Draft

Initial Study/Negative Declaration Roundhouse Area Improvements Project

Prepared for
Port of Oakland

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Executive Summary

Project Overview

The Port of Oakland (Port) Roundhouse Area Improvements Project (the proposed Project) would reconfigure the Port's existing approximately 37-acre former Union Pacific (UP) Roundhouse area and adjacent 5-acre former Sherex Chemical property, along with adjacent access driveways and rail (collectively referred to herein as "the Roundhouse Area" or "the site") to improve the utilization of the site. The site is currently used for public truck parking (Ampco Parking). The primary goals of the proposed Project are to:

- Enhance use of an underutilized commercial site
- Increase the volume of intermodal cargo passing through the Port
- Continue providing truck parking to support Port drayage[1] and UP's West Oakland Yard intermodal operations

The Project is expected to involve constructing the facilities required to operate a grain transloading operation (Grain Terminal) on approximately 15 acres at the site; providing 5.9 acres of dedicated parking for UP,[2] reducing the existing interim public truck parking area from approximately 37 acres to 15.2 acres, and providing appropriate access to each of the three proposed areas on the site (the Grain Terminal, UP parking, and public truck parking). However, these are currently considered the most likely (rather than definite) future uses of the site, which may also be used for other purposes as described in Section 2. Construction of the Grain Terminal would include installation and protection of various utilities, installation of new and upgrading of existing railroad track, construction of two temporary buildings, and installation of grain unloading and loading equipment.

Project Location

The proposed Project site (Roundhouse Area) consists of portions of the former UP Roundhouse property and the entire upland portion of the former Sherex Chemical property within the Port of Oakland's seaport area, along with adjacent access driveways and rail (see Figure 1-1 in Chapter 1). The former UP Roundhouse property is located at 1401 Middle Harbor Road in the eastern portion of the Port's seaport area. It is an approximately 37-acre paved property (see Figure 2-2 in Chapter 2). The approximately 5-acre former Sherex property is immediately south of the former UP Roundhouse property, between the former UP Roundhouse and the Oakland Inner Harbor channel. The Project site is located immediately east of the Matson Terminal (Berths 60 – 63) and immediately west of Schnitzer Steel. The site is bordered by the Oakland Inner Harbor channel (also known as the Oakland Estuary) to the south and railroad tracks and Middle Harbor Road to the north.

Summary of Impacts

Impact Assessment

The guidance provided in Appendix G of the California Environmental Quality Act (CEQA) Guidelines (Appendix G Checklist) was employed to screen potential Project effects and provide impact categories.

[1] Drayage is the hauling of goods over a relatively short distance, such as trucking empty or loaded containers back and forth between a ship and a railyard within an intermodal port facility.

[2] With the planned lease of a portion of the site to UP, some of the truck parking is already moving to the Howard Terminal at 1 Market Street, as of April 2015. However, the baseline for this document is 2014, before this transition began.

Environmental Impacts and Proposed Avoidance and Minimization Measures

The evaluation of environmental impacts provided in this Initial Study/Negative Declaration (IS/ND) is based, in part, on the Appendix G Checklist. An impact assessment matrix is provided as part of the evaluation for each environmental issue area, with impact levels defined as follows:

- **Potentially Significant Impact.** This column is checked if there was substantial evidence that a project-related environmental effect may be significant. If one or more "Potentially Significant Impacts" are identified, an Environmental Impact Report (EIR) must be prepared for the project.
- **Less than Significant with Mitigation.** This column is checked when the Project may result in a significant environmental impact, but the incorporation of identified applicant or project-specific mitigation measures into the project will reduce the identified effect(s) to a less than significant level.
- **Less than Significant Impact.** This column is checked when the project would not result in any significant effects. The project's impact would be less than significant even without the incorporation of a project-specific mitigation measure.
- **No Impact.** This column is checked when the project would not result in any impact in the category or the category did not apply.

The environmental factors checked below in Table ES-1 would be potentially affected by this Project. The Port has incorporated Project revisions, including the implementation of avoidance and minimization measures, that reduce any potentially significant impact to "Less than Significant," as detailed in Section 3 of this IS/ND.

TABLE ES-1
Environmental Factors Potentially Affected by the Proposed Project

☐ Aesthetics	☐ Agriculture and Forest Resources	☒ Air Quality/Greenhouse Gas Emissions
☐ Biological Resources	☐ Cultural Resources	☐ Geology and Soils
☐ Hazards and Hazardous Materials	☐ Hydrology and Water Quality	☐ Land Use and Planning
☐ Mineral Resources	☒ Noise	☐ Population and Housing
☐ Public Services	☐ Recreation	☐ Transportation/Traffic
☐ Utilities and Service Systems		

Table ES-2 lists avoidance and minimization measures known as Standard Conditions of Approval (SCAs) designed to reduce or avoid potentially significant impacts identified through the environmental analysis detailed in Chapter 3. With implementation of these proposed SCAs, all Project-related impacts would be reduced to less than significant.

TABLE ES-2
Summary of Project Avoidance and Minimization Measures

Air Quality and Greenhouse Gases
• **SCA AIR-1**: Construction Management Plan
• **SCA-AIR-2**: Construction-Related Air Pollution Controls (Dust and Equipment Emissions)
Noise
• **SCA NOI-1:** Days/Hours of Construction Operation
• **SCA NOI-2:** Noise Control
• **SCA NOI-3:** Noise Complaint Procedures
• **SCA NOI-5:** Operational Noise—General

Note:
The air quality SCAs are defined in Section 3.3.5; the noise-related SCAs are defined in Section 3.11.4.

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Acronyms and Abbreviations

µg/L	micrograms per liter
°F	degrees Fahrenheit
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACDEH	Alameda County Department of Environmental Health
APN	Assessor's Parcel Number
AQMD	Air Quality Management District
ARPA	Archeological Resources Protection Act
BAAQMD	Bay Area Air Quality Management District
BCDC	San Francisco Bay Conservation and Development Commission
bgs	below ground surface
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
Cal/EPA	California Department of Environmental Health
CARB	California Air Resources Board
CCAA	California Clean Air Act of 1988
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CH_4	methane
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CRHR	California Register of Historic Resources
CSLC	California State Lands Commission
CWA	federal Clean Water Act
CY	cubic yards
dBA	A-weighted decibels
diesel PM	particulate exhaust emissions from diesel-fueled engines
DPM	diesel particulate matter
DTSC	California Department of Toxic Substances Control

E&E	Ecology and Environment, Inc.
EBMUD	East Bay Municipal Utilities District
EIR	Environmental Impact Report
EO	Executive Order
ESL	Enviromental Screening Level
FESA	federal Endangered Species Act
ft^2	square feet
ft^3	cubic feet
GHG	greenhouse gas
HFC	hydrofluorocarbon
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
IS/AD	Initial Study/Addendum
lbs./day	pounds per day
L_{dn}	day-night average sound level
LOS	level of service
MBTA	Migratory Bird Treaty Act
mg/kg	milligrams per kilogram
mm	millimeter
MMRP	Mitigation Monitoring and Reporting Program
MPO	Metropolitan Planning Organization
MS4	Municipal Separate Storm Sewer System
MT CO_2e	metric tons of carbon dioxide equivalents
NAAQS	National Ambient Air Quality Standards
NAHC	National American Heritage Commission
ND	Negative Declaration
NEPA	National Environmental Policy Act
NFI	Notice of Federal Interest
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NO_2	nitrogen dioxide
N_2O	nitrous oxide
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service

O_3	ozone
OARB	Oakland Army Base
OHP	Office of Historic Preservation
OSCAR	Open Space Conservation and Recreation Element
OSPR	Oil Spill Prevention and Response
Pb	lead
PFC	perfluorocarbon
PM	particulate matter
PM_{10}	particulate matter less than 10 micrometers
$PM_{2.5}$	particulate matter less than 2.5 micrometers
ppm	parts per million
PSD	Prevention of Significant Deterioration
ROC	reactive organic compound
RORO	roll-on/roll-off
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SF_6	sulfur hexafluoride
SFBAAB	San Francisco Bay Area Air Basin
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SMP	Site Management Plan
SO_2	sulfur dioxide
SPH	separate-phase hydrocarbons
SWRCB	State Water Resources Control Board
SWPPP	Storm Water Pollution Prevention Plan
TAC	toxic air contaminant
TCR	The Climate Registry
TEU	twenty-foot equivalent unit
UP	Union Pacific
USACE	U.S. Army Corps of Engineers
USC	United States Code
USCG	U.S. Coast Guard
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service

UST	underground storage tank
VOC	volatile organic compound

SECTION 1

Introduction

1.1 Project Overview

The Port of Oakland (Port) Roundhouse Area Improvements Project (the proposed Project) would reconfigure the Port's existing approximately 37-acre former Union Pacific (UP) Roundhouse area and adjacent 5-acre former Sherex Chemical property, along with adjacent access driveways and rail (collectively referred to herein as "the Roundhouse Area" or "the site") to improve the utilization of the site. The site is currently used for public truck parking (Ampco Parking). The primary goals of the proposed Project are to:

- Enhance use of an underutilized commercial site
- Increase the volume of intermodal cargo passing through the Port
- Continue providing truck parking to support Port drayage[3] and UP's West Oakland Yard intermodal operations

The Project is expected to involve constructing the facilities required to operate a grain transloading operation (Grain Terminal) on approximately 15 acres at the site, providing 5.9 acres of dedicated parking for UP,[4] reducing the existing interim public truck parking area from approximately 37 acres to 15.2 acres, and providing appropriate access to each of the three proposed areas on the site (the Grain Terminal, UP parking, and public truck parking). However, these are currently considered the most likely (rather than definite) future uses of the site, which may also be used for other purposes as described in Section 2. Construction of the Grain Terminal would include installation and protection of various utilities, installation of new and upgrading of existing railroad track, construction of two temporary buildings, and installation of grain unloading and loading equipment.

1.2 Project Title and Location

The Port of Oakland Roundhouse Area Improvements Project is located at 1401 Middle Harbor Road in Oakland, California (Figure 1-1).

The applicable Assessor's Parcel Numbers (APNs) are 18-395-8-3, 18-395-9, 18-395-4, and 18-395-10-2.

1.3 Lead Agency and Project Applicant

Lead Agency
Port of Oakland
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Oakland, CA 94607

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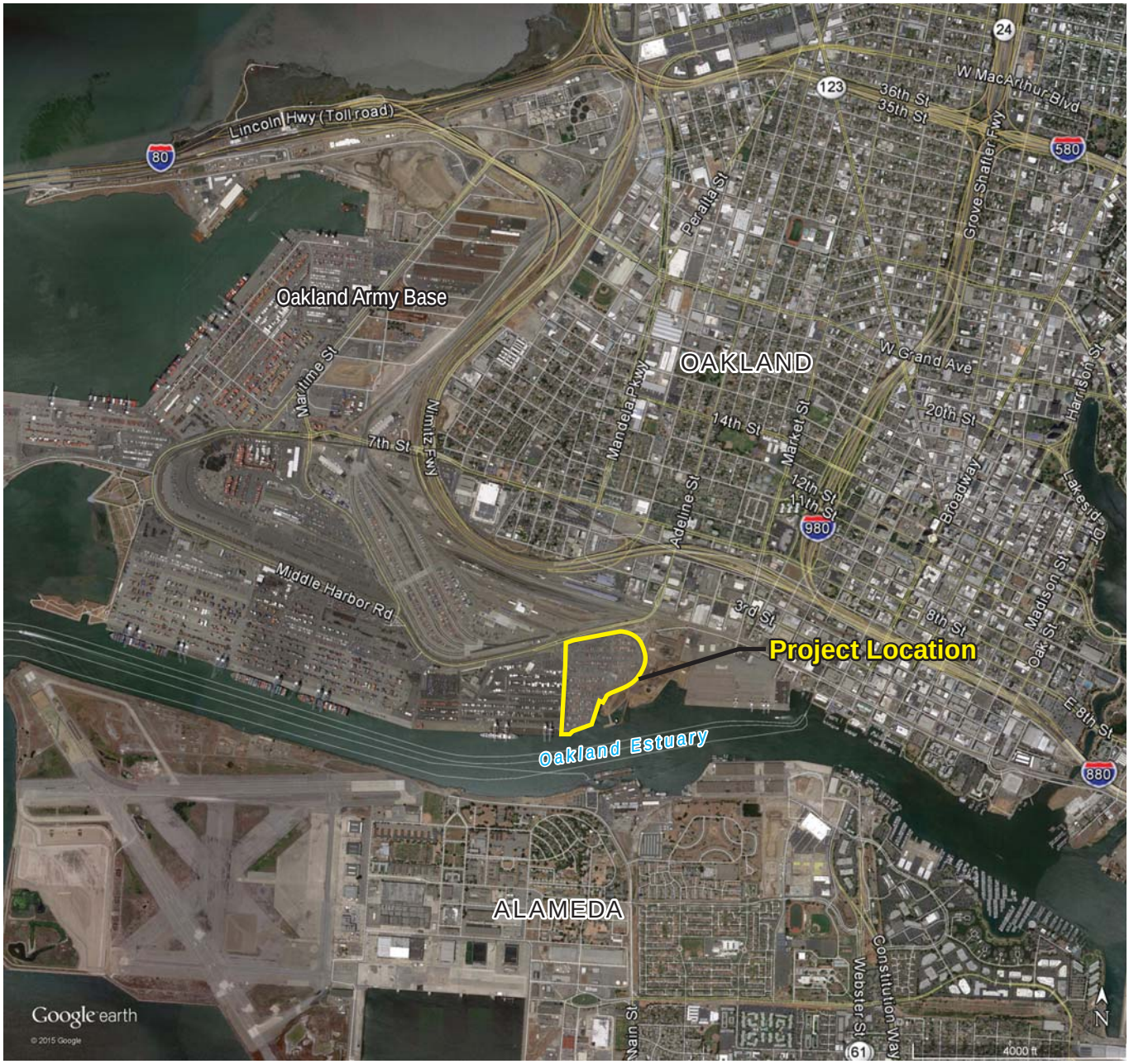
[3] Drayage is the hauling of goods over a relatively short distance, such as trucking empty or loaded containers back and forth between a ship and a railyard within an intermodal port facility.

[4] With the planned lease of a portion of the site to UP, some of the truck parking is already moving to the Howard Terminal at 1 Market Street, as of April 2015. However, the baseline for this document is 2014, before this transition began.



Aerial from Google Earth Pro © 2015. Additional information added by CH2M HILL.

FIGURE 1-1
Project Site Location
Initial Study/Negative Declaration
Roundhouse Area Improvements Project
Port of Oakland
Oakland, California

1.4 Document Organization

This Initial Study/Negative Declaration (IS/ND) is intended to provide the Port, as lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.), and other responsible agencies with the information required to exercise their discretionary responsibilities with respect to the proposed Project. The document is organized as follows:

- Section 1 provides the Project background, lead agency and Project objectives, and a summary of the public review and comment process.
- Section 2 describes the proposed Project including its location, layout, equipment, facilities, and an overview of the Project's operations and schedule.
- Section 3 provides the Initial Study, including the environmental setting, identification and analysis of potential impacts, and discussion of various Project changes and other measures that, if incorporated into the Project, would mitigate or avoid those impacts, such that no significant effect on the environment would occur. The IS was conducted by the Port pursuant to section 15063 of the State CEQA Guidelines.
- Section 4 presents the list of preparers of this IS/ND.
- Section 5 presents the references cited in this document.
- Appendices. The appendices include specifications, technical data, and other information supporting the analysis presented in this IS/ND.
  - Appendix A: List of IS/ND Recipients
  - Appendix B: Project Site Utilities
  - Appendix C: Revised Site Management Plan
  - Appendix D: Port of Oakland's Emergency Plan of Action For Discoveries of Unknown Historic or Archaeological Resources

SECTION 2

Project Description

2.1 Project Location

The proposed Project site (Roundhouse Area) consists of portions of the former UP Roundhouse property and the entire upland portion of the former Sherex Chemical property, along with adjacent access driveways and rail within the Port of Oakland's seaport area. The seaport area consists of the Port's marine terminals, berths, and ancillary maritime support facilities (Figure 2-1). The Port's approximately 1,290-acre seaport area is located within the City of Oakland, along the eastern shoreline of San Francisco Bay. It is used for shipping and related activities. The area is bounded by the Oakland Outer Harbor and Inner Harbor channels and Middle Harbor Shoreline Park and Port View Park to the west and south, and commercial properties, including retail activities at Jack London Square, to the east. Freight and passenger rail lines and the I-80 and I-880 freeways border the seaport area to the north and east, with the West Oakland neighborhood further east. Alameda Point and residential and industrial facilities in the City of Alameda are located on the south side of the Inner Harbor channel.

The former UP Roundhouse property is located at 1401 Middle Harbor Road in the eastern portion of the Port's seaport area. It is an approximately 37-acre paved property (Figure 2-2). The approximately 5-acre former Sherex property is immediately south of the former UP Roundhouse property, between the former UP Roundhouse and the Oakland Inner Harbor channel. The Project site is located immediately east of the Matson Terminal (Berths 60 – 63) and immediately west of Schnitzer Steel. The site is bordered by the Oakland Inner Harbor channel (also known as the Oakland Estuary) to the south and railroad tracks and Middle Harbor Road to the north. The Alameda ferry terminal is located approximately 1,000 feet directly south of the Project site, on the south side of the Inner Harbor channel. Adjacent to the ferry terminal are the Bay Ship and Yacht facilities, which include a drydock moored immediately adjacent to the ferry terminal. The ground beneath the paved Project site is known to contain petroleum hydrocarbons at the former UP Roundhouse, and hydrocarbons as well as volatile organic compounds at the former Sherex property (see Figure 2-3). The former UP Roundhouse site is subject to an environmental Covenant and Environmental Restriction on Property (deed restriction) and associated Revised Site Management Plan (SMP) (AMEC 2009; see Appendix C). There are no deed restrictions on the former Sherex property; however, the closure letter for the site requires that future construction plans include a hazardous waste management plan and a groundwater monitoring program.

2.2 Overview of Proposed Project

The proposed Project consists of improving utilization of the Roundhouse Area (the combined former UP Roundhouse and Sherex sites) by redeveloping a portion of it to create bulk cargo transloading facilities in addition to the existing truck/equipment parking areas. The site could also be used for seaport-related warehousing, or portions of the existing open, paved site could be utilized for cargo transport support services, such as a temporary container storage facility. The open site could also be used for storage of roll-on/roll-off (RORO) cargo, such as cars or other vehicles and mobile equipment.

Bulk cargo transloading consists of moving bulk materials from train cars into intermodal freight containers (shipping containers). The freight containers are called intermodal because they are designed to be moved from one mode of transport to another such as a railcar to a truck to a ship.

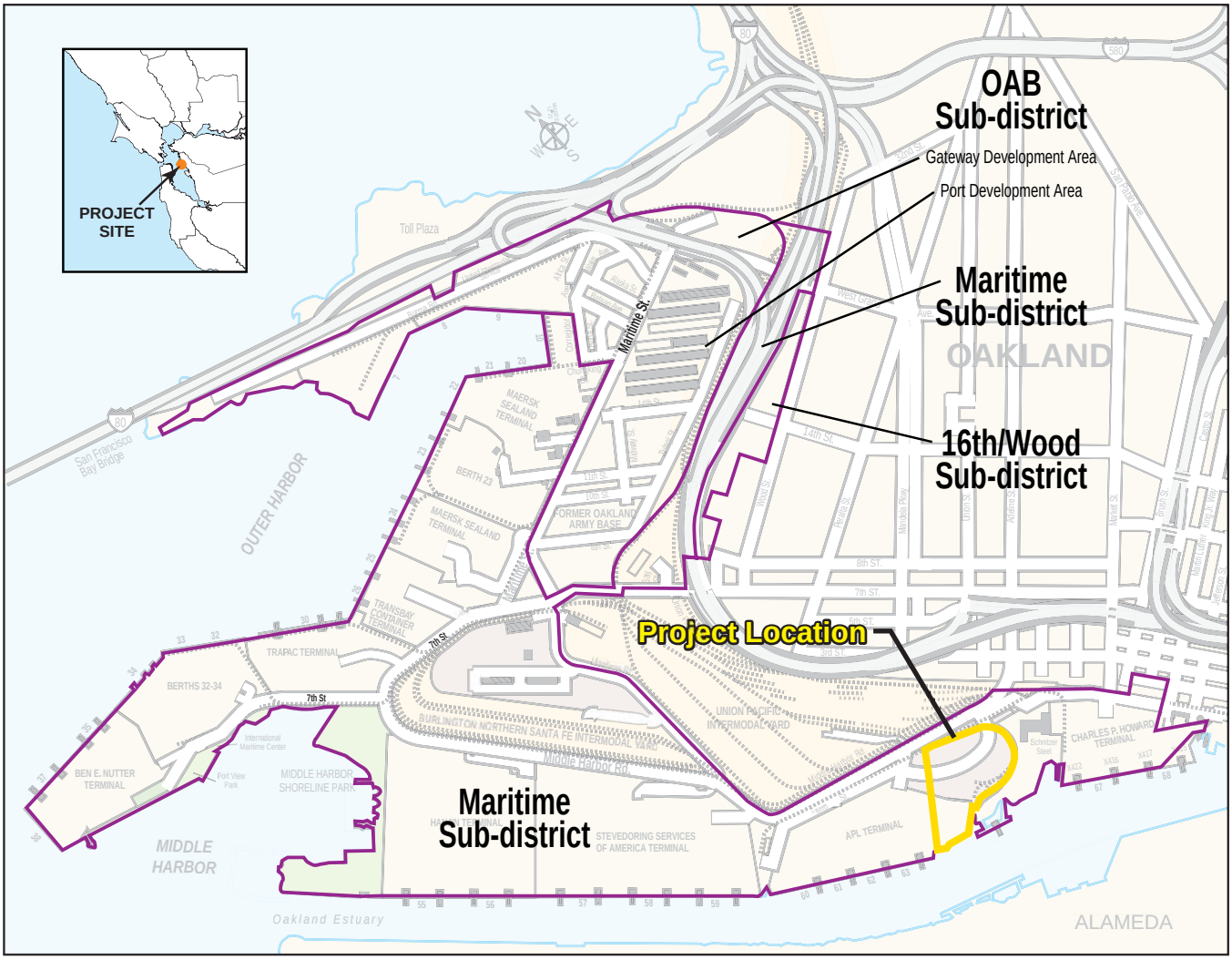
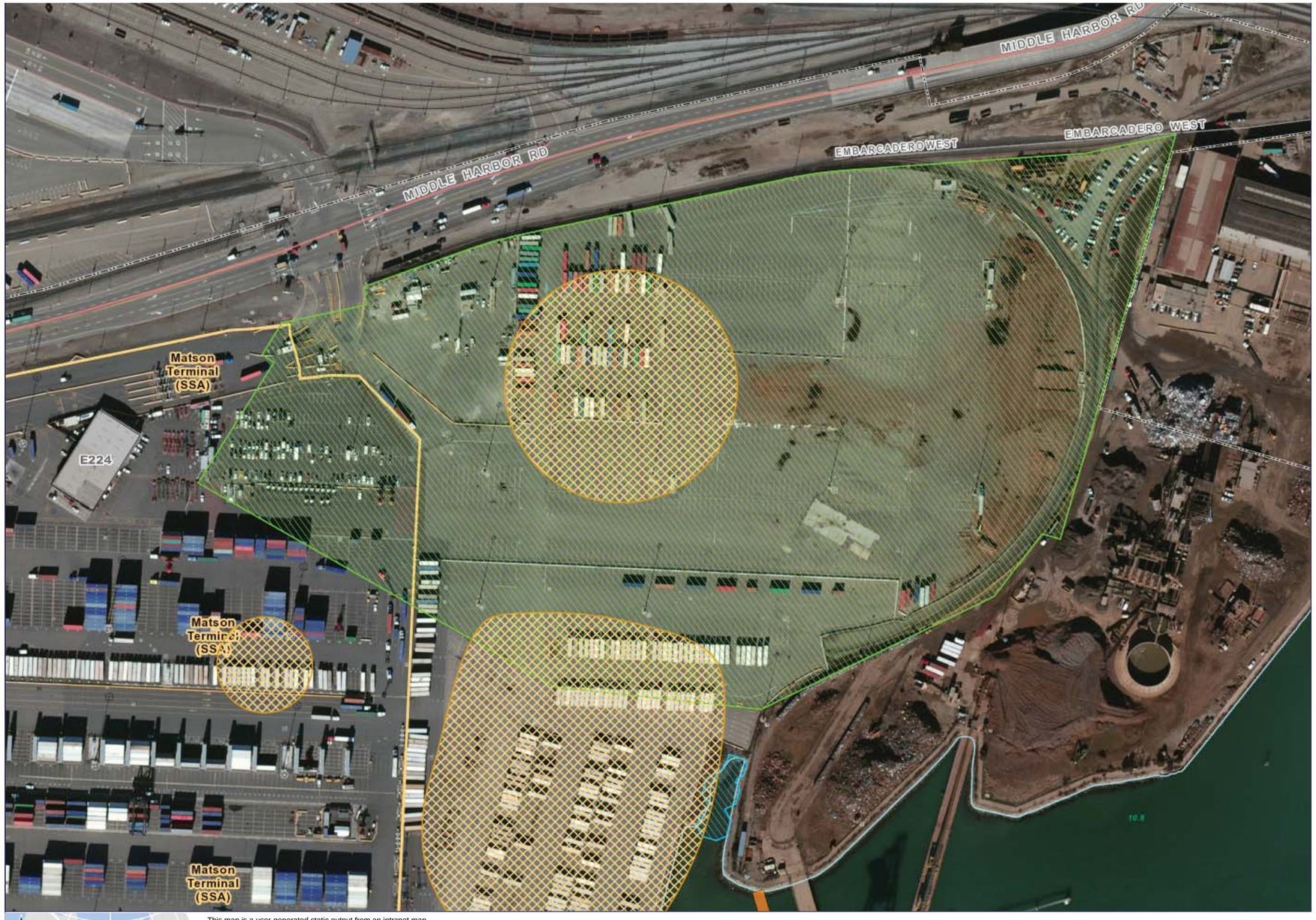


FIGURE 2-1
Port of Oakland Seaport Area
Initial Study/Negative Declaration
Roundhouse Area Improvements Project
Port of Oakland
Oakland, California

Source: Port of Oakland

FIGURE 2-2
Aerial View of Project Site
Initial Study/Negative Declaration
Roundhouse Area Improvements Project
Port of Oakland
Oakland, California



Enterprise GIS Map

- Regulated Contaminated Areas
- Deed Restrictions
  - Environmental
  - Open Space
  - Public Access
- Depth Annotation
- Fire Stations
- Hospitals
- Government Buildings
- Schools
- Railroads
- Streets
  - Freeway
  - Freeway Ramp
  - Thoroughfare / Major Arterial
  - Residential Street
- Terminal Cranes
- Building Footprints
- Terminal Boundaries
- Wharves, Piers, Docks
- Berths
- Port Area Jurisdiction
- Shoreline (Ordinary High Water)

Notes:
UP Roundhouse Deed Restrictions

Source: Port of Oakland

FIGURE 2-3
Roundhouse Area Deed Restrictions and Contamination Overlays
Initial Study/Negative Declaration
Roundhouse Area Improvements Project
Port of Oakland
Oakland, California

Bulk cargo may include any of the following:

- Agricultural commodities such as grains, corn by-products, soybeans, agricultural fertilizer, and other commodities
- Iron ore and other non-fossil fuel bulk commodities (not coal or petroleum products)
- Steel (coils, rods, slabs, etc.)
- Wood and paper products
- Refrigerated tanks for spirits, wines, juice, dairy, etc. (non-hazardous liquids only)
- Logs for export

The site currently serves as an interim truck parking area; the footprint of the truck parking area would be reduced to accommodate the transloading facility or other maritime ancillary services identified for the property. The truck parking area is currently being divided into a parking or equipment storage area to serve the UP Railyard (located north of Middle Harbor Road), and parking for independent truckers serving the Port area. In addition, portions of the site could also simply be used for warehousing or other types of cargo transloading or short-term storage. Because these uses would be similar to that for bulk cargo transloading (which also includes interim storage of bulk materials), warehouse use is included in the analysis of bulk cargo transloading.

The most likely use of the property is as a grain transloading facility (Grain Terminal) and truck parking areas for UP and for independent truckers. Detailed information regarding the activities and facilities required for a grain terminal is presented in Section 2.5.2. Less information is available regarding the other potential uses described above; however, potential levels of activity and required facilities associated with these other uses are expected to be the same as or less than those facilities/activities required for a grain terminal, as further explained in Sections 2.5.2 through 2.5.4 and Section 3.

2.3 Project Objectives

The objectives of the proposed Project are to return the property to higher level of productive commercial use, increase cargo throughput at the Port, and increase revenue through increased cargo throughput and lease payments. In addition, the Project would contribute to the Port's goal of increasing intermodal cargo (i.e., cargo that arrives or departs by rail) thereby limiting traffic on surface roads and freeways outside the immediate seaport area. The Project objectives also include taking advantage of emerging cargo markets by providing additional containerizing capacity, and providing the most direct route for transloading products that arrive by rail from across the U.S. and Canada. Finally, the Project is designed to enhance existing maritime support services by fully utilizing the existing property consistent with the redevelopment plan for the entire area and tidelands trust property requirements. Through effective reuse of a currently under-used property, the Project would reduce pressure to develop elsewhere, make the Port more attractive to users/shippers, and create a more diversified cargo base (and thereby a more stable economic base for the Port).

2.4 Relationship of this Project to Other Development Efforts in the Maritime Sub-District

Redevelopment of the entire seaport area was evaluated in the 2002 Oakland Army Base Area Redevelopment Plan Environmental Impact Report (referred to as the 2002 EIR) (City of Oakland, 2002). The 2002 EIR analyzed redevelopment of the Oakland Army Base Redevelopment Plan area, which was composed of three sub-districts: the 470-acre Oakland Army Base (OARB) sub-district, the 1,290-acre Maritime sub-district, and the 41-acre 16th/Wood sub-district. The seaport area is composed of the OARB and Maritime sub-districts; the Project site is within the Maritime sub-district. The Board of Port

Commissioners adopted the 2002 EIR in September 2002 as a responsible agency under CEQA. The Port and the City of Oakland have relied on the 2002 EIR when they took further actions related to the Redevelopment Plan over the years. These actions were further evaluated by the City of Oakland in the 2006 OARB Auto Mall Supplemental EIR (Lamphier-Gregory, 2006), a 2007 Addendum to that EIR (Lamphier-Gregory, 2007), and a 2009 Initial Study/Addendum for the Central Gateway Aggregate Recycling and Fill Project (Lamphier-Gregory, 2009). In 2006, the Port's Board of Port Commissioners considered and approved an Addendum to the 2002 EIR (Port of Oakland, 2006) that looked at the impacts of not relocating Maritime Street to the east onto OARB property.

In 2012, the City of Oakland, in consultation with the Port, commissioned an Initial Study and Addendum to the 2002 Oakland Army Base Area Redevelopment Plan EIR (referred to as the 2012 IS/AD [LSA Associates, 2012]) to evaluate proposed changes to the redevelopment plan. Although the IS/AD focused primarily on facilities in the OARB sub-district, it also evaluated cargo movement in a portion of the Maritime sub-district. The combined documents are referred to as the Redevelopment EIR in this document. On November 3, 2008, the Oakland City Council adopted Standard Conditions of Approval/Uniformly Applied Development Standards, via Ordinance No. 12899 C.M.S., which were revised, in part, in July 2011. The 2012 Addendum relied on the Standard Conditions of Approval as part of the mitigation for potential redevelopment impacts.

This IS/ND for the proposed Project relies on cargo throughput analyzed in the Redevelopment EIR. The Redevelopment EIR evaluated cargo throughput for the entire seaport and provided necessary mitigation; therefore, cargo throughput is not reevaluated in this IS/ND. Potential impacts associated with 1) bringing an additional train per day to the Port area, 2) moving containers from the site to any of the marine terminals, and 3) bringing empty containers to the site are all encompassed by the Redevelopment EIR. The Redevelopment EIR considered the potential for increases in cargo throughput resulting from expanded and modernized marine terminals, and redevelopment of vacant and underutilized property within the seaport area. The analysis of cargo movement was conducted for the seaport area as a whole, and is based on the understanding that the total cargo that can be transferred through the Port depends on the acreage of container terminals, availability of rail service, sizes of container vessels calling at the Port, and improvements in technology. Based on these factors, the Redevelopment EIR estimated that a container throughput of up to 4.05 million twenty-foot equivalent units (TEUs)[5] per year could be achieved once redevelopment activities are complete. The Redevelopment EIR therefore analyzed the potential impacts associated with the movement of 4.05 million TEU per year through the Port area and provided mitigation for this level of cargo throughput. Redevelopment activities that occur on vacant and underutilized property within the seaport area, such as the former UP Roundhouse and Sherex sites, would contribute to the projected total 4.05 million TEU throughput.

The impact analysis for the Redevelopment EIR assumed that when throughput reaches 4.05 million TEU, 51 percent of the cargo would be over-the-road (i.e., enter and leave the Port over the freeways and nearby surface streets), and 49 percent would be intermodal cargo (cargo brought in by train). In Calendar Year 2014, the Port's throughput was just under 2.4 million TEU. Of that 2.4 million TEU, approximately 445,000 TEU (18.9 percent) were intermodal cargo. Increasing the percentage of intermodal cargo moving through the Port is therefore very important to comply with the assumptions and provisions of the Redevelopment EIR.

While the Redevelopment EIR analyzed total cargo throughput through the Port's seaport area, it could not analyze the potential impacts associated with the specific redevelopment of most individual vacant or underutilized property within the Maritime sub-district, as specific redevelopment plans for each such parcel were not available. Consequently, this IS/ND document focuses on evaluating the effects that may occur as a result of the redevelopment of the former UP Roundhouse and Sherex sites – i.e., the site-specific effects of construction and operations at the Project site. In addition to evaluating potential effects due to on-site

[5] When containers were first used to ship cargo, they were typically smaller than those in use today. Most containers today are 40 feet or longer; therefore 4 million TEUs correspond to approximately 2 million containers.

construction and operations, this document evaluates whether the proposed operations could result in any nearby off-site impacts that were not addressed in the Redevelopment EIR. This approach ensures that the evaluation of potential environmental impacts is complete. The specific analysis for each environmental resource area is provided in Section 3.

2.5 Project Description

2.5.1 Project Setting

The proposed Project site is an open paved site. The only structures currently located at the site consist of:

- Thirteen 80- to 100-foot-high light masts (light poles)
- Eight wooden power poles
- 6,550 linear feet of railroad tracks
- Fencing around the perimeter of the property
- A small gate house installed by the parking concessionaire

The property also contains active electrical, fire suppression water, sanitary sewer, and storm sewer lines. Existing utility lines are shown on the drawings in Appendix B. The former UP Roundhouse site was historically used by Western Pacific Railroad, then Union Pacific Railroad, as roundhouse used for heavy maintenance and construction of the railroad's rolling stock and refueling operations on the locomotives. The roundhouse property formerly contained multiple structures, and foundations and former utility lines are currently present underneath the pavement in various areas of the property. The Sherex Property was used by the Sherex Chemical Company for the preparation of precursor chemicals used for the manufacture of fabric softeners, personal use soap products, and hair conditioners. The chemical plant is completely removed from the site; the area was graded and paved and has since been used for container truck parking.

Currently, land uses in the vicinity of the Project site consist of other industrial facilities, including maritime terminals, ancillary trucking services, scrap steel recycling at Schnitzer Steel, the UP railyard, and warehousing. Schnitzer Steel operations occur from 4 a.m. to 3:30 p.m., Monday through Friday. The UP railyard operates 24 hours per day. Commercial and light industrial facilities are located further to the north and east of the Project site. The closest residential properties are located at the corner of 5th and Adeline Street in Oakland (approximately 1,700 feet to the northeast) and between Main Street and Barber's Point Road in Alameda (approximately 1,650 feet to the south). Active industrial properties are located between the Project site and those residential properties. Phoenix Lofts, located at 737 Second Street, about 2,200 feet northeast of the Project site, are closest to the railroad tracks that would be used to shuttle the railcars into the facility. The baseline year for purposes of the analyses conducted in this IS/ND is 2014.

On-site railroad tracks form the northern and eastern boundaries of the property (see Figure 2-2). The tracks are currently used by UP several times per week to turn locomotives around from north-facing to south-facing. These turning movements are typically conducted during daytime hours. UP maintains the tracks and recently replaced all the railroad ties.

The Project site is currently used for truck parking, and is at full capacity.[6] Truckers using the Project site primarily haul cargo within the Port's seaport area. Trucks and personal vehicles enter and exit the site at a temporary gate located in the northwestern portion of the property. The trucks enter the site via the same access road used by the Matson Terminal. The parking area generates slightly more than 1,000 gate moves[7] per day Monday through Friday, approximately half in the morning when the trucks are exiting the Project

[6] With the planned lease of a portion of the site to UP, some of the truck parking is being moved to the Howard Terminal at 1 Market Street, as of April 2015. See footnote 4 on page 1-1.

[7] A gate move is a truck trip one way in or one way out of a gate which provides access to a terminal facility.

site for the day, and half in the evening, when the trucks are returning. There is minimal traffic on weekends, when the marine terminal gates in the seaport area are closed.

The ground beneath the paved former UP Roundhouse portion of the Project site is known to contain petroleum hydrocarbons, and the entire site is subject to an environmental Covenant and Environmental Restriction on Property (deed restriction) and associated Revised SMP (see Section 3.7, Hazards and Hazardous Materials; Figure 2-3; and Appendix C). The entire former UP Roundhouse site is capped with asphalt to accommodate trucks and the pavement is considered an environmental cap to minimize intrusion of rainwater into the subsurface and prevent contact with contaminated soil or liquid (free phase) petroleum hydrocarbons (also referred to as separate-phase hydrocarbons [SPH]). Groundwater is found between 3 to 5.7 feet below the ground surface (bgs) (San Francisco Regional Water Quality Control Board [RWQCB], 2010).

The former Sherex property reportedly contains residues from the plant operations, mostly hydrocarbons. As such Sherex is considered a hazardous waste property, and therefore any soil or groundwater removed from the property during construction work would be managed as hazardous waste. Construction and operations at the former Sherex property would be conducted in accordance with the appropriate occupational safety precautions. A health and safety plan would be prepared prior to construction under the oversight of an industrial hygienist, and only properly trained workers would perform work in this area. A groundwater monitoring program would be implemented in conjunction with the construction activities (Alameda County Department of Environmental Health [ACDEH], 1988).

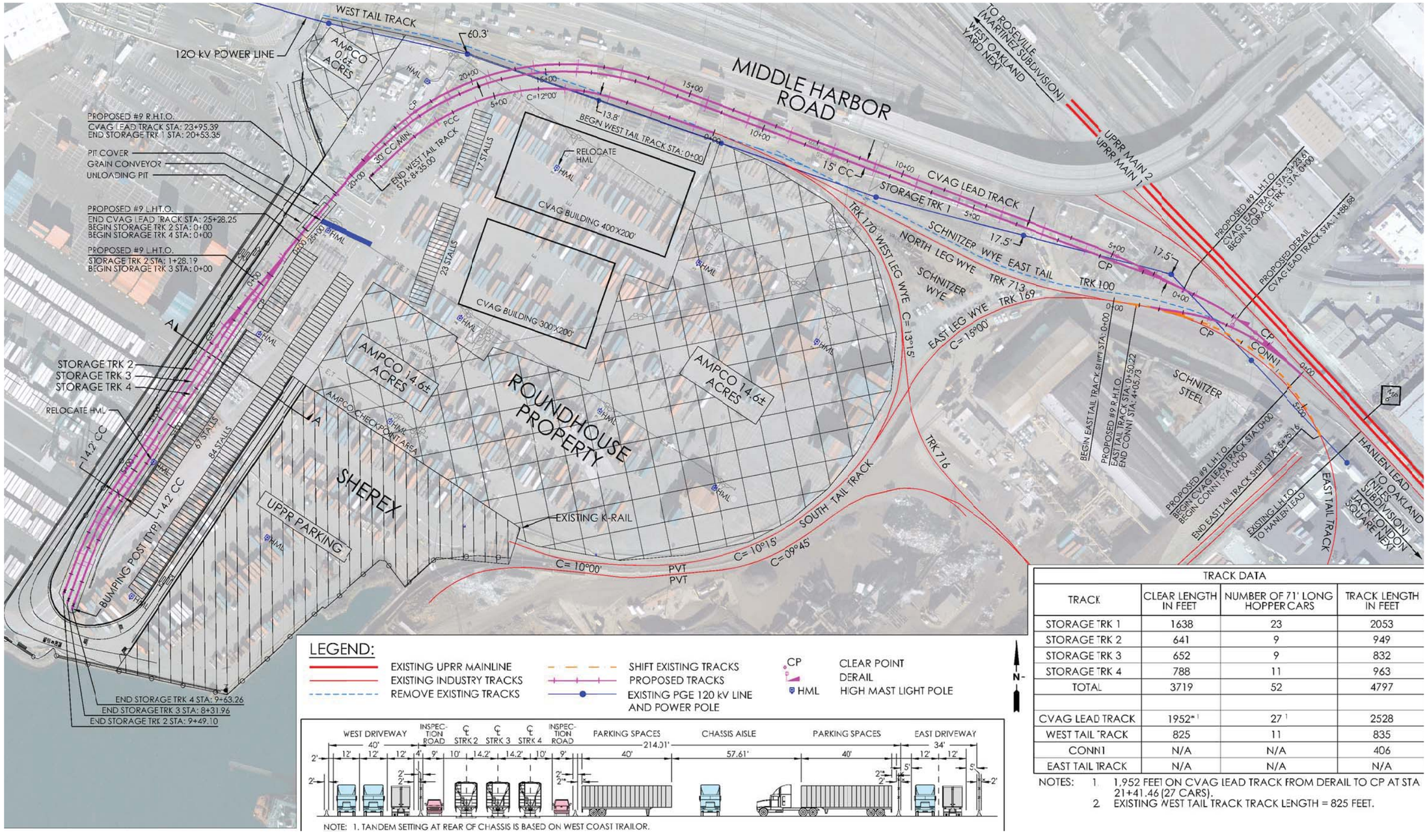
2.5.2 Grain Terminal Facility and Other Planned Improvements

The proposed Port of Oakland Grain Terminal would unload primarily whole grain (e.g., wheat, corn and barley) and possibly other agricultural commodities (such as soybeans or corn by-products from ethanol production, and non-hazardous agricultural fertilizer) from railcars and transfer that material into ocean-going shipping containers for export. The containers would be delivered to a Port ship terminal by truck. All materials transloaded at the Grain Terminal would be used for animal feed or as agricultural fertilizer. The facility is primarily intended to handle whole grains for the export market, although some meals (ground grains) could also be transloaded at the facility. If meals are transloaded, they would typically be brought to the facility by bulk truck from the Central Valley. The bulk truck operation would be a minor component of the overall transloading operation.

The Grain Terminal would be constructed on a 15-acre portion of the Project site (Figure 2-4). The proposed facility would process up to 50 railcars per day and generate a total of approximately 110,000 annual TEUs. The facility may receive manifest train segments. A manifest train is a train composed of train segments from a variety of origins and intended for a variety of receivers. Alternatively, the cars could be portions of a unit train; a unit train originates at one location and delivers to a single receiver.

In addition to the Grain Terminal, the property would also be used to accommodate 5.9 acres of truck and other vehicle parking for UP (Figure 2-4). UP is expected to use the area on the site primarily as a wheeled chassis operation, resulting in a similar number of gate moves per acre as the current public (Ampco) truck parking facility. Two parcels totaling 15.2 acres (two separate areas of 14.6 and 0.6 acres) not used by the Grain Terminal and UP would continue to be used for truck parking. These 15.2 acres would continue to be leased to Ampco or another tenant.

The combined UP and public truck parking operations following reconfiguration of the site are estimated to result in approximately 577 gate moves per day. The parking areas would continue to be used primarily Monday through Friday. Additional parking needs for independent truckers that could no longer be accommodated at the site would be accommodated on an interim basis at Howard Terminal located approximately 5,000 feet to the east, while the Port identifies a more permanent location. Figure 2-4 shows the proposed layout for the entire Project site.



TRACK DATA			
TRACK	CLEAR LENGTH IN FEET	NUMBER OF 71' LONG HOPPER CARS	TRACK LENGTH IN FEET
STORAGE TRK 1	1638	23	2053
STORAGE TRK 2	641	9	949
STORAGE TRK 3	652	9	832
STORAGE TRK 4	788	11	963
TOTAL	3719	52	4797
CVAG LEAD TRACK	1952*[1]	27[1]	2528
WEST TAIL TRACK	825	11	835
CONN1	N/A	N/A	406
EAST TAIL TRACK	N/A	N/A	N/A

NOTES:
1. 1,952 FEET ON CVAG LEAD TRACK FROM DERAIL TO CP AT STA 21+41.46 (27 CARS).
2. EXISTING WEST TAIL TRACK TRACK LENGTH = 825 FEET.

Source: CVAG Phase 2 (Alternative I), December 10, 2014, Parsons.

FIGURE 2-4
Proposed Site Layout
Initial Study/Negative Declaration
Roundhouse Area Improvements Project
Port of Oakland
Oakland, California

As noted earlier, although the Port intends to lease the Project site for use as a Grain Terminal and truck parking, the Port may also lease the property for similar bulk cargo transloading operations, or as an open, paved site. Differences in facilities and operations for these other possible future uses are discussed in Sections 2.5.3 and 2.5.4. All potential future uses, including the Grain Terminal, would involve leasing, construction of facilities, minor utility improvements, operations, and routine maintenance activities. All permanent improvements proposed for the Project site would be outside of the San Francisco Bay Conservation and Development Commission (BCDC) jurisdictional shoreline band.

2.5.2.1 Grain Terminal Improvements

The improvements for the Grain Terminal would include the following components:

- Rehabilitation and extension of existing rail track, and rehabilitation of associated equipment (i.e., switches[8]) as necessary to accommodate the train cars (see Figure 2-4)
- A high-speed bulk railcar unloading and conveyance system with a 12-foot-deep in-ground unloading pit
- An elevated conveyance system on piers (an enclosed grain elevator connected to an enclosed conveyor to move the grain to the loading system or into the surge building)
- One or two temporary at-grade surge and overflow storage building(s) ("surge building[s]") equipped with high-speed container loading and dust control systems
- Utility improvements to support the new tracks and other facilities
- Support facilities including a modular office/scale building, truck scales, and fencing

Figure 2-4 shows the proposed layout for the 15-acre Grain Terminal facility. All transfer points in the unloading and loading operations would be fully enclosed to prevent fugitive dust generation. All fixed equipment brought to the facility for site operations would be new equipment. All mobile equipment would be new or recent equipment compliant with current California Air Resources Board (CARB) requirements. Drayage trucks and chassis[9] would also be parked at the facility when not in use.

Railroad Track Installation and Rehabilitation

UP has recently upgraded the existing tracks at the facility. To accommodate the Grain Terminal, the existing railroad tracks would be extended to add a short tail track (approximately 840 feet) and four storage tracks ranging from approximately 830 feet to 2,050 feet long, and the existing lead track would be upgraded. There would be a total of approximately 9,570 feet of track, requiring an estimated 8,100 linear feet of excavation.

The existing west tail track (approximately 850 feet) would be removed and replaced with a new west tail track. A small portion of the existing northern track would be rerouted into the new tail track. The current design proposes that the remaining unneeded track would be left in place, and the site designed around it. If detailed design indicates that working around the unneeded track is not feasible, an additional 1,200 feet of track may be removed. Removal of the additional unneeded track is included as part of the proposed Project. All existing switches required for the proposed Grain Terminal operations would be replaced by automated switches. All new switches would also be automated. Each switch requires approximately 120 feet of track.

Train tracks would be installed on concrete ties placed on top of and surrounded by ballast. A trench would be dug, then filled with approximately 12 inches of subballast and then a minimum 12 inches of ballast. Electrical lines and a communication line required to operate the new automatic switches would be installed

[8] A switch is a movable section of track that allows a train to move from one track to another.

[9] A chassis is a wheeled base on which containers sit and that is used to move containers on roads.

in a 1-foot-wide trench adjacent to the tracks. Storm water drainage from the tracks would be directed to a treatment system compliant with the Port's Municipal Separate Storm Sewer System (MS4) permit.

In some places the tracks would be above the current site elevation (asphalt cap). To allow vehicles to cross over the tracks, the grade immediately adjacent to the tracks would be raised to be flush with the tracks, and the surface would slope away gently from the tracks to the level of the existing asphalt pavement. The profile of the surface grade near the tracks would be similar to how railroad crossings at streets are constructed. The grade would be raised using clean imported or on-site fill, and the fill would be paved with asphalt. The pavement would be restored to meet the requirements of the SMP (see Appendix C).

Construction activities associated with installing a railroad switch (also known as a turnout) include delivery of the switch components; manual assembly of the components; removal of the old switch, if a replacement; and either refreshing of the ballast (in the case of a replacement), or grading and subgrade compaction and placement of subballast and ballast (in the case of new installation). The assembled switch is typically put into place using a small crane or front-end loader; it is then welded to the adjacent track.

The new tracks would be configured to avoid interfering with Schnitzer Steel's (the adjacent landowner's) and UP's operations; both will have unhindered access to the Schnitzer Wye[10] and associated support tracks. The Schnitzer Wye is located immediately to the northeast of the Project site.

High-Speed Railcar Unloading and Conveyance System

The complete unloading system consists of the:

- Railcar unloading facility and unloading pit, and
- Grain conveyance system, which consists of the enclosed bucket elevators and overhead conveyors.

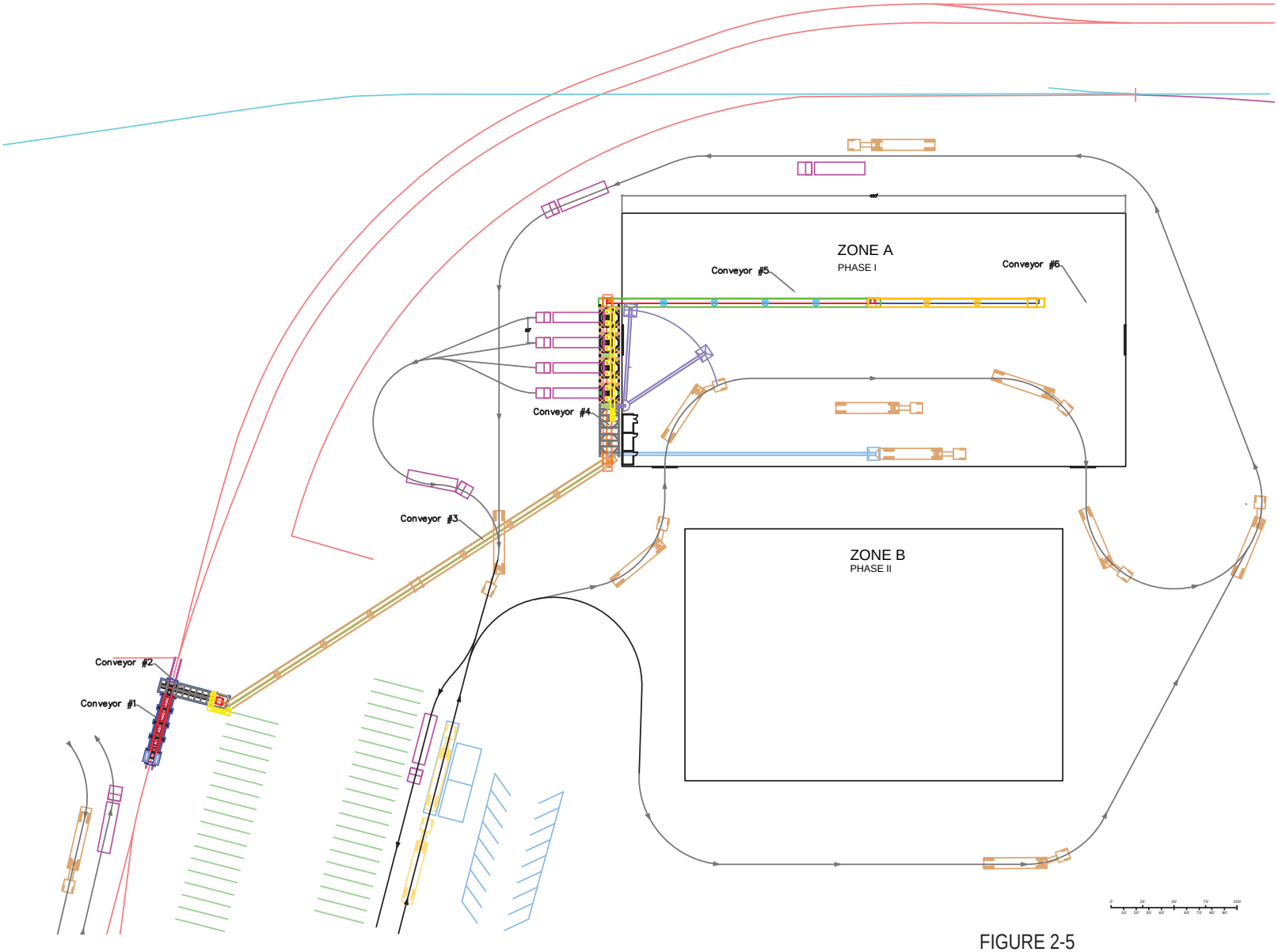
A schematic of the unloading and conveyance system is shown in Figure 2-5. The railcar unloading facility and unloading pit would be located on the west side of the Project site just north of the southern storage tracks (Figure 2-4). The railcar unloading facility would consist of a shed-like structure open on both ends that provides protection to the unloading pit and railcars being unloaded. It would also provide access to the tops of railcars in the facility, and support ancillary unloading equipment (e.g., hard car unloaders and vibrating equipment) if needed. The pit would be an in-ground pit, and would be constructed of reinforced concrete 16 to 24 inches thick, supported by approximately 20 40-foot helical piles. The pit would contain a conveyor that moves the grain to the grain elevator.

The grain elevator in turn would move the grain from the unloading pit directly to the overhead conveyor leading to the container (grain) loading system in the primary surge building, allowing direct transfer of grain from rail car to container. The grain unloading conveyance system would also be set up to discharge grain into the storage bays in the surge building(s) when needed. Excavation would be required to construct the pit and the unloading pit grain elevator.

Surge Buildings and Container Grain Loading System

One or two surge buildings would be constructed. The surge building(s) would be used to temporarily store grain if the railcar unloading rate exceeds the container loading rate. The buildings would be white, soft-sided buildings over a load-bearing steel skeleton (see Figure 3.1-4 in Section 3.1.3). The primary surge building would be a 200-foot by 400-foot building (80,000 square feet), and would be 100 feet tall at the peak. The second surge building, if needed, would be slightly smaller; it is expected to have a footprint of 200 feet by 300 feet. It would have the same height as the primary surge building, and serve as an overflow building for materials that could not be accommodated in the primary building. The smaller building would

[10] A wye is a triangular-shaped arrangement of rail tracks with a switch at each corner. A switch is a device for moving the rails from one track to another so that a train can be moved from one track to another.



Source: Rail Receiving and Storage, Sheet P-1F, Central Valley Ag, November 10, 2014.

FIGURE 2-5
Proposed Grain Terminal Unloading and Conveyance System
Initial Study/Negative Declaration
Roundhouse Area Improvements Project
Port of Oakland
Oakland, California

CH2MHILL

be a multi-purpose building and could also be used if multiple products are being transloaded at the site, to transload imported materials into containers for transport to the Central Valley, or to transload materials that require specific types of trucks.
The primary surge building would have sufficient capacity to store the cargo from up to two unit trains (a total of up to 236 railcars), and the second building would be able to accommodate cargo from 1.5 unit trains. The buildings' fabric would be Kevlar-reinforced high-tensile strength polyvinyl chloride (PVC). The buildings would be anchored using 20-foot helical piles driven directly into the ground. Approximately 275 anchors would be required. Installation of the helical piles would not generate any waste soil or asphalt. The buildings would be lit using low-hanging, shielded fluorescent lights. The buildings would be equipped with bays for grain storage (storage bays). The storage bays would be constructed simply of large concrete blocks stacked approximately 3 high above grade, and would be open on one or more sides to provide equipment access to the stockpiled grain.

The primary surge building would contain six container loading bays where grain is transferred into shipping containers. No loading bays are currently planned for the smaller building. While the grain would usually be transferred directly from the railcar unloading facility to the grain loading system, the grain loading system also would be equipped with a hopper[11] to accept grain from the stockpiles, as needed. The second building would have a ground level hopper that would be connected directly to the primary surge building's loading hoppers via a bucket elevator or slant conveyor. The ground level hopper would be loaded with two front-end loaders. Additional container loading bays could be installed in one or both buildings at a later stage, if necessary.

In addition to the conveyance systems outside the buildings, both buildings would be equipped with dust control systems. A bag house would be installed to capture dust in air vented from the building; if necessary the buildings would be equipped with emission doors[12] to minimize dust releases through the doors.

Utility Improvements

In addition to the electrical and telecommunication lines required to operate the switches discussed above, electrical power is required to operate the unloading and loading systems, new lighting at the facility, and the office trailer. Electrical power would be supplied by Pacific Gas and Electric Company (PG&E). An estimated 2,500 feet of new electrical lines would be installed. Telecommunications lines would also be extended to the office trailer. The existing fire suppression water lines would be extended 2,500 feet to provide potable and fire suppression water to the surge buildings and office trailer. In addition, a new 500-foot sanitary sewer extension would connect the office trailer to the sanitary sewer. Approximately 1,000 feet of storm drain lines and associated catch basins would have to be relocated. To accommodate the new tracks, an estimated 500 feet of existing water pipe would be encased to protect it from the additional load imposed by the tracks and railcars once the new facilities are in operation. Potable water, telecommunications, and potentially security fiber optic lines would be extended to the office trailer.

Trenching would be required to install these new utilities. Approximate trench lengths, widths, and depths are shown in Table 2-1. An estimated 4,200 cubic yards (CY) of soil would be excavated to accommodate the new utilities. Soil would be stockpiled to determine if it is suitable for backfilling onsite in compliance with the deed restriction. Soil that cannot be used for backfill would be disposed of at an appropriate landfill. Some of the utility installation may be deep enough to encounter groundwater. Excess groundwater produced during construction will be stored in temporary storage tank(s) and tested for appropriate disposal.

[11] A hopper is a container for storing bulk materials. It has a narrow opening at the bottom (like a funnel) used to discharge the bulk material by gravity.

[12] Emission doors are doors equipped with misters to manage fugitive dust emissions from the building. If these are required, there would be two large misting apparatuses located at the upper corners of the door, creating a mist curtain over the door.

TABLE 2-1
Utility Trenches

Utility Type	Total Length of Trenches (ft)	Trench Width (ft)	Trench Depth (ft)
Electrical Lines	2,500	3	4
Storm Drains	1,000	2.5	6
Fire Suppression Water	2,500	3	4
Sanitary Sewer	500	2	4
EBMUD Water Pipeline Protection	500	5	6
Other Utilities (e.g., potable water, telecommunications)	1,000	3	4

Support Facilities

Two open (uncovered) truck scales would be installed at the entrance to the Grain Terminal facility to weigh incoming and outgoing containers (Figure 2-4). In addition, the Grain Terminal facility would include one or two modular buildings to serve as offices and a combined gate house/scale control building. In addition, there would be specified traffic lanes, container staging, and container storage area (Figure 2-4). The entire facility would be fenced and equipped with standard night-time perimeter security lighting.

2.5.2.2 Grain Terminal Operations

The Grain Terminal facility would operate throughout the week (trains would be received six days per week), including weekends, and operations would be organized into two or three 8-hour shifts. Operations would occur up to 24 hours per day. All cargo would be new cargo to the Port of Oakland. In addition to grain and agricultural fertilizer, the facility may also transload corn by-products and other miscellaneous products as described below in the Other Potential Agricultural Product Uses subsection. Each unit train would consist of up to 118 hopper cars with a combined capacity of up to 12,400 short tons, and be no more than 7,100 feet long (including locomotives). A hopper car is a freight car with one or more hoppers. Jumbo or super jumbo hopper cars around 58 to 71 feet in length would be used. It is anticipated that the trains would be received at UP's West Oakland yard. When unit trains destined for the Grain Terminal are received at the UP railyard, UP would shuttle segments of cars (up to 25 cars) over to the Project site. The railcars would be moved east from the UP railyard along the mainline tracks, and then into the Project site via newly routed track (avoiding the Schnitzer Wye). The remaining train segments would be stored at the UP Yard while one is being unloaded.

The train segments would be moved into the site with a UP locomotive. The cars would be moved along the Hanlon lead to just west of Martin Luther King Way to clear the switches for the new Grain Terminal lead. The locomotive would pause momentarily to allow the switch to be set for the Grain Terminal lead track and would then move the train segment onto the Grain Terminal lead track. The locomotive would then either return directly to the West Oakland Yard, or it would pick up a segment of empty cars (the process would be the reverse of delivering the cars) and then return to the West Oakland Yard. While a train segment is being moved into or out of the Grain Terminal the crossing at Embarcadero and Market Streets would be impacted for an estimated 6½ minutes. It would take an estimated 3 to 4 hours to unload each train segment.

Once delivered into the site, train car segments could be cut further into smaller segments as needed for unloading. The train segments would then be moved through the railcar unloading facility by advancing

them one car at a time. The railcar unloading facility would be capable of unloading one train car approximately every 6 minutes, and is designed to typically handle 8 to 10 rail cars per hour.

To unload the grain, the gates at the bottom of each hopper in the railcar would be opened and the grain would be discharged through the bottom of the hoppers directly into the unloading pit. From the unloading pit, a bucket elevator would mechanically lift the grain to the overhead mechanical conveyor (overhead conveyor) for transfer onto the container loading system conveyor (loading conveyor) in the surge building. Loading operations are expected to occur in the primary surge building, although loading equipment could be installed in the smaller building at a later date. The loading conveyor would transfer the grain into bins (that serve as metering stations) for discharge into shipping containers. The bins regulate product flow onto the conveyors leading to the container loading bay to ensure steady, consistent container loading rates. Provided empty containers are available, the grain would be conveyed directly from hopper cars to the bins and from the bins into containers at the loading bays. Four loading bays are required to achieve the projected throughput.

If there are insufficient empty containers to directly transload the grain from the hopper cars into the containers, or if maintenance or other activities limit or temporarily stop the loading operation, the excess grain from the railcar unloading system would by-pass the bins and be transferred to another interior conveyor mounted over the storage bays. The conveyor would discharge the grain into the storage bays in the surge building (into stockpiles). The stockpiles would be placed directly on the asphalt pavement, and would be no more than 55 feet high. Once loading operations resume, the grain would be moved from the stockpile(s) into a movable container loading system hopper using front end loaders. The hopper in turn would feed the container loading system. The two surge buildings would be connected via an elevated grain conveyor to allow movement of grain from the unloading facilities to either building (grain would be unloaded onto the overhead conveyor leading into the primary building, and could be moved from that overhead conveyor directly to the conveyor leading to the secondary building). The storage bays would be swept out if there were a change in the type of material stored in the bays; however, overall waste generation would be minimal. Product losses would be tightly controlled to reduce costs.

The grain unloading and loading systems would be fully enclosed and designed to capture any dust generated by the unloading and loading operations. This capture eliminates nuisance dust generation, protects worker health and air quality, and minimizes loss of product. All unloading and loading equipment would be powered by electricity. Some support equipment (such as front-end loaders) is diesel powered, and the forklifts will be powered by propane. A backup mobile (diesel) conveyer system would be kept at the Grain Terminal to allow for continued operation in case of commercial power failure or other emergencies. It is estimated that this mobile conveyor would be used no more than 10 hours per month.

Empty containers would be trucked (drayed) to the Project site by a local drayage service, or tenant-owned drayage trucks.[13] The empty containers would be weighed coming in and deposited in the empty container storage areas within the Grain Terminal (see Figure 2-4). Containers would be stored on chassis (this is referred to as a “wheeled operation”). Up to 190 containers on chassis could be accommodated on-site. The Grain Terminal would have dedicated, purpose-made, three-axled chassis designed to handle the heavier containers. Dedicated yard trucks would pick up empty containers from the storage areas and bring them to the loading bays at the surge building. Immediately prior to loading, the container would be swept out to remove dust and debris, and vacuumed to remove any residual grain, if necessary. The vacuum system would be connected to the facility’s dust collection system. A bulkhead would then be installed inside the container door rail, and the container backed all the way into the loading bay. The bulkhead is also known as a “grain door” and holds back the grain when the container doors are opened.

A pre-metered (weighed) amount of grain would be transferred into the containers using a high speed loading slinger. Containers would be loaded starting from the front (opposite the doors). A container would

[13] Drayage trucks are trucks used to haul empty or loaded containers from one location to another.

be filled in approximately 5 minutes. To minimize the need for grain storage and avoid overloading the surge buildings, the rate of loading and unloading is designed to be equal. The other two loading bays would serve as a back-ups or alternative bays.

Once a shipping container has been filled, a yard truck would haul the container to the temporary storage area for loaded containers. The loaded container would be picked up by a drayage service, and hauled to the appropriate nearby marine terminal. Containers could be conveyed to the marine terminals at any time of day, provided that the Grain Terminal operator has made arrangements with the marine terminal operator if special gate hours are required.

One hopper car would load approximately three-and-a-half 40-foot shipping containers; 50 rail cars per day would therefore generate about 175 40-foot containers (the Grain Terminal would use only 40-foot containers). The Grain Terminal could generate up to 350 – 420 containers per day if additional rail cars are delivered to the facility; however, the typical rate once the facility is at full operation would be approximately 140 – 175 containers per day. Each loaded container would generate two gate moves: the in-bound move with an empty container and the outbound move with the loaded container, or vice versa for imported grain.

Dust and debris collected from container cleaning (referred to as dunnage) would be placed into covered dumpsters and disposed of as trash. Typically there is little debris or dirt. Maintenance of equipment would be contracted out; minor maintenance would be performed on-site and vehicles requiring major overhauls or repairs would typically be serviced off-site.

The following equipment is expected to be used for Grain Terminal operations:

- One rail car mover (diesel)
- A drag conveyor, and one pit-to-elevator drag conveyor
- One high-speed railcar unloading and elevated conveyance system (consisting of the bucket elevator and overhead conveyor) providing a direct connection to the grain loading system in the primary surge building)
- Overflow conveyor to move excess grain to stockpiles in the primary building (if the unloading rate exceeds the loading rate)
- One high-speed container loading conveyance system for the primary surge building (consisting of two interior conveyors, four loaders, and a hopper system) leading to the four loading bays
- One conveyance system for the second surge building (consisting of two interior and one exterior conveyor)
- Five yard trucks (diesel) to move containers within the facility
- Two maintenance trucks
- Two front-end loaders (diesel) to move grain from the stockpiles into the container loading conveyance system
- One small skid steer loader for general clean-up and facility support (diesel)
- One bulkhead scissor lift truck to lift personnel and grain door (about 4 feet) to allow installation of the grain door
- One diesel-powered forklift (plus a stand-by unit) to move cardboard and lumber for bulkheads
- One hydraulic wet kit motor to provide pressure to power hydraulic equipment
- Two hard car unloaders for corn by-products (see below)

- One back-up mobile diesel-powered conveyor system

Both surge buildings would also be equipped with dust control systems (including a dust recovery air system and bag house air system, and a vacuum system) and inside misting systems.

Maintenance and Fueling

Routine equipment maintenance would be conducted as part of facility operations. Maintenance would include work on conveyance equipment (e.g., cleaning, lubrication and minor repairs), as well as chassis and minor maintenance (e.g., oil changes) of drayage trucks and other mobile equipment. The most common types of maintenance that would be conducted would be minor welding on chassis. All maintenance would be conducted either inside the buildings or under a canopy, in accordance with applicable storm water and hazardous materials regulations.

Longer-term maintenance may also include periodic maintenance of facilities, utilities, and other site features as needed. Utility and pavement repairs, if needed, could require excavation. Any excavation would follow the requirements in the SMP. Minor utility upgrades required for effective operation of the terminal and/or Project site, and/or to comply with changing regulatory requirements, may also be required.

Fueling would likely be conducted by an outside vendor bringing diesel fuel to the site. Alternatively, a small aboveground diesel storage tank equipped with a fueling nozzle could be installed at the site for non-retail use only. The tank would be installed and managed in accordance with all applicable regulations.

Employees

The facility would have an estimated 35 to 38 employees. Employees would most likely commute to the Project site by personal vehicle. A state agricultural inspector would likely be on site most of the time to collect samples and monitor operations.

Required Permits

To operate the transloading facility, the Grain Terminal operator would be required to obtain permits from the Bay Area Air Quality Management District (BAAQMD).

The Grain Terminal would be expected to obtain permits for regulated activities and equipment, which may include:

- Rail car unloading
- Container loading
- Truck unloading
- Truck loading
- Container unloading
- Rail car loading
- Material storage (discharge of material to stockpiles inside the buildings)
- Multi-clone dust collector (abatement activity)
- Emission doors, if required
- Fuel dispensing systems, if required (not required for diesel only)

Storm water management would be addressed under the Port's MS4 permit and the operation's coverage under the State Water Resources Control Board's (SWRCB's) Industrial General Permit, if required. Most of the processing would take place inside buildings or under canopy (e.g., maintenance). The lessee would also be subject to regular Port inspections for storm water compliance in accordance with the Port's Storm Water Ordinance.

Other Potential Agricultural Product Uses

In addition to grain and agricultural fertilizer, the facility may also transload corn by-products and bulk meals (ground grain). In order to quickly off-load corn by-products, which are less flowable than grain, a hard car

unloader is required. A hard car unloader is a mechanical probe that loosens the material in the hopper car to allow it flow out of the hopper car more easily. The unloading facility would be designed to accommodate the hard car unloader; however, the hard car unloader would only be installed if it is needed.

If bulk meals are brought to the facility, they would typically be brought in by bulk truck. The meals would be transloaded from the bulk trucks into containers at the Grain Terminal. The bulk trucks would be brought into the surge building and unloaded. The bulk trucks used for these materials (also called walking floor trucks) have belt-bottom unloading equipment built into the bottom of the truck and would discharge the grain directly into a small storage bay. Three to four trucks (around 100 tons of materials) would be unloaded into the small bay, and then front-end loaders would be used to move the material in the loading hopper for loading into containers. Each container would require approximately 1¼ bulk truck loads. If meals are brought in by train, vibrating equipment may be required to loosen the meals sufficiently to enable the railcars to be unloaded. The most difficult materials and railcars would be unloaded in the Central Valley and then trucked to the Port of Oakland to limit noise generation at the Project site.

The facility may also receive small quantities of imported materials that would be transloaded onto trucks for transport to the Central Valley. These materials may include whole cotton seed (used as livestock feed), and feed grade urea (an inert material used to make diesel emission fluid used in newer cars and equipment with selective catalytic reduction). Up to 30,000 tons per year of whole cotton seed and 90,000 tons of feed grade urea could be shipped through the Grain Terminal. The materials would be received in 40-foot containers (whole cotton seed) or 1-ton supersacks (feed grade urea) on flatbed trucks. The containers of whole cotton seed would be emptied and loaded onto walking floor trucks for transport to the Central Valley. The 1-ton supersacks would be transferred from the flatbed trucks and loaded onto other flatbed trucks for transport to the Central Valley. These two operations combined would result in up to approximately 4,600 truck trips per year to the Central Valley.

2.5.3 Other Bulk Cargo Transloading Facility Improvements and Operations

In addition to grain and the agricultural commodities described above, the Project site could also be leased to other bulk cargo transloading operations including:

- Other agricultural products (non-hazardous cargo only)
- Iron ore and other non-fossil fuel bulk commodities (i.e., not coal or petroleum)
- Steel (coils, rods, slabs, etc.)
- Wood/paper products
- Refrigerated tanks for spirits, wines, juice, dairy, etc. (non-hazardous liquids only)
- Logs for export

Most of the alternate bulk cargo would also arrive at the Project site via rail. All liquids would remain in their refrigerated tanks. No transloading would be required, as the tanks are enclosed in container frames. Scrap metals would arrive in scrap metal trucks, and logs would arrive on logging trucks. All non-liquid bulk materials, including scrap metal and logs, would be transloaded into containers. The specific types of equipment required to carry out these types of operations cannot be determined at this time. However, the level of activity at the site when transloading one or more of these alternative materials would not exceed the projected level of activity (e.g., with regard to hours of operation, noise generation, equipment use, or the number of truck trips) generated by the entire site reconfigured as proposed (with the combined Grain Terminal, UP parking, and public parking uses). Support facilities would be similar in size and scope to those proposed for the Grain Terminal (i.e., may include utility installation, modular office space, small structures, scales, fencing, and lighting). If other bulk materials that could result in dust generation are transloaded, transloading would occur in a fully contained system and temporary buildings as described for the Grain Terminal. Minor improvements, maintenance activities and management of any hazardous materials required for maintenance would be similar to those described for the Grain Terminal.

2.5.4 Other Maritime Support Facility Improvements and Operations

Other potential seaport area support activities that could occur at the Project site consist of either warehousing operations or use of the facility in its current configuration as a paved open yard area. Warehouse uses could include a customs examination station or a bulk materials warehouse (e.g., a cotton warehouse).

Warehousing activities would also occur in a temporary building. Warehousing activities could include bulk cargo off-loaded from rail (e.g., cotton), or individual containers brought in by truck. Warehouse operations would likely also include transloading of cargo into containers. If the site is used for warehousing, a separate modular building may be installed for offices, security, or other uses, as for the proposed Grain Terminal. The modular building, if needed, would not exceed the size specified for the Grain Terminal. Utility connections and installation of new utilities, fencing, and lighting would be similar to those required for the Grain Terminal.

Use of the facility in its current configuration (i.e., with no new facility construction) could include:

- Container terminal expansion (i.e., expansion of the Matson Yard lease to include additional acreage)
- RORO cargo storage and staging (storage would occur at the Project site, and the cargo would be shipped through the adjacent Matson Terminal)

These types of uses may require that fencing and gate locations be adjusted, and that a modular building be installed to serve as office space, gate security building, and/or scale building. Similar to the Grain Terminal, utilities such as potable water and sanitary sewer lines may have to be brought to the site or extended, and truck scales may have to be installed. The extent of any improvements required would likely be considerably less than those required for the Grain Terminal, and would not exceed those proposed for the Grain Terminal. The overall density of use would not exceed the proposed Grain Terminal use density (i.e., number of containers processed through the facility), or number of gate moves proposed for the Project (combined Grain Terminal, UP, and public parking gate moves). The number of employees required to operate a facility of this type would be similar to that for the Grain Terminal. Maintenance requirements and minor improvements for these types of facilities would be similar to, but likely less than, those required for the Grain Terminal, because there would be few above-ground structures.

2.5.4.1 Expansion of the Adjacent Marine Terminal

Expansion of the existing Matson Terminal would consist entirely of leasing additional container storage yard area. Cargo handling activities associated with the reuse of the Project site as a container storage facility would be the same as at other marine terminals. All cargo handling operations at marine terminals, including projected expansions, were addressed in the Redevelopment EIR (City of Oakland, 2002 and LSA Associates, 2012), and as such do not require further analysis. Expansion of the terminal could require minor construction activities such as minor utility improvements, moving fences, restriping pavement, and providing a modular building for on-site offices and security, etc. The on-site building(s) would not exceed the size of the building proposed for the Grain Terminal.

2.5.4.2 RORO Cargo Storage and Staging

Roll-on/roll-off cargo would most likely consist of one or more of the following:

- Used cars
- New vehicles exported to Hawaii and Guam, primarily for rental cars
- Military cargo (e.g., SUVs, Humvees, etc.)
- Other cargo (large, heavy, high value or critical [to the project they are intended for] pieces of equipment, including components that need disassembly for shipment and reassembly after delivery)

A RORO facility would be a form of terminal expansion; however, due to the different nature of the cargo, RORO operations would likely have a separate gate. Cars would be brought to the site on car carriers, moved on to the pavement, and then driven onto a vessel berthed at the Matson Terminal. New cars from Asia being exported to Hawaii or Guam have to be transloaded onto an American-flagged vessel. These cars are typically received at the Ports of Richmond or Benicia, and loaded onto car carriers. Any RORO cargo received would be driven off the ship and staged at the site.

Use of the property as a RORO facility would require employees to manage the vehicles and/or equipment, as well as fencing, lighting and security. The site could be used with only minor modifications; modifications to utilities would be less than those required for the Grain Terminal, and the added work force would be similar to that required to operate the Grain Terminal.

2.5.4.3 Project Construction

2.5.4.4 Construction Plans and Fugitive Dust Control

Construction at the site would be conducted in conformance with applicable laws and regulations, including laws and regulations pertaining to the handling and management of hazardous materials, site-specific restrictions contained in the deed restriction and Site Management Plan (Appendix C). Although the likelihood of encountering unknown historic or archeological resources is low, the contractor would also be required to comply with the requirements in the Port's Emergency Plan of Action for Discoveries of Unknown Historic or Archaeological Resources (see Appendix D). Prior to the start of construction activities, the Port would require the lessee or construction contractor to develop all or most of the following plans, as applicable:

- Stormwater pollution prevention plan (SWPPP)
- Health and safety plan
- Spill prevention and control plan
- Soil and groundwater management plan
- Solid and hazardous waste management plan
- Dust control and air pollution management plan (if needed)
- Traffic control plan (if needed)
- Debris containment plan
- Construction and demolition debris waste reduction and recycling plan

The health and safety plan, solid and hazardous waste management plan, and SMP would address site-specific work practices to ensure that workers and the environment are protected in the event that contaminated soil is uncovered. The spill prevention plan would (a) address management and protective measures, emergency response measures, and methods to capture fuel spills; (b) require a staging area for heavy construction vehicles that prevents leaks into the soil or water; and (c) require that maintenance of heavy construction vehicles be conducted off-site. The solid and hazardous waste management plan and SMP would also address handling and reuse/disposal of asphalt and other demolition waste which may be contaminated due to contact with underlying contaminated soil. The dust control and air pollution management plan would address measures to minimize dust generated during grading and other construction. The traffic control plan would address any special requirements for bringing oversize loads to the site, such as rail for the new track. While it is currently anticipated that the rail would be delivered to the site on rail cars, other oversize equipment may be brought to the site by truck.

In addition to the construction plans listed above, the Project would implement appropriate best management practices to minimize emissions of fugitive dust during construction of the Project. The Project would include applicable measures from Table 2 of BAAQMD's 1999 CEQA Air Quality Guidelines. To further reduce the potential for fugitive dust, the proposed Project would also implement the following measures:

- During demolition and loading of aggregate materials, affected areas will be watered every 4 hours, thereby reducing fugitive dust emissions by 36 percent
- Areas being graded will be watered every 3 hours, thereby reducing fugitive dust emissions by 61 percent
- Areas being excavated will be watered frequently enough to maintain a soil moisture of 12 percent, thereby reducing fugitive dust emissions by 69 percent
- Unpaved roads will be watered twice daily, thereby reducing fugitive dust emissions by 55 percent
- Paved roads will be swept every 14 days, thereby reducing fugitive dust emissions by 26 percent

2.5.4.5 Grain Terminal Construction

Construction of the Grain Terminal improvements is estimated to require approximately 18 months. Due to the relatively small size of the site, most of the work would have to be conducted sequentially. All work would be subject to the requirements of the deed restriction and the Revised SMP. The unloading pit and any trenches that penetrate groundwater would be designed to meet the requirements of the cap and designed to prevent or minimize infiltration of surrounding groundwater. Any other area disturbed (e.g., for utility trenches) would be capped consistently with the requirements in the deed restriction and Revised SMP. The deed restriction allows reuse of the excavated soil within a specified area described in the deed restriction. Soil that does not meet the requirements for reuse (potentially due to debris in the excavated soil or high moisture content) and any excess soil would be tested and disposed of off-site at an appropriate landfill; the deed restriction does not allow it to be reused off-site.

Construction would consist of the facilities described in Section 2.5.2.1, Grain Terminal Improvements:

- Installation of up to 8,500 feet of new railroad tracks and six new or replacement switches
- Improvements to the existing railroad tracks and switches at the Project site
- Removal of up to 6,550 feet of existing track
- Construction of the temporary surge building(s)
- Installation of the high-speed railcar unloading system and pit
- Installation of the elevated conveyance system between the unloading facility and the two buildings
- Installation of high speed container loading system and dust control equipment
- Installation of six new high mast light poles
- Installation of minor support buildings (e.g., guard shack) as needed.

In addition, the Port would reconfigure the access lanes (i.e., restripe the pavement) to the Project site and move or install fences to allow multiple uses to occur simultaneously. New electrical and telecommunications lines, fire suppression water lines, potable water lines, storm drain lines, and potentially security fiber optic lines would be installed to serve the unloading and loading equipment, surge buildings, and modular building(s). Potable water and sanitary sewer lines would be extended to the modular building(s).

Construction Phasing

Construction would begin with removal of the railroad track that is no longer needed, and removal of several light masts that would be relocated as part of the reconfiguration of the site, as well as removing or abandoning approximately 1,500 feet of electrical lines and 1,000 feet of a fire suppression water line. Most utility work, including installation and protection of storm drain, sanitary sewer, potable water, and fire suppression water lines, and some portions of the electrical lines, would be conducted next. A treatment system for storm water run-off (including track drainage) would also be provided. Existing connection points for all utilities have been identified (see Appendix B). The utilities would be extended from their existing connection points to the locations required by the new facilities, as shown in Appendix B. Existing pavement would be cut and removed, and trenches would be excavated. The utility trenches would range in width

from 1 to 5 feet, and from 3.5 to 6 feet in depth. Once the utility lines have been laid or removed, the trenches would be backfilled with soil excavated from the trench or suitable imported soil, controlled density fill at periodic intervals to prevent preferential migration along the newly constructed utility lines, and the asphalt cap would be restored to its current thickness. Installation of the utilities would require an estimated 3 – 4 months.

Construction of the temporary buildings and railroad tracks would require rerouting storm water flows across the site. In addition, the buildings need to be located on level ground. The site would be leveled and/or raised to ensure that storm water flows away from the buildings, that the new tracks do not create an obstacle to storm water flow, and that a sufficiently large, level area is provided for the buildings. Some excavation would be required to implement the storm water treatment system.

Following construction of the utility improvements, portions of the site would be leveled or raised. Raising and leveling the site grade would involve removing portions of the asphalt cap, placing imported and/or reused soil from trench excavation to the design height, or removing soil to lower the elevation of the site and then repaving the graded area. Most of the Grain Terminal parcel and a portion of the truck parking area would require grading. Elevation changes would range from a decrease of up to 1 foot to an increase of up to 1 foot. Most of the work would occur in an area that was raised during the storm drain replacement project in 2006.

All intrusive activities within the former UP Roundhouse portion of the site would be conducted in accordance with the Revised SMP for the site which is included as part of the deed restriction, as well as the solid and hazardous waste management plan described above (a hazardous waste management plan is required for the Sherex portion of the site). The SMP specifies requirements for safe excavation given the presence of contamination and methane gas below the existing asphalt cap. Excavated soil, including contaminated soil, can be reused onsite only; no testing is required prior to reuse onsite. If soil is stockpiled temporarily, access to the stockpiled soil must be controlled by temporary fence or some other means to prevent unauthorized access. Stockpiled soil must be covered with 10-mil plastic sheeting at end of the work day and run-off must be prevented. If soil is to be hauled off-site, it must be stockpiled and then tested according to specific requirements in the SMP. It then can be off-hauled to an appropriate facility but may not reused offsite. Soil brought to the site for fill must also be characterized prior to use. The hazardous waste management plan for the Sherex portion of the site requires that an industrial hygienist be present during construction, that a site safety plan be prepared, and that construction occur in the presence of someone knowledgeable about soil and groundwater contamination issues.

Soil generated from the trench excavation and other construction-related excavation (an estimated 15,100 CY)[14] would be managed and reused on-site or disposed of in accordance with the SMP/solid and hazardous waste management plan. Excavated soil would be stockpiled on plastic and covered with plastic sheeting to prevent dust and run-off. If any imported backfill is required to complete the utility installation or other construction activities at the property, it would be tested in accordance with the SMP/solid and hazardous waste management plan prior to use. Foundations of former buildings and other debris may be encountered during the utility trench construction, and would be cut and removed as necessary. Any material generated by cutting foundations would be reused or disposed of consistent with the deed restriction. An estimated 1,317 tons of asphalt waste would be generated, hauled off-site, and either recycled (if feasible) or disposed of in accordance with applicable regulations.

Concurrently with installation of the utilities, one or two truck scales would be installed at the entrance to the facility. The scales would be raised approximately 28 to 30 inches above the surrounding ground surface. Installation of the scales would require removal of the existing asphalt cap and an estimated 20 to 30 CY of excavation to a depth of approximately 3-4 feet. The soil generated from the excavation may be reused to elevate the track adjacent to the unloading pit, if suitable.

[14] Due to uncertainties inherent in construction activities, the estimated excavation quantities could vary up to 25% from the estimated volume.

Because the Project site is underlain by shallow groundwater (at depths of 3 to 5.7 feet bgs), some excavation activities are likely to encounter groundwater. If groundwater is encountered, it would be pumped out and containerized in a temporary tank. Any groundwater generated during excavation would be tested and disposed of within 90 days in accordance with regulatory requirements. Sheet pile cut-off walls would be used for deeper excavations (e.g., the unloading pit) to minimize groundwater intrusion. A groundwater monitoring program would be implemented for the Sherex site concurrently with construction.

Immediately following the installation of the utilities and scales, the existing railroad tracks on the site would be extended to the south and new storage tracks would be added, as shown in Figure 2-4. Up to 8,500 feet of new track would be installed, and a portion of the unneeded tracks would be removed. Laying the track would require constructing a trench approximately 11 feet wide and 3.5 deep; the trench would be filled with sub-ballast and ballast. The concrete ties would be laid on the ballast and the rail installed on the ties. A 1-foot-wide trench dug adjacent to the tracks would accommodate electrical and communication lines used to operate switches. The utility trench would be backfilled and capped. An estimated 18,100 tons combined of sub-ballast and ballast would be imported to the site. Track installation is estimated to require 6 to 7 months.

The unloading pit and by-pass track would be constructed on the west side of the property, between the lead track and Storage Tracks 2 to 4. To construct the unloading pit, the pavement would be cut and removed, the pit area would be excavated to the desired depth (approximately 14 feet bgs), and lined with steel-reinforced concrete 16 to 24 inches thick. The pit would be sealed as needed to prevent intrusion of groundwater. Construction of the unloading pit would require an estimated 350 CY of soil excavation. To minimize groundwater intrusion, a cofferdam would be constructed around the perimeter of the pit. Groundwater encountered during the installation of the truck scale and/or unloading pit would be containerized and managed as described for the utility trenches in accordance with the deed restriction. The foundation for the conveyance equipment would be constructed at the same time.

Following construction of the in-ground improvements and site grading, the buildings and unloading system would be constructed. The unloading system would be constructed in three steps: first the conveyors in the pit, then the bucket elevator, and then the transfer conveyor. The transfer conveyor would be on a truss system that supports the conveyor and the catwalk for the conveyor. The entire transfer structure would be supported by steel pipe on pilasters (round steel-reinforced concrete pedestals). The components of the unloading and loading systems would be supported using helical piles. The piles would be 30 feet long; a total of 188 piles would be required for installation of the unloading and loading systems. The building(s) would be constructed after the unloading system is in place.

Construction of the temporary surge building or buildings would consist of three steps: construction of the perimeter grade beam, installation of the steel skeleton, and installation of the fabric cover. The only intrusive construction would be the installation of the perimeter grade beam, which would require a 1-foot-wide and 1-foot-deep trench and 20-foot-long helical piles. The primary surge building would require 80 piles, and the second building (if needed) would require up to 60 piles. The piles hold the building to the ground. The piles would be driven directly into the ground using a conventional pile driver; excavation would not be required, and waste soil is not expected to be generated by the process. The steel trusses making up the buildings' skeletons would be assembled on-site from pre-cut components. Once all trusses have been assembled, they would be lifted into place ("stood up") using a crane. The fabric cover would be installed by pulling it from the base at one side to the base on the other side along special brackets in the trusses. The proposed building locations were selected in part to enable installation of the helical piles while avoiding existing and planned utility lines. Existing light masts would be avoided as much as possible through proper placement of the buildings; any existing light masts within the footprint of the building would be removed. Small curbs would be constructed around the building to divert storm water flows around the building.

Construction of the shipping container loading system, including loading docks, and the storage bays in the primary surge building would occur once the primary surge building has been constructed. The dust control system and the vacuum system for containers would be installed with the other interior equipment in the surge buildings. Installation of the temporary buildings and unloading and loading facilities would require an estimated 6 – 8 months.

High-mast light poles could be installed at any time after the utilities are in place. The final step in the construction process would be installation of fencing and security lighting around the perimeter of the facility. Fences could either be non-intrusive (set on K-Rail or Ultra-Blocks) or driven. The perimeter fencing would be driven chain-link with privacy slats and the interior fencing would either be in set on K-Rail or Ultra-Blocks. Fencing may also be moved or constructed around the UP parking area and public truck parking area.

The modular office buildings would be brought to the site on trailers and assembled on site. They would be set up on the existing pavement; no excavation would be required.

Construction equipment required to construct the Grain Terminal improvements would include the following:

- Backhoe(s)
- Front-end loader(s)
- Dump trucks
- Motor grader
- Vibratory compactor
- Asphalt paving machine
- Concrete saw
- Excavator(s)
- Boom crane trucks
- Plate compactor
- Flatbed truck, 40-foot
- Telehandler
- Wheeled bucket loader
- Tele bucket lift
- Flash butt rail welding plant
- Swing loader
- Tamper
- Air compressor
- Straight lift

2.5.4.6 Construction for Other Bulk Cargo Unloading Related Operations

Required construction for alternate bulk cargo transloading uses would be similar to or less intensive than that required to implement the Grain Terminal. Utilities, rail, raising grade, construction of buildings, and support facilities may be required. If buildings are needed (e.g., warehouse use), they would also be temporary buildings. No permanent buildings would be constructed. The amount of equipment used and hours of operation would be the same as for the Grain Terminal, or less, and the duration of construction would be the same or less.

2.5.4.7 Construction for Other Maritime Support Uses

As discussed above, improvements required for use of the paved open site would be limited. Consequently, construction activities would be limited. Potential improvements required for use of the paved open site consist of a small portion of the improvements that would be required for a bulk cargo transloading facility, such as a new gate, scales, and an office/support building. Construction and removal of railroad tracks,

temporary buildings, and bulk cargo unloading and loading equipment would not be required. Thus, the duration and extent of construction associated with use of the open site would be considerably less than for the Grain Terminal.

SECTION 3

Environmental Checklist and Analysis

This section presents the Initial Study that was completed for the proposed Roundhouse Area Improvements Project in accordance with the requirements of CEQA. The IS identifies site-specific conditions and impacts, evaluates their potential significance, and, where applicable, discusses ways to avoid or lessen impacts that may be potentially significant. The information, analysis, and conclusions included in the IS provide the basis for determining the appropriate document needed to comply with CEQA. For the proposed Project, based on the analysis and information contained herein, the Port of Oakland finds that the Project could have an effect on the environment; however, all effects would be less than significant. As a result, the Port has concluded that a Negative Declaration is the appropriate CEQA document for the Project.

The evaluation of environmental impacts provided in this section is based in part on the environmental impact questions contained in Appendix G of the CEQA Guidelines. Each question is followed by four check-mark boxes under the following four column headings:

- **Potentially Significant Impact.** This column is checked if there is substantial evidence that a Project-related environmental effect may be significant. If there are one or more "Potentially Significant Impacts," an EIR would be prepared for the Project.
- **Less than Significant with Mitigation.** This column is checked when the Project may result in a significant environmental impact, but the incorporation of identified Project revisions or mitigation measures would reduce the identified effect(s) to a less than significant level.
- **Less than Significant Impact.** This column is checked when the Project would not result in any significant effects. The Project's impact would be less than significant even without the incorporation of Project-specific mitigation measures.
- **No Impact.** This column is checked when the Project would not result in any impact in the category or the category does not apply.

The environmental resource category checked below would be potentially affected by this Project. Detailed descriptions and analyses of impacts associated with the proposed Project for each category are provided in Sections 3.1 through 3.17.

☐ Aesthetics	☐ Agriculture and Forest Resources	☒ Air Quality/Greenhouse Gas Emissions
☐ Biological Resources	☐ Cultural Resources	☐ Geology and Soils
☐ Hazards and Hazardous Materials	☐ Hydrology and Water Quality	☐ Land Use and Planning
☐ Mineral Resources	☒ Noise	☐ Population and Housing
☐ Public Services	☐ Recreation	☐ Transportation/Traffic
☐ Utilities and Service Systems		

Federal and state regulations pertaining to each environmental issue area and relevant to the proposed Project, if any, are presented in Table 3.0-1. Detailed descriptions and analyses of impacts from the proposed Project activities and the basis for their significance determinations are provided for each environmental factor on the following pages, beginning with Section 3.1, Aesthetics. Relevant local laws, regulations, and policies potentially applicable to the Project are listed in the Regulatory Setting subsection for each environmental factor analyzed in this IS/ND.

Agency Determination

Based on the environmental impact analysis provided by this Initial Study:

☒	I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
☐	I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
☐	I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

Signature

Date

Anne M. Whittington, AICP
Port Environmental Assessment Supervisor
Port of Oakland

TABLE 3.0-1
Federal and State Laws, Regulations, and Policies Potentially Applicable to the Project

3.1. Aesthetics	
U.S.	
	None applicable.
CALIFORNIA	
California Scenic Highway Program	The California Scenic Highway Program, managed by the California Department of Transportation, was created to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. State highways identified as scenic, or eligible for designation, are listed in California Streets and Highways Code § 260 et seq.
San Francisco Bay Plan	The Bay Plan provides BCDC policies on Appearance, Design, and Scenic Views around the Bay. Several of these policies are to ensure and maintain the visual quality around the Bay.
SB 5X Outdoor Lighting Standard (2005)	This bill established standards for the California Energy Commission to adopt standards for outdoor lighting. The regulations require that outdoor lighting be turned off during the day time hours and when it is not needed.
3.2 Agriculture and Forest Resources (NONE APPLICABLE)	

TABLE 3.0-1
Federal and State Laws, Regulations, and Policies Potentially Applicable to the Project

3.3 Air Quality and Greenhouse Gas Emissions	
U.S.	
Federal Clean Air Act (FCAA) (42 USC 7401 et seq.)	The FCAA requires the U.S. Environmental Protection Agency (USEPA) to identify National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. National standards are established for ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter (PM_{10} and $PM_{2.5}$), and lead (Pb). In 2007, the U.S. Supreme Court ruled that carbon dioxide (CO_2) is an air pollutant as defined under the FCAA, and that the USEPA has authority to regulate GHG emissions. Pursuant to the 1990 FCAA Amendments, USEPA classifies air basins (or portions thereof) as in "attainment" or "nonattainment" for each criteria air pollutant, based on whether or not the NAAQS are achieved. The classification is determined by comparing monitoring data with State and Federal standards. • An area is classified as in "attainment" for a pollutant if the pollutant concentration is lower than the standard. An area is classified as in "nonattainment" for a pollutant if the pollutant concentration exceeds the standard. • An area is designated "unclassified" for a pollutant if there are not enough data available for comparisons.
CALIFORNIA	
California Clean Air Act of 1988 (CCAA) (Assembly Bill [AB] 2595)	The CCAA requires all air districts in the State to endeavor to achieve and maintain State ambient air quality standards for O_3, CO, SO_2, NO_2, and PM; attainment plans for areas that did not demonstrate attainment of State standards until after 1997 must specify emission reduction strategies and meet milestones to implement emission controls and achieve more healthful air quality. California's ambient air standards are generally stricter than national standards for the same pollutants; the State has also established standards for sulfates, hydrogen sulfide (H_2S), vinyl chloride, and visibility-reducing particles. The 1992 CCAA Amendments divide O_3 nonattainment areas into four categories of pollutant levels (moderate, serious, severe, and extreme) to which progressively more stringent requirements apply.
California Global Warming Solutions Act of 2006 (AB 32)	Under Assembly Bill [AB] 32, the California Air Resources Board (CARB) is responsible for monitoring and reducing GHG emissions in the State and for establishing a statewide GHG emissions cap for 2020 that is based on 1990 emissions levels. CARB (2009) has adopted the AB 32 Climate Change Scoping Plan (Scoping Plan), which contains the main strategies for California to implement to reduce CO_2 equivalent (CO_2e) emissions by 169 million metric tons (MMT) from the State's projected 2020 emissions level of 596 MMT CO_2e under a business-as-usual scenario. The Scoping Plan breaks down the amount of GHG emissions reductions the CARB recommends for each emissions sector of the State's GHG inventory, but does not directly discuss GHG emissions generated by construction activities.
Senate Bill (SB) 97 and 375	• Pursuant to SB 97, the State Office of Planning and Research prepared and the Natural Resources Agency adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. Effective as of March 2010, the revisions to the CEQA Environmental Checklist Form (Appendix G) and the Energy Conservation Appendix (Appendix F) provide a framework to address global climate change impacts in the CEQA process; State CEQA Guidelines section 15064.4 was also added to provide an approach to assessing impacts from GHGs. • SB 375 (effective January 1, 2009) requires CARB to develop regional reduction targets for GHG emissions, and prompted the creation of regional land use and transportation plans to reduce emissions from passenger vehicle use throughout the State. The targets apply to the regions covered by California's 18 metropolitan planning organizations (MPOs). The 18 MPOs must develop regional land use and transportation plans and demonstrate an ability to attain the proposed reduction targets by 2020 and 2035.
Executive Orders (EOs)	• Under EO S-01-07, which set forth a low carbon fuel standard for California, the carbon intensity of California's transportations fuels is to be reduced by at least 10 percent by 2020. • EO S-3-05 established statewide GHG emission targets of reducing emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below the 1990 level by 2050.

TABLE 3.0-1
Federal and State Laws, Regulations, and Policies Potentially Applicable to the Project

Other	• Under California's Diesel Fuel Regulations, diesel fuel used in motor vehicles, except harbor craft, has been limited to 500 parts per million (ppm) sulfur since 1993. The sulfur limit was reduced to 15 ppm beginning September 1, 2006, and harbor craft were included starting in 2009. • CARB's Heavy Duty Diesel Truck Idling Rule (Cal. Code Regs., tit. 13, § 2485) prohibits heavy-duty diesel trucks from idling for longer than 5 minutes at a time. Truck idling for longer than 5 minutes while queuing is allowed, however, provided the queue is located beyond 100 feet (30 meters) from any homes or schools. • The Statewide Portable Equipment Registration Program (PERP) establishes a uniform program to regulate portable engines/engine-driven equipment units. Once registered in the PERP, engines and equipment units may operate throughout California without the need to obtain individual permits from local air districts. Also, stationary sources operating at the proposed facility would possibly need permits from the BAAQMD.
3.4 Biology	
U.S.	
Federal Endangered Species Act (FESA) (7 USC 136, 16 USC 1531 et seq.)	The FESA, which is administered in California by the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS), provides protection to species listed as threatened or endangered, or proposed for listing as threatened or endangered. Section 9 prohibits the "take" of any member of a listed species. • Take is defined as "...to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." • Harass is "an intentional or negligent act or omission that creates the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavior patterns that include, but are not limited to, breeding, feeding, or sheltering." • Harm is defined as "...significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering." When applicants are proposing projects with a Federal nexus that "may affect" a federally listed or proposed species, the Federal agency is required to consult with the USFWS or NMFS, as appropriate, under Section 7, which provides that each Federal agency must ensure that any actions authorized, funded, or carried out by the agency are not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of areas determined to be critical habitat.
Migratory Bird Treaty Act (MBTA) (16 USC 703-712)	The MBTA was enacted to ensure the protection of shared migratory bird resources. The MBTA prohibits the take, possession, import, export, transport, selling, purchase, barter, or offering for sale, purchase, or barter, of any migratory bird, their eggs, parts, and nests, except as authorized under a valid permit. The responsibilities of Federal agencies to protect migratory birds are set forth in EO 13186. The USFWS is the lead agency for migratory birds. The USFWS issues permits for takes of migratory birds for activities such as scientific research, education, and depredation control, but does not issue permits for incidental take of migratory birds.
Other	• The Bald and Golden Eagle Protection Act makes it illegal to import, export, take (including molest or disturb), sell, purchase or barter any bald eagle or golden eagle or parts thereof. • Clean Water Act (33 USC 1251 et seq.) *(See further information in Sections 3.7 and 3.8 of this Table)* • Executive Order 13112 requires Federal agencies to use authorities to prevent introduction of invasive species, respond to and control invasions in a cost-effective and environmentally sound manner, and to provide for restoration of native species and habitat conditions in ecosystems that have been invaded. • Rivers and Harbors Act (33 USC 401). *(See further information in Section 3.8 of this Table)*

TABLE 3.0-1
Federal and State Laws, Regulations, and Policies Potentially Applicable to the Project

CALIFORNIA	
California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.)	The CESA provides for the protection of rare, threatened, and endangered plants and animals, as recognized by the California Department of Fish and Wildlife (CDFW), and prohibits the taking of such species without its authorization. Furthermore, the CESA provides protection for those species that are designated as candidates for threatened or endangered listings. Under the CESA, the CDFW has the responsibility for maintaining a list of threatened species and endangered species (Fish & G. Code, § 2070). The CDFW also maintains a list of candidate species, which are species that the CDFW has formally noticed as under review for addition to the threatened or endangered species lists. The CDFW also maintains lists of Species of Special Concern that serve as watch lists. Pursuant to the requirements of the CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any State-listed endangered or threatened species may be present in the project site and determine whether the proposed project will have a potentially significant impact on such species. In addition, the CDFW encourages informal consultation on any proposed project that may affect a candidate species. The CESA also requires a permit to take a State-listed species through incidental or otherwise lawful activities (§ 2081, subd. (b)).
California State Lands Commission authority (Pub. Resources Code, §§ 6301, 6306)	The California State Lands Commission (CSLC) has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6301, 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust. As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the U.S. in 1850. The State holds these lands for the benefit of all people of the State for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tide line, except for areas of fill or artificial accretion.
Other relevant California Fish and Game Code sections	• The California Native Plant Protection Act (Fish & Game Code, § 1900 et seq.) is intended to preserve, protect, and enhance endangered or rare native plants in California. This Act includes provisions that prohibit the taking of listed rare or endangered plants from the wild and a salvage requirement for landowners. The Act directs the CDFW to establish criteria for determining what native plants are rare or endangered. Under section 1901, a species is endangered when its prospects for survival and reproduction are in immediate jeopardy from one or more causes. A species is rare when, although not threatened with immediate extinction, it is in such small numbers throughout its range that it may become endangered. • The California Species Preservation Act (Fish & Game Code §§ 900-903) provides for the protection and enhancement of the amphibians, birds, fish, mammals, and reptiles of California. • Fish and Game Code sections 3503 & 3503.5 prohibit the taking and possession of native birds' nests and eggs from all forms of needless take. These regulations also provide that it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nests or eggs of any such bird except as otherwise provided by this Code or any regulation adopted pursuant thereto. • Fish and Game Code sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), & 5515 (fish) designate certain species as "fully protected." Fully protected species, or parts thereof, may not be taken or possessed at any time without permission by the CDFW. • Fish and Game Code section 3513 does not include statutory or regulatory mechanism for obtaining an incidental take permit for the loss of non-game, migratory birds.
California Native Plant Protection Act (Fish & G. Code, § 1900 et seq.)	This Act is intended to preserve, protect, and enhance endangered or rare native plants in California. This Act includes provisions that prohibit the taking of listed rare or endangered plants from the wild and a salvage requirement for landowners. The Act directs the CDFW to establish criteria for determining what native plants are rare or endangered. Under section 1901, a species is endangered when its prospects for survival and reproduction are in immediate jeopardy from one or more causes. A species is rare when, although not threatened with immediate extinction, it is in such small numbers throughout its range that it may become endangered.

TABLE 3.0-1
Federal and State Laws, Regulations, and Policies Potentially Applicable to the Project

3.5 Cultural Resources	
U.S.	
Archaeological Resources Protection Act (ARPA)	The ARPA states that archaeological resources on public or Indian lands are an accessible and irreplaceable part of the nation's heritage and: • Establishes protection for archaeological resources to prevent loss and destruction due to uncontrolled excavations and pillaging; • Encourages increased cooperation and exchange of information between government authorities, the professional archaeological community, and private individuals having collections of archaeological resources prior to the enactment of this Act; • Establishes permit procedures to permit excavation or removal of archaeological resources (and associated activities) located on public or Indian land; and • Defines excavation, removal, damage, or other alteration or defacing of archaeological resources as a "prohibited act" and provides for criminal and monetary rewards to be paid to individuals furnishing information leading to the finding of a civil violation or conviction of a criminal violator. ARPA has both enforcement and permitting components. The enforcement provision provides for the imposition of both criminal and civil penalties against violators of the Act. The ARPA's permitting component allows for recovery of certain artifacts consistent with the standards and requirements of the National Park Service (NPS) Federal Archeology Program.
National Historic Preservation Act (NHPA) (16 US*C* 470 et seq.)	This applies only to Federal undertakings. Archaeological resources are protected through the NHPA, as amended, and it's implementing regulation, Protection of Historic Properties (36 Code of Federal Regulations [CFR] 800), the Archeological and Historic Preservation Act and the Archeological Resources Protection Act. This Act presents a general policy of supporting and encouraging the preservation of prehistoric and historic resources for present and future generations by directing Federal agencies to assume responsibility for considering the historic resources in their activities. The State implements the NHPA through its statewide comprehensive cultural resource surveys and preservation programs.
Other	• Executive Order 13158 requires Federal agencies to (1) identify actions that affect natural or cultural resources that are within a MPA; and (2) in taking such actions, to avoid harm to the natural and cultural resources that are protected by a MPA.
CALIFORNIA	
California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.)	As the CEQA lead agency, the Port is responsible for complying with all provisions of the CEQA and State CEQA Guidelines that relate to "historical resources." A historical resource includes: (1) a resource listed in, or eligible for listing in, the California Register of Historic Resources (CRHR); (2) a resource included in a local register of historical or identified as significant in an historical resource surveys; and (3) any resource that a lead agency determines to be historically significant for the purposes of CEQA, when supported by substantial evidence in light of the whole record. The CRHR was created to identify resources deemed worthy of preservation on a State level and was modeled closely after the National Register. The criteria, which are nearly identical to those of the National Register but focus on resources of statewide significance (see State CEQA Guidelines § 15064.5, subd. (a)(3)), are defined as any resource that meets any of the following criteria: (1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage; (2) Is associated with lives of persons important in our past; (3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or (4) Has yielded, or may be likely to yield, information important in prehistory or history. Properties listed, or formally designated as eligible for listing, on the National Register are automatically listed on the CRHR, as are certain State Landmarks and Points of Interest. A lead agency is not precluded from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1, subdivision (j), or 5024.1 (State CEQA Guidelines § 15064.5, subd. (a)(4)).
CA Register of Historical Resources (PRC 5024.1)	The California Office of Historic Preservation (OHP), within the California Department of Parks and Recreation, implements the policies of the NHPA on a statewide level and advises Federal agencies regarding potential effects on historic properties. The OHP also maintains the California Historic Resources Inventory. The State Historic Preservation Officer (SHPO) is an appointed official who implements historic preservation programs within the State's jurisdictions, including commenting on Federal undertakings.

TABLE 3.0-1
Federal and State Laws, Regulations, and Policies Potentially Applicable to the Project

Health and Safety Code § 7050.5	This code states that if human remains are exposed during construction, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code section 5097.998. The Coroner has 24 hours to notify the Native American Heritage Commission (NAHC) if the remains are determined to be of Native American descent. The NAHC will contact most likely descendants, who may recommend how to proceed.
3.6. Geology and Soils	
U.S.	
	None applicable.
CALIFORNIA	
Alquist-Priolo Earth-quake Fault Zoning Act (Pub. Resources Code, §§ 2621-2630)	This Act requires that "sufficiently active" and "well-defined" earthquake fault zones be delineated by the State Geologist and prohibits locating structures for human occupancy across the trace of an active fault.
California Building Code (CBC) (Cal. Code Regs., tit. 23)	The CBC contains requirements related to building design and construction. The CBC has provisions and reporting requirements relevant to the preparation of foundations, soils, and geotechnical conditions that address potential site specific hazards. The Code requires the remediation and protection against seismic and other hazards. A grading permit is required if more than 50 cubic yards of soil are moved. Sections 3301.2 and 3301.3 contain provisions requiring protection of the adjacent property during excavations and require a 10-day written notice and access agreements with the adjacent property owners.
California Seismic Hazards Mapping Act	The California Geological Survey is required to identify and map are prone to earthquake related hazards of liquefaction, seismically induced landslides, and amplified ground shaking.
3.7. Hazards and Hazardous Materials	
U.S.	
Clean Water Act (CWA) (33 USC 1251 et seq.)	The CWA is comprehensive legislation (it generally includes reference to the Federal Water Pollution Control Act of 1972, its supplementation by the CWA of 1977, and amendments in 1981, 1987, and 1993) that seeks to protect the nation's water from pollution by setting water quality standards for surface water and by limiting the discharge of effluents into waters of the U.S. *(see below and in Section 3.8, Hydrology and Water Resources of this Table).*
California Toxics Rule (40 CFR 131)	In 2000, the USEPA promulgated numeric water quality criteria for priority toxic pollutants and other water quality standards provisions to be applied to waters in the State of California. USEPA promulgated this rule based on the Administrator's determination that the numeric criteria are necessary in the State of California to protect human health and the environment. (Under CWA section 303(c)(2)(B), the USEPA requires states to adopt numeric water quality criteria for priority toxic pollutants for which the USEPA has issued criteria guidance, and the presence or discharge of which could reasonably be expected to interfere with maintaining designated uses.) These Federal criteria are legally applicable in California for inland surface waters, enclosed bays, and estuaries.
Hazardous Materials Transportation Act (HMTA) (49 USC 5901)	The HMTA delegates authority to the United States Department of Transportation (DOT) to develop and implement regulations pertaining to the transport of hazardous materials and hazardous wastes by all modes of transportation. Additionally, the USEPA's Hazardous Waste Manifest System is a set of forms, reports, and procedures for tracking hazardous waste from a generator's site to the disposal site. Applicable Federal regulations are contained primarily in CFR Titles 40 and 49.
National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 CFR 300)	Authorized under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 USC 9605, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), Pub. L. 99 through 499; and by CWA section 311(d), as amended by the Oil Pollution Act of 1990 (OPA), Pub. L. 101 through 380. The NCP outlines requirements for responding to both oil spills and releases of hazardous substances. It specifies compliance, but does not require the preparation of a written plan. It also provides a comprehensive system for reporting, spill containment, and cleanup. The United States Coast Guard (USCG) and USEPA co-chair the National Response Team. In accordance with 40 CFR 300.175, the USCG has responsibility for oversight of regional response for oil spills in "coastal zones," as described in 40 CFR 300.120.

TABLE 3.0-1
Federal and State Laws, Regulations, and Policies Potentially Applicable to the Project

Oil Pollution Act (OPA) (33 USC 2712)	The OPA requires owners and operators of facilities that could cause substantial harm to the environment to prepare and submit plans for responding to worst-case discharges of oil and hazardous substances. The passage of the OPA motivated California to pass a more stringent spill response and recovery regulation and the creation of the Office of Spill Prevention and Response (OSPR) to review and regulate oil spill plans and contracts.
Resource Conservation and Recovery Act (RCRA) (42 USC 6901 et seq.)	The RCRA authorizes the USEPA to control hazardous waste from "cradle-to-grave," which encompasses its generation, transportation, treatment, storage, and disposal. RCRA's Federal Hazardous and Solid Waste Amendments from 1984 include waste minimization and phasing out land disposal of hazardous waste as well as corrective action for releases. The Department of Toxic Substances Control (DTSC) is the lead State agency for corrective action associated with RCRA facility investigations and remediation.
Other	• Rivers and Harbors Act (33 USC 401) *(See further information in Section 3.8 of this Table)* • The Act to Prevent Pollution from Ships (1980) requires ships in U.S. waters, and U.S. ships wherever located, to comply with International Convention for the Prevention of Pollution from Ships (MARPOL). • Convention on the International Regulations for Preventing Collisions at Sea (COLREGS). These regulations establish "rules of the road" such as rights-of-way, safe speed, actions to avoid collision, and procedures to observe in narrow channels and restricted visibility. • Inspection and Regulation of Vessels (46 USC Subtitle II Part B). Federal regulations for marine vessel shipping are codified in 46 CFR parts 1 through 599 and are implemented by the USCG, Maritime Administration, and Federal Maritime Commission. These regulations provide that all vessels operating offshore, including those under foreign registration, are subject to requirements applicable to vessel construction, condition, and operation. All vessels (including motorboats) operating in commercial service (e.g., passengers for hire, transport of cargoes, hazardous materials, and bulk solids) on specified routes (inland, near coastal, and oceans) are subject to requirements applicable to vessel construction, condition, and operation. These regulations also allow for inspections to verify that vessels comply with applicable international conventions and U.S. laws and regulations. • Navigation and Navigable Waters regulations (33 CFR) include requirements pertaining to prevention and control of releases of materials (including oil spills) from vessels, traffic control, and restricted areas, and general ports and waterways safety. • The Aboveground Petroleum Storage Act (APSA) applies to facilities that are subject to the oil pollution prevention regulations specified in Part 112.1 of Subchapter D of Chapter I of Title 40 of the Code of Federal Regulations or that have a storage capacity of 1,320 gallons or more of petroleum in tanks and containers that are substantially above the ground. On or before January 1 of each year, the owner or operator of a tank facility subject to APSA must submit either a tank facility statement or a business plan that identifies the name and address of the tank facility, the contact person, the total storage capacity, the location, size, age, and contents of each aboveground storage tank that exceeds 10,000 gallons in storage capacity. Each owner or operator of a tank facility that is subject to APSA must also prepare and implement an SPCC plan.
CALIFORNIA	
Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (Gov. Code § 8574.1 et seq.; Pub. Resources Code § 8750 et seq.)	This Act and its implementing regulations seek to protect State waters from oil pollution and to plan for the effective and immediate response, removal, abatement, and cleanup in the event of an oil spill. The Act requires vessel and marine facilities to have marine oil spill contingency plans and to demonstrate financial responsibility, and requires immediate cleanup of spills, following the approved contingency plans, and fully mitigating impacts on wildlife. The Act assigns primary authority to the OSPR division within the CDFW to direct prevention, removal, abatement, response, containment, and cleanup efforts with regard to all aspects of any oil spill in the marine waters of the State.

TABLE 3.0-1
Federal and State Laws, Regulations, and Policies Potentially Applicable to the Project

Other	• The California Clean Coast Act (SB 771) establishes limitations for shipboard incinerators, and the discharge of hazardous material—including oily bilgewater, graywater, and sewage—into State waters or a marine sanctuary. It also provides direction for submitting information on visiting vessels to the CSLC and reporting of discharges to the State water quality agencies. • The California Harbors and Navigation Code specifies a State policy to "promote safety for persons and property in and connected with the use and equipment of vessels," and includes laws concerning marine navigation that are implemented by local city and county governments. This Code also regulates discharges from vessels within territorial waters of the State of California to prevent adverse impacts on the marine environment. This Code regulates oil discharges and imposes civil penalties and liability for cleanup costs when oil is intentionally or negligently discharged to the State waters. • California Seismic Hazards Mapping Act (Pub. Resources Code, § 2690) and Seismic Hazards Mapping Regulations (Cal. Code Regs., tit. 14, Div. 2, Ch. 8, Art. 10) (*See 3.3.6, Geology and Soils*) • The Hazardous Waste Control Act (Cal. Code Regs., tit. 26) defines requirements for proper management of hazardous materials. • Porter-Cologne Water Quality Control Act (Cal. Water Code, § 13000 et seq.) *(See 3.3.8, Hydrology and Water Quality)*
3.8. Hydrology and Water Quality	
U.S.	
Clean Water Act (CWA) (33 USC 1251 et seq.)	The CWA is a comprehensive piece of legislation that generally includes reference to the Federal Water Pollution Control Act of 1972, and its substantial supplementation by the CWA of 1977. Both Acts were subsequently amended in 1981, 1987, and 1993. Overall, the CWA seeks to protect the nation's water from pollution by setting water quality standards for surface water and by limiting the discharge of effluents into waters of the U.S. These water quality standards are promulgated by the USEPA and enforced in California by the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs). CWA sections include: • State Water Quality Certification. Section 401 (33 USC 1341) requires certification from the State or interstate water control agencies that a proposed water resources project is in compliance with established effluent limitations and water quality standards. U. S. Army Corps of Engineers (USACE) projects, as well as applicants for Federal permits or licenses are required to obtain this certification. • National Pollution Discharge Elimination System (NPDES). Section 402 (33 USC 1342) establishes conditions and permitting for discharges of pollutants under the NPDES. • Ocean Discharges. Section 403 (33 USC 1343) addresses criteria and permits for discharges into the territorial seas, the contiguous zone, and the oceans. • Permits for Dredged or Fill Material. Section 404 (33 USC 1344) authorizes a separate permit program for disposal of dredged or fill material in U.S. waters.
Oil Pollution Act (OPA) (33 USC 2712)	The OPA requires owners and operators of facilities that could cause substantial harm to the environment to prepare and submit plans for responding to worst-case discharges of oil and hazardous substances. The passage of the OPA motivated California to pass a more stringent spill response and recovery regulation and the creation of the Office of Spill Prevention and Response (OSPR) to review and regulate oil spill plans and contracts.

TABLE 3.0-1
Federal and State Laws, Regulations, and Policies Potentially Applicable to the Project

CALIFORNIA	
Porter-Cologne Water Quality Control Act (Cal. Water Code § 13000 et seq.) (Porter-Cologne)	Porter-Cologne is the principal law governing water quality in California. The Act established the SWRCB and nine RWQCBs which have primary responsibility for protecting State water quality and the beneficial uses of State waters. Porter-Cologne also implements many provisions of the Federal CWA, such as the National Pollutant Discharge Elimination System (NPDES) permitting program. Pursuant to the CWA § 401, applicants for a Federal license or permit for activities that may result in any discharge to waters of the U. S. must seek a Water Quality Certification (Certification) from the State in which the discharge originates. Such Certification is based on a finding that the discharge will meet water quality standards and other appropriate requirements of State law. In California, RWQCBs issue or deny certification for discharges within their jurisdiction. The SWRCB has this responsibility where projects or activities affect waters in more than one RWQCB's jurisdiction. If the SWRCB or a RWQCB imposes a condition on its Certification, those conditions must be included in the Federal permit or license. Statewide Water Quality Control Plans include: individual RWQCB Basin Plans; the California Ocean Plan; the San Francisco Bay/Sacramento-San Joaquin Delta Estuary Water Quality Control Plan (Bay-Delta Plan); the Water Quality Control Plan for Enclosed Bays and Estuaries of California; and the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan). These Plans contain enforceable standards for the various waters they address. For example: • Basin Plan. Porter-Cologne (§ 13240) requires each RWQCB to formulate and adopt a Basin Plan for all areas within the Region. Each RWQCB must establish water quality objectives to ensure the reasonable protection of beneficial uses and a program of implementation for achieving water quality objectives within the basin plans. 40 CFR 131 requires each State to adopt water quality standards by designating water uses to be protected and adopting water quality criteria that protect the designated uses. In California, the beneficial uses and water quality objectives are the State's water quality standards. • The California Ocean Plan establishes water quality objectives for California's ocean waters and provides the basis for regulation of wastes discharged into the State's ocean and coastal waters. It incorporates the State water quality standards that apply to all NPDES permits for discharges to ocean waters.
McAteer-Petris Act	The McAteer-Petris Act created the San Francisco Bay Conservation and Development Commission (BCDC) which is responsible for the regulation of development for the San Francisco Bay portion of the Coastal Zone. Any filling or dredging within BCDC's jurisdiction requires a permit.
San Francisco Bay Plan	Pursuant to the Bay Plan, BCDC responsibilities include the following: • Regulation of all filling and dredging in the Bay: • Administration of the Federal Coastal Zone Management Act within the Bay segment of the California coastal zone; • Regulation of new development within the first 100 feet inland from the Bay to ensure public access to the Bay is provided; • Pursuit of an active planning program to implement studies of Bay issues so that BCDC plans and policies are based on the best available current information; • Participation in the region-wide State and Federal program to establish a Long Term Management Strategy for dredging and dredged material disposal to be conducted in an environmentally sound and economically prudent way. • BCDC also has policy relevant to oil spill prevention and navigational safety.
3.9. Land Use and Planning	
U.S.	
Coastal Zone Management Act	The CZMA is implemented by the San Francisco Bay Conservation and Development Commission's Bay Plan.
CALIFORNIA	
California Constitution	Articles 1, Section 25 and 10, Sections 3 and 4 establish the public trust doctrine for tidelands. The City of Oakland was granted use of tidelands for harbor purposes in 1911. The California State Lands Commission has jurisdiction over sovereign tidelands and submerged lands, and the beds of navigable lakes and streams that the State owns in a trustee capacity. Uses of lands within the tidelands trust must be consistent with the purpose for which they were granted.

TABLE 3.0-1
Federal and State Laws, Regulations, and Policies Potentially Applicable to the Project

McAteer-Petris Act	The McAteer-Petris Act created the San Francisco Bay Conservation and Development Commission (BCDC) which is responsible for the regulation of development for the San Francisco Bay portion of the Coastal Zone. Any development within BCDC's jurisdiction which is approximately 100 feet of the Bay requires a BCDC permit.
San Francisco Bay Plan	BCDC has jurisdiction over the open water, marshes, and mudflats of the greater San Francisco Bay; the first 100 feet from the shoreline; the portion of the Suisun Marsh below the ten foot contour line; portions of most creeks, rivers, slough, and other tributaries that flow into the San Francisco Bay; and salt ponds, duck hunting preserves, game refuges, and other managed wetlands that have been diked off from San Francisco Bay. Several of these policies are related to the design and use of water-related industry and Port uses around the Bay. Permits from BCDC are required for most projects proposed along the shoreline, particularly if they include the following: • Placing solid material, building or repairing docks or pile-supported or cantilevered structures, disposing of material, or mooring a vessel for a long period in San Francisco Bay or in certain tributaries that flow into the Bay; • Dredging or extracting material from the Bay bottom; • Substantially changing the use of any structure or area; • Constructing, remodeling, or repairing a structure; or Subdividing property or grading land.
3.10. Mineral Resources (NONE APPLICABLE)	
3.11. Noise	
U.S.	
Noise Control Act (42 USC 4910)	Required the USEPA to establish noise emission criteria, as well as noise testing methods (40 CFR Chapter 1, Subpart Q). These criteria generally apply to interstate rail carriers and to some types of construction and transportation equipment. The USEPA published a guideline (USEPA 1974) containing recommendations for acceptable noise level limits affecting residential land use of 55 A-weighted decibels (dBA) day-night average sound level (L_{dn}) for outdoors and 45 dBA L_{dn} for indoors.
Department of Housing and Urban Development Environmental Standards (24 CFR Part 51)	Sets forth the following exterior noise standards for new home construction (for interior noise levels, a goal of 45 dBA is set forth and attenuation requirements are geared to achieve that goal): • 65 L_{dn} or less – Acceptable • 65 L_{dn} and < 75 L_{dn} – Normally unacceptable, appropriate sound attenuation measures must be provided • > 75 L_{dn} – Unacceptable
NTIS 550\9-74-004, 1974 ("Information on Levels of Environmental Noise Requisite to Protect Health and Welfare with an Adequate Margin of Safety").	In response to a Federal mandate, the USEPA provided guidance in this document, commonly referenced as the, "Levels Document," that establishes an L_{dn} of 55 dBA as the requisite level, with an adequate margin of safety, for areas of outdoor uses including residences and recreation areas. The USEPA recommendations contain a factor of safety and do not consider technical or economic feasibility (i.e., the document identifies safe levels of environmental noise exposure without consideration for achieving these levels or other potentially relevant considerations), and therefore should not be construed as standards or regulations.
CALIFORNIA	
	None applicable.
3.12. Population and Housing (NONE APPLICABLE)	

TABLE 3.0-1
Federal and State Laws, Regulations, and Policies Potentially Applicable to the Project

3.13. Public Services	
U.S.	
Code of Federal Regulations	• Under 29 CFR 1910.38, whenever an Occupational Safety and Health Administration (OSHA) standard requires one, an employer must have an Emergency Action Plan that must be in writing, kept in the workplace, and available to employees for review. An employer with 10 or fewer employees may communicate the plan orally to employees. Minimum elements of an emergency action plan are: - Procedures for reporting a fire or other emergency; - Procedures for emergency evacuation, including type of evacuation and exit route assignments; - Procedures to be followed by employees who remain to operate critical plant operations before they evacuate; - Procedures to account for all employees after evacuation; - Procedures to be followed by employees performing rescue or medical duties; and - The name or job title of every employee who may be contacted by employees who need more information about the plan or an explanation of their duties under the plan. • Under 29 CFR 1910.39, an employer must have a Fire Prevention Plan (FPP). A FPP must be in writing, be kept in the workplace, and be made available to employees for review; an employer with 10 or fewer employees may communicate the plan orally to employees. Minimum elements of a FPP are: - A list of all major fire hazards, proper hazardous material handling and storage procedures, potential ignition sources and their control, and the type of fire protection equipment necessary to control each major hazard; - Procedures to control accumulations of flammable and combustible waste materials; - Procedures for regular maintenance of safeguards installed on heat-producing equipment to prevent the accidental ignition of combustible materials; - The name or job title of employees responsible for maintaining equipment to prevent or control sources of ignition or fires; and - The name or job title of employees responsible for the control of fuel source hazards. - An employer must inform employees upon initial assignment to a job of the fire hazards to which they are exposed and must also review with each employee those parts of the FPP necessary for self-protection. • Under 29 CFR 1910.155, Subpart L, Fire Protection, employers are required to place and keep in proper working order fire safety equipment within facilities.
CALIFORNIA	
California Code of Regulations	Under Title 19, Public Safety, the California State Fire Marshal (CSFM) develops regulations relating to fire and life safety. These regulations have been prepared and adopted to establish minimum standards for the prevention of fire and for protection of life and property against fire, explosion, and panic. The CSFM also adopts and administers regulations and standards necessary under the California Health and Safety Code to protect life and property.
3.14. Recreation	
U.S.	
	None applicable.
CALIFORNIA	
San Francisco Bay Plan	Under the Bay Plan, BCDC responsibilities include the regulation of new development within the first 100 feet inland from the Bay to ensure public access and recreational opportunities are provided where feasible.
3.15. Transportation and Traffic	
U.S.	
Ports and Waterways Safety Act	This Act provides the authority for the USCG's program to increase vessel safety and protect the marine environment in ports, harbors, waterfront areas, and navigable waters, including by authorizing the Vessel Traffic Service, controlling vessel movement, and establishing requirements for vessel operation.

TABLE 3.0-1

Federal and State Laws, Regulations, and Policies Potentially Applicable to the Project

CALIFORNIA	
California Vehicle Code	Chapter 2, Article 3 of the Vehicle Code defines the powers and duties of the California Highway Patrol, which has enforcement responsibilities for the vehicle operation and highway use in the State.
3.16. Utilities and Service Systems (NONE APPLICABLE)	

3.1 Aesthetics

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

3.1.1 Environmental Setting

The Project site is located on Port of Oakland property, along the northern shoreline of the Oakland Estuary. In Oakland, the shoreline of San Francisco Bay extends 19 miles from San Leandro Bay to the Oakland-San Francisco Bay Bridge. At its northern end, the shoreline is dominated by the Port of Oakland's marine terminals. At the southern end lies Oakland International Airport. The Oakland Estuary is one of California's most diverse shores, encompassing a variety of physical environments and settings, each with its own distinct visual quality and character.

Today, the Estuary can be viewed as a single community resource that binds together the shorelines of Alameda and Oakland. Compared to other parts of the bay, the Estuary is more like a river. It is linear in form and contained, rather than open and expansive like the broader bay. It creates an environment that is intimate in scale and character. The Estuary is an urbanized edge (i.e., defines the City of Oakland's urban limit) that has developed over a span of more than 100 years of city history. Unlike the hillside areas of the city, this area is intensely developed, with urbanization extending all the way to the water's edge. Very little open space or vegetated area exists, with the notable exceptions of Estuary Park (south of Jack London Square) and the Middle Harbor Shoreline Park, located to the north of the Project site in the Middle Harbor.

The Project site, which has frontage along the Estuary, is a flat expansive asphalt-paved area notable for a large number of parked eighteen-wheeler trucks, which are stationed temporarily at the site until they are moved elsewhere. The presence of railroad track spurs on the site add to the heavily industrial visual character of the site. The site is also occupied by a large number of automobiles parked on-site by Port employees. The overall visual quality of the Project site is considered low due to the visual dominance of features associated with heavy industrial uses in the area.

The site's immediate vicinity is characterized by industrial land uses as well, including other Port of Oakland land to the west used for storage of shipping containers and Matson Terminal, an array of railroad tracks to the north used to offload cargo trains, and to the east, a scrap metal processing facility owned and operated by the Schnitzer Steel Company. Further to the east is additional Port of Oakland land (the Howard Terminal facility) and also Jack London Square, which is a neighborhood of commercial and restaurant uses located mostly along the Estuary (Inner Harbor). Given the flat topography of this part of Oakland, the Project site is only visible from locations in its immediate vicinity. Areas of the city that are higher in elevation are a relatively long distance away from the site. Therefore, from those higher elevations, the Project site is not easily discernible when viewed within the context of the larger landscape.

The most dominant visual features of the area in the vicinity of the Project site are the large number of stacked shipping containers at the Port, docked cargo ships, and the Port's very visually prominent white steel cranes used to load and unload cargo from the ships.

The existing visual setting south of the Oakland Estuary (in the City of Alameda) near the shoreline is characterized by a more suburban variety of land uses, including the Alameda Ferry Terminal, local baseball and soccer fields, single family residential units, and several commercial facilities. The topography of this area is flat, and the Project site is visible only from locations immediately along the shoreline, such as the Alameda Ferry Terminal. The Project site is not generally visible from locations more distant from the shoreline due to flat topography as well as intervening buildings and/or vegetation.

Four locations in the vicinity of the Project site were visited for the purpose of this visual analysis, in order to gain a sense of the extent to which the Project site is visible from a representative cross-section of publicly accessible locations in the area. This information helps to determine the Project's impact on visual resources in the Project vicinity. The locations of the viewpoints are indicated on Figure 3.1-1, and are discussed briefly below.

3.1.1.1 Viewpoint 1: Middle Harbor Road

The Project site is visible from Middle Harbor Road, which passes along the northern side of the site. Middle Harbor Road is a major four-lane arterial road that is used primarily by large trailer trucks to transport cargo to and from the Port of Oakland facility. The road is bordered by railroad tracks and is not considered to have any inherently scenic qualities. Photograph 'a' presented in Figure 3.1-2 is a view from Middle Harbor Road toward the site. From this location, viewers traveling along Adeline Street have a close up view of the railroad track that passes along the northern portion of the site, as well as the multitude of trucks and automobiles parked on the property. The Port's loading/unloading cranes are very prominent from this view as well.

3.1.1.2 Viewpoint 2: Oakland Ferry Terminal

Photograph 'b' in Figure 3.1-2 was taken from the Oakland Ferry Terminal at Jack London Square, looking west toward the Project site. This is a location visited daily by a large number of people, but for the most part the Project site is not visible from here because it is obstructed by the Schnitzer Steel facility as well as another Port of Oakland shorefront property. Existing light mast structures on the Project site are visible, but the Port's loading/unloading cranes are the most visually prominent feature in the view from this viewpoint.

3.1.1.3 Viewpoint 3: Alameda Ferry Terminal

Photograph 'a' in Figure 3.1-3 presents a view of the Project site as seen from the Alameda Ferry Terminal. Visitors to the terminal can see the southern edge of the Project site across the Oakland Estuary; the truck trailers parked at the site are primarily what viewers can see from here, and to a lesser extent they can also see the existing light mast structures on the site. The loading/unloading cranes are visually prominent from this vantage point, as are cargo ships docked at the Port.

3.1.1.4 Viewpoint 4: Alameda Shoreline Parking Area

Photograph 'b' in Figure 3.1-3 was taken from an automobile parking area along the Alameda waterfront near a recreational walking trail and dog park. From this vantage point, a portion of the Project site's southern edge is visible between the moored ship on the left and the piles of scrap steel on the right, though its features are somewhat distant and overshadowed by the scale of the docked cargo ship and cranes, as well as the Oakland skyline in the background. The shipping containers and light mast structures on the Project site appear as distant features in the view overshadowed by neighboring structures.

Aerial from Google Earth Pro © 2015. Additional information added by CH2M HILL.

LEGEND

Project site boundary

Viewpoint location marker

FIGURE 3.1-1
Viewpoint Locations
Initial Study/Negative Declaration
Roundhouse Area Improvements Project
Port of Oakland
Oakland, California

a. View to the southwest into the project site from Middle Harbor Road.

b. View to the west toward the project site from the Oakland Ferry Terminal. Project site is mostly obscured by intervening structures.

FIGURE 3.1-2
Project Site Viewpoints 1 and 2
Initial Study/Negative Declaration
Roundhouse Area Improvements Project
Port of Oakland
Oakland, California

a. View to the north toward the project site from the Alameda Ferry Terminal.

b. View to the northeast toward the project site.

FIGURE 3.1-3
Project Site Viewpoints 3 and 4
Initial Study/Negative Declaration
Roundhouse Area Improvements Project
Port of Oakland
Oakland, California

3.1.2 Regulatory Setting

Federal and state laws and regulations pertaining to this issue area and relevant to the proposed Project are identified in Table 3.0-1.

The City of Oakland General Plan Open Space Conservation and Recreation Element (OSCAR; City of Oakland, 1996) outlines various goals and policies intended to preserve and protect areas of the city that are potentially scenic, such as the Bay shoreline, or that would promote access to scenic areas. Some of these policies would under conventional circumstances apply to a project like the one evaluated in this environmental document. However, this Project would be implemented on Port of Oakland property, which is currently not publicly accessible and would remain so after Project implementation due to safety and security considerations. In addition, as discussed in some detail below, the visual quality of the Project site is currently not high and is not designated as scenic. Therefore, the various goals and policies related to visual resources found in the OSCAR would not apply to this Project.

3.1.3 Impact Analysis

Would the Project:

a) Have a substantial effect on a scenic vista?

No Impact. The Project site is not a part of any officially designated scenic vista.

b) Substantially damage scenic resources, including, but not limited to tress, rock outcroppings, and historic buildings within a State scenic highway?

No Impact. The proposed Project would not damage any scenic resources, including trees, rock outcroppings or historic buildings within a state scenic highway.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less than Significant Impact. As discussed above, the Project site and its vicinity are part of an area of Oakland that is characterized by heavy industrial uses, including activity at the Port of Oakland, Schnitzer Steel, and other operations. These long-established land uses give the area a roughhewn character, which is exacerbated by the paucity of visually softening features such as trees and other vegetation. As a result, the level of visual quality in the area is low. The proposed changes to the Project site would bring to the site uses that are substantially similar to existing on-site uses.

Construction of the proposed surge building or potentially two surge buildings would involve construction of two large structures that are different than other structures on the Project site and in the general vicinity. For illustrative purposes and to provide a sense of the scale of one of these structures, the photographs presented in Figure 3.1-4 show surge buildings used at a similar facility in Modesto, California. Image ‘a’ in Figure 3.1-4 is a view of the exterior of one of these buildings, while image ‘b’ shows the interior of the building. The tent-like buildings would be made of a light-colored soft-sided material stretched over a metal pitch-roof frame. The buildings proposed for the Port of Oakland site would be of similar construction style and scale.

The surge buildings have the potential to be visible from multiple locations, especially within Oakland and Alameda, provided that views toward the Project site are not obstructed by intervening structures. As evidenced by the four viewpoints documented above, even when in close proximity to the Project site, viewers may not have a clear view of the site due to intervening human-made structures. The site would be seen in the midst of larger buildings, but when placed within the larger context the surge buildings would not be visually dominant, nor would they block views of important visual resources. Furthermore, at present and even after Project implementation, the most visually dominant features of the area will be the Port of Oakland cranes, as well as docked cargo ships, which would overshadow other features in the area.

a. Exterior of Surge Building at Modesto Facility

b. Interior of Surge Building at Modesto Facility

FIGURE 3.1-4
Photographs of Typical Surge Building in Modesto
Initial Study/Negative Declaration
Roundhouse Area Improvements Project
Port of Oakland
Oakland, California

The proposed Project's surge buildings, as well as proposed modifications to the Project site's railroad track configuration, are not considered substantially different in character from existing uses at the site, and therefore would have a less than significant impact on the visual quality of the site and its surroundings.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less than Significant Impact. Implementation of the proposed Project would result in construction of one or potentially two surge buildings on the Project site to be used for temporary storage of overflow grain materials. These structures would potentially be used during both day and nighttime hours. The soft-sided material that the buildings would be covered with would allow their interior lighting to be visible from outside the structures, resulting in a new source of nighttime lighting at the Project site. However, the Project site and the rest of the Port of Oakland facility is already a 24-hour per day facility that uses a large amount of artificial lighting. Therefore, new lighting emanating from the surge buildings would not substantially affect nighttime views in the area. Siting of the surge buildings would be done in a manner that avoids existing light mast structures, resulting in minimal change to existing light levels at the Project site.

Similarly, the Project would not constitute a substantial new source of glare. Though the off-white exterior surface color of the surge buildings would be noticeable outside the Project area from some vantage points, the buildings would not be a source of glare. The Project's impact related to light and glare would be less than significant. Therefore, no avoidance, minimization, or mitigation measures are required.

3.1.4 Mitigation Summary

No mitigation measures would be necessary.

3.2 Agriculture and Forest Resources

AGRICULTURE AND FOREST RESOURCES Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Natural Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Pub. Resources Code, § 12220, subd. (g)), timberland (as defined by Pub. Resources Code, § 4526), or timberland zoned Timberland Production (as defined by Gov. Code, § 51104, subd. (g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.2.1 Environmental Setting

The proposed Project would construct bulk cargo transloading facilities and truck/equipment parking areas on the Project site. The site is entirely paved and surrounded by industrial land use. There are no lands designated as farmland or forested or timber lands on or in the immediate vicinity of the proposed Project.

3.2.2 Regulatory Setting

No federal or state laws or regulations pertaining to agriculture and forest resources were identified that are relevant to the proposed Project. There are no local goals, policies, and/or regulations applicable to agricultural use at this site in the City of Oakland General Plan.

3.2.3 Impact Analysis

Would the Project:

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

No Impact. The Project would have no impact on Prime Farmland, Unique Farmland, or Farmland of Statewide Importance because there are no current or planned agricultural uses at the site. The Project site is not classified as Farmland.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The Project would not conflict with existing zoning for agriculture because the site is designated as IG General Industrial Zone. The site is not operated under a Williamson Act contract with any local governments for the purpose of restricting specific parcels of land to agricultural or related open space use.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Pub. Resources Code § 12220, subd. (g)), timberland (as defined by Pub. Resources Code § 4526), or timberland zoned Timberland Production (as defined by Gov. Code § 51104, subd. (g))?

No Impact. No forest lands or timberlands are located in the vicinity of the site; therefore, there would be no impact.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. No forest lands or timberlands are located in the vicinity of the site; therefore, there would be no impact.

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

No Impact. The Project would not alter the existing environment such that farmland or forest land would be converted to non-agricultural or non-forest uses.

3.2.4 Mitigation Summary

The Project would not result in any impacts; therefore, no mitigation is required.

3.3 Air Quality and Greenhouse Gas Emissions

AIR QUALITY AND GREENHOUSE GAS EMISSIONS Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒
f) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
g) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

This section evaluates the air quality and greenhouse gas (GHG) emissions that may result from construction and operation of the Grain Terminal at the Project site. Potential air quality and climate change impacts associated with operation of the Grain Terminal could result from gasoline and diesel emissions from maintenance trucks and employee vehicles, diesel emissions from heavy-duty equipment operation to facilitate grain loading and unloading, and indirect GHG emissions from the consumption of purchased electricity. Temporary air quality and climate change impacts could result from construction activities, potentially including earth-moving activities, grading, compaction of soil, and construction of new facilities. Construction activities could increase diesel emissions from construction equipment and vehicle exhaust and increase fugitive dust levels generated by heavy-duty equipment operation due to activities such as clearing, grading, excavating, and crushing asphalt and concrete.

3.3.1 Regulatory Setting

The Project is located in the City of Oakland, Alameda County, within the San Francisco Bay Area Air Basin (SFBAAB). Air quality within the SFBAAB is addressed through the efforts of various federal, state, regional, and local government agencies. The current regulatory setting is summarized below.

3.3.1.1 Federal Regulations

Federal air quality policies are regulated through the federal Clean Air Act (CAA). Pursuant to the CAA, the U.S. Environmental Protection Agency (USEPA) has established National Ambient Air Quality Standards (NAAQS) for the following air pollutants (called “criteria” pollutants): carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than 10 microns in aerodynamic diameter (PM_{10}), particulate matter less than 2.5 microns in aerodynamic diameter ($PM_{2.5}$), and lead. The NAAQS represent levels established to avoid specific adverse health and welfare effects associated with

each pollutant with a margin of safety. The current NAAQS are listed in Table 3.3-1. The known health effects of the regulated air pollutants are listed in Table 3.3-4 of the 2012 IS/AD (LSA Associates, 2012).

TABLE 3.3-1
Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS [a]	NAAQS [b]	
			Primary [c]	Secondary [d]
Ozone	8 hours	0.070 ppm	0.075 ppm	0.075 ppm
	1 hour	0.09 ppm	—	—
Particulate Matter less than 10 micrometers (PM_{10})	Annual arithmetic mean	20 µg/m^3	—	—
	24 hours	50 µg/m^3	150 µg/m^3	150 µg/m^3
Particulate Matter less than 2.5 micrometers ($PM_{2.5}$)	Annual arithmetic mean	12 µg/m^3	12 µg/m^3	15 µg/m^3
	24 hours	—	35 µg/m^3	35 µg/m^3
Carbon Monoxide (CO)	8 hours	9.0 ppm	9 ppm	—
	1 hour	20 ppm	35 ppm	—
Nitrogen Dioxide (NO_2)	Annual arithmetic mean	0.03 ppm	0.053 ppm	0.053 ppm
	1 hour	0.18 ppm	0.100 ppm	—
Sulfur Dioxide (SO_2)	24 hours	0.04 ppm	—	—
	3 hours	—	—	0.5 ppm
	1 hour	0.25 ppm	0.075 ppm [e]	—
Lead [f]	Calendar quarter	—	1.5 µg/m^3	1.5 µg/m^3
	Rolling 3-month average	—	0.15 µg/m^3	0.15 µg/m^3
	30-day average	1.5 µg/m^3	—	—
Visibility-Reducing Particles	8 hours	[g]	—	—
Sulfates	24 hours	25 µg/m^3	—	—
Hydrogen Sulfide	1 hour	0.03 ppm	—	—
Vinyl Chloride [f]	24 hours	0.01 ppm	—	—

Notes:
µg/m^3 = micrograms per cubic meter
ppm = parts per million
[a] California Ambient Air Quality Standards (CAAQS) for ozone, CO (except Lake Tahoe), SO_2 (1-hour and 24-hour), NO_2, and suspended particulate matter (PM_{10}, $PM_{2.5}$, and visibility-reducing particles) are values that are not to be exceeded. All others are not to be equaled or exceeded.
[b] National Ambient Air Quality Standards (NAAQS) other than ozone, particulate matter, and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than 1. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, is equal to or less than the standard.
[c] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
[d] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
[e] Final rule signed June 2, 2010. To attain this standard, the 3-year average of the 99th percentile of the 1-hour daily maximum concentrations at each monitor within an area must not exceed 75 parts per billion.
[f] CARB has identified lead and vinyl chloride as toxic air contaminants with no threshold level of exposure for adverse health effects determined. CARB made this determination following the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
[g] In sufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70 percent.
Source: California Air Resources Board, 2013

Measurements of ambient concentrations of the criteria pollutants are used by the USEPA to assess and classify the air quality of each regional air basin, county, or, in some cases, a specific urbanized area. The classification is determined by comparing actual monitoring data with the NAAQS. If a pollutant concentration in an area is lower than the standard, the area is classified as being in "attainment" for that pollutant. If the pollutant concentration exceeds the standard, the area is classified as a "nonattainment" area. If there are not enough data available to determine whether the standard is exceeded in an area, the area is designated "unclassified." If a region is designated as nonattainment for a NAAQS, the CAA requires the state to develop a State Implementation Plan (SIP) to demonstrate how the standard would be attained, including the establishment of specific requirements for review and approval of new or modified stationary sources of air pollution. The SFBAAB's attainment status with regards to the NAAQS is shown in Table 3.3-2.

TABLE 3.3-2
State and Federal Air Quality Designations for the Project Area

		CAAQS		NAAQS	
Pollutant [a]	**Averaging Time**	**Concentration**	**Attainment Status**	**Concentration**	**Attainment Status**
Ozone	8 hours 1 hour	0.070 ppm 0.09 ppm	Nonattainment Nonattainment	0.075 ppm —	Marginal Nonattainment —
Carbon Monoxide (CO)	8 hours 1 hour	9 ppm 20 ppm	Attainment Attainment	9 ppm 35 ppm	Attainment Attainment
Nitrogen Dioxide (NO_2)	Annual arithmetic mean 1 hour	0.03 ppm 0.18 ppm	Attainment Attainment	0.053 ppm 0.100 ppm	Attainment Unclassified
Particulate Matter less than 10 micrometers (PM_{10})	Annual arithmetic mean 24 hours	20 µg/m^3 50 µg/m^3	Nonattainment Nonattainment	— 150 µg/m^3	— Unclassified
Particulate Matter less than 2.5 micrometers ($PM_{2.5}$)	Annual arithmetic mean 24 hours	12 µg/m^3 —	Nonattainment —	12 µg/m^3 35 µg/m^3	Unclassified/Attainment [b] Moderate Nonattainment
Sulfur Dioxide (SO_2)	24 hours 3 hours 1 hour	0.04 ppm — 0.25 ppm	Attainment — Attainment	— — 0.075 ppm	— — Attainment

Notes:
µg/m^3 = micrograms per cubic meter
ppm = parts per million
CAAQS = California Ambient Air Quality Standards; NAAQS = National Ambient Air Quality Standards
[a] Lead is not listed in this table because it has been in attainment since the 1980s.
[b] In December 2012, USEPA strengthened the annual $PM_{2.5}$ NAAQS from 15 to 12 µg/m^3. In December 2014, USEPA issued final area designations for the 2012 primary annual $PM_{2.5}$ NAAQS. Areas designated "unclassified/attainment" must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.
Source: Bay Area Air Quality Management District, 2015a; USEPA, 2015d

In 2007, the U.S. Supreme Court ruled that carbon dioxide (CO_2) is an air pollutant as defined under the CAA, and that the USEPA has authority to regulate GHG emissions. Subsequently, on October 30, 2009, the USEPA published the Mandatory Reporting Rule (codified in 40 Code of Federal Regulations [CFR] Part 98) that requires mandatory reporting of GHG emissions from large sources and suppliers in the U.S. (USEPA, 2015c). In general, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, facilities that inject CO_2 underground, and facilities that emit 25,000 metric tons or more per year of carbon dioxide equivalent (CO_2e) emissions are required to submit annual reports to the USEPA.

On December 7, 2009, the USEPA Administrator signed two findings regarding GHGs. The first finds that the current and projected concentrations of the six key well-mixed GHGs in the atmosphere (CO_2, methane [I_4], nitrous oxide [N_2O], hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF_6]) threaten the public health and welfare of current and future generations. The second finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare (USEPA, 2015b). While these findings do not themselves impose requirements on industry or other entities, the USEPA is developing vehicle emission standards under the CAA as a result of these findings.

On June 3, 2010, the USEPA promulgated the final GHG Tailoring Rule (75 Federal Register 31514). The GHG Tailoring Rule established clear applicability thresholds for stationary source emitters of GHGs under Prevention of Significant Deterioration (PSD) and Title V regulations. In general, any new stationary source with GHG emissions of 100,000 tons CO_2e per year or greater became subject to both PSD review and the Title V program. On June 23, 2014, the U.S. Supreme Court issued a decision prohibiting the USEPA from considering GHG emissions when determining PSD review and Title V program applicability (*Utility Air Regulatory Group v. EPA*, No. 12-1146). Per the U.S. Supreme Court decision, the USEPA may continue to require GHG emission limitations in PSD and Title V permits, if PSD review and the Title V program is triggered by emissions of criteria pollutants. Because no stationary sources of this magnitude are associated with the Project, PSD and Title V regulations would not apply.

3.3.1.2 State Regulations

The California Air Resources Board oversees California air quality policies. The California CAA was approved in 1988 and, as amended in 1992, established the California Ambient Air Quality Standards (CAAQS). These standards, summarized in Table 3.3-1, are generally more stringent and include more pollutants than the NAAQS. Similar to the USEPA, the CARB designates counties in California as being in “attainment” or “nonattainment” for the CAAQS. Attainment plans for areas that did not demonstrate attainment of the CAAQS until after 1997 must specify emission reduction strategies and meet milestones to implement emission controls and achieve more healthful air quality. The state attainment status for the SFBAAB is listed in Table 3.3-2.

The CARB has the primary responsibility for producing the SIP for nonattainment pollutants. However, the CARB relies on and oversees the efforts of regional air districts to adopt and implement air quality regulations and plans, including CARB-suggested control measures and additional emission reduction strategies for sources under their jurisdiction. The CARB consolidates statewide implementation plan requirements for mobile sources and consumer products with regionally adopted district plans and submits the completed SIP to the USEPA. The SIP consists of the emissions standards for vehicular sources and consumer products set by the CARB, as well as attainment plans adopted by the air districts and approved by the CARB.

The framework for regulating GHG emissions in California falls under the implementation requirements of the Global Warming Solutions Act of 2006 (referred to as Assembly Bill [AB] 32), which was signed into law by the California State Legislature in 2006 following Executive Order (EO) S-3-05. EO S-3-05 established statewide GHG emission targets of reducing emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050, whereas AB 32 required the CARB to design and implement emission limits, regulations, and other measures to achieve these GHG emission reductions in a technologically feasible and cost-effective manner. The statewide 2020 emissions limit is 427 million metric tons CO_2e; CO_2 emissions account for approximately 90 percent of this value (CARB, 2007).

In December 2007, the CARB adopted the first regulation pursuant to AB 32 which requires mandatory reporting of GHG emissions from large emitting facilities, suppliers, and electricity providers. This regulation was significantly revised to better align with USEPA’s Mandatory Reporting Rule; the revised regulation became effective January 1, 2013. The current regulation, which includes additional minor revisions to accommodate the Cap-and-Trade Program, became effective January 1, 2015 (CARB, 2015d). The CARB

adopted the California Cap-and-Trade Program on October 20, 2011. Under the California Cap-and-Trade Program, most covered entities have an obligation to hold GHG allowances beginning in 2013; fuel suppliers have an obligation to hold GHG allowances beginning in 2015 (CARB, 2015c).

In May 2009, the CARB adopted the *AB 32 Climate Change Scoping Plan* (Scoping Plan), which contains the main strategies for California to implement to reduce CO_2e emissions to 1990 levels by 2020 under a business-as-usual scenario. The Scoping Plan breaks down the amount of GHG emissions reductions the CARB recommends for each emissions sector of the state's GHG inventory, but does not directly discuss GHG emissions generated by construction activities. In May 2014, the CARB adopted the *First Update to the Climate Change Scoping Plan*. This update builds upon the Scoping Plan by identifying opportunities to leverage existing and new funds to further drive GHG emission reductions and defining the CARB's climate change priorities for the next five years. The update also identifies nine key focus areas for future GHG emission reductions (CARB, 2015a).

On April 29, 2015, EO B-30-15 was issued, which establishes a California GHG emissions reduction target of 40 percent below 1990 levels by 2030. This interim target is intended to help California reach its ultimate goal of reducing GHG emissions 80 percent below 1990 levels by 2050. EO B-30-15 also directs the state government to incorporate climate change impacts into the state's five-year infrastructure plan, factor climate change into state agencies' planning and investment decisions, and implement measures under existing agency and departmental authority to reduce GHG emissions (Office of the Governor, 2015).

From a planning perspective, pursuant to Senate Bill (SB) 97, the State Office of Planning and Research prepared, and the Natural Resources Agency adopted, amendments to the CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. Effective March 2010, the revisions to the CEQA Environmental Checklist Form (Appendix G) and the Energy Conservation Appendix (Appendix F) provide a framework to address global climate change impacts in the CEQA process. State CEQA Guidelines Section 15064.4 was also added to provide an approach to assessing impacts from GHGs.

With regard to transportation, SB 375 (effective January 1, 2009) requires the CARB to develop regional reduction targets for GHG emissions, and prompted the creation of regional land use and transportation plans to reduce emissions from passenger vehicle use throughout the state. The targets apply to the regions covered by California's 18 metropolitan planning organizations (MPOs). The 18 MPOs must develop regional land use and transportation plans and demonstrate an ability to attain the proposed reduction targets by 2020 and 2035. Additionally, EO S-01-07 set forth a low carbon fuel standard for California, which requires the carbon intensity of California's transportations fuels to be reduced by at least 10 percent by 2020.

Under California's Diesel Fuel Regulations, diesel fuel used in motor vehicles, except harbor craft, has been limited to 500 parts per million (ppm) sulfur since 1993. The sulfur limit was reduced to 15 ppm beginning September 1, 2006, and harbor craft were included starting in 2009. The CARB's Heavy Duty Diesel Truck Idling Rule (13 California Code of Regulations [CCR] 2485) prohibits heavy-duty diesel trucks from idling for longer than 5 minutes at a time. Truck idling for longer than 5 minutes while queuing is allowed, however, provided the queue is located beyond 100 feet (30 meters) from any homes or schools.

Lastly, the Statewide Portable Equipment Registration Program (PERP) establishes a uniform program to regulate portable engines/engine-driven equipment units. Once registered in the PERP, engines and equipment units may operate throughout California without the need to obtain individual permits from local air districts.

3.3.1.3 Regional Regulations

As previously noted, the Project is located in the SFBAAB, which is within the jurisdiction of the Bay Area Air Quality Management District. The BAAQMD is the agency charged with preparing, adopting, and implementing emission control measures and standards for mobile, stationary, and area sources of air pollution in the SFBAAB.

The BAAQMD works in cooperation with local MPOs, such as the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC), to develop air quality plans. The BAAQMD prepares ozone attainment demonstrations for the federal ozone standard and clean air plans for the California ozone standard. The *2001 Ozone Attainment Plan* is the BAAQMD's contribution to the SIP for demonstrating attainment of the federal 1-hour ozone standard (BAAQMD, 2001). The *2010 Clean Air Plan* (BAAQMD, 2010) is the currently approved ozone clean air plan, which shows how the BAAQMD would make progress towards meeting the state 1-hour ozone standard. The *2010 Clean Air Plan* provides an integrated, multi-pollutant control strategy to reduce emissions and decrease ambient concentrations of harmful pollutants, safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, and reduce GHG emissions to protect the climate (BAAQMD, 2010).

Because the BAAQMD currently attains the federal 24-hour PM_{10} standard, the BAAQMD is not required to develop a plan for this standard at this time. However, the BAAQMD is designated nonattainment for state PM_{10} standards and has implemented a Particulate Matter Control Program. The Particulate Matter Control Program includes emission limits of primary particulate matter and particulate matter precursors from stationary sources, wood smoke regulations, and 55 Particulate Matter Control Measures outlined in the *2010 Clean Air Plan*. Additionally, although the BAAQMD is currently designated as federal nonattainment for the 24-hour $PM_{2.5}$ standard, recent monitoring data indicate that $PM_{2.5}$ levels have decreased in the Bay Area since 2008. As a result, the CARB submitted a "clean data finding" request to the USEPA on behalf of the BAAQMD on December 8, 2011. On January 9, 2013, the USEPA issued a final rule to determine that the San Francisco Bay Area has attained the federal 24-hour $PM_{2.5}$ standard. As a result, the BAAQMD can meet the federal $PM_{2.5}$ standard by preparing a redesignation request and a $PM_{2.5}$ maintenance plan or a "clean data" SIP submittal (BAAQMD, 2015c). The proposed Grain Terminal may require BAAQMD permits for stationary sources that will be used as part of its operations.

3.3.2 Environmental Setting

The SFBAAB is a large shallow air basin surrounded by coastal hills, with sheltered valleys along the perimeter. The SFBAAB comprises all of Alameda, San Francisco, Contra Costa, Marin, Napa, San Mateo, and Santa Clara Counties, the southern half of Sonoma County, and the southwestern portion of Solano County.

Ambient air quality is influenced by climatological conditions, topography, and the quantity and type of pollutants released in an area. The major determinants of transport and dilution of a given pollutant are wind, atmospheric stability (presence or absence of inversions) and terrain. Air quality conditions in the SFBAAB have improved significantly since the BAAQMD was created in 1955.

Air pollutant emissions within the SFBAAB are generated by stationary, area-wide, and mobile sources. Stationary sources are usually associated with specific large manufacturing and industrial facilities, such as fossil-fuel power plants or large industrial boilers. Area sources emit small amounts of pollutants individually, but there are often many of them, and the sum of their emissions amounts to a large total quantity. Examples of area sources include residential and commercial water heaters and painting/coating operations. Mobile sources include on-road motor vehicles, aircraft, ships, trains, and self-propelled construction equipment. The potential air quality effects that may result from the construction and operation of the Project would be primarily caused by mobile sources.

A description of the criteria air pollutants, their sources, and their health effects is provided in Section 3.3.4.2 of the 2012 IS/AD (LSA Associates, 2012) and include ozone (smog), CO, nitrogen oxides (NO_X), volatile organic compounds (VOCs), coarse and fine particulate matter (PM_{10} and $PM_{2.5}$, respectively), SO_2, and lead. A description of the GHGs that contribute to global warming, their sources, and their health effects is provided in Section 3.7.4.1 of the 2012 IS/AD. GHGs include CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (LSA Associates, 2012).

3.3.2.1 Ambient Air Quality

BAAQMD monitors criteria air pollutant concentrations at a number of monitoring stations throughout the SFBAAB. The air quality in the SFBAAB, including Oakland, has generally improved over the past 20 years, as motor vehicles have become cleaner, agricultural and residential burning has been curtailed, and consumer products containing VOCs have been reformulated or replaced. Review of ambient air quality data for the monitoring stations in and around Alameda County shows that only two standards were exceeded from 2011 through 2013, which were the state 24-hour standard for PM_{10} in 2011 and the federal 24-hour standard for $PM_{2.5}$ in 2011 and 2013. Air quality monitoring data are reported in Table 3.3-3.

TABLE 3.3-3
Ambient Air Quality Data for the Project Area [a]

Pollutant	Standard	2011	2012	2013
Ozone				
Maximum 8-hour concentration (ppm):		0.052	0.045	0.064
Number of days exceeded:	State: > 0.070 ppm	0	0	0
	Federal: > 0.075 ppm	0	0	0
Maximum 1-hour concentration (ppm):		0.091	0.072	0.076
Number of days exceeded:	State: > 0.09 ppm	0	0	0
CO				
Maximum 8-hour concentration (ppm):		1.50	1.57	2.0 [b]
Number of days exceeded:	State: > 9 ppm	0	0	0
	Federal: > 9 ppm	0	0	0
Maximum 1-hour concentration (ppm): [b]		4.1	2.9	3.6
Number of days exceeded:	State: > 20 ppm	0	0	0
	Federal: > 35 ppm	0	0	0
NO_2				
Annual arithmetic mean (ppm):		0.013	0.012	0.014
Exceeded for the year:	State: > 0.03 ppm	No	No	No
	Federal: > 0.053 ppm	No	No	No
Maximum 1-hour concentration (ppm):		0.0565	0.0648	0.0603
Number of days exceeded:	State: > 0.18 ppm	0	0	0
	Federal: > 0.100 ppm	0	0	0
PM_{10} [c]				
Annual arithmetic mean ($\mu g/m^3$):		19.7	15.7	17.8
Exceeded for the year:	State: > 20 $\mu g/m^3$	No	No	No
	Federal: > 50 $\mu g/m^3$	No	No	No
Maximum 24-hour concentration ($\mu g/m^3$):		73.4	46.7	48.1
Number of days exceeded:	State: > 50 $\mu g/m^3$	1	0	0
	Federal: > 150 $\mu g/m^3$	0	0	0
$PM_{2.5}$				
Annual arithmetic mean ($\mu g/m^3$):		10.1	9.5	10.4
Exceeded for the year:	State: > 12 $\mu g/m^3$	No	No	No
	Federal: > 12 $\mu g/m^3$	No	No	No
Maximum 24-hour concentration ($\mu g/m^3$):		49.3	33.6	37.9
Number of days exceeded:	Federal: > 35 $\mu g/m^3$	3	0	2

TABLE 3.3-3
Ambient Air Quality Data for the Project Area [a]

Pollutant	Standard	2011	2012	2013
SO_2 [d]				
Maximum 24-hour concentration (ppm):		0.004	0.008	0.007
Number of days exceeded:	State: > 0.04 ppm	0	0	0
Maximum 1-hour concentration (ppm):		0.019	0.068	0.050
Number of days exceeded:	State: > 0.25 ppm	0	0	0
	Federal: > 0.075 ppm	0	0	0

Notes:
$\mu g/m^3$ = micrograms per cubic meter
[a] Unless otherwise noted, data are collected at 9925 International Boulevard in Oakland, California and recorded by the CARB.
[b] Data are collected at 9925 International Boulevard in Oakland, California and recorded by the USEPA.
[c] Data are collected at 1865D Rumrill Boulevard in San Pablo, California and recorded by the CARB. Note that there are no PM_{10} monitors located in Alameda County.
[d] Data are collected at 1100 21st Street in Oakland, California and recorded by the USEPA.
Source: CARB, 2015b; USEPA, 2015a

3.3.2.2 Toxic Air Contaminants

Toxic air contaminants (TACs) are a regulatory designation that includes a diverse group of air pollutants which adversely affect human health. They are not fundamentally different from the criteria pollutants, but they have not had ambient air quality standards established for them for a variety of reasons (e.g., insufficient dose-response data, association with particular workplace exposures rather than general environmental exposure). The health effects of TACs can result from either acute or chronic exposure. Many types of cancer are associated with chronic TAC exposures, but TAC exposures can also cause other adverse health effects. Consequently, the BAAQMD has established both a cancer and a noncancer health risk threshold for TAC emissions.

Significant sources of TACs in the environment include industrial processes, such as petroleum refining, chemical manufacturing, electric utilities, metal mining/refining and chrome plating; and commercial operations, such as gasoline stations, dry cleaners, and buildings with boilers and/or emergency generators. Mobile sources are gasoline and diesel-powered vehicles of all types. The CARB listed 10 compounds that pose the greatest known health risk in California. Based primarily on ambient air quality data, these are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chlorideerchlorethylenene, and diesel particulate matter (DPM) (CARB, 2009). Of these pollutants, only DPM could potentially be emitted from the Project in quantities greater than de minimis levels. Information on DPM is included below.

Diesel Particulate Matter. DPM is found in engine exhaust and consists of a mixture of gases and fine particles (smoke or soot) that can penetrate deeply into the lungs where it can contribute to a range of health problems. In 1998, the CARB identified particulate matter from diesel-powered engines as a TAC based on its potential to cause cancer and other adverse health effects (CARB, 1998). Diesel exhaust is a complex mixture that includes hundreds of individual constituents and is identified by the State of California as a known carcinogen (California Environmental Protection Agency [Cal/EPA], 1998). However, under California regulatory guidelines, DPM is used as a surrogate measure of exposure for the mixture of chemicals that comprise diesel exhaust (Cal/EPA, 1998).

Based on receptor modeling techniques, the CARB estimated the background DPM health risk in the SFBAAB in 2000 to be approximately 500 cancer cases per million people. This reflects a drop of approximately 36 percent from estimates for 1990 (CARB, 2009). In 2000, the CARB approved a new regulation for existing

heavy-duty diesel vehicles that requires retrofitting and replacement of vehicles or their engines over time such that by 2023 all vehicles must have a 2010 model year engine or equivalent. This regulation is anticipated to result in an 85 percent decrease in statewide diesel health risk in 2020 from the 2000 risk levels (CARB, 2000).

California Air Resources Board West Oakland Health Risk Assessment. In March 2008, the CARB, working in cooperation with the Port of Oakland, UP, and the BAAQMD, completed a study designed to help understand the potential health impacts from DPM emissions on residents of the West Oakland community. Key findings of the CARB report are as follows:

- DPM ambient concentrations in West Oakland are estimated to be nearly three times the background DPM concentrations averaged over the entire SFBAAB.
- The estimated lifetime potential cancer risk for residents of West Oakland from exposure to all DPM emissions included in the study is estimated to be about 1,200 excess cancers per million. This estimate assumes residents are exposed to the estimated 2005 outdoor DPM levels continuously for 70 years. By way of comparison, the corresponding background risk from DPM emissions over the entire SFBAAB is estimated to be 480 excess cancer cases per million, the corresponding background risk from emissions of all air toxics species in the SFBAAB is 660 per million, and the expected cancer rate from all causes, including smoking, is about 200,000 to 250,000 per million, according to the CARB study.
- Of the total West Oakland DPM exposure risk noted above (1,186 per million from all sources), emissions from Port seaport operations contribute to 16 percent (192 per million), Union Pacific railyard sources contribute 4 percent (43 per million), and other sources (primarily trucks) in and around West Oakland contribute to the remaining 80 percent (951 per million).

At the time of the 2008 report, CARB projections of future DPM emissions indicate that emissions and associated health risk would be reduced in West Oakland by about 80 percent by 2015, reflecting reductions achieved by state and federal regulations.

BAAQMD CARE Program. Under the Community Air Risk Evaluation (CARE) program, BAAQMD began identifying areas with high TAC emissions and sensitive populations that could be affected by such emissions, and using this information to establish policies and programs to reduce TAC emissions and exposures. During Phase I of CARE, BAAQMD developed a preliminary Bay-Area-wide TAC emissions inventory (for the year 2000) and compiled demographic and health-statistics data to identify sensitive populations. Five TACs (DPM, 1,3-butadiene, benzene, hexavalent chromium, and formaldehyde) were estimated to be responsible for about 97 percent of the SFBAAB's cumulative cancer risk, and DPM alone accounts for about 80 percent of this cancer risk. Major sources of DPM include on-road and off-road heavy-duty diesel trucks and construction equipment. The highest DPM emissions occur in the urban core areas of eastern San Francisco, western Alameda, and northwestern Santa Clara Counties.

3.3.3 Environmental Consequences

The potential air quality and climate change impacts associated with the Project would be due to construction emissions in the form of tailpipe exhaust, fugitive dust from material movement, fugitive dust from vehicle travel on paved and unpaved roads, and asphalt off-gassing from paving activities, as well as operation emissions in the form of tailpipe exhaust, fugitive dust from vehicle travel on paved roads, and electricity consumption. The methodology used to estimate these emissions, along with the criteria used to evaluate their environmental impact, is included below.

3.3.3.1 Methodology and Emissions Estimates

Short-term Project construction emissions of CO, SO_2, PM_{10}, $PM_{2.5}$, ozone precursors (NO_X and VOC), and GHGs (CO_2, CH_4, and N_2O) were estimated for on-site construction equipment and on- and off-site construction vehicles, such as dump trucks and material delivery trucks. Construction equipment emissions were estimated using emission factors from Appendix D of the *California Emissions Estimator Model*

(CalEEMod) User's Guide (ENVIRON, 2013) for the year 2015. Emissions for on- and off-site construction vehicles were estimated using emission factors from EMFAC2014 for Alameda County, California for the year 2015. On-site vehicles were assumed to travel at an average speed of 5 miles per hour (mph), up to 2 miles per trip. Off-site vehicles were assumed to travel at an average speed of 40 mph, at varying trip distances dependent on the vehicle type. Material haul trucks were assumed to travel 20 miles per trip, per Appendix A of the *CalEEMod User's Guide* (ENVIRON, 2013), whereas trip distances for worker commute vehicles, pick-up trucks, flatbed trucks, and material delivery trucks were taken from Appendix D of the *CalEEMod User's Guide* (ENVIRON, 2013). In the absence of CalEEMod and EMFAC2014 N_2O emission factors, emissions of N_2O from construction equipment and vehicles were derived from CO_2 emissions estimates using a conversion factor from The Climate Registry's (TCR) *Default Emissions Factors* (TCR, 2015). Fugitive dust emissions for material movement associated with grading, excavation, demolition, and loading of aggregate materials were estimated using methodology found in Appendix A of the *CalEEMod User's Guide* (ENVIRON, 2013). Fugitive dust emissions from on-site vehicle travel on unpaved roads and off-site vehicle travel on paved roads were estimated using methodology found in Sections 13.2.2 (USEPA, 2006) and 13.2.1 (USEPA, 2011), respectively, of the AP-42 Compilation of Air Pollutant Emission Factors. Off-gassing emissions (VOC) from paving operations were also estimated using methodology found in Appendix A of the *CalEEMod User's Guide* (ENVIRON, 2013).

Estimated fugitive dust emissions were reduced through the implementation of various control measures that have been incorporated into the Project. The applicable control measures, and their corresponding control efficiencies, are as follows (South Coast Air Quality Management District, 2007):[15]

- During demolition and loading of aggregate materials, affected areas will be watered every 4 hours, thereby reducing fugitive dust emissions by 36 percent
- Areas being graded will be watered every 3 hours, thereby reducing fugitive dust emissions by 61 percent
- Areas being excavated will be watered frequently enough to maintain a soil moisture of 12 percent, thereby reducing fugitive dust emissions by 69 percent
- Unpaved roads will be watered twice daily, thereby reducing fugitive dust emissions by 55 percent
- Paved roads will be swept every 14 days, thereby reducing fugitive dust emissions by 26 percent

Annual operational emissions associated with operation of the Grain Terminal were estimated using the same methodology used for construction emissions, with the following modifications:

- 2016 emission factors were used, assuming Project construction would be completed in 2016
- Both on- and off-site operation vehicles were assumed to travel on paved roads
- CO_2, CH_4, and N_2O emissions associated with consumption of purchased electricity were estimated using emission factors from TCR's *Default Emission Factors* (TCR, 2015)
- Material movement fugitive dust emissions are not expected from operational activities because any fugitive dust associated with grain loading and unloading will be captured by the facility's dust collection system
- Off-gassing emissions are not expected from operational activities because paved areas would have been completed during construction
- Trip distances for maintenance fuel / lube trucks, maintenance parts run trucks, maintenance tire trucks, and shuttle trucks were taken from Appendix D of the *CalEEMod User's Guide* (ENVIRON, 2013)

[15] These control measures are generally consistent with the recommendations contained in BAAQMD's *1999 CEQA Air Quality Guidelines*. However, in the absence of BAAQMD-specific control efficiencies, data were obtained from the South Coast Air Quality Management District's CEQA policy.

Estimated criteria air pollutant and GHG emissions from the proposed Project are summarized in Tables 3.3-4 and 3.3-5, respectively.

TABLE 3.3-4
Estimated Project Criteria Air Pollutant Emissions

Phase	VOC	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$
Construction Emissions						
Daily Emissions (lbs/day) [a, b]	18.5	120	216	0.37	101	20.5
Project Emissions (tons/project)	0.26	2.14	3.17	0.005	1.44	0.28
Operation Emissions						
Daily Emissions (lbs/day)	1.55	12.1	16.3	0.026	1.65	1.02
Project Emissions (tons/project)	0.22	1.73	2.33	0.004	0.24	0.15

Notes:
lbs/day = pounds per day
[a] These are daily maximum emissions that only occur during very limited periods of the overall construction schedule.
[b] Daily maximum construction emissions were conservatively estimated assuming that activities scheduled to occur within the same month may occur on the same day. However, it is much more likely that activities would occur sequentially within the same month due to site size constraints.

TABLE 3.3-5
Estimated Project Greenhouse Gas Emissions

Phase	CO_2	CH_4	N_2O	CO_2e [a]
Construction Emissions				
Project Emissions (metric tons/project)	491	0.078	0.017	498
Operation Emissions				
Project Emissions (metric tons/project)	1,482	0.10	0.023	1,491

Notes:
CO_2e = carbon dioxide equivalent
[a] CO_2e assumes a global warming potential of 25 foICH_4 and 298 for N_2O per 40 Code of Federal Regulations 98, Table A-1.

3.3.3.2 Significance Criteria

Impacts to air quality may be considered significant if the Project:

- Conflicts with or obstructs implementation of any applicable air quality plan
- Violates any air quality standard or contributes substantially to an existing or projected air quality violation
- Results in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable national or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)
- Exposes sensitive receptors to a substantial pollutant concentration
- Creates objectionable odors affecting a substantial number of people

Beyond what is specified above, with respect to construction emissions, the BAAQMD's 1999 thresholds of significance indicate that "if all the control measures indicated in Table 2 [of the *1999 CEQA Air Quality Guidelines*] (as appropriate, depending on the size of the project area) will be implemented, then air

pollutant emissions from construction activities would be considered a less than significant impact" (BAAQMD, 1999). Applicable measures from Table 2 of BAAQMD's *1999 CEQA Air Quality Guidelines* will be included in the Project.

Impacts to climate change may be considered significant if the Project:

- Generates GHG emissions, either directly or indirectly, that may have a significant impact on the environment
- Conflicts with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs

Due to legal proceedings, the BAAQMD no longer recommends the significance thresholds from the *2011 CEQA Air Quality Guidelines* for use in evaluating a project's environmental impacts (BAAQMD, 2015b). Therefore, the significance determinations for this Project will continue to be based on the thresholds from the BAAQMD's *1999 CEQA Air Quality Guidelines*. As discussed in Section 3.7.5 of the 2012 IS/AD , BAAQMD's *1999 CEQA Air Quality Guidelines* do not provide a quantitative significance threshold for evaluating GHG emissions. Therefore, project significance will be evaluated qualitatively through comparison to previous Port of Oakland projects.

3.3.4 Impact Analysis

The significance of the Project's impact to air quality and climate change is evaluated below, based on the significance criteria listed in Section 3.3.3.2. In some instances, the significance determinations are dependent on comparisons of the Project's emissions (see Tables 3.3-4 and 3.3-5) to the emissions presented in the 2012 IS/AD (see Tables 3.3-7, 3.3-8, 3.7-2, and 3.7-3 of that document) (LSA Associates, 2012).

3.3.4.1 Air Quality Impacts

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

No Impact. Similar to the discussion in Section 3.3.5 of the 2012 IS/AD (LSA Associates, 2012), the Project could result in potentially significant construction and operational emission impacts and could increase the exposure of nearby residents to TACs, which would not support the goals of the BAAQMD's *2010 Clean Air Plan*. Overall, however, the Project impacts would be less than those identified in the 2002 EIR (City of Oakland, 2002).

Despite the expected emissions increases, the Project would support implementation of the *2010 Clean Air Plan* by incorporating applicable control measures, thus helping to reduce emissions increases. The control strategies in the *2010 Clean Air Plan* include stationary source measures, mobile source measures, transportation control measures, land use and local impact measures, and energy measures. For example, the Project would be consistent with the *2010 Clean Air Plan* in that Standard Condition of Approval (SCA) AIR-2 (see Section 3.3.5 below) requires construction-related air pollution controls, as related to fugitive dust and equipment emissions. These controls would likely reduce vehicle and equipment idling and encourage the use of low-emission or electric construction equipment where feasible, which are consistent with the *2010 Clean Air Plan* transportation control measures. Therefore, the Project will not conflict with or obstruct implementation of the applicable air quality plan and would have no impact.

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

Less than Significant Impact. As shown in Table 3.3-2, the Project is located in a nonattainment area for ozone and particulate matter. Construction and operation of the Grain Terminal would result in the release of emissions that could contribute to these existing air quality violations. According to the BAAQMD's 1999 significance thresholds, a project that would result in operational emissions of VOC, NO_X, or PM_{10} greater than 15 tons per year or 80 pounds per day has the potential to contribute substantially to existing or

projected air quality violations. There is no similar quantitative threshold available for assessing construction emissions.

Emissions resulting from construction of the Grain Terminal, summarized in Table 3.3-4, will be temporary and will only occur during limited portions of the 12- to 18-month construction period. Maximum daily emissions are expected to occur during a single month of construction, with much lower average daily construction emissions occurring during the other months. Due to uncertainties inherent in proposed Project construction activities, the estimated excavation quantities could vary up to 25 percent of the estimated volumes in Table 3.3-4; however, this would not affect the results of this air quality analysis. Although some fugitive dust control measures have been incorporated into the construction emissions estimates, construction emissions are expected to be further reduced through implementation of additional construction avoidance and minimization measures, such as more frequent watering or application of soil stabilizers and minimization of construction equipment and vehicle idling time. Therefore, construction emissions are expected to have a less than significant impact on air quality and are not expected to violate any air quality standard.

Emissions resulting from operation of the Grain Terminal are not anticipated to be higher than the thresholds of significance, as shown in Table 3.3-4. The proposed Grain Terminal surge buildings would have dust suppression systems installed to keep particulates within the buildings. Therefore, operational emissions will have a less than significant impact on air quality, and will not violate any air quality standard.

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

Less than Significant Impact. As described in Section 3.3.5 of the 2012 IS/AD (LSA Associates, 2012), regional air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. Therefore, if daily average or annual emissions of operational-related criteria air pollutants exceed any applicable threshold established by the BAAQMD, the Project would result in a cumulatively significant impact.

Emissions resulting from construction of the Project would not result in a cumulatively considerable net increase of nonattainment pollutants because the VOC, NO_X, PM_{10}, and $PM_{2.5}$ emissions released during construction activities will be temporary, with the maximum daily emissions occurring for only a very small portion of the overall construction period. Additionally, construction emissions are expected to be reduced through implementation of standard construction avoidance and minimization measures.

As described above, emissions resulting from operation of the Grain Terminal would not exceed the significance thresholds at the individual level. Therefore, the Project would not result in a cumulatively considerable net increase of nonattainment pollutants and impacts would be less than significant.

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

Less than Significant Impact. Sensitive receptors are defined as facilities or land uses that include people who are particularly susceptible to the effects of air pollution (e.g., children, the elderly, and people with illnesses). Schools, hospitals, and residential areas are all examples of sensitive receptors (BAAQMD, 1999). There are no schools or hospitals located within half a mile of the Port of Oakland. Additionally, the construction and operational activities will occur within the highly industrialized areas of the Port of Oakland. For these reasons, the Project is not expected to expose sensitive receptors to substantial pollutant concentrations beyond the exposure already occurring through routine Port of Oakland activities. Therefore, the Project would have less than significant impacts on potential sensitive receptors.

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

No Impact. Construction of the Grain Terminal will involve the temporary use of vehicles and construction equipment that do not generate significant odors.[16] Additionally, the Project does not include any facilities expected to create objectionable odors such as wastewater treatment plants, landfills, composting facilities, refineries, or chemical plants (BAAQMD, 1999). Therefore, there will be no impact from odorous emissions affecting a substantial number of people.

3.3.4.2 Greenhouse Gas Impacts

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

Less than Significant Impact. GHG emissions directly generated during construction will result in a less than significant, short-term impact to climate change.

Both direct and indirect GHG emissions are expected from operation of the Grain Terminal. Indirect GHG emissions account for nearly 80 percent of the total operational GHG emissions, and may be reduced through the use of electricity generated from renewable sources, if available. Both direct and indirect GHG emissions generated during operation will result in a less than significant impact to climate change.

g) Would the project conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs?

No Impact. The Project will not conflict with an applicable plan, policy, or regulation adopted to reduce GHG emissions. The minimal short-term construction GHG emissions will not interfere with the long-term goal of Assembly Bill 32 to reduce GHG emissions to 1990 levels by 2020. Operation of the Grain Terminal will generate direct and indirect emissions, but these emissions will be minimal and temporary. Therefore, the Project will not conflict with plans, policies, or regulations intended to reduce GHGs.

3.3.5 Avoidance and Minimization Measures

Construction Phase. To address the potential for increased air quality and GHG emissions from construction equipment and diesel emissions during site preparation, implementation of Standard Conditions of Approval[17] would ensure that construction air quality effects are reduced and minimal. The following SCAs will be implemented:

- **SCA AIR-1: Construction Management Plan.** The project applicant shall submit to the Planning and Zoning Division and the Building Services Division for review and approval a construction management plan that identifies the conditions of approval and mitigation measures to construction impacts of the Project and explains how the Project applicant will comply with these construction-related conditions of approval and mitigation measures.
- **SCA AIR-2: Construction-Related Air Pollution Controls (Dust and Equipment Emissions).** During construction, the Project applicant shall require the construction contractor to implement all of the following applicable measures recommended by the BAAQMD:

    a) Water all exposed surfaces of active construction areas at least twice daily (using reclaimed water if possible). Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever possible.

[16] Although diesel exhaust odors are expected from operation of heavy-duty equipment, the odors would dissipate quickly.

[17] The SCAs in this document are borrowed from the *2012 Oakland Army Base (OARB) Project Standard Conditions of Approval and Mitigation Monitoring and Reporting Program* (City of Oakland, 2013) that was approved by the Oakland City Council in July 2013. The OARB SCAs were in turn developed from the City of Oakland's standard SCAs that are applicable to all development projects within the City's jurisdiction regardless of a project's environmental determination, pursuant in part to CEQA Guidelines Section 15183.10.

b) Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer).

c) All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

d) Pave all roadways, driveways, sidewalks, etc. as soon as feasible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

e) Enclose, cover, water twice daily or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.).

f) Limit vehicle speeds on unpaved roads to 15 miles per hour.

g) Idling times on all diesel-fueled commercial vehicles over 10,000 lbs. shall be minimized either by shutting equipment off when not is use or reducing the maximum idling time to five minutes (as required by 13 CCR 2485). Clear signage to this effect shall be provided for construction workers at all access points.

h) Idling times on all diesel-fueled off-road vehicles over 25 horsepower shall be shall be minimized either by shutting equipment off when not is use or reducing the maximum idling time to 5 minutes and fleet operators must develop a written idling policy (as required by 13 CCR 2449.)

i) All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

j) Post a publicly visible sign that includes the contractor's name and telephone number to contact regarding dust complaints. When contacted, the contractor shall respond and take corrective action within 48 hours. The telephone numbers of contacts at the City and the BAAQMD shall also be visible. This information may be posted on other required on-site signage.

k) All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.

l) All excavation, grading, and demolition activities shall be suspended when average wind speeds exceed 20 mph.

m) Install sandbags or other erosion control measures to prevent silt runoff to public roadways.

n) Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for one month or more).

o) Designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress.

p) Install appropriate wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of the construction site to minimize windblown dust. Wind breaks must have a maximum 50 percent air porosity.

q) Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.

r) The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.

s) All trucks and equipment, including tires, shall be washed off prior to leaving the site.

t) Site accesses to a distance of 100 feet from the paved road shall be treated with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel.

u) All equipment to be used on the construction site and subject to the requirements of 13 CCR 2449 ("California Air Resources Board Off-Road Diesel Regulations") must meet Emissions and Performance Requirements one year in advance of any fleet deadlines. The Project applicant shall provide written documentation that the fleet requirements have been met.

v) Use low-VOC (i.e., reactive organic gases) coatings beyond the local requirements (i.e., BAAQMD Regulation 8, Rule 3: Architectural Coatings).

Operation Phase. No increased direct or cumulative effects on air quality are expected from operation of the Grain Terminal.

3.3.6 General Conformity

The Grain Terminal meets general conformity requirements. The de minimis threshold for general conformity is defined as a proposed project exceeding 100 tons per year for any criteria pollutant that is in nonattainment status in the SFBAAB, which includes ozone precursors and particulates. The criteria pollutants VOC (an ozone precursor), NO_X (an ozone precursor), $PM_{2.5,}$ and PM_{10} are nonattainment pollutants in the SFBAAB. Table 3.3-4 indicates that the above criteria pollutants will all be under the 100 tons per year threshold for the Project. Thus, the Project will meet general conformity requirements.

3.4 Biological Resources

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

3.4.1 Environmental Setting

The Project site has historically been used for industrial uses and the former UP Roundhouse portion of the site was capped with asphalt in accordance with the Covenant and Environmental Restriction (deed restriction) dated April 11, 2008 and the Revised SMP dated January 9, 2009 for the former UP Roundhouse property (Appendix C). The former Sherex site is also paved. There are no natural habitats, plant communities, trees, or wetland in the Project area. Any use of the site by avian species or other animal species would be incidental and temporary.

3.4.2 Regulatory Setting

Federal and state laws and regulations pertaining to this issue area and relevant to the proposed Project are identified in Table 3.0-1. Local goals, policies, and/or regulations applicable to this issue area are described below. Any construction activities would occur outside of the 100-foot shoreline band BCDC jurisdiction.

Alameda County does not have a Habitat Conservation Plan or a Natural Community Conservation Plan for the Port of Oakland area. The City of Oakland General Plan Open Space, Conservation and Recreation Element contain policies relevant to the protection of biological resources, native plant communities and wetlands (City of Oakland, 1996). The City also has a creek protection ordinance.

3.4.3 Impact Analysis

Would the Project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

No Impact. The Project would not have an impact on sensitive species and because it is paved it does not contain any wildlife habitat. No construction activities would occur in or immediately adjacent to the open water bordering the site. No impact is expected.

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

No Impact. The Project site does not have any riparian habitat or other sensitive natural communities or other wildlife habitat. It is a paved, urban, industrial site. No construction or operations would occur in or immediately adjacent to the water, and construction activities would not be allowed to affect the open water. No impact is expected.

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

No Impact. No wetlands are located on the site. A small wetland area is located immediately south of the site. No construction activities or operations would occur in or immediately adjacent to these wetlands, and construction storm water flows would be directed away from this area. There would be no impact.

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

No Impact. The Project would not have an impact on any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites due to the lack of any wildlife habitat. No work would occur in the water, or immediately adjacent to the shoreline. No impact is expected.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The Project would not conflict with any local policies or ordinances protecting biological resources because it does not support any wildlife habitat including trees. No impact is expected.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?

No Impact. There are no Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or State habitat conservation plans for the Project area. No impact is expected.

3.4.4 Mitigation Summary

The Project would not result in any potentially significant impacts; therefore, no mitigation is required.

3.5 Cultural Resources

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

3.5.1 Environmental Setting

Although this site is the location of the former Union Pacific Roundhouse and Sherex Chemical Company facilities, it has been heavily disturbed since the roundhouse and Sherex ceased operations, and most of the facilities (i.e., any buildings) that would contribute to the historic significance of the site have been removed. Some building foundations and other remnants of former site features may be present below the pavement in the former UP Roundhouse portion of the site; however, these features are known to have been disturbed extensively in the past (e.g., during site-wide storm drain replacement debris and foundations were encountered and removed as necessary to complete the work). During closure of the Sherex site, an effort was made to remove all the foundations (Sherex, 1987). The City of Oakland's parcel information does not indicate that any local or national historic landmark, heritage property or designated historic district at this site (City of Oakland, 2015).

3.5.2 Regulatory Setting

Federal and state laws and regulations pertaining to this issue area and relevant to the proposed Project are identified in Table 3.0-1. Local goals, policies, and/or regulations applicable to this issue area are described below.

The City of Oakland's General Plan Historic Preservation Element contains policies related to historic preservation (City of Oakland, 1998). These policies include:

- Goal 2- to preserve, protect, enhance, perpetuate, use, and prevent the unnecessary destruction or impairment of properties or physical features of special character or special historic, cultural, educational, architectural, or aesthetics interest or value.

3.5.3 Impact Analysis

Would the Project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?

Less than Significant Impact. No historical resources or resources potentially eligible for listing as historical resources have been identified at the site. The City of Oakland's parcel information does not indicate any local or national historic landmark, heritage property or designated historic district at this site. If any potential historical resources are encountered during excavation, however, the Project would follow the requirements detailed in the Port of Oaklan"'s "Emergency Plan of Action for Discoveries of Unknown Historic or Archaeological Resou"ces" document (see Appendix D).

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Less than Significant Impact. The site has been used for industrial purposes for many years. It is highly unlikely that an unknown archeological resource would be discovered during the proposed excavation at the site. As described in Section 2.5.4.4, in the event that archaeological resources were found during excavation, the Project would follow the requirements detailed in the Port of Oakland's Emergency Plan of Action For Discoveries of Unknown Historic or Archaeological Resources (see Appendix D). This impact is less than significant

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant Impact. There are no unique geologic features at the site. Paleontological resources are fossils which are the remains or traces of prehistoric plants and invertebrate and vertebrate animals as well as fossil localities and formation. The likelihood of any fossil remains being disturbed by excavation activities at the site is very low. The site is underlain by fill and native Bay Mud. Fill would not contain any paleontological resources. Bay Mud is geologic material of recent origin (less than 10,000 years old), and the site has been heavily disturbed by prior construction and industrial activities.

Although the site has been used for industrial purposes for many years, if a unique paleontological resource or site were encountered, the Port of Oakland's emergency procedures for such cases would be implemented (see Appendix D). Work would be stopped within 50 yards of the find, and work would not resume until the finds were properly assessed and the Port gave permission to resume work.

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

Less than Significant Impact. Given the location of the Project site, although there are no known human remains at the site, there is a small potential for unrecorded Native American archeological resources and for inadvertently uncovering human remains. If any human remains are uncovered, the Project would follow the requirements detailed in the Port of Oakland's Emergency Plan of Action for Discoveries of Unknown Historic or Archaeological Resources (Appendix D). Work would be stopped within 100 yards of the find, and work would not resume until the finds were properly assessed and the Port provides permission to resume work. This is impact is less than significant.

3.5.4 Mitigation Summary

The Project would not result in any potentially significant impacts; therefore, no mitigation is required.

3.6 Geology and Soils

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

3.6.1 Environmental Setting

The proposed Project site lies within the Coast Ranges geomorphic region. The Coast Ranges region lies between the Pacific Ocean and the Great Valley (Sacramento and San Joaquin Valleys) geomorphic region and stretches from the Oregon border to the Santa Ynez Mountains near Santa Barbara (ESA, 2009). Much of the Coast Ranges are composed of marine sedimentary deposits and volcanic rocks that form northwest trending mountain ridges and valleys, running subparallel to the San Andreas Fault Zone. In the San Francisco Bay Area, movement along this plate boundary is distributed across a complex system of strike-slip, right-lateral, parallel and sub-parallel faults. These faults include the San Andreas, Hayward, Rodgers Creek-Healdsburg, Concord-Green Valley, Greenville-Marsh Creek, Calaveras, and West Napa Faults (ESA, 2009).

The Coast Ranges can be further divided into the northern and southern ranges, which are separated by the San Francisco Bay. The San Francisco Bay lies within a broad depression created from an east-west expansion between the San Andreas and the Hayward Fault systems (ESA, 2009). The San Francisco and San Pablo Bays including shoreline areas are generally comprised of soft compressible sediments known as Bay Mud, which can be very thick in areas (ESA, 2009).The Project area is located within a seismically active region.

The Project is located less than 12 miles from the San Andreas Fault and approximately 5 miles from the Hayward Fault. It is not within an Alquist-Priolo Special Study zone. While the site will likely be subject to future strong ground shaking because of its proximity to the Hayward and San Andreas faults, the likelihood of a fault rupture is very low (LSA Associates, 2012). The site is underlain by artificial fill (consisting primarily of sand, gravel, and/or asphalt) extending to depths of 5 to 8 feet bgs. The fill typically is underlain by dark gray clay and water-bearing silts and fine- to medium-grained sand to depths of 8 to 10 feet bgs, which may be Young Bay Mud (YBM) or similar dredged material from the bay. These units reportedly are underlain by YBM (clay and silty clay rich in organic material) to a depth of 10 to 14 feet bgs. The YBM is underlain by the Merritt Sand that can reach a maximum thickness of 65 feet. Shallow groundwater generally is encountered at a depth of 3 to 5.7 feet bgs throughout the site (RWQCB, 2010). The presumed hydraulic gradient is generally toward the south and the Oakland Inner Harbor (AMEC, 2009). The City of Oakland's zoning map indicates that the site is within a Liquefaction Hazard Zone but is not within a Flood Zone (City of Oakland, 2015).

3.6.2 Regulatory Setting

Federal and state laws and regulations pertaining to this issue area and relevant to the proposed Project are identified in Table 3.0-1. Local goals, policies, and/or regulations applicable to this issue area are described below. These City of Oakland General Plan policies include:

- Policy 1: Develop and continue to enforce and carry out regulations and programs to reduce seismic hazards and hazards from seismically triggered phenomena.
- Policy 3: Continue, enhance or develop regulations and programs designed to minimize seismically related structural hazards from new and existing buildings.
- Policy 4: Work to reduce potential damage from earthquakes to "lifeline" utility and transportation systems.

3.6.3 Impact Analysis

Would the Project:

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

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

No Impact. There are no known active faults traversing the Project site and therefore, rupture of a known fault is not considered a potential geologic hazard that could affect the proposed Project. The proposed Project site does not lie within or near an Alquist-Priolo Earthquake zone and would have a very low potential for fault rupture to occur. Therefore, there would be no impact from fault rupture.

ii. Strong seismic ground shaking?

Less than Significant Impact. The Project site is located in an area that has the potential to be subject to strong ground shaking from an earthquake along any of the active faults located in the region including the Hayward Fault, the closest fault to the Project site. According to the Alameda County General Plan, the County is categorized by the International Building Code (IBC) as Seismic Zone 4, the most stringent category for seismic design (Alameda County, 2014). Implementation of all applicable standards of the Port's current standards for seismic safety would insure impacts from ground shaking are less than significant. All structures to be built at the site were developed under the supervision of a licensed engineer. This impact is less than significant.

iii. Seismic-related ground failure, including liquefaction?

Less than Significant Impact. The proposed Project is located in an area that has experienced historical seismic activity and is subject to seismic-related ground shaking. Loose to medium soils exist in the subsurface at the Project site. During a liquefaction event, lateral spreading and seismically-induced settlement could take place at the Project site. Liquefaction and subsequent settlement of soils were experienced in the seaport area during the 1989 Loma Prieta earthquake. Buildings, utilities, and other Project elements would meet IBC seismic zone design standards or better to withstand expected earthquake ground shaking, liquefaction, or other ground failures. Appropriate construction practices would be implemented during construction to ensure safety of workers and/or equipment during strong seismic shaking. This impact is less than significant.

iv. Landslides?

No Impact. The Project site is level. The only slopes in the vicinity of the Project are the shoreline and the embankment of the shipping channel, and no changes to the shoreline or channel are proposed.

b) Result in substantial soil erosion or the loss of topsoil?

No Impact. The Project site is level and paved; there would be no exposed soil during site operations. As part of construction, asphalt paving would be removed from portions of the site, and excavation would be conducted. All excavation and soil management activities would be conducted in accordance with applicable permits, including storm water management permits, and the requirement to cover contaminated soil stockpiles. There would be no erosion or loss of top soil as a result of construction. The only exposed slope in the vicinity of the Project is along part of the shoreline, which is covered with rip-rap (the remainder of the shoreline has a quay wall). No changes to the shoreline are proposed.

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

No Impact. The Project site is level and has been used to support various structures and industrial activities for over 100 years. The engineering design has evaluated the loads associated with the proposed structures and stockpiles of grain, and all loads are acceptable. Thus, the proposed Project would not cause any soil instability, and no impact would occur.

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

Less than Significant Impact. Expansive soils are soils that expand when water is added, and shrink when they dry out. This continuous change in soil volume can cause structures built on this type of soil to move unevenly and crack when the moisture content in the soil changes. Bay Muds may be considered expansive soils. No significant changes in soil moisture would occur during operations, because the entire site is paved. During construction, soil moisture in soils used to backfill trenches and other excavation would be controlled and the soil appropriately compacted to avoid future settlement.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The Project site would be connected to a sanitary sewer. There would be no septic or alternative wastewater disposal facilities.

3.6.4 Mitigation Summary

The Project would not result in any potentially significant impacts; therefore, no mitigation is required.

3.7 Hazards and Hazardous Materials

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

3.7.1 Environmental Setting

The site contains subsurface contaminants due to historical use of the site. UP operated a railroad roundhouse in the northern portion of the Project site from the early 1900s to 1964. Several site investigations were conducted by UP and the Port from 1991 through 2008. The field work included soil borings, monitoring wells, soil vapor measurement, and exploratory test pits for observing the presence or absence of separate-phase petroleum hydrocarbon (SPH) products. The investigations results indicate historical SPH migration appears to have been through preferential pathways, e.g., along storm drain lines and sewer lines.

Source removal activities included removal of petroleum hydrocarbon storage tanks and petroleum hydrocarbon-impacted soils and groundwater. One oil aboveground storage tank was removed before 1972 and four underground storage tanks (USTs) (two diesel, one gasoline, one new oil UST) and portions of the underground piping were removed in 1991. One waste oil UST, one clarifier tank, and a wooden sump used for the storage of used oil were removed in 1992. SPH-impacted soils surrounding the USTs, the sump and the clarifier were excavated and disposed of at appropriate offsite disposal facilities. SPH-impacted

groundwater was removed from the UST and sump excavations and discharged into storm drains or transported to offsite treatment facilities (RWQCB, 2010).

In 2004 investigation found that the storm drain system was leaking SPH into adjacent Bay water. Under a Notice of Federal Interest (NFI) to address the product migration into Oakland Inner Harbor, the Project site underwent USEPA-ordered remedial activities in 2004-2005. These remedial activities included the abandonment of the entire storm drain network and the installation of 1,330 feet of a new water-tight storm drain network consisting of shallow trench drains, sealed catch basins, fusion-welded high-density-polyethylene piping, and controlled-density backfill barriers. The USEPA issued the Port a Notice of Completion of the NFI-required response actions on November 8, 2005. The entire Project site was capped with asphalt in 2005 to prevent surface water infiltration into the fill material and SPH beneath the Project site. Downward migration of the SPH plume and dissolved SPH products is prevented by the low permeability of the site's soils.

In 2006 and 2007, the Port implemented a two-year product monitoring program to verify that the installed engineering controls had effectively addressed the preferential pathways. In August 2008, additional shallow and deeper groundwater site investigations were conducted. Confirmation sampling and monitoring demonstrated that the shallow and deeper groundwater zones were not significantly impacted by dissolved-phase petroleum constituents as a result of the SPH at the Project site. Site monitoring wells were abandoned in 2008. The wells were abandoned in accordance with proper procedures to prevent potential cross-contamination of the deeper aquifer beneath the Project site. The total petroleum hydrocarbons (TPH)-diesel concentration in one groundwater sample slightly exceeded the RWQCB Environmental Screening Level (ESL) of 210 micrograms per liter (µg/L). Groundwater is not a current or potential drinking water resource. TPH-motor oil concentration in one groundwater sample slightly exceeded the ESL of 210 µg/L. Testing indicated that the implemented remedial measures were preventing SPH migration towards the Oakland Estuary (RWQCB, 2010). Concentrations of all other constituents detected in groundwater including benzene, toluene, ethylbenzene, xylenes, and polynuclear aromatic hydrocarbons were below their respective ESLs. Natural attenuation is expected to reduce SPH concentrations in soil and shallow groundwater to below commercial land use ESLs. The heavy metals such as lead in soil are believed to be intrinsic to fill material from historic reclamation activities at the Project site and are not related to the SPH beneath the Project site (RWQCB, 2010).

The Port recorded a Covenant and Environmental Restriction (deed restriction) dated April 11, 2008 for the Project site, and prepared a Revised Site Management Plan dated January 9, 2009 (see Appendix C). The SMP is required by the deed restriction. It presents protocols and measures to protect construction workers from potential exposures to the remaining hazardous constituents and SPH at the Project site. The SMP also provides a plan for the management of soil and groundwater during future operations, maintenance, construction, and development activities to ensure that all such activities occur in a manner that protects human health and the environment (RWQCB, 2010). The deed restriction prohibits groundwater use at the site, and residential and other sensitive uses and developments on the site.

Key requirements of the SMP include:

- Excavated areas that are open at the end of the day must have controlled access and be controlled for dust
- Equipment used on contaminated areas must be decontaminated
- Decontamination water must be containerized and tested
- Methane monitoring is required for excavation work

The southern portion of the Project site was formerly owned by Sherex Chemical Company. Chemical company operations began at the property in 1938. The former Sherex property was the site of industrial manufacturing operations for nearly 50 years. The site was first used for manufacturing by the El Dorado Oil

Works (owned by Foremost Food and Chemical Company), which produced coconut oil from copra (dried coconut kernels) brought in on ships. After World War II, the plant was used to process imported coconut oil into methyl esters, and later to produce nitriles from methyl esters. In 1960, new facilities were added to the property by the new owners of the site, Ashland Chemical Company, and the facility began to produce fatty acids (from animal fat after conversion into tallow) as the principal raw material in the production of nitriles, primary and secondary amines, and quaternary ammonium compound (a powdered industrial fabric softener). Sherex acquired the property in 1979, and continued to manufacture industrial chemicals, including industrial fabric softener and liquid detergent, using animal fat as a base (Port of Oakland, 1986; California Department of Toxic Substances Control [DTSC], 2009). At the time that Sherex ceased operations, the site apparently contained a total of over 100 tanks and sumps in a large range of sizes (Sherex, 1986).The site was partially remediated under supervision of the Alameda County Department of Environmental Health (ACDEH). Ecology and Environment, Inc. (E&E) performed a four-phase soil and groundwater investigation in 1986 and 1987 on behalf of Sherex (E&E, 1988a). The Port also conducted soil and groundwater sampling in 1986 (ERM-West, 1986). Various organic and inorganic constituents were detected, including elevated levels of petroleum hydrocarbons and ammonia. In addition, the Port conducted sediment sampling offshore of the Sherex site , in the Inner Harbor channel near the edge of the site, in 1989 (ERM-West, 1989). Sampling indicated that sediments offshore of the site were contaminated.

Additional work was performed in 1988 (Sherex, 1988), including two rounds of soil removal. Soil sampling data collected after the first round of soil removal are available (E&E, 1988b); however, data from the final round of soil removal and post-excavation sampling have not been located. According to correspondence referencing the final soil removal activities, the highest concentrations were found under the fuel storage tank. Residual purgeable hydrocarbon concentrations were reported as 500 milligrams per kilogram (mg/kg) at the perimeter of the excavation, and 300 mg/kg in the center of the excavation. Composite samples from the perimeter of the excavation showed concentrations of ethyl benzene, toluene and xylenes at ranges of– 10 - 30 ppm (Sherex, 1988). No further information regarding constituents in soil is available.

Several rounds of groundwater sampling were also conducted; constituents in groundwater were generally below action levels, with the exception of amines (E&E, 1988a). Groundwater monitoring was recommended; no information regarding ground monitoring at the site has been located.

A closure letter issued by ACDEH on November 4, 1998 (ACDEH, 1988) concluded that the data indicated that the site still contained residues from the plant operation, mostly of a hydrocarbon nature, as would I"...anticipated from plant operations and spills. As such the site would still be considered a hazardous waste property although this need not preclude its use in certain industrial type settings." The letter also stated that "Proposed construction activities can proceed provided that any waste removed from the site be managed as a hazardous waste and appropriate occupational safety precautions are followed. Future construction plans should include a hazardous waste management plan to include an on-site industrial hygienist, a safety plan, and consultants familiar with constructing in such a milieu. In addition, a groundwater monitoring plan should be prepared to properly determine the vertical and horizontal extent of the contamination."

The proposed Project would require approximately 15,700 CY of excavation and most of the excavation would be to 3.5 feet or deeper. The excavation for the unloading pit may extend to as much as 20 feet bgs (the finished pit would be 12 feet deep). All below grade site construction would be in accordance with the Covenant and Environmental Restriction (deed restriction) dated April 11, 2008 for the Project site, and the Revised SMP dated January 9, 2009 (Appendix C). Contaminated soil would be stockpiled and tested prior to reuse on site or disposal at an appropriate offsite facility. Groundwater would be stored in a tank for testing and if determined to be contaminated it would be disposed at an offsite facility. A groundwater monitoring program would be initiated for the Sherex portion of the property.

As described in Chapter 2, Project Description, the operations of the Grain Terminal would require the use of fuels, and the types of hazardous materials commonly associated with minor maintenance of industrial

equipment. The potential uses at the site may also require the use of hazardous materials; the amount and types of hazardous materials would be similar to those used by the Grain Terminal and would be subject to the same legal and regulatory requirements.

3.7.2 Regulatory Setting

Federal and state laws and regulations pertaining to this issue area and relevant to the proposed Project are identified in Table 3.0-1. Local goals, policies, and/or regulations applicable to this issue area are described below. The City of Oakland's General Plan includes the following policies:

- POLICY HM-1: Minimize the potential risks to human and environmental health and safety associated with the past and present use, handling, storage and disposal of hazardous materials.
- POLICY HM-3: Seek to prevent industrial and transportation accidents involving hazardous materials, and enhance the city's capacity to respond to such incidents.

3.7.3 Impact Analysis

Would the Project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant Impact. The proposed Project involves routine, but minor, transport or disposal of hazardous materials as part of the ongoing operations of the facility's equipment. Routine use of the following hazardous material would be required:

- Diesel fuel
- Propane (for fork lifts)
- Maintenance chemicals such as lubricating oils and welding gases

These types of materials are routinely used in industry, and would be transported, stored, used, and disposed of in accordance with all applicable laws and regulations. Stormwater treatment may generate small quantities of waste oil or oily water; this material would be transported under manifest to a licensed recycling or disposal facility. This is a routine waste and would be stored, transported, and recycled or disposed of in accordance with all applicable laws and regulations.

During construction the Project would also be expected to use and/or generate hazardous materials, including diesel fuel, maintenance chemicals, and contaminated soil and groundwater. Fuel and maintenance chemicals would be transported, stored, used, and disposed of in accordance with all applicable laws and regulations. Contaminated soil and groundwater would be managed in accordance with the SMP and solid and hazardous waste management plan. This impact is less than significant.

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

Less than Significant Impact. As discussed above, the proposed Project would require the use of hazardous materials during operation and construction, and would likely generate contaminated soil and groundwater during construction. While it is possible that use or transport of these materials could result in a spill, all hazardous materials would be transported by a licensed transporter, and on-site use and management of these materials would be in conformance with all applicable laws and regulations as well as the SMP. This impact is less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. There are no existing or proposed schools with 0.25 mile of the Project site.

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

Less than Significant Impact. The Project site is not included on the list of hazardous material sites pursuant to Government Code section 65962.5 (DTSC, 2015). The former UP Roundhouse portion of the site historically was under an NFI to address the product migration into Oakland Inner Harbor and underwent USEPA-ordered remedial activities in 2004-2005. The USEPA issued the Port a Notice of Completion of the NFI-required response actions on November 8, 2005. The Port recorded a Covenant and Environmental Restriction (deed restriction) dated April 11, 2008 for the Project site, and prepared a Revised Site Management Plan dated January 9, 2009. The SMP is required by the deed restriction to be implemented for site work. Alameda County issued a closure letter for the Sherex portion of the site in 1988. The closure letter requires a hazardous waste management plan and a groundwater monitoring program for future construction.

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

No Impact. The Oakland International Airport is more than 2 miles from the Project site. There are no public airports within two miles of the Project and therefore, no impact would occur.

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

No Impact. No private airstrips are located in the vicinity of the Project site. There would be no impact.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. The proposed Project would result in periodic obstruction of the intersection at Embarcadero West and Market Streets as rail cars are shuttled into and out of the site. The duration of this blockage would be less than the maximum duration allowed by the Public Utilities Commission. Furthermore, access to Embarcadero West would still be available from Martin Luther King, Jr. Way three blocks to the east. The proposed Project would not otherwise physically interfere with an emergency response plan or affect the implementation of an emergency response plan. This impact is less than significant.

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

No Impact. The proposed Project is not located within wildlands, and does not pose a risk of wildland fire.

3.7.4 Mitigation Summary

The proposed Project would not result in any significant impact; no mitigation is required.

3.8 Hydrology and Water Quality

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

3.8.1 Environmental Setting

The site is entirely covered with asphalt graded to drain to the storm drains and is used for industrial purposes. The site is largely flat and the adjacent shoreline is protected in most areas by sheet piling and other artificial shoreline protective structures (LSA Associates, 2012). There are no natural streams, channels or ponds on the site.

In 2004 there was a discharge of single phase hydrocarbon through the storm drain system into San Francisco Bay. As a result the storm drain system was abandoned and an entirely new storm drain system was constructed. Due to existing contamination at the site, the storm water discharge system and utilities trenches were designed to minimize water and product intrusion through a combination of pipe with a low permeability barrier of controlled density fill (CDF) around the pipe area and also catch basins coated with

waterproofing compound. The site was then graded and covered with asphalt to direct storm water into the storm drains system. The system was tested to ensure that it minimized groundwater and product infiltration and was approved by regulatory agencies. The storm water system operates under the Port's SWRCB Water Quality Order No. 2013-0001-DWQ NPDES General Permit No. CAS000004, WDR for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s).

3.8.2 Regulatory Setting

Federal and state laws and regulations pertaining to this issue area and relevant to the proposed Project are identified in Table 3.0-1. Local goals, policies, and/or regulations applicable to this issue area are described below.

The City of Oakland's General Plan Open Space, Conservation and Recreation Element contains policies related to hydrology and water quality (City of Oakland, 1996). These policies include:

- Policy CO-5.1, which includes the City's goal to protect groundwater recharge by, for example, limiting impervious surfaces.
- Policy CO-5.2 outlines efforts to improve groundwater quality such as cleaning up contaminated sites and through ongoing monitoring of groundwater.
- Policy CO-5.3 details strategies to control urban runoff such as reducing water pollution associated with storm water runoff or reducing water pollution from hazardous material areas.

The City of Oakland's General Plan Safety Element contains policies related to flooding, tsunami and seiche (City of Oakland, 2012). These policies include:

- Policy FL-1: Enforce and update local ordinances, and comply with regional orders that would reduce the risk of storm-induced flooding.
- Policy FL-2: Continue or strengthen City programs that seek to minimize the storm-induced flooding hazard.
- Policy FL-3: Seek the cooperation and assistance of other government agencies in managing the risk of storm-induced flooding.

3.8.3 Impact Analysis

Would the Project:

a) Violate any water quality standards or waste discharge requirements?

Less than Significant Impact. The proposed Project would generate minor qualities of waste water that would enter the existing East Bay Municipal Utility District (EBMUD) waste water system. The storm water system would be modified to accommodate the location of the new facilities to be constructed as part of the Project, and would provide treatment as necessary to comply with SWRCB Water Quality Order No. 2013-0001-DWQ NPDES General Permit No. CAS000004, WDR for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) (the Port's MS4 permit). Portions of the site would be raised and graded to ensure that storm water continues to drain properly once the new facilities are constructed. Any maintenance conducted at the site would be conducted inside the buildings or under canopy. There would be no increase in storm water run-off, and no changes in the constituents contained in the storm water run-off are anticipated. This impact is less than significant.

Both during the construction and operation of the storm water system the Project would be required to meet the requirements of the Covenant and Environmental Restriction (deed restriction) dated April 11, 2008 for the Project site and of the Revised SMP dated January 9, 2009 (Appendix C), and to comply with the MS4 permit requirements.

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

No Impact. The proposed Project would not use any groundwater and therefore it would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

No Impact. The Project is entirely covered with asphalt and would remain entirely paved following construction. Storm water run-off drains to the storm water system. There are no natural streams or rivers on the site. The Project would modify the existing storm water system and drainage to accommodate the proposed facility. The reconstruction of the storm water system would be in compliance with the deed restriction, the SMP, and the Port's MS4 permit.

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

No Impact. The Project is entirely covered with asphalt and would remain entirely paved after construction. Thus, there would be no change to the quantity of storm water run-off generated at the site. The proposed Project would modify the existing storm water system and drainage to accommodate the proposed facility and also includes regrading to ensure that storm water run-off flows to the appropriate storm drains. The proposed Project would not alter the existing drainage pattern of the site or area or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

No Impact. The proposed Project would not increase storm water runoff above the current level; the paved/impervious surface area would remain the same following construction of the Project. The Project would modify the existing storm water system and drainage to accommodate the proposed facility. The reconstruction of the storm water system would be in compliance with the deed restriction, the SMP, and the Port's MS4 permit. The Project is not expected to create or contribute substantially additional runoff water and would not exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff. There would be no impact.

f) Otherwise substantially degrade water quality?

No Impact. The proposed Project would not create any new significant quantities of waste water or significant new sources of water that would violate water standards or waste discharge requirements. All Project-related activities would comply with applicable laws, regulations, and permits. No impact would be expected.

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

No Impact. There is no existing housing at the site, and none is planned for the proposed Project.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact. The Project site is not in a 100-year flood hazard area (ABAG, 2015; City of Oakland, 2012). While one or potentially two buildings would be constructed as part of the proposed Project, these buildings would not impede or redirect flood flows. The site would be graded to divert storm water run-off around the buildings and away from the railroad tracks toward the storm drains.

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

No Impact. The Project site is not in a 100 year flood hazard area (ABAG, 2015; City of Oakland, 2012), and will be graded to direct storm water flows around the buildings to the site's storm drain system. No levees or dams are or would be located on the Project site. No impact would be expected.

j) Inundation by seiche, tsunami, or mudflow?

Less than Significant Impact. Tsunamis are caused by underwater earthquakes, landslides, or volcanic eruption. San Francisco Bay is an enclosed body of water and severe impacts to Oakland are unlikely (City of Oakland, 2012). The narrow opening of the Golden Gate attenuates tsunamis that may reach the San Francisco Bay Area. These waves would be substantially muted as they near the Inner Harbor at the Port of Oakland. Seiches are waves in enclosed bodies of water including harbors. Due to the large size of Bay, the hazard from seiche waves is low (City of Oakland, 2012). The proposed Project is not located in an area mapped as a tsunami or seiche risk (City of Oakland, 2012) and is not expected to be subject to inundation by seiche or tsunami. The Project site is not located in an area that is susceptible to mudflows.

3.8.4 Mitigation Summary

The Project would not result in significant impacts; therefore, no mitigation is required.

3.9 Land Use and Planning

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

3.9.1 Environmental Setting

The approximately 42-acre Project site is entirely in industrial use. The industrial uses include truck parking by independent truckers who use the Project site, primarily to haul cargo within the Port's seaport area.

3.9.2 Regulatory Setting

Federal and state laws and regulations pertaining to this issue area and relevant to the proposed Project are identified in Table 3.0-1. No construction activities or other changes would occur within BCDC's 100-foot shoreline band area. The current and proposed use of the site are consistent with the San Francisco Bay Plan's Port and Water-related Industry policies.

Local goals, policies, and/or regulations applicable to this issue area are described below.

In 2000 the City adopted the Oakland Army Base Redevelopment Area Plan; the proposed Project is within the Maritime sub-district of the OARB.

While the Port of Oakland is within the city boundaries of the City of Oakland, the Port of Oakland has land use jurisdiction within the Port Area, which encompasses both Port-owned and privately-owned land and water areas in the seaport, airport, and Oakland Airport Business Park (City of Oakland Charter, Article VII). The Port Building Permit is issued in lieu of the City Planning and Zoning Permit for properties within the Port Area. Development permits approved by the Port must comply with the City of Oakland General Plan. Any development or construction in the Port Area must be approved by the Port prior to start of work, and prior to submittal for a City of Oakland building permit (LSA Associates, 2012).

The City of Oakland in the Land Use and Transportation Element (City of Oakland, 1998) has land use policies applicable to this area. The City has general city-wide policies and also specific area policies. They include the following:

- Policy I/C4.1, Protecting Existing Activities: Existing industrial, residential, and commercial activities and areas which are consistent with long-term land use plans for the City should be protected from the intrusion of potentially incompatible land uses.
- Policy I/C4.2, Minimizing Nuisances: The potential for new or existing industrial or commercial uses, including seaport and airport activities, to create nuisance impacts on surrounding residential land uses should be minimized through appropriate siting and efficient implementation and enforcement of environmental and development controls.

- Policy T1.5, Locating Truck Services: Truck services should be concentrated in areas adjacent to freeways and near the seaport and airport, ensuring the attractiveness of the environment for visitors, local business, and nearby neighborhoods.
- Policy W1.3, Reducing Land Use Conflicts: Land uses and impacts generated from Port or neighborhood activities should be buffered, protecting adjacent residential areas from the impacts of seaport, airport, or other industrial uses. Appropriate siting of industrial activities, buffering (e.g., landscaping, fencing, transitional uses, etc.), truck traffic management efforts, and other mitigation efforts should be used to minimize the impact of incompatible uses.
- Policy W2.2, Buffering of Heavy Industrial Uses: Appropriate buffering measures for heavy industrial uses and transportation uses on adjacent residential neighborhoods should be developed and implemented.
- Policy W3.1, Requiring Consistency with Conservation Objectives and Policies: Waterfront objectives, policies, and actions regarding geology, land stability, erosion, soils, water quality, flood hazards, wetland plant and animal habitats, and air quality and pollutants, shall be consistent and in compliance with the 1996 Open Space, Conservation, and Recreation Element of the City's General Plan.
- Policy W5.2, Defining Seaport and Airport Uses: Pursuant to the Port of Oakland's mission and the 'Trust Provisions' established by the State of California, Port-controlled property within the Seaport and Airport areas should be used primarily for purposes that are unique to a modern seaport or airport, require water frontage or access to regional airspace, relate to port operations and expansion, or are dependent on proximity to maritime and/or aviation facilities.
- Policy W6.1, Maintaining a Competitive Edge: In order to maintain international stature and competitiveness, the Port should continue to develop, expand, or otherwise modernize facilities and/or support infrastructure to enhance its overall efficiency and capabilities to handle increasing amounts of cargo and passengers.

The zoning designation is General Industry and Transportation (IG). The IG zone is intended to create, preserve and enhance areas of the City that are appropriate for a wide variety of businesses and related commercial and industrial establishments that may have the potential to generate off-site impacts such as noise, light/glare, odor, and traffic. This zone allows heavy industrial and manufacturing uses, transportation facilities, warehousing and distribution, and similar and related supporting uses.

3.9.3 Impact Analysis

Would the Project:

a) Physically divide an established community?

No Impact. The proposed Project is located in an industrial area bordered by other industrial facilities. No impact would occur.

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

No Impact. The proposed Project is located in an industrial area consistent with the City of Oakland's General plan, Oakland Army Base Redevelopment Area Plan, and industrial zoning. None of the proposed facilities would be constructed within BDCD's 100-foot shoreline band jurisdiction and the proposed site use is consistent with the San Francisco Bay Plan. No impact would occur.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. Alameda County does not have a Habitat Conservation Plan or a Natural Community Conservation Plan for the Port of Oakland area. There would be no impact.

3.9.4 Mitigation Summary

The Project would not result in any impacts; therefore, no mitigation is required.

3.10 Mineral Resources

MINERAL RESOURCES Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

3.10.1 Environmental Setting

The Project site is located in an urban industrial setting. There are no known mineral resources that occur on or in the immediate vicinity of the Project site.

3.10.2 Regulatory Setting

There are no federal or state laws or regulations pertaining to this issue area. Local goals, policies, and/or regulations applicable to this issue area are described below.

The City of Oakland's General Plan Open Space, Conservation and Recreation Element contains the following applicable policy related to mineral resources at the site:

- Objective CO-3—Mineral Resources: To conserve mineral resources and minimize environmental impacts from extraction (City of Oakland, 1996).

3.10.3 Impact Analysis

Would the Project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?

No Impact. There are no known mineral resources that occur on the Project site. The Project would not result in the use or loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

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

No Impact. There are no known mineral resources that occur on the Project site. The Project would not result in the use of any locally important mineral resources, and would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

3.10.4 Mitigation Summary

The Project would not result in any impacts; no mitigation is required.

3.11 Noise

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

3.11.1 Environmental Setting

This section describes the noise sensitive land uses in the vicinity of the Project site and the potential noise sources that the development and operation of the property could generate.

3.11.1.1 Noise Sensitive Land Uses

The former UP Roundhouse/Sherex property is located at 1401 Middle Harbor Road in the eastern portion of the Port's seaport area; together they comprise an approximately 42-acre paved property. The Project site is located immediately east of the Matson Terminal and immediately west of Schnitzer Steel. The site is bordered by the Oakland Inner Harbor channel (also known as the Oakland Estuary) to the south and railroad tracks, Middle Harbor Road, and the I-880 Freeway to the north. Noise sensitive land uses are relatively far from the Project site. The land uses that are traditionally sensitive to noise include residences, recreational areas, places where people gather (schools, promenades, and patios), and some commercial operations that could be disrupted by noise. A review of the study area identified the following resources that might be considered sensitive to noise (see Figure 3.11-1). These include:

East of Middle Harbor Road/Adeline Street

- Linden Street Brewery – Located at 95 Linden Street, this business operates a small outdoor beer garden. The Project site is approximately 1,000 feet from the Linden Street Brewery. Land uses between the Project site and this receptor include the Union Pacific main rail lines (UP main line), Embarcadero West (roadway), and Schnitzer Steel.

Aerial from Google Earth Pro © 2015. Additional information added by CH2M HILL.

FIGURE 3.11-1
Sensitive Noise Receptors in the Project Area
Initial Study/Negative Declaration
Roundhouse Area Improvements Project
Port of Oakland
Oakland, California

CH2MHILL

- Civicorps Academy – Located at 101 Myrtle Street, this organization provides career pathways in high-demand industries. Each year, about 120 youth perform real-world workplace tasks under contracts with public agencies. The Project site is approximately 1,500 feet from the Civicorps Academy. Land uses between the Civicorps Academy and the Project site include the UP main line, Embarcadero West, Schnitzer Steel, and the Howard Terminal.
- Phoenix Lofts, 737 Second Street – These lofts are in a rehabilitated building. There are no outdoor amenities. The building is roughly 2,200 feet from the Project site.
- Jack London –quare - This multi-use area includes retail, restaurant, hotel, and other entertainment uses. In addition to these amenities, patrons of Jack London Square like to linger in the plazas and enjoy the bay along its shoreline walkways. The Oakland Ferry Terminal is also located in this area and is located roughly 3,500 feet away from the Project site. Land uses between these resources include the Union Pacific rail lines, Embarcadero West, Schnitzer Steel, and the Howard Terminal.

West of Middle Harbor Road/Adeline Street

- Nellie Restaurant/Bar – located at 1155 Third Street, this bar appears to have the space for outdoor operations. It is located less than 1,000 feet from the Project site. Intervening land uses include the UP main line and Middle Harbor Road.

North of I-880

- Prescott Park – The noise environment north of I-880 is dominated by highway noise. There is currently a noise barrier along I-880. Prescott Park is roughly 1,700 feet from the Project site. There are also single-family residences adjacent to Prescott Park. Intervening land uses include I-880, the Union Pacific rail lines/depot and Middle Harbor Road.

3.11.1.2 Overview of Potential Noise Sources

The proposed Project is a bulk cargo transloading facility. Bulk cargo transloading consists of moving bulk materials from train cars onto intermodal freight containers. The freight containers are designed to be moved from one mode of transport to another such as truck to a ship. The following noise sources are expected.

Operation Noise

The Grain Terminal facility would operate throughout the week, including weekends, and operations would be organized into three 8-hour shifts. Operations would occur 24 hours per day. All cargo would be new cargo to the Port of Oakland. Each unit train would consist of up to 110 hopper cars with a combined capacity of 11,000 short tons. A hopper car is a freight car with one or more hoppers. Jumbo or super jumbo hopper cars around 70 feet in length would be used

Trains are expected to be moved to the site in segments consisting of 20 – 25 cars. One train segment would be stored at the UP Yard while the other one is unloaded. The train segments would be moved into the site with a UP locomotive. The cars would be moved along the Hanlon lead to just west of Martin Luther King Way to clear the switches for the new Grain Terminal lead. The locomotive would pause momentarily to allow the switch to be set for the Grain Terminal lead track and would then move the train segment onto the Grain Terminal lead track. The locomotive would then either return directly to the West Oakland Yard, or it would pick up a segment of empty cars (the process would be the reverse of delivering the cars) and then return to the West Oakland Yard. While a train segment is being moved into or out of the Grain Terminal the crossing at Second and Market Streets would be impacted for an estimated 3 ½ minutes. It would take an estimated 3 to 4 hours to unload each train segment.

Once delivered into the site, train car segments could be cut further as needed for unloading. The train segments would then be moved through the railcar unloading facility by advancing them one car at a time.

The railcar unloading facility would be capable of unloading one train car approximately every six minutes, and is designed to typically handle 8 to 10 rail cars per hour

To unload the grain, the gates at the bottom of each hopper in the railcar would be opened and the grain would be discharged through the bottom of the hoppers directly into an unloading pit. From the unloading pit, a bucket elevator would mechanically lift the grain to the overhead mechanical conveyor for transfer onto the loading conveyor in the surge building. Currently, loading operations are expected to occur in the primary surge building, although loading equipment could be installed in the smaller building at a later date. The loading conveyor would transfer the grain into bins (that serve as metering stations) for discharge into shipping (cargo) containers. All unloading and loading equipment would be powered by electricity.

Once a shipping container has been filled, a yard truck would haul the container to the temporary loaded container storage area. The loaded container would be picked up by a drayage service, and hauled to an appropriate marine terminal. Containers could be conveyed to the marine terminals at any time of day, provided that the site operator has made arrangements with the terminal operator if special gate hours are required.

For a more complete description of the Grain Terminal operations, refer to Section 2.5.2.2.

Train Noise

The proposed facility would process approximately 1 unit train per day (up to 6 trains per week) and generate a total of up to 110,000 annual twenty-foot-equivalent units (TEUs). The facility may also receive manifest train segments. A manifest train is a train composed of train segments from a variety of origins and intended for a variety of receivers. A unit train originates at one location and received by a single receiver. The facility is designed to ultimately receive shuttle trains. A shuttle train is a unit train that is delivered, unloaded, and returned empty within 22 hours.

Truck Noise

The site currently serves as a truck parking area; the footprint of the truck parking area would be reduced to accommodate the transloading facility or other possible uses identified for the property. The truck parking area would further be divided into a parking area to serve the Union Pacific Railyard located north of Middle Harbor Road Street, and public parking for independent truckers serving the Port area.

3.11.2 Regulatory Setting

Federal and state laws and regulations pertaining to this issue area and relevant to the proposed Project are identified in Table 3.0-1.

The redevelopment of the former UP Roundhouse/Sherex properties is a component of, and consistent with, the redevelopment of the entire seaport area that was evaluated in the 2002 Oakland Army Base Area Redevelopment Plan EIR (2002 EIR; City of Oakland, 2002) and 2012 Initial Study and Addendum to the 2002 EIR (2012 IS/AD; LSA Associates, 2012).

3.11.2.1 Significance Criteria

The noise analysis for the 2002 EIR and the 2012 IS/AD used Significance Criteria to evaluate noise impacts associated with the redevelopment of the Oakland Army Base. A significant impact on the noise environment would occur if the redevelopment of the Oakland Army Base would:

- Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding construction noise;
- Generate noise in violation of the City of Oakland nuisance standards (Oakland Municipal Code section 8.18.020) regarding persistent construction-related noise;

- Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding operational noise;
- Generate noise resulting in a 5 A-weighted decibels (dBA) permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or, if under a cumulative scenario where the cumulative increase results in a 5 dBA permanent increase in ambient noise levels in the project vicinity without the project;
- Expose persons to interior average day-night sound level (L_{dn}) or community noise equivalent level (CNEL) greater than 45 dBA for multi-family dwellings, hotels, motels, dormitories and long-term care facilities per California Noise Insulation Standards (CCR Part 2, Title 24);
- Expose the project to a community noise in conflict with the land use compatibility guidelines of the Oakland General Plan after incorporation of all applicable Standard Conditions of Approval;
- Expose persons to or generate noise levels in excess of applicable standards established by a regulatory agency (e.g., occupational noise standards of the Occupation Health and Safety Administration [OSHA]);
- Expose persons to or generate groundborne vibration that exceeds the criteria established by the Federal Transit Administration (FTA) during either project construction or project operation;
- Be located within an airport land use plan and would expose people residing or working in the project area to excessive noise levels; or
- Be located within the vicinity of a private airstrip, and would expose people residing or working in the project area to excessive noise levels.

3.11.2.2 Results: 2002 Oakland Base Redevelopment Plan EIR

The 2002 EIR (City of Oakland, 2002) concluded that a *Less Than Significant Impact* or a *No Impact* determination was appropriate, for all of the Significance Criteria, except for the following:

A potentially significant impact related to construction noise levels was identified. Specifically, **c**onstruction could result in short-term noise levels in excess of established standards, or that violate the City of Oakland Noise Ordinance at and near the project area, and along construction haul routes. The 2002 EIR concluded that mitigation would allow these potential impacts to be reduced to a less-than-significant level. Appropriate mitigation would consist of developers and/or contractors developing and implementing redevelopment-specific noise reduction plans.

3.11.2.3 Results: 2012 Initial Study and Addendum to the 2002 EIR

The 2012 IS/AD (LSA Associates, 2012) concluded that a *Less Than Significant Impact* or a *No Impact* determination was appropriate for all of the Significance Criteria. Additionally, no mitigation is required.

The major change between the 2002 EIR and the 2012 IS/AD is related to anticipated construction noise. Whereas the 2002 EIR identified a potentially significant impact, the 2012 IS/AD found that due to the distance between potentially affected land uses from the project boundary and the presence of intervening structures, construction noise levels would not be expected to result in a violation of the City's noise ordinance section 17.120.050 regarding construction noise. Further, the 2012 IS/AD found that the 2012 Project would be required to implement the noise-related Standard Conditions of Approval.

Since publication of the 2002 EIR, the City of Oakland has adopted the SCAs that are applicable to all development projects within the City regardless of a project's environmental determination, pursuant to CEQA Guidelines Section 15183. The City's SCAs serve to avoid or substantially reduce potentially significant impacts. Compliance with the SCAs would ensure that construction noise impacts associated with build-out of the Project would be reduced to less-than-significant levels for all receiving land uses in the Project vicinity. Therefore, implementation of the proposed Project would not result in a violation of the City's

Noise Ordinance (Oakland Planning Code section 17.120.050) regarding construction noise, and no mitigation would be required.

3.11.3 Impact Analysis

This section of the IS will examine the noise impacts associated with the Project in accordance with the requirements of CEQA. Whereas the 2002 EIR (City of Oakland, 2002) and the 2012 IS/AD (LSA Associates, 2012) examined the entirety of the redevelopment of the Oakland Army Base, this section will focus specifically on the small portion of the Roundhouse Area associated with the Project.

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

Less than Significant Impact. The closest off-site noise sensitive land uses are approximately 1,000 feet from the Project site (see Section 3.1.1). The seaport area surrounding the Project site is an unpopulated, highly industrialized setting with freeways, railroad tracks, and industrial operations contributing to the noise environment (Figure 3.11-2). In addition, there are intervening structures and other features between the site and the sensitive receptors.

FIGURE 3.11-2
View toward Project Site from the End of Chestnut Road

As noted in the 2002 EIR and 2012 IS/AD, the site preparation phase would generate the highest noise levels because the noisiest equipment is construction/earthmoving equipment. Demolition and excavation activities are anticipated to include the use of bulldozers, backhoes, draglines, and front loaders. Earthmoving and earth compacting activities are expected to include the use of crane-operated deep dynamic compactors, roller compactors, scrapers, and graders.

Maximum noise levels associated with operation of multiple pieces of heavy construction equipment, including pile drivers or crane-operated deep dynamic compactors and earthmoving equipment, can range up to 96 dBA Lmax (root mean squared maximum noise level) at 50 feet from the operating equipment, according to the 2012 IS/AD. The noise generated would be a low, deep "thud" of a heavy object being dropped on soil, not the higher pitched noise of pile driving where metal is striking metal. More typical estimates put the maximum noise levels during the operation of heavy construction equipment in the range up to 85 dBA Lmax – as measured at 50 feet from the operating equipment.

As a general rule (inverse-square law), noise from a point source diminishes at a known rate based on the "Doubling of the Distance" from the source. The common characteristic attenuation from point sources is decibels per distance doubling. Well before reaching the nearest sensitive receiver (1,000 feet), noise levels from the operation of multiple pieces of heavy construction equipment, including crane-operated deep dynamic compactors, would attenuate to below the applicable noise impact limits. Therefore, due to the distance of these land uses from the Project boundary and the presence of these intervening structures, construction noise levels would not be expected to result in a violation of the applicable noise ordinances.

Further, the Project would be required to implement the noise-related SCAs. Compliance with the SCAs would ensure that construction noise impacts associated with build-out of the Project would be reduced to less-than-significant levels for all receiving land uses in the Project vicinity. Therefore, implementation of the proposed Project would not result in a violation of the applicable noise ordinances (see Section 3.1.2.1).

Consequently, relative to CEQA section (a), the impact is expected to be less than significant.

b) Result in exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?

No Impact. In contrast to airborne noise, ground-borne vibration is not a phenomenon that most people experience every day. Background vibration levels are generally well below the threshold of perception for humans. Vibration is most often a concern only when the vibration affects very sensitive manufacturing or research equipment. The distance between the Project site and potentially sensitive land uses make the likelihood for vibration impacts remote.

Operational Vibration

The operation of the facility will utilize hoppers, unloading pits, bucket elevators, mechanical conveyors and other similar material. Some operations will be located within building, others in the open. Ground vibration levels for these activities are expected to mediate at 25 feet from the activity. Consequently, vibration generated by the operation of the facility would not be perceptible at the nearest sensitive receptors.

Train Vibration

Train traffic is common in the Oakland Army Base and the Port seaport area. The proposed facility would process up to 6 trains per week and generate a total of up to 110,000 annual TEUs. The facility may also receive manifest train segments. This level of increase is not expected to be influential.

Truck Vibration

If a roadway is smooth, the vibration from traffic is rarely perceptible. Consequently, whether on-site or off-site, vehicle-related vibration is not expected to be noticeable.

Construction Vibration

The operation of heavy construction equipment is a potential source of groundborne vibration. Demolition and excavation activities are anticipated to include the use of bulldozers, backhoes, draglines, and front loaders. Earthmoving and earth compacting activities are expected to include the use of crane-operated deep dynamic compactors, roller compactors, scrapers, and graders. The operation of deep dynamic compaction equipment would generate the highest levels of ground-borne vibration. Dynamic compaction consists of dropping a heavy weight onto a ground surface from heights of up to 80 feet to densify the

underlying soils. At a distance of 200 feet, vibration levels from operation of deep dynamic compaction equipment would attenuate to below damage thresholds. As there are no existing off-site sensitive structures within 200 feet of proposed construction areas where deep dynamic compaction would occur, the proposed Project is expected to have no impact.

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

No Impact. Potential sources for permanent increases to the ambient noise environment include operational noise, train noise, and truck noise.

Operational Noise

The operation of the facility will include a variety of equipment. Table 3.11-1 summarizes the electrically powered equipment to be operated at the Project site. Rather than engine noise, the noise generated by these machines will be the result of mechanical movement of material. This machinery is designed to be used by on-site workers. Consequently, the noise levels must be held within a range to prevent impacts to workers. Exposure off-site is unexpected.

TABLE 3.11-1
Electric Powered Equipment to be Used on the Project Site During Operation

Type	Number	Usage per Day
Unloading Pit Drag Conveyor	2	5 hours
Future Hard Car Unloader	2	2 hours
Hydraulic Wet Kit Motor	1	5 hours
Dust Recovery Air System	1	5 hours
Pit to Elevator Drag Conveyor	2	5 hours
Bucket Elevator	1	5 hours
Elevator to Building Drag Conveyor	1	5 hours
Outside Delivery Drag Conveyor	1	5 hours
BAI Super Loader	4	5 hours
Inside Delivery Drag Conveyor	2	5 hours
Inside Hopper to System Delivery	1	5 hours
Bag House Air System	1	5 hours
Inside Misting System	1	10 hours
Building B Outside Delivery Drag	3	2 hours
Building B Inside Misting System	1	1 hour

Table 3.11-2 summarizes the combustion-powered equipment to be operated at the Project site. The main source of noise for this equipment is engine noise. Some, like loaders, also generate noise by the mechanical movement of material. These vehicles operate within typical ranges. Consequently off-site exposure is not anticipated.

TABLE 3.11-2
Combustion-Powered Equipment to be Used on the Project Site During Operation

Type	Number	Type	Usage per Day
Wheel Loaders – Large	1	Diesel	10 hours
Wheel Loaders – Small	1	Diesel	5 hours
Skid Steers	1	Diesel	5 hours
Forklifts	1	Diesel	1 hour
Bulk Head Scissor Lift Truck	1	Diesel	5 hours
Maintenance Fuel / Lube Truck	1	Diesel	5 hours
Maintenance Parts Run Truck	1	Gas	5 hours
Maintenance Tire Truck	1	Diesel	7.5 hours
Yard Sweeper	1	Diesel	2.5 hours
Yard Goats	5	Diesel / Elec	10 hours
Shuttle Trucks	12	Diesel / Elec	7.5 hours

As noted in the 2002 EIR (City of Oakland, 2002) and 2012 IS/AD (LSA Associates, 2012), operational noise levels associated with the redevelopment of the Oakland Army Base would not be anticipated to exceed existing ambient noise levels at the nearest off-site sensitive receptors. The same applies to the Project individually. The natural attenuation of noise over distance and the large distances between the site and noise sensitive receivers, result in noise levels that are not expected to exceed existing ambient levels.

Train Noise

Train traffic is common in the Oakland Army Base and the Port seaport area. The proposed facility would process up to 6 trains per week and generate a total of up to 110,000 annual TEUs. The facility may also receive manifest train segments. This level of increase in train movements is not expected to materially change the existing or future noise environment.

Truck Noise

The 2002 EIR and 2012 IS/AD concluded that noise levels at land uses in the Project vicinity are expected to continue to be dominated by noise from traffic, railroads, and BART. Further, they concluded that the redevelopment of the Oakland Army Base would not result in an increase of 5 dBA or greater in traffic noise levels along any modeled roadway segment in the Project vicinity.

The primary vehicle noise impact from the Project will result from truck traffic related to the movement of container trucks. Empty containers would be trucked to the site. Up to 200 containers on chassis could be accommodated on-site. Once a shipping container has been filled, a yard truck would haul the container to the temporary loaded container storage area. The loaded container would be picked up by a drayage service, and hauled to an appropriate marine terminal.

The Grain Terminal would generate up to 350 – 420 containers per day, the typical rate once the facility is at full operation would be approximately 325 to 350 containers per day. This small increase in traffic is not expected to result in substantial noise impacts anywhere in the traffic network.

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

Less than Significant Impact. The primary temporary noise source is construction. The appropriate CEQA threshold for construction noise is discussed above under item (a).

Construction noise levels could exceed these thresholds intermittently and temporarily. However, with adherence to standard construction procedures, the CEQA impact is expected to be less than significant.

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

No Impact. Within 2-miles of the Project site is the former Alameda Naval Air Station. The base was closed on 25 April 1997. The runways and remainder of the Alameda Naval Air Station are still located at the end of Alameda Island, across the Inner Harbor channel from the Port of Oakland.

Since 2000, the City of Alameda has been planning the redevelopment of the air station. The plans include residential, business and open space components, but no aviation component. Based on existing plans (see Figure 3.11-3), the runway area is proposed for redevelopment as a wildlife refuge and golf course.

FIGURE 3.11-3
The Former Alameda Naval Air Station and the Project Site

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

No Impact. The Project site is not located in the vicinity of a private airstrip. Consequently, no impact is anticipated.

3.11.4 Avoidance and Minimization Measures

The City's SCAs would apply to the Project. Compliance with the SCAs would ensure that the noise associated with the Project would be reduced to less than significant levels. Therefore, no additional mitigation would be required.

To address the potential for increased noise from the site preparation phase of the Proposed Action, implementation of the Standard Conditions of Approval would ensure that construction noise effects associated with the Project would be less than significant. The following SCAs from the *2012 Oakland Army Base (OARB) Project Standard Conditions of Approval and Mitigation Monitoring and Reporting Program* (City of Oakland, 2013) will be implemented:

- **SCA NOI-1: Days/Hours of Construction Operation:** The project applicant shall require construction contractors to limit standard construction activities as follows:

  a) Construction activities are limited to between 7:00 a.m. and 7:00 p.m. Monday through Saturday, except that unloading of soil shall be allowed 24 hours per day, 7 days per week for about 15 months.

  b) Any construction activity proposed to occur outside of the standard hours of 7:00 a.m. to 7:00 p.m. Monday through Saturday for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened and such construction activities shall only be allowed with the prior written authorization of the Building Services Division. The project applicant shall also submit an air quality report prepared by a qualified professional evaluating the air quality impacts of the special activities, if the duration of each activity exceeds 6 months.

  c) No construction activity shall take place on Sundays or federal holidays, except as noted above.

  d) Construction activities include but are not limited to: truck idling, moving equipment (including trucks, elevators, etc.) or materials, deliveries, and construction meetings held on-site in a non-enclosed area.

  e) Applicant shall use temporary power poles instead of generators where feasible.

- **SCA NOI-2: Noise Control:** To reduce noise impacts due to construction, the project applicant shall require construction contractors to implement a site-specific noise reduction program, subject to the Port of Oakland Building Services Division review and approval, which includes the following measures:

  a) Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible).

  b) Except as provided herein, impact tools (e.g., jackhammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.

  c) Stationary noise sources shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City to provide equivalent noise reduction.

  d) The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.

- **SCA NOI-3: Noise Complaint Procedures:** Prior to the issuance of each building permit, along with the submission of construction documents, the project applicant shall submit to the Port of Oakland Building Services Division a list of measures to respond to and track complaints pertaining to construction noise. These measures shall include:

  a) A procedure and phone numbers for notifying the Building Services Division staff and Oakland Police Department; (during regular construction hours and off-hours);

  b) A sign posted on-site pertaining with permitted construction days and hours and complaint procedures and who to notify in the event of a problem. The sign shall also include a listing of both the City and construction contractor's telephone numbers (during regular construction hours and off-hours);

  c) The designation of an on-site construction complaint and enforcement manager for the project;

  d) Notification of neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of extreme noise generating activities about the estimated duration of the activity; and

  e) A preconstruction meeting shall be held with the job inspectors and the general contractor/onsite project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.

- **SCA NOI-5: Operational Noise-General:** Noise levels from the activity, property, or any mechanical equipment on site shall comply with the performance standards of Section 17.120 of the Oakland Planning Code and Section 8.18 of the Oakland Municipal Code. If noise levels exceed these standards, the activity causing the noise shall be abated until appropriate noise reduction measures have been installed and compliance verified by the Planning and Zoning Division and Building Services.

No mitigation is proposed for the operational phase of the proposed Project.

3.12 Population and Housing

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

3.12.1 Environmental Setting

The Project site is industrial and is located in an industrial setting. It would continue to be used for Port-related industrial activities. The Port recorded a Covenant and Environmental Restriction (deed restriction) dated April 11, 2008 for the former UP Roundhouse portion of the Project site, which precludes future use of the site for residential purposes. The Alameda County closure letter (ACDEH, 1988) also indicates that the Sherex site may be reused for commercial and industrial uses.

3.12.2 Regulatory Setting

No federal or state laws relevant to this issue area are applicable to the Project. Local goals, policies, and/or regulations applicable to this issue area are described below.

The City of Oakland's General Plan Land Use and Transportation Element contains the following policy applicable to population and housing at the site: Policy 1/C4.1: Existing industrial, residential, and commercial activities and areas which are consistent with long term land use plans for the City should be protected from the intrusion of potentially incompatible land uses (City of Oakland, 1998).

3.12.3 Impact Analysis

Would the Project:

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

No Impact. The Project is not expected to directly or indirectly induce substantial population growth in the City of Oakland. The Project would generate an estimated 35 to 38 full-time jobs, and construction would require up to 12-15 workers per day. This small number of jobs would not induce population growth.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No impact. Housing does not exist on site, and no Project-related construction would occur off-site.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No impact. Housing does not exist on site, and no displacement of people would occur.

3.12.4 Mitigation Summary

The Project would not result in any impacts; no mitigation is required.

3.13 Public Services

PUBLIC SERVICES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
(i) Fire protection?	☐	☐	☒	☐
(ii) Police Protection?	☐	☐	☒	☐
(iii) Schools?	☐	☐	☐	☒
(iv)Parks?	☐	☐	☐	☒
(v) Other public facilities?	☐	☐	☒	☐

3.13.1 Environmental Setting

3.13.1.1 Fire Protection

The closest City of Oakland fire station is located at 47 Clay St. Oakland. The Fire Department responds to fire and emergency response calls at the Port area.

3.13.1.2 Police Protection

Police protection services are provided by the City of Oakland Police Department, which is responsible for the enhancement and maintenance of public safety. Additional services are provided by U.S. Department of Homeland Security (U.S. Customs Service and U.S. Coast Guard).

3.13.1.3 Schools

The site is within the Oakland Unified School District. There are no schools near (within 0.5 mile of) the site.

3.13.1.4 Parks

The City of Oakland has over 2,500 acres of open space, including 100 parks. The closest park to the Project site is South Prescott Park. With the exception of Middle Harbor Park, located 1.5 miles west of the Project site, all parks in the vicinity of the Project are located either north of I-880 or south of the Oakland Inner Harbor (on Alameda Island).

3.13.1.5 Other Public Facilities

There are no other public facilities in the vicinity of the proposed Project site.

3.13.2 Regulatory Setting

Federal and state laws and regulations pertaining to this issue area and relevant to the proposed Project are identified in Table 3.0-1. Local goals, policies, and/or regulations applicable to this issue area are described below.

The City of Oakland's General Plan Safety Element contains the following policy related to public services (City of Oakland 2012):

- Policy FI-1: Maintain and enhance the city's capacity for emergency response, fire prevention, and fire-fighting.

3.13.3 Impact Analysis

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

i. Fire protection?

Less Than Significant Impact. The proposed Project would be equipped with modern fire suppression technology, and the construction and operation of the proposed Project would not be expected to increase the need for fire protection services; consequently, there would be no need for changes to existing facilities or development of new facilities. The impact would be less than significant.

ii. Police Protection?

Less Than Significant Impact. The proposed Project would be fenced and have controlled access. It would not be expected to increase the need for police protection beyond the current level; consequently, there would be no need for changes to existing facilities or development new facilities. The impact would be less than significant.

iii. Schools?

No Impact. The proposed Project would not increase the local population. Consequently, there would be no need for additional schools, or changes to existing schools. No impact would occur.

iv. Parks?

No Impact. The proposed Project would not increase the local population. Consequently, there would be no need for additional parks, or changes to existing parks. The proposed Project does not include any park construction. No impact would occur.

v. Other public facilities?

Less Than Significant Impact. The proposed Project includes office space for an agricultural inspection agent. Other government facility changes would be required. The impact would be less than significant.

3.13.4 Mitigation Summary

The Project would not result in significant impacts; therefore, no mitigation is required.

3.14 Recreation

RECREATION	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

3.14.1 Environmental Setting

The Project is located in the Port seaport area, an industrial area. There is no recreational use onsite. The Oakland Inner Harbor, which is located immediately south of the site, is heavily used by recreational boaters; use of the Oakland Inner Harbor would not be affected by the proposed Project.

3.14.2 Regulatory Setting

Federal and state laws and regulations pertaining to this issue area and relevant to the proposed Project are identified in Table 3.0-1. Local goals, policies, and/or regulations applicable to this issue area are described below.

The City of Oakland General Plan Open Space, Conservation and Recreation Element (City of Oakland, 1996) contains the following goals relevant to the recreation:

- Goal REC-1: A parks system which meets a diverse range of recreational needs without compromising the value of parks as open space.
- Goal REC-2: Safe, clean, accessible, efficiently run parks that complement the quality of life in Oakland.
- Goal REC-3: Recreational facilities which fully utilize human resources and promote personal growth, celebrate Oakland's cultural diversity, and serve all community equitably.

3.14.3 Impact Analysis

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

No Impact. The proposed Project would construct industrial facilities which would not be expected to result in increased use of neighborhood and regional parks or other recreational facilities.

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

No Impact. The proposed Project does not include or require the construction of recreational facilities because the site would continue to be used for Port-related industrial uses. Recreational facilities would not be expanded because there are no parks or trails on site.

3.14.4 Mitigation Summary

The Project would not result in any impacts; therefore, no mitigation is required.

3.15 Transportation and Traffic

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

3.15.1 Environmental Setting

Local access to the Project site is provided primarily by Middle Harbor Road via Adeline Street. Middle Harbor Road is one of three major arterials that provide access to the Port Marine Terminals and local railyards (such as Union Pacific). The other primary arterials are Maritime Street and 7th Street. All of these arterials have primary access to I-880 and are located near the East Bay hub of the Bay Area freeway system near the Bay Bridge Toll Plaza.

Middle Harbor Road is an extension of Adeline Street and is a four-lane arterial with a center two-way left turn lane. It connects with 7th and Maritime Street to the west of the Project site. It is heavily used by trucks and other traffic accessing the Port's seaport area. Existing traffic conditions are summarized in the Oakland Army Base Project 2012 IS/AD (LSA Associates, 2012).

3.15.2 Regulatory Setting

Federal and state laws and regulations pertaining to this issue area and relevant to the proposed Project are identified in Table 3.0-1. Local goals, policies, and/or regulations applicable to this issue are described in the 2012 IS/AD.

3.15.3 Impact Analysis

The traffic impact analysis was conducted with assumptions confirmed by the Port of Oakland, and from the 2012 IS/AD.

For the proposed Grain Terminal operation, four operation phases were considered:

1. Existing Use
2. Proposed Construction Phase
3. Operational Phase
4. Cumulative Operations in Year 2035

The gate moves entering and exiting the proposed Grain Terminal facility are broken down into four categories, as summarized in Table 3.15-1.

TABLE 3.15-1
Projected Gate Moves for the Proposed Grain Terminal

Entity		Existing Use	Proposed Construction Phase	Operational Phase	Cumulative Phase in 2035
Ampco Parking	Acres	36.1	15.2	15.2	15.2
	Gate Moves	1,000	421	421	421
Grain Terminal	Acres	0	0	15	15
	Gate Moves	0	0	350	378
UP Parking	Acres	0	5.9	5.9	5.9
	Gate Moves	0	163	163	163
Project Construction	Acres	0	0	0	0
	Gate Moves	0	150	0	0
Total Gate Moves Per Day		**1,000**	**734**	**934**	**962**

The existing use is currently from Ampco Parking only. The Ampco facility utilizes 36.1-acres, and on this parking site there are 1000 gate moves per day.

During construction, Ampco Parking's use will be reduced to 15.2-acres. Assuming that Ampco uses its area at full capacity, with the decrease in parking area, the gate moves will be reduced proportionately to 421 gate moves per day. UP Parking will gain 5.9 acres at the Roundhouse site, introducing 163 gate moves per day, which was also calculated proportionately, similar to the Ampco Parking. Construction of the grain facility adds approximately 2,366 gate moves over a 4-month construction period[18] (Parsons, 2015). This is 60 gate moves per day, but 150 gate moves was used to capture the trips from workers in and out of the site during the day. In the proposed construction phase, the gate moves will have reduced from the existing use to 734 gate moves. Due to uncertainties inherent in proposed Project construction activities, the truck trips associated with excavation materials (hauling off-site) could vary up to 25 percent of the estimated volumes in Table 3.15-1; however, this would not affect the results of this traffic analysis.

During the operational phase, the gate moves for the 15.1-acres of Ampco Parking and 5.9 acres of UP Parking will remain the same as the construction phase. The grain terminal will be in use over 15 acres of the Project site. Approximately 50 hopper cars will enter the facility six times per week. For a typical day, this equals 50 hopper cars multiplied by 3.5 40-foot shipping containers multiplied by 2 gate moves for into and out of the property, which equals 350 gate moves per day. The total amount of gate moves during the operational phase is 934 gate moves, which is less than the existing use.

[18] The construction period may last from 4 to 18 months; the shortest duration was assumed to yield the greatest potential daily traffic effects.

During the cumulative phase in 2035, Ampco Parking and UP Parking gate moves remain the same, but the grain facility is assumed to have a 10 percent increase in gate moves. The gate moves in 2035 will equal 962.

The traffic increase due to the grain facility will add truck moves to the nearby streets. It is assumed that 70 percent of the traffic will travel internally to be shipped from the Port, and that 30 percent will travel externally, to be delivered locally. The breakdown on the direction of travel for the external trips was estimated based on the amount of cattle farms in counties within an approximate 100-mile radius of the Port, excluding the counties where it is more economical to truck directly from Modesto (data taken from The United States Department of Agriculture, 2012 Census of Agriculture). It was estimated that 73 percent of the external traffic will travel northbound on I-880 N and 27 percent will travel southbound on I-880 S. The intersections impacted are Adeline Street at 3rd Street, Adeline Street at 5th Street, and I-880 Ramps at Union Street. Refer to Tables 3.15-2 and 3.15-3 below for the comparison of the existing Level of Service (LOS) and new LOS, where all LOS are A-D; therefore, no mitigation is necessary.

TABLE 3.15-2
Existing Level of Service per May 2012 Oakland Army Base Project Initial Study and Addendum

	Existing plus 2012 Project				2035 plus 2012 Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Intersection	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Adeline Street at 3rd Street	13.2	B	14.7	B	12.8	B	15.1	B
Adeline Street at 5th Street	36.9	D	29.5	C	30.7	C	33.1	C
I-880 Ramps at Union Street	46.7	D	29.8	C	51.8	D	32.9	C

Note:
Analysis based on the 2010 Highway Capacity Methodologies using Synchro 8.

TABLE 3.15-3
New Level of Service with External Traffic Added to the May 2012 Baseline Numbers

	Existing Baseline plus New Project				2035 Baseline plus New Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Intersection	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Adeline Street at 3rd Street	13.2	B	14.8	B	12.8	B	15.2	B
Adeline Street at 5th Street	43.9	D	30.5	C	31.6	C	30.6	C
I-880 Ramps at Union Street	47.7	D	31.6	C	53.7	D	35.5	D

Note:
Analysis based on the 2010 Highway Capacity Methodologies using Synchro 8.

The movement of the train will occur twice per day with -25 hopper cars each time (for a total of 50 hopper cars daily). The train will only block the crossing at Market Street for 6.5-minutes while the tracks are switching to allow the train to enter the Grain Terminal Lead Track. Per the Public Utilities Commission (PUC) of the State of California, General Order No. 135, the crossing cannot be continuously occupied for more than 10 minutes unless there are no vehicles or pedestrians waiting at the crossing. The train movement will be within the limitations of the PUC. In addition, when the Market Street crossing is blocked during non-peak hours, Howard Terminal and Schnitzer Steel is still accessible via Martin Luther King Way/Embarcadero.

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

Less Than Significant Impact. The change in gate moves and the increase in external traffic have no impact on the existing circulation system; however, the 6.5-minute crossing closure at Market Street does present a less than significant impact. The train blockage of Market Street does not require mitigation because there are other access routes to the properties in the vicinity and times of blockage will only occur four to five times daily.

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

No Impact. As shown in the tables above, the proposed Project will not cause the surrounding intersections to degrade lower than LOS D in both future and cumulative conditions. There are no conflicts with applicable management programs or with any established standard.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. The proposed Project site is not located on an airport and therefore will not impact air traffic patterns.

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

No Impact. The proposed Project will not include hazardous design features or introduce features or design that would pose an incompatible use.

e) Result in inadequate emergency access?

No Impact. The proposed Project does not block emergency access. Train movements will not block the three major arterials that provide access to the Port's seaport area, and alternate routes are available to Schnitzer Steel and Howard Terminal in the infrequent periods when a train may block Market Street as described under item a) above.

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

No Impact. The proposed Project will not conflict with adopted policies, plans or programs in the Port of Oakland's seaport area regarding public transit, bicycle or pedestrian facilities and will not decrease the performance or safety of such facilities.

g) Create a potential navigation hazard with marine traffic?

No Impact. The proposed Project will be constructed and operated landside with no connection to or dependence on the Oakland Estuary, and has no elements that will require shipping or berthing facilities at the Project site. The proposed Project will not create a navigation hazard with marine traffic.

3.15.4 Mitigation Summary

Since the proposed Project will not result in traffic impacts to the existing transportation circulation system, no mitigation is necessary.

3.16 Utilities and Service Systems

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

3.16.1 Environmental Setting

Potable water is supplied to the site by EBMUD. Only the guard shack is currently using water at the site. The Project site is currently a flat, paved, open area used for truck parking. The site has lighting, fencing, and K-rail to control truck parking. Underground electrical, fire suppression water, potable water, and storm drain lines are present at the property.

3.16.2 Regulatory Setting

No federal or state laws or regulations pertaining to this issue area were identified. Local goals, policies, and/or regulations applicable to this issue area are described below.

The City of Oakland General Plan Open Space, Conservation and Recreation Element (City of Oakland 1996) contains the following goals relevant to the recreation:

- Policy CO-4.1: Emphasize water conservation and recycling strategies in efforts to meet future demand.
- Policy CO-4.3: Promote the use of reclaimed wastewater for irrigating landscape medians, cemeteries, parks, golf courses, and other areas requiring large volumes of non-potable water.
- Policy CO-13.2: Support public information campaigns, energy audits, the use of energy-saving appliances and vehicles, and other efforts which help Oakland residents, businesses, and City operations become more energy efficient.

- Policy CO-13.3: Encourage the use of energy-efficient construction and building materials. Encourage site plans for new development which maximize energy efficiency.

The City also has other applicable programs which include the following:

- *City of Oakland Zero Waste Strategic Plan*
  The City of Oakland developed the Zero Waste Strategic Plan in November 2006. A goal of the plan is to reduce waste disposal.
- *City of Oakland Green Building Ordinance and Sustainable Green Building*
  The City adopted mandatory green building standards for private development projects to integrate environmentally sustainable strategies in building construction in the City of Oakland.

3.16.3 Impact Analysis

Would the Project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Impact. An existing sanitary sewer line would be extended to serve the proposed modular office building. Storm drain lines would be rerouted and the site elevation would be modified to ensure effective drainage of storm water. All storm water discharges would be in compliance with the Port's storm water permit. There would be no other discharge from the site operations.

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

No Impact. The new modular office building would be connected to sanitary sewer and potable water lines. The very minor incremental amount of sanitary waste generated and water used at the modular office building would not have any effect on existing water or waste water treatment capacity. No new facilities are required.

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

Less than Significant Impact. The proposed Project would require installing approximately 2,600 feet of new storm drain lines. These modifications are addressed as part of the environmental analysis in this document, and would not cause significant environmental effects. The modifications to the site's existing network of storm drain lines would be made in compliance with the SMP and the Port's storm water permit. This impact is less than significant.

d) Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?

No Impact. The Project would use small amounts of potable water. EBMUD has sufficient water supplies available to serve the facilities from existing entitlements and resources. While the fire suppression water system would be modified, no additional demands on fire suppression water are anticipated. The Project would not require new or expanded entitlements to water supply.

e) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?

No Impact. The proposed Project would materially affect the capacity of the existing wastewater treatment system. The modular office building would result in a *de minimis* increase in demand for which there is adequate treatment capacity.

f) Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?

Less than Significant Impact. Solid waste generated from construction would consist of a small amount of construction debris and recyclable material; old rail, ballast, asphalt and excavated soil would reused/recycled to the degree feasible. During operations solid waste generation would be limited to small quantities of debris removed from containers, wastes generated by on-site maintenance activities, and recyclables and trash from office use. There are several landfills within 50 miles of the Project that have sufficient permitted capacity to accommodate the Project's solid waste disposal needs.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

No Impact. The Project would comply with all federal, state and local statutes and regulations related to solid waste. As stated in Section 2, the Project would dispose of or recycle all construction debris in accordance with applicable laws and regulations.

3.16.4 Mitigation Summary

The Project would not result in significant impacts; therefore, no mitigation is required.

3.17 Cumulative Impacts

This section provides information regarding past, present, and reasonably foreseeable development projects dating from 2010 onward, which—together with the proposed Project—could potentially make a considerable contribution to cumulative environmental impacts in the Project area. For this cumulative impacts analysis, the Port of Oakland identified recent projects (known within the last 5 years) and those pending or proposed in the study (seaport) area. The proposed Project is evaluated in the context of the various cumulative projects listed below to identify (1) whether the combined effects from the proposed Project and other actions are cumulatively significant, and (2) if a cumulatively significant impact is found to exist, whether the proposed Project will make an incremental contribution to that impact that is cumulatively considerable.

3.17.1 Regulatory Setting

Cumulative impacts to land use in the Project area may result from residential, commercial, industrial, and highway development, as well as utility and infrastructure development.

The definition of cumulative impacts under CEQA can be found in Section 15355 of the CEQA Guidelines.

3.17.2 Environmental Setting

As stated previously, scoping for the environmental review of the proposed Project identified certain resource topics that are determined to not have an impact because they are not applicable to the proposed Project; therefore, the proposed Project would not result in cumulative impacts to the following resources:

- Agriculture and Forest Resources
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Recreation

Table 3.17-1 identifies the various past, present, and reasonably foreseeable public development projects that comprise the context by which the proposed Project's cumulative impacts are evaluated.

TABLE 3.17-1
Cumulative Projects: Past, Present, and Reasonably Foreseeable Projects in the Port of Oakland Seaport Area

Project Name	Location	Characteristics	Status
Public Projects (Past)			
Shore Power Infrastructure	Port of Oakland Seaport Area	Shore power provides Port- and tenant-constructed infrastructure needed to power ships at-berth through the electrical grid. The shore-side electrical connection system would consist of an electrical grid-based power source, transmission system, and related power distribution infrastructure to provide electricity to a container vessel.	Construction completed

TABLE 3.17-1
Cumulative Projects: Past, Present, and Reasonably Foreseeable Projects in the Port of Oakland Seaport Area

Project Name	Location	Characteristics	Status
Intrusion Detection System	Port of Oakland Seaport Area	The Intrusion Detection System is comprised of improvements to the Port's security system, which include expanding and enhancing the existing security Intrusion Detection System (IDS) with video cameras along the perimeter of the Port's marine terminal boundaries. The cameras would be linked by a fiber optic communications network to improve the Port's ability to monitor movement along its perimeter, and automatically detect boundary breaches and other triggers and report them to Port and law enforcement personnel.	Construction completed
Public Projects (Approved and/or Underway)			
Schnitzer Steel Stormwater Improvement Project	Schnitzer Steel property	The goal of the Schnitzer Steel Stormwater Improvement Project is to capture and treat all stormwater collected on the Schnitzer Property. The notice of determination to approve the project was issued on January 21, 2015.	Construction pending
West Oakland Specific Plan	West Oakland Planning District	The purpose of the West Oakland Specific Plan (WOSP) is to develop comprehensive, multi-faceted strategies for facilitating the development of selected vacant and/or underutilized commercial and industrial properties within the West Oakland community. The WOSP will be a tool for supporting, attracting and developing commercial and industrial enterprises to provide jobs and services needed by the West Oakland community and the city of Oakland at large. The WOSP and its zoning amendments became effective on August 29, 2014.	Pending
EBMUD Master Plan (addendum)	EBMUD Wastewater Treatment Facility in West Oakland	As an addendum to the Final Environmental Impact Report for the Main Wastewater Treatment Plant Land Use Master Plan certified on June 28, 2011, East Bay Municipal Utility District (EBMUD) issued an addendum in December 2013 to develop a food waste processing plant as a pilot project. Specifically, EBMUD is developing a pilot project for preprocessing of organics-rich materials, including food waste collected from residential and commercial sources, pre-packaged foods, organic mixed materials and a minimal amount of yard debris, at its main wastewater treatment plant (MWWTP) located in Oakland, CA.	Pending
Oakland Army Base Redevelopment Project	Oakland Army Base	Development of the following: Utility and Roadway Improvements; Outer Harbor Intermodal Rail yard (OHIT), lead track, and support yard; and Berth 10 stormwater outfall.	Under construction or pending
Public Projects (Future)			
Oakland Army Base Redevelopment Project	Oakland Army Base	Development of the following: Bulk cargo terminal (Berth 7, City of Oakland); seaport-related warehousing and logistics; Port cargo throughput to reach 4.04 million TEUs by 2035.	Projects approved by the Port and City in 2012. Pending

TABLE 3.17-1
Cumulative Projects: Past, Present, and Reasonably Foreseeable Projects in the Port of Oakland Seaport Area

Project Name	Location	Characteristics	Status
Cold Storage Facility	Oakland Army Base	The Cold Storage Facility is a 575,000 square-foot perishable food refrigerated warehouse and distribution facility equipped with refrigerated loading docks for both rail and trucks. The project would be constructed in two phases, the first consisting of 370,000 square feet that includes all of the primary operational and support facilities for Project operations. A second phase consisting of 205,000 square feet would add additional refrigeration areas for expanded capacity. (Addendum to be issued in July 2015)	Port anticipates project approval and Addendum to be issued in July 2015.
7th Street Grade Separation	Port of Oakland Seaport Area	The 7th Street Grade Separation Project will provide new grade-separated rail crossings for BNSF and UP intermodal terminals, The Project will also replace the Southern Pacific bridge and expand roadway capacity.	Project included (and approved) in the Oakland Army Base EIR (2002). Pending
Gateway Park	Bay Bridge Toll Plaza	The creation of a new park at the east touchdown of the San Francisco-Oakland Bay Bridge in Oakland. The new park would provide bicycle/pedestrian connection to the new East Span of the Bay Bridge and to other trails, and also provide access to the Bay.	The Environmental Impact Review for the Gateway Park project should be completed by late 2015.

3.17.3 Issues with No Cumulative Effect

If a proposed project would not result in a direct or indirect significant impact on a resource, then it will not contribute to a cumulative impact on that resource, and does not need to be further evaluated. As identified above, the following resources were determined to not have a cumulative impact from the proposed Project: Agriculture and Forest Resources, Land Use and Planning, Mineral Resources, Population and Housing and Recreation. The following resources were evaluated and determined to have either no significant impact or a less than significant impact and therefore no cumulative impact: Aesthetics, Biological Resources, Cultural Resources, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Public Services, Traffic and Transportation and Utilities and Service Systems.

Certain resources are not vulnerable to incremental/cumulative effects. One example is geologic/seismic hazards related to future developments in the project study area. Geological/seismic hazards are site specific and relate to the type of building or structure proposed as well as soil composition and slope on the site. There is no additive effect of the geologic/seismic hazards associated with other approved or foreseeable development together with the proposed Project; therefore, no further cumulative analysis of this resource is warranted.

3.17.4 Issues with the Potential to Contribute to the Cumulative Effect

Air Quality and Greenhouse Gas Emissions. Potential cumulative air quality effects associated with emissions of NOx, VOC, CO, PM_{10}, $PM_{2.5}$, and diesel exhaust may occur during construction of the Grain Terminal. However, the cumulative air quality effects of operation of the Grain Terminal are expected to be minimal in comparison to the larger Oakland Army Base redevelopment (most of the cumulative projects are to be developed on or adjacent to the OARB site) and the other utility projects and West Oakland Specific Plan have received separate CEQA review. The cumulative air quality effects are expected to be minimal since the rail and truck traffic attributable to the Grain Terminal would occur whether or not the Grain

Terminal is constructed. In addition, the Grain Terminal emissions would be minimal when compared to the total 2012 Port of Oakland Seaport Emissions Inventory. With incorporation of SCAs, any cumulative effects of the Project will be reduced to less than significant.

GHG emissions are, by their nature, cumulative effects. The cumulative effects of the Project would be similar to the individual effects. However, the effects of the Project would be minimal in comparison to the larger OARB redevelopment and other cumulative projects listed in Table 3.17-1.

3.18 Mandatory Findings of Significance

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

3.18.1 Impact Analysis

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

No Impact. As supported by the impact analyses of this IS/ND, the proposed Project will result in no impact on the quality of the environment.

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

No Impact. As supported by the impact analyses of this IS/ND, the proposed Project will result in no cumulative impacts**.**

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

No Impact. As supported by the impact analyses of this IS/ND, the proposed Project will result in no impact on human beings.

SECTION 4

Preparers

The Port of Oakland's Environmental Department staff, with the assistance of CH2M HILL, Inc. and GAIA Consulting, Inc., prepared this Initial Study/Negative Declaration. The analysis in the IS/ND is based on information identified, acquired, reviewed, and synthesized based on the Port's guidance and recommendations.

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SECTION 5

References

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