bring the site to finish grade. Recycled crushed paving materials would be incorporated into the site to improve its geotechnical qualities. Underground utilities would be relocated as necessary, which would involve trenching and the installation of pipe and conduit, manholes, and catch basins. Earthwork and utility relocation would take approximately 14 months to complete.

Track Work and Signal Installation. Track construction would involve the installation of approximately 18,000 feet of track, ten switches, and signals as necessary between the primary proposed Project Area and the western end of the reconstructed Dominguez Channel Bridge. Approximately 10,000 cubic yards of sub-ballast and 45,000 cubic yards of ballast materials would be placed in the right of way and then the tracks would be installed, leveled, and straightened. Signal equipment to control the movement of trains to and from the facility, the Alameda Corridor, and other port-area trackage would be installed. This work would take approximately six months.

Dominguez Channel Bridge. Bridge reconstruction would involve widening the abutments and piers, and placing new bridge elements. Soil would be excavated and re-used on site or disposed of, the old abutments would be demolished, piles would be driven into the shoreline, new concrete abutments constructed, and a new steel span fabricated and installed. Work would be staged so as to minimize disruptions of train traffic between the ports and the Alameda Corridor. New pilings and new concrete abutments would require work within waters of the United States. This work would take approximately 12 months.

Landscaping. Following completion of the major site improvements, landscaping would proceed along the site perimeter. This element would include installation of the intensive landscaping along the western side of the Terminal Island Freeway (see section 2.4.2). Construction would include fine grading, the installation of fencing materials, and the placement of soil and plants. This work would take approximately 20 days.

2.4.3.5 Installation of Loading Cranes

Once the railyard is completed the 10 RMG cranes would be assembled, tested, and readied for the opening of the facility. This work would involve the delivery of crane components by ship, truck, and rail, and their fabrication on site, and would take from six to 12 months in 2015. Six stacking cranes would also be delivered, assembled, and tested during 2015; the remaining four stacking cranes would be delivered and placed into operation in subsequent years, as needed to handle increasing throughput.

2.4.4 Proposed Project Operations

The SCIG railyard is expected to begin operation in early 2016 and is assumed to reach full operation (maximum capacity) in 2035. It would operate 24 hours a day, 7 days per week, 360 days per year; trucks and trains would arrive at and depart from the facility day and night. Upon opening, the facility would have approximately 93 employees (e.g., crane operators, train crews on site, hostler drivers, mechanics, clerks, inspectors, security personnel, and supervisors), which would increase to a maximum of 450 employees at full operation. The employees would operate the facility over three shifts (typically 6AM-2PM, 2PM-10PM, 10PM-6AM). Up to 40 visitors and vendors (e.g., customers, off-site BNSF staff, fuel truck deliveries, couriers/postal deliveries, and janitorial service) would stop at the facility each day, on average, and train crews and truck drivers would make use of on-site rest facilities. In the first year of operation, the SCIG railyard is estimated to consume approximately 1,790 megawatt-hours (MWh) of electricity, which would increase to 8,700 MWh at full operation, starting in 2035.

Operations would involve the use of a variety of cargo-handling equipment on site, and activity by trucks and railroad locomotives from off-site locations. The use of remote sensing and computerized inventory, scheduling, and communications would allow the railyard to minimize redundant or unproductive truck and hostler trips.

2.4.4.1 Truck and Container Operations

Trucks would transport containers between the SCIG facility and the marine terminals at the two ports. This document assumes that only marine cargo, i.e., direct intermodal cargo, would be handled at the facility. This assumption is supported by the requirement that only trucks that use the designated truck routes between the ports and the SCIG facility and that are equipped with GPS devices would be allowed in the railyard.

Containers arriving from the ports on trucks would be loaded directly onto railcars if the appropriate railcars are available, or staged in the container stacking areas if they are not. Containers arriving on trains from the east would likely be temporarily staged in the container stacking areas until being loaded on trucks for delivery to port terminals, although to the extent trucks were available immediately they could be transferred directly from railcars to trucks.

Containers would be picked up from and delivered to the marine terminals in the Ports by on-road drayage trucks operated under contracts between various trucking companies and BNSF for drayage between the SCIG railyard and the Ports. The contracts would specify that all trucks would be powered by engines that meet or exceed the 2007 EPA on-road standards (see section 5.2.2 for a discussion of potential alternative truck technologies). This arrangement would ensure that the trucks entering and leaving the SCIG railyard would meet the 2010 CAAP's Clean Truck Program (CTP) engine emissions requirements.

The proposed SCIG facility would operate like a circuit. On-road trucks would arrive at and depart from the facility hauling 20-, 40-, and 45-foot shipping containers on chassis. The trucks would be typical tractors of the type used in 18-wheel semi-trailer rigs throughout the country except, as described above, they would be powered by 2007 or newer EPA on-road diesel engines. The number and frequency of these truck arrivals and departures would vary depending on vessel and train schedules, but it is expected that at full capacity an average of approximately 5,542 trucks, carrying 4,167 containers, would arrive at and depart from the facility each day, as well as employee and vendor traffic (Table 2-2; Appendix G). Truck travel to and from port terminals to the SCIG railyard would occur along designated truck routes described below and shown in Figure 2-4. The truck routes would be used as follows:

- From the West Basin, trucks would proceed on Harry Bridges eastbound to Anaheim Street, take Anaheim eastbound to the Terminal Island Freeway, then proceed northbound on the Terminal Island Freeway, exiting at Pacific Coast Highway and entering facility queuing lanes.
- From Terminal Island, trucks would proceed on Seaside/Ocean Avenue to the Terminal Island Freeway, then proceed northbound on the Terminal Island Freeway, exiting at Pacific Coast Highway and entering facility queuing lanes.
- From the Port of Long Beach, trucks would proceed north on Harbor Scenic Drive to I-710, proceed north to exit I-710 at either 9th Street or Anaheim Street, proceed west to the Terminal Island Freeway, then north on the Terminal Island Freeway, exiting at Pacific Coast Highway and entering facility queuing lanes.

Use of these truck routes would be monitored and enforced through the use of GPS devices installed in the trucks, in accordance with BNSF's drayage contract requirements.

Inbound trucks would enter the SCIG railyard from the PCH off-ramps and proceed to an on-site entry portal to undergo an automated inspection and identification process that would use multiple digital cameras to document the condition of the equipment, check that shipping seals are intact, and verify that the container identified by the trucker corresponded to the actual container on the truck's chassis. The digital imaging process would comply with the Department of Homeland Security facility access regulations, and would also reduce idling time and paperwork. From the portal trucks would proceed along multiple queuing lanes along the western boundary of the facility, designed to avoid truck lines on the streets and to minimize idling. The queuing lanes would lead to checkpoint kiosks within the facility for additional inspection, driver identification (using the Intermodal Driver Database maintained by the Intermodal Association of North America), and exchange of security and cargo information. The applicant represents that this process, which would be entirely remotely-controlled from the administration building, would take less than 2 minutes for each truck.

After passing through the kiosks, the majority (BNSF estimates 90 percent) of trucks would be directed straight to track side, where an RMG would lift the container off the chassis and place it on a railcar for further shipment. This practice, called a "direct-to-railcar live lift," is very efficient because the container is loaded immediately onto the railcar as opposed to being parked in a temporary location, which requires extra equipment activity, with the resultant additional emissions, to bring it to trackside later. Trucks not directed to a live lift would be directed to a designated container stacking area where the container would be lifted off of the chassis by an RMG and stacked for loading onto a railcar at a later time.

Outbound trucks would follow a similar process. Trucks that had performed a live lift or delivered a container to a stacking area would in most cases be directed to a location in the container stacking area where another container would be loaded onto the chassis by an RMG for transport back to the port terminals. These trucks would then proceed out of the facility, passing first through the out-gate portal at the north end of the facility. There, a digital camera array would record images of equipment for inspection and identification purposes, similar to the in-gate portal process described previously. The trucks would then proceed to the outbound checkpoint, an automated kiosk where additional driver biometric and cargo information would be collected. Once clear of the out-gate checkpoint the truck would proceed on the truck exit lanes on the west side of the facility to the PCH on-ramp, and head to the port terminals along the designated truck routes. Based on experience at the similar Memphis, TN facility, BNSF estimates that the amount of time a truck spends in the proposed facility would be approximately half of the current “turn time,” which would reduce the amount of emissions per container and increase the number of containers each truck could dray in a shift.

2.4.4.2 Train Operations

At full operation, the SCIG railyard is expected to handle eight inbound and eight outbound trains per day. The trains would enter and leave the facility via the Alameda Corridor. Inbound and outbound trains would typically operate as described below. Trains would be comprised of a set of three or four diesel-electric locomotives and a variable number of railcars. The locomotives would be large units of the type known as “road engines”, identified as “long-haul” engines in the CAAP and “line-haul locomotives” in the CARB MOU. Those engines are typically equipped with 4,000- to 5,000-horsepower diesel engines driving an electric generator that supplies tractive power to the wheels. Consistent with CAAP Measure RL-2 and pursuant to the 2005 CARB MOU, BNSF would maximize the use of ultra-low sulfur diesel (ULSD) fuel in these locomotives. The fuel would be supplied during the refueling process at both the SCIG railyard (for outbound trains) and the eastern California engine facilities from which inbound trains would arrive. In addition, a single switching locomotive would be stationed in the SCIG facility to remove defective (“bad-order”) railcars for servicing (normally performed at central service facilities such as Barstow). This locomotive would be a low-emissions unit compliant with the requirements of CAAP Measure RL-3.

The railcars would be flat-car-like units known as double-stack cars that are designed especially for transporting containers. Each car has from one to five bays (also known as platforms or wells), and each bay can hold two 40-foot containers stacked one on top of the other (or two 20-ft units and one 40-ft unit, or one 45-ft container on top of a 40-foot container). Multiple-bay cars have articulated couplings that connect the bays to let them negotiate curving track. A five-bay, double-stack, articulated car for international containers, the industry standard, is approximately 265 feet long. A typical intermodal train is composed of as many as 29 such cars, or a mixture of five-bay, three-bay, and single-bay cars, and is approximately 8,000 feet long (including locomotives and inter-car spaces). Depending upon the configuration of cars and containers, a train could carry up to 333 containers; to be conservative, this document assumes a train would carry, on average, 260 containers.

All train travel in the project area would be on tracks separated from local roads and streets, so trains would not cause or encounter traffic conflicts. Inbound trains would exit the Alameda Corridor, proceed across the Dominguez Channel Bridge onto one of the facility’s south lead tracks (Figure 2-3a), and be routed onto a clear strip track. At this point all but one of the engines hauling the train would be turned off; the remaining engine would spot the train on the strip tracks for loading and unloading. Trains would typically be longer than a single strip track, and would have to be divided into two smaller segments (blocks) in order to be positioned on the strip tracks for loading and unloading. Accordingly, inbound trains would continue through the facility onto the north lead track until the rear end of the train had cleared the switches at the south end of the strip track. The train would then stop, and the portion of the train still inside the facility on the strip track would be uncoupled, leaving it properly positioned for unloading. The front half of the train would pull northward to clear the switches, then back southward onto another clear strip track (this process, which would take up to 30 minutes per train, is termed “doubling the train”). The locomotives would be uncoupled, and the locomotive consist would move south through the railyard along an empty track (or, in rare cases when no empty yard tracks are available, on the San Pedro Branch track east of the facility) to the staging area, where the locomotives would be refueled (from mobile fuel trucks), if necessary, and receive minor service checks and service such as sweeping, replenishing crew supplies, etc. Once that process was completed the locomotives would be available to move an outbound train or be re-assigned to other duties in the region.

Locomotive movements within the railyard and along the north lead track would not require the locomotives to sound their horns, as warning devices such as lights and barriers to prevent rail/truck conflicts would eliminate the need for horns (however, this analysis assumes that trains may occasionally sound their horns in the South Lead Track area when entering or exiting the Alameda Corridor; see Section 3.9). Train-related noise would consist of the diesel engines themselves, wheel-on-rail squealing, and the noise of railcars being coupled together.

Outbound trains would be assembled (“built”) and leave the facility in essentially the reverse process, with the locomotives, typically working from the south end of the facility, doubling the train to make a full, approximately 8,000-foot train. After proper inspections and testing, the train would depart from the south end of the facility and proceed onto the Alameda Corridor.

No locomotive load testing, engine repair and rebuilding, repainting, repair or replacement of parts, components, mechanical and electrical systems as required by the Federal Railroad Administration, or railcar rebuilding would take place on the SCIG facility; those activities constitute “maintenance” and would take place at BNSF’s Sheila Commerce Mechanical Repair Shop, as described in Section 2.4.2.4. There would also be no fixed locomotive fueling or fuel storage facility or structures. All locomotive maintenance that would be required for project-related trains already occurs at the Sheila facility. Only locomotive servicing would occur at SCIG, which would be limited to minor upkeep activities, such as fueling via fuel truck, cleaning (e.g., wiping windows, removing trash, etc.) and resupplying (e.g., restocking of towels, napkins, water, etc.) of locomotives.

2.4.4.3 Support Activities

Fuels and Hazardous Substances Use and Storage. Hazardous substances at the proposed facility would fall into two categories: (1) fuels and other products (solvents, lubricants, batteries, etc.) used in the operation of the facility; and (2) cargo contained in some of the shipping containers. Operational substances would be stored and handled in accordance with the facility’s Business Plan, which would be submitted to the City of Los Angeles Fire Department for approval, and BNSF’s corporate hazardous substances management plans (see Section 3.7.2.4 for details). Those plans incorporate best management practices (BMPs) for storage and handling, as well as procedures for notifications and emergency response. No gasoline fuel would be stored on site, and any other fueling (e.g., locomotives, hostlers, and other equipment) would be via direct fueling from outside contractor tanker trucks. The drayage fleet would be fueled and serviced at off-site facilities that are not a part of the proposed Project.

According to LAHD, nearly 20,000 containers of hazardous cargos pass through the Ports each year. The proposed SCIG facility would handle a portion of those containers, applying established corporate procedures for hazardous cargos (see Section 3.7.2.4).

Fire Protection and Security. Fire protection would likely be provided by the City of Los Angeles Fire Department (LAFD), although Los Angeles County and the City of Long Beach may participate under mutual aid agreements that would be established by the respective fire departments (see Section 3.11 for more detail). Buildings and structures would be designed and constructed in accordance with the fire codes of the relevant jurisdictions, and several emergency access routes would be provided.

The site would be fully secured by passive (fencing) and active (private security) measures in accordance with U.S. Department of Homeland Security requirements, and would include security lighting and a variety of security surveillance devices. Admission would be restricted to personnel carrying Transportation Worker Identification Credential (TWIC), and escorted authorized visitors (see Section 3.7 for more detail). The site is located in the Harbor Division Area of the City of Los Angeles Police Department, which, with the LAHD Police, would provide police protection, assisted as necessary by the Los Angeles County Sheriff's Department and the City of Long Beach Police Department (see Section 3.11 for more detail).

Stormwater Management. The SCIG facility and alternate business facilities would include structural and procedural BMPs for minimizing the escape of water pollutants via stormwater runoff and dry weather flows. Structural BMPs would include swales incorporated into landscaped areas, storm drain inserts, berms around critical areas such as fueling and hazardous materials storage areas, and clarifier/settling basins as necessary. BNSF represents that the SCIG facility would consist of 20 to 30 percent permeable surfaces (landscaped areas, container stacking areas, and tracks). The new SCIG and alternate business facilities would be operated in accordance with procedural BMPs such as frequent sweeping, regular inspections, periodic employee training, equipment storage and washdown practices, and appropriate storage and handling of potential polluting substances.

2.5 Project Baseline

To determine significance, the proposed Project and alternatives are compared to a baseline condition. The difference between the proposed Project or alternative and the baseline is then compared to a threshold to determine if the difference between the two is significant.

CEQA's requirements for establishing a baseline are discussed in Section 1.5.5. For purposes of this Recirculated Draft EIR, the CEQA Baseline for determining the significance of potential impacts under CEQA are the conditions that existed in 2010.

2.6 Relationship to Existing Plans

One of the primary objectives of the CEQA process is to ensure that the proposed Project is consistent with applicable statutes, plans, policies, and other regulatory requirements. Table 2-4 lists the statutes, plans, policies, and other regulatory requirements applicable to the proposed Project and alternatives.

Table 2-4. Applicable Statutes, Plans, Policies, and Other Regulatory Requirements.

Applicable Rule, Plan, or Policy	Description
City of Los Angeles General Plan	The City of Los Angeles General Plan (City of Los Angeles, 1982a) has various elements that contain general goals, objectives, and policies related to regulating development, protecting natural and cultural resources, and improving environmental quality in the region. Relevant elements include Port (see below), Air Quality, Conservation, Transportation, Public Facilities and Services, Safety, Noise, and Land Use.
City of Los Angeles General Plan – Port of Los Angeles Plan Element	The Port of Los Angeles Plan is part of the General Plan for the City of Los Angeles and provides a 20-year official guide to the continued development and operation of the Port. It is designed to be consistent with the Port of Los Angeles Master Plan.
2010 San Pedro Bay Clean Air Action Plan Update	The Port, in conjunction with the Port of Long Beach and with guidance from AQMD, CARB, and USEPA, has developed the San Pedro Bay Clean Air Action Plan (CAAP), which was approved by the Los Angeles and Long Beach Boards of Harbor Commissioners on November 20, 2006. The Update was approved on November 22, 2010. The CAAP focuses on reducing diesel particulate matter (DPM), NO_x, and SO_x, with two main goals: (a) to reduce Port-related air emissions in the interest of public health, and (b) to disconnect cargo growth from emissions increases. The Plan includes near-term measures implemented largely through the CEQA/NEPA process and new leases at both ports.
Port of Los Angeles Risk Management Plan	The Risk Management Plan, an amendment to the Port of Los Angeles Master Plan, was adopted in 1983, per requirements of the California Coastal Commission. The purpose of the Risk Management Plan is to provide siting criteria relative to vulnerable resources and the handling and storage of potentially hazardous cargo such as crude oil, petroleum products, and chemicals. The Risk Management Plan provides guidance for future development of the Port to minimize or eliminate the hazards to vulnerable resources from accidental releases (LAHD, 1983).
Port of Los Angeles Real Estate Leasing Policy	The purpose of this Policy is to provide a framework that governs leasing and rental decisions as they relate to tenant retention, selecting new tenants, development of new agreements and, as appropriate, modifications to existing agreements by amendments.
Port of Los Angeles Strategic Plan	The Port of Los Angeles Strategic Plan (LAHD 2012) identifies the mission of the Port and provides 11 strategic objectives for the next 5 years. The mission includes promotion of “grow green” philosophy combined with fiduciary responsibility and promotion of global trade. The 11 strategic objectives include, minimization of land use conflicts, maximizing the efficiency and the capacity of current and future facilities, addressing needed infrastructure requirements, maintaining financial self-sufficiency, raising environment standards and enhancing public health, promoting emerging and environmentally friendly cargo movement technology and energy sources, provide for safe and efficient operations and homeland security, strengthen local community relations and developing more and higher quality jobs.
City of Los Angeles Municipal Code	The building code is contained in Sections 91.000 through 91.706 of the Municipal Code, which set out requirements for construction, grading, excavations, fill, and foundation work.
City of Long Beach Municipal Code	The City’s building code is contained in Title 18.68 of the Municipal Code, which requires that all construction conform to the seismic requirements of the State of California’s 2007 Building Code.
City of Long Beach General Plan	Via the General Plan the City has adopted the 1971 edition of the Uniform Fire Code as its Fire Prevention

Applicable Rule, Plan, or Policy	Description
	Code. The General Plan also sets forth goals related to public safety, zoning, and open space and conservation.
City of Los Angeles – San Pedro Community Plan	The San Pedro Community Plan (City of Los Angeles, 1982b) serves as a basis for future development of the community. It is also the land use plan portion of the City's Local Coastal Program for San Pedro. The Port of Los Angeles, although contiguous to San Pedro, is not part of the San Pedro Community Plan area. However, the San Pedro Community Plan does make recommendations regarding the Port, particularly for areas adjacent to commercial and residential areas of San Pedro.
Wilmington-Harbor City Community Plan	The Plan includes policies and objectives related to cargo operations, transportation, land uses, and the physical and operational relationships between the community and industrial activities.
City of Carson General Plan and Zoning	The Plan designates land uses and zoning for the City, including a portion of the proposed Project.
Water Quality Control Plan – Los Angeles River Basin	The Water Quality Control Plan for the Los Angeles River Basin (Region 4) (Basin Plan) was adopted by the Regional Water Quality Control Board, Los Angeles Region (RWQCB) in 1978 and updated in 1994. The Basin Plan designates beneficial uses of the basin's water resources. The Basin Plan describes water quality objectives, implementation plans, and surveillance programs to protect or restore designated beneficial uses.
Air Quality Management Plan (AQMP)	The federal Clean Air Act (CAA) establishes the National Ambient Air Quality Standards (NAAQS) and delegates their enforcement to the states. In areas that exceed the NAAQS, the CAA requires states to prepare a State Implementation Plan (SIP) that details how the NAAQS will be achieved within mandated time frames. The CAA identifies emission reduction goals and compliance dates based on the severity of the ambient air quality standard violation. The California Clean Air Act (CCAA) outlines a program to attain the more stringent California Ambient Air Quality Standards (CAAQS) for O_3, NO_2, SO_2, and PM by the earliest practical date. The Lewis Air Quality Act of 1976 established the South Coast Air Quality Management District (SCAQMD), created SCAQMD jurisdiction over the four-county South Coast Air Basin, and mandated preparation of an AQMP. The 2007 AQMP proposes emission reduction strategies that will enable the South Coast Air Basin to achieve the national and most state ambient air quality standards within the mandated time frames. The 2012 AQMP is in preparation; a draft of the plan was issued in July 2012 and a revised draft in September 2012.
California Air Resources Board – Emission Reduction Plan for Ports and Goods Movement	The California Air Resources Board (CARB) approved the Emission Reduction Plan for Ports and Goods Movement. The Port's Clean Air Action Plan (POLA and POLB, 2006; see Section 1.6), under which the proposed Project was designed and evaluated, is consistent with the Emission Reduction Plan.
AB 32	On September 27, 2006, Governor Schwarzenegger signed AB 32, the Global Warming Solutions Act. The Act caps California's greenhouse gas emissions at 1990 levels by 2020. This legislation requires the State Air Resources Board to establish a program for statewide greenhouse gas emissions reporting and to monitor and enforce compliance with this program.
Southern California Association of Governments Regional Plans	The Southern California Association of Governments (SCAG) is responsible for developing regional plans for transportation management, growth, and land use, as well as developing the growth factors used in forecasting air emissions within the South Coast Air Basin. SCAG has developed a Growth Management Plan (GMP), a Regional Housing Needs Assessment, a Regional Mobility Plan (RMP), and assists the SCAQMD in developing the AQMP.

Applicable Rule, Plan, or Policy	Description
Congestion Management Plan	The Congestion Management Program (CMP) is a state-mandated program intended as the analytical basis for transportation decisions made through the State Transportation Improvement Program process (LACMTA, 1993). The CMP was developed to: (a) link land use, transportation, and air quality decisions; (b) develop a partnership among transportation decision makers on devising appropriate transportation solutions that include all modes of travel; and (c) propose transportation projects that are eligible to compete for state gas tax funds. The plan includes a Land Use Analysis Program that requires local jurisdictions to analyze the impacts of land use decisions on the regional transportation system. For development projects, the CMP requires preparation of an EIR that is based on local determination and that incorporates a Transportation Impact Analysis.
Water Quality Statutes and Regulations	The federal Water Pollution Control Act (as amended by the Clean Water Act of 1977), Section 404; California Hazardous Waste Control Act; State Water Resources Control Board, Enclosed Bays and Estuaries Plan; Water Quality Control Plan for the Los Angeles River Basin (Region 4B), adopted by the Regional Water Quality Control Board, Los Angeles Region; and Sections 401 and 402 of the Clean Water Act of 1977 are all applicable to the proposed Project.
Air Quality Statutes and Regulations	Clean Air Act, Title 40 CFR Parts 50 and 51 as amended; Prevention of Significant Deterioration, Titles 40 CFR Part 51.24 and 40 CFR Part 52.21; California Clean Air Act; Air Quality Management Plan of the City of Los Angeles General Plan, Air Quality Element; and SCAQMD Regulations X111 and XV, New Source Review and Rules 212, 401, 403, and 431.2.
Transportation Statutes and Regulations	California Public Utilities Commission Guidelines; Federal Railroad Administration Guidelines; Federal Highway Administration Guidelines; California Transportation Guidelines; California Administrative Code Section 65302 (f)-Noise Element; City of Long Beach Noise Control Ordinance, No. C-5371; Federal Aid Highway Program Manual 7-7-3; State and Federal Department of Transportation Requirements regarding Track and Rail Transportation of Hazardous Materials.
Biological Resources Protection Statutes	Endangered Species Act of 1973, as amended; Migratory Bird Conservation Act; California Endangered Species Act; United States Fish and Wildlife Act of 1956 (16 USC 742a et seq.); Magnuson-Stevens Fishery Conservation and Management Act, as amended through 1996; California Fish and Game Code (Section 1600); California Endangered Species Act (California Fish and Game Code Section 2050 et seq.); Natural Community Conservation Act of 1991 (Fish and Game Code Chapter 10, Division 3, Sections 2800 et seq.).
Cultural Resources Protection Statutes	National Historic Preservation Act of 1966, as amended, and its implementing regulations (36 CFR 800); the Archaeological and Historical Preservation Act and Executive Order 11593 “Protection and Enhancement of the Cultural Environment;” California Health and Safety Code Section 7050 and Public Resources Code Section 5097 (Native American remains and paleontological resources); Los Angeles Municipal Code Sections 12.20.3 and 22.120 et seq.
Geological Resources Statutes and Regulations	Alquist-Priolo Fault Zoning Act of 1972; Seismic Hazards Mapping Act of 1990 (PRC Chapter 7.8 Sections 2690 – 2699.6; PRC Section 3208.1 authorizes the Department of Oil, Gas, and Geothermal Resources to regulate construction in the vicinity of abandoned oil wells; Surface Mining and Reclamation Act of 1975.
Public Safety and Utilities Statutes	California State Fire Code; California Emergency Medical Services Authority (SB 125, HSC Sections 1797-

Applicable Rule, Plan, or Policy	Description
and Regulations	1799); City of Los Angeles Municipal Code (Chapter5, Public Safety and Protection includes the Fire Code); City of Carson Fire Prevention Code; California Urban Water Management Act (Water Code Sections 10610-10656); California Solid Waste Reuse and Recycling Access Act of 1991; California Integrated Waste Management Act (AB 939); LADWP Urban Water Management Plan; LADWP Integrated Resources Plan.
Environmental Justice	In California Senate Bill (SB) 115 (Government Code Section 65040.12[c]) identifies the Governor's Office of Planning and Research (OPR) as the comprehensive state agency responsible for long-range planning and development related to environmental justice policies in California. SB 115 defines environmental justice as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation and enforcement of environmental laws and policies." The related SB 89 requires the Secretary for Environmental Protection to convene a Working Group to assist California Environmental Protection Agency (CalEPA) in developing an environmental justice strategy. California Public Resources Code Section 71113 states that the mission of Cal/EPA includes ensuring that it conducts any activities that substantially affect human health or the environment in a manner that ensures the fair treatment of people of all races, cultures, and income levels, including minority populations and low-income populations of the state.