

## Section 3.9 Noise

### SECTION SUMMARY

This section addresses potential noise impacts associated with construction and operation of the Proposed Project as well as alternatives to the Proposed Project. The study area includes sensitive receptors in the Project vicinity that might be affected by construction noise, on-terminal operational noise, or noise associated with traffic generated by the Proposed Project or an alternative, and sensitive receptors along major transportation corridors that serve the Project area.

Section 3.9, Noise, provides the following:

- a description of environmental noise fundamentals and the existing environmental setting, including existing sound levels and noise-sensitive receptors in the surrounding area;
- a description of local, state, and federal regulations and policies that apply to the Proposed Project as well as the alternatives;
- a discussion regarding the methodology used to determine whether the Proposed Project or the alternatives would result in a significant adverse noise impact;
- an impact analysis of both the Proposed Project as well as the alternatives; and
- a description of any mitigation measures proposed to reduce any potential impacts and residual impacts, as applicable.

#### Key Points of Section 3.9

Daytime and night-time construction activities for the Proposed Project would not cause noise levels that would exceed significance threshold levels at the nearest noise-sensitive receptors under CEQA and NEPA. Construction noise for the No Federal Action (NFA) Alternative would not exceed significance thresholds. Residual impacts of construction would not be significant. Operational noise would not result in significant impacts for the Proposed Project, the No Project Alternative, or the No Federal Action Alternative under CEQA.

## 3.9.1 Introduction

This section describes the fundamentals of noise, the existing environmental setting for noise, applicable regulations associated with noise, thresholds for significant noise impacts, the sound levels that would result from the Proposed Project, and any necessary mitigation measures that would reduce these impacts. The analyses in this section focus on Project-specific impacts to human noise-sensitive receptors (cumulative noise impacts are evaluated in Chapter 4). The discussion of noise impacts on wildlife is presented in Section 3.3, Biological Resources.

### 3.9.1.1 Noise Fundamentals

Sound is defined as any pressure variation in air that the human ear can detect. Noise may be described as unwanted sound and is usually objectionable because it is disturbing or annoying. The objectionable nature of sound can be due to its pitch or its loudness. Pitch is related to the frequency of the vibrations by which sound is produced; in general, intermediate pitched signals sound louder to humans than sounds with a lower or higher pitch. Loudness is the amplitude or intensity of sound waves combined with the reception characteristics of the ear; the higher the amplitude, the louder the sound.

Technical acoustical terms commonly used in this section are defined in Table 3.9-1. The fundamental model of acoustics consists of a sound (i.e., noise) source, a receptor, and the propagation path between the two. The loudness of the noise source and the obstructions or atmospheric factors, which affect the propagation path to the receptor, determine the sound level and the characteristics of the noise perceived by the receptor.

The amplitude of pressure waves from a noise source determines loudness. Sound pressure amplitude is measured in micropascals (mPa; Table 3.9-1), but because of the large range of values (from less than 100 to 100,000,000 mPa), a logarithmic scale expressed as decibels (dB; Table 3.9-1) is typically used to describe sound pressure levels.

The dB scale alone does not adequately characterize how humans perceive noise. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on human sensitivity to those frequencies. The common measure is the A-weighted sound level (dBA; Table 3.9-1), which approximates the response of the average young ear to most ordinary sounds. Peoples' judgments regarding the relative loudness or annoyance of a sound tend to correlate well with the A-scale sound levels of those sounds.

Because decibels are logarithmic units, sound pressure levels cannot be added or subtracted through ordinary arithmetic. On the dB scale, a doubling of sound energy corresponds to a 3 dB increase, so that when two identical sources are each producing sound of the same loudness, their combined sound level at a given distance would be 3 dB higher than either source under the same conditions. For example, if one excavator produces a sound pressure level of 80 dBA, two excavators would not produce 160 dBA. Rather, they would combine to produce 83 dBA. The cumulative sound level of any number of sources, such as excavators, can be determined using decibel addition.

**Table 3.9-1: Definitions of Acoustical Terms**

Sound	A vibratory disturbance created by a vibrating object, which when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism such as the human ear or a microphone.
Noise	Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micropascals (mPa), where 1 pascal is the pressure from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is more commonly expressed in decibels (see below). Sound pressure level is the quantity that is measured directly by a sound level meter. Noise sources are often defined as a sound level in dBA at a specified distance, which representative of a sound pressure level.
Decibel (dB)	A unit describing the amplitude of sound equal to 20 times the logarithm to base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20 mPa.
Frequency, Hertz (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is 20 Hz - 20,000 Hz.
A-Weighted Sound Level (dBA)	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low- and very high-frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level ( $L_{eq}$ )	The energy-averaged A-weighted noise level during the measurement period. The hourly $L_{eq}$ is used for this report.
Community Noise Equivalent Level (CNEL)	The energy-averaged A-weighted noise level during a 24-hour day, which is obtained by adding 5 dB to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and 10 dB to sound levels between 10:00 p.m. and 7:00 a.m.
Day/Night Noise Level ( $L_{dn}$ )	The energy-averaged A-weighted noise level during a 24-hour day, which is obtained by adding 10 dB to sound levels measured at night between 10:00 p.m. and 7:00 a.m.
Maximum Sound Level ( $L_{max}$ )	The maximum A-weighted noise level measured during the measurement period.
Minimum Sound Level ( $L_{min}$ )	The minimum A-weighted noise level measured during the measurement period.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive Noise	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, time of occurrence, and tonal or informational content as well as the prevailing ambient noise level.

Source: Caltrans 2013

1 Environmental sounds are commonly described in terms of an average level that has the  
2 same acoustical energy as the summation of all the time varying events. This average  
3 level is referred to as the equivalent noise level, or  $L_{eq}$ . A common averaging period is  
4 hourly, but the  $L_{eq}$  can describe any series of noise events of arbitrary duration. Sound  
5 level meters can accurately measure environmental noise levels to within approximately  
6 plus or minus 1 dBA. The  $L_{eq}$  and two additional noise metrics used in this report, the  
7  $L_{dn}$  and CNEL, are defined in Table 3.9-1.

8

**Table 3.9-2: Typical Noise Levels in the Environment**

Common Outdoor Noise Source	Noise Level (dBA)	Common Indoor Noise Source
Jet fly-over at 984 ft	120 dBA	Rock concert
	110 dBA	
Pile driver at 100 feet	100 dBA	Night club with live music
	90 dBA	
Large truck passes by at 50 feet	80 dBA	Noisy restaurant
	70 dBA	Garbage disposal at 3 feet
Gas lawn mower at 100 feet	70 dBA	Vacuum cleaner at 10 feet
Commercial/Urban area daytime	60 dBA	Normal speech at 3 feet
Suburban expressway at 300 feet	60 dBA	
Suburban daytime	50 dBA	Active office environment
	50 dBA	
Urban area nighttime	40 dBA	Quiet office environment
	40 dBA	
Suburban nighttime	30 dBA	Library
Quiet rural areas	30 dBA	Quiet bedroom at night
	20 dBA	
Wilderness area	20 dBA	
	10 dBA	Quiet recording studio
Threshold of human hearing	0 dBA	Threshold of human hearing

Source: Caltrans 2013, pages 2-20. Distances in source data have been converted from meters to feet here.

**Human Responses to Noise**

It is widely accepted that a change of 3 dBA in the normal environment is barely detectable to most people; a change of 5 dBA is readily perceptible; and a change of 10 dBA is perceived as being twice as loud. Accordingly, a doubling of sound energy (e.g., doubling the volume of traffic on a highway), which would result in a 3 dB increase in sound, would generally be barely detectable.

A number of studies have linked increases in noise with health effects, including hearing impairment, sleep disturbance, cardiovascular effects, psychophysiological effects, and potential impacts to fetal development (Babisch 2006). Potential health effects appear to be caused by both short and long-term exposure to very loud noises and long-term exposure to lower levels of sound (chronic exposure). Acute exposure to sound levels greater than 120 dBA (equivalent to a rock concert) can cause mechanical damage to the ear and hearing impairment (Babisch 2006).

According to the World Health Organization (Berglund et al. 1999) and the U.S. Environmental Protection Agency (USEPA 1974),  $L_{eq} = 70$  dBA is a safe daily average noise level for the ear. However, even this level may cause disturbance to sleep and

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18

1 concentration and be linked to chronic health impacts such as hypertension and heart  
2 disease (Babisch 2006). Research into these potential effects is still in its early stages,  
3 and there is not yet enough information to permit an evaluation of an individual  
4 project's impacts on public health. Accordingly, this summary is provided as an  
5 acknowledgement that such impacts could occur, but that the possibility cannot be  
6 evaluated for the Proposed Project.

### 7 **Sound Propagation**

8 When sound propagates over a distance, it changes in both level and frequency. The  
9 manner in which noise is reduced with distance ("sound attenuation") depends largely  
10 on the following factors:

11 **Geometric spreading from point sources.** Sound from a single source (i.e., a "point"  
12 source) radiates uniformly outward as it travels away from the source in a spherical  
13 pattern. The sound level attenuates (or drops off) at a rate of 6 dBA for each doubling of  
14 distance.

15 **Geometric spreading from line sources.** Some sound is perceived as emanating from  
16 a line rather than a point. Highway noise, generated by vehicles moving along a linear  
17 feature, is a good example of a line source. Line sources result in cylindrical spreading  
18 of noise rather than the spherical spreading resulting from a point source. The change in  
19 sound level from a line source is 3 dBA per doubling of distance (intensity drops to one-  
20 half of the previous level with each doubling of distance).

21 **Ground absorption.** Noise attenuation from ground absorption ("excess attenuation")  
22 occurs due to acoustic energy losses in sound wave reflection. The degree of attenuation  
23 depends on the nature of the ground surface (e.g., acoustically "hard" sites such as a  
24 parking lot or a smooth body of water, or "soft" sites such as grass or scattered bushes  
25 and trees). Ground absorption is not considered this Draft EIS/EIR in the interest of a  
26 conservative analysis.

27 **Atmospheric effects.** Atmospheric conditions can have a major effect on noise levels.  
28 The most important are wind, closer to the source, and vertical air temperature gradients,  
29 over longer distances. Temperature, humidity, and turbulence also have major effects.  
30 Atmospheric effects are often not considered, including in this Draft EIS/EIR, in the  
31 interest of a conservative analysis.

32 **Shielding by natural or human-made features.** A large object or barrier in the path  
33 between a noise source and a receptor can substantially attenuate noise levels at the  
34 receptor. The amount of attenuation depends on the size of the object, proximity to the  
35 noise source and receptor, surface weight, solidity, and the frequency content of the  
36 noise source. Walls are often constructed between a source and a receptor with the  
37 specific purpose of reducing noise. A barrier that breaks the line of sight between source  
38 and receptor will typically result in at least 5 dBA of noise reduction.

### 39 **3.9.1.2 Groundborne Vibration Fundamentals**

40 Groundborne vibration is an oscillatory motion of the soil with respect to the  
41 equilibrium position and can be quantified in terms of velocity or acceleration. It can be  
42 a serious concern for nearby neighbors of activities that cause buildings to shake and  
43 rumbling sounds to be heard, but it is unusual for vibration from sources such as buses  
44 and trucks on smooth roads to be perceptible, even in nearby locations. Most perceptible  
45 indoor vibration is caused by sources within buildings, such as equipment operation,  
46 movement of people, or slamming doors. Typical outdoor sources are heavy

1 construction equipment and activities (such as blasting and pile driving), steel-wheeled  
 2 trains, and heavy trucks on rough roads.

3 Table 3.9-2 summarizes common sources of groundborne vibration velocity levels  
 4 (measured in decibel units [VdB]) and average response to vibration by a person at rest  
 5 in quiet surroundings (tolerance to vibration increases considerably during physical  
 6 activity). The duration of the vibration event affects human response, as does its  
 7 frequency of occurrence: increases in both result in decreased tolerance. Typical  
 8 background vibration levels in residential areas are usually 50 VdB or lower, well below  
 9 the threshold (65 VdB) of perception for most humans.

10 Groundborne noise is a secondary phenomenon of groundborne vibration. When a  
 11 building or structure vibrates, noise radiates into the interior of the building, producing  
 12 rattling of windows, doors, stacked dishes, etc. Low-frequency vibration can produce  
 13 groundborne noise perceived as a low rumble. Groundborne noise is quantified by the  
 14 A-weighted sound level (dBA; Table 3.9-1) inside the building, and is generally 25 to 40  
 15 dBA lower than the vibration velocity level in VdB. Levels of 65 VdB can result in  
 16 groundborne noise levels up to 40 dBA, which can disturb sleep. Groundborne vibration  
 17 levels of 85 VdB can result in groundborne noise levels up to 60 dBA, which can be  
 18 annoying to daytime noise sensitive land uses such as schools (FTA 2018).

**Table 3.9-2: Typical Levels of Groundborne Vibration**

Human or Structural Response	Vibration Velocity Level (VdB)	Typical Sources (50 feet from source)
Threshold for minor cosmetic damage to fragile buildings	100	Blasting, pile driving, vibratory compaction equipment
Difficulty with tasks such as reading a video or computer screen	90	Heavy tracked vehicles (bulldozers, cranes, drill rigs)
Threshold for residential annoyance for infrequent events (e.g., commuter rail)	80	Freight rail, typical Commuter rail, upper range
	70	Rapid transit, upper range
Threshold for residential annoyance for frequent events (e.g., rapid transit)	60	Commuter rail, typical Bus or truck over bump or on rough roads
Approximate threshold for human perception of vibration Limit for vibration sensitive equipment	50	Bus or truck over bump or on rough roads Rapid transit, typical
		Typical bus or truck on public road
		Typical background vibration

Source: FTA (2018)

## 3.9.2 Environmental Setting

### 3.9.2.1 General Noise Sources in the Project Vicinity

The Project site is located at 2001 John S. Gibson Boulevard, and encompasses Berths 121-131 and associated backlands in the West Basin of the Port of Los Angeles. The site is generally bounded on the north by the TraPac container terminal, the I-110 freeway, the Conoco-Phillips refinery, and the community of Wilmington; on the east by the West Basin, the TraPac container terminal, and the Conoco-Phillips marine terminal; on the south by the China Shipping container terminal, Pacific Avenue, Front Street, and the San Pedro community; and on the west by the I-110 Freeway, the Port of Los Angeles Distribution Center, and the community of San Pedro. The vicinity of the Project site is characterized by industrial and Port-related facilities, visitor-serving commercial areas, marine service and support facilities, limited residential areas, and open space and recreational areas. The noise environment at the Project site and vicinity is composed of a background of traffic and distant port-related noise, and periodic increases associated with terminal operations and nearby train movements.

In general, average noise levels in an area are directly determined by the proximity to the various noise-generating activities. Unless such activities in the area change dramatically, average noise levels also do not change appreciably over time. For example, a doubling of noise generating activity of the same or similar type (e.g., traffic with the same or similar distribution of vehicular types) results in a 3 dBA increase in noise levels, which as discussed above, would be considered barely detectable to most people. Therefore, background noise measurements tend to be reasonably consistent over time provided there has been no substantial change in noise-generating activity.

### 3.9.2.2 Noise-Sensitive Receptors

For the purposes of noise impact analysis, the study area includes those sensitive receptors closest to the Project site that might be affected by construction noise, on-terminal operational noise, or noise associated with traffic generated by the Proposed Project or an alternative.

Noise-sensitive receptors considered in this Draft EIS/EIR include residences, a training /community center, and public parks (see Figure 3.9-1 and Tables 3.9-4 and 3.9-5). The nearest residential area to the Project site is located along Gaffey Street in San Pedro, about 0.2 miles (1,000 feet) to the west, across I-110. There are also residential uses on Knoll Hill to the south of the Berths 121-131 Terminal and in Wilmington to the north of the terminal. Parks include the baseball fields at Knoll Hill, the Field of Dreams soccer field west of the terminal, and Wilmington Waterfront Park (including the Bannings Landing Community Center) to the northeast. The Harbor Occupational Center (a community/training center) is located to the southwest. None of those sensitive uses is within 500 feet of the Project site.

### 3.9.2.3 Existing Baseline Noise Environment

A noise monitoring survey was conducted in December 2021 to quantify existing ambient noise levels in the Project vicinity. This survey was supplemented with sound level measurements taken in 2014 at one location due to access and security issues with placement of noise monitoring equipment in 2021 (Acoustics Group Inc. 2014). Noise levels measured in both surveys are considered to be representative of the baseline

(2019) conditions given that noise-producing activities at the Port and in the Project vicinity have not increased enough to expect substantive changes in ambient noise (e.g. a doubling of activity levels would be needed to produce a 3 dBA increase).

The measurements were taken using Class 1 sound level meters (LxT) that had been factory certified within the previous 12 months and were field calibrated immediately prior to the measurements. The microphones were fitted with acoustically neutral windscreens and set at approximately 5 feet above the ground (at a typical listening height).

Five long-term (LT; 24-48 hours) and four short-term (ST; approximately 30 minutes) noise measurements were taken at locations representing sensitive receptors nearest to the Project site (Figure 3.9-1, Table 3.9-3, Table 3.9-4). More details regarding the long-term noise measurements, including graphs of hourly noise levels, are presented in Appendix B-1. Additional sound level details for the short-term noise measurements are presented in Appendix B-2.

Measured CNEL levels at three locations (LT-2, LT-4, and LT-5) representing residential receivers exceeded 70 dBA (Table 3.9-3), which is considered normally unacceptable as defined in the City of Los Angeles General Plan Noise Element (see Table 3.9-6 for General Plan definitions). Locations LT-2 and LT-4 were primarily affected by noise from traffic on nearby roadways and highways, and Port activities. LT-5 was primarily affected by noise from traffic on Gaffey Street.

At the short-term noise measurement locations (Figure 3.9-1), the highest measured noise level ( $L_{eq}$  of 69 dBA) occurred at location ST-4 and was primarily attributed to traffic noise from Harry Bridges Boulevard and Port activity. Measured  $L_{eq}$  values at the other short-term locations ranged from 57 dBA at location ST-3 to 62 dBA at location ST-1.

**Table 3.9-3: Baseline Conditions: Long-Term Noise Monitoring (dBA)**

Receptor	Location	Time of Day	Leq	Lmax	CNEL	Noise Sources
LT-1	Knoll Hill	Day	57 - 62	67 - 83	62-66	Seaside Freeway traffic, North Front Street traffic, Port activity, birds, local traffic, possible baseball game, helicopters, event setup
		Evening	56 - 60	61 - 79		
		Night	50 - 64	69 - 85		
LT-2	557 Shields Drive	Day	65 - 69	78 - 96	71-72	North Pacific Avenue traffic, Port activities, I-110 traffic, helicopters, local traffic, wildlife, trains
		Evening	65 - 68	70 - 89		
		Night	59 - 69	80 - 86		
LT-3	1211 W Ct St	Day	59 - 63	74 - 94	64-66	I-110, West Harry Bridges Boulevard, Port activity, tonal backup alarms, trains
		Evening	59 - 63	65 - 84		
		Night	51 - 62	76 - 98		
LT-4	821 C St Unit B	Day	61 - 69	85 - 106	67-72	West C Street, West Harry Bridges Boulevard, I-110, Port activities
		Evening	60 - 70	73 - 112		
		Night	53 - 74	85 - 107		
LT-5 <sup>1</sup>	783 Gatum Street (adjacent to Gaffey Street)	Day	73 - 76	N/A	77	Constant traffic on Gaffey Street, community noise, birds, train
		Evening	72 - 74			
		Night	65 - 73			

Notes: See Table 3.9-1 for definitions of  $L_x$  terms. Additional  $L_x$  values presented in Appendix B-1. Day (7:00 - 19:00), Evening (19:00 - 22:00), Night (22:00 - 7:00). <sup>1</sup> Acoustics Group, Inc. (2014).

1 **Figure 3.9-1. Noise Sound Level Measurement (SLM) Locations**



2

**Table 3.9-4: Baseline Conditions: Short-Term Noise Monitoring (dBA)**

Receptor	Location	Time	Leq	Lmax	Noise Sources
ST-1	Harbor Occupational Center	11:31:29 - 12:00:00	62	80	North Pacific Avenue traffic, wildlife, Port activity
ST-2	W MacArthur Ave/ W Elberon Ave intersection	12:18:52 - 12:49:13	59	97	Port activity, North Pacific Avenue traffic, local traffic, I-110, helicopter
ST-3	Fields of Dreams Soccer Field	13:23:03 - 13:54:09	57	71	County mulch yard (backup alarms/trucks), I-110, North Gaffey traffic, wildlife
ST-4	Wilmington Waterfront Park	14:46:37 - 15:17:08	69	86	West Harry Bridges Boulevard traffic, Port activity, foot traffic

Note: See Table 3.9-1 for definitions of L<sub>x</sub> terms. Additional L<sub>x</sub> values presented in Appendix B-2.

### 3.9.3 Applicable Regulations

#### 3.9.3.1 City of Los Angeles Municipal Code (LAMC)

Applicable standards for operational and construction noise are established in the City of Los Angeles Municipal Code (LAMC; Chapter IV, Article 1, Section 41.40; Chapter XI, Article 2, Sections 112.04 and 112.05).

For construction noise, Section 112.05 limits construction equipment noise levels to a maximum noise level of 75 dBA at 50 feet if the equipment is located within 500 feet of any residential zone of the City. Further, construction in districts zoned for industrial uses, as is the Project site, is exempt from all noise provisions. Therefore, the construction noise limits as identified in LAMC section 112.05 do not apply to the Proposed Project.

For operational noise, Section 112.04 provides that noise from equipment and machinery affecting the premises of an occupied residential property may not exceed the ambient noise level by more than 5 dBA. Ambient levels may be established either with sound level measurements at representative locations in the project vicinity or by using the Presumed Ambient Noise Levels set forth in LAMC Section 111.03, Exhibit I.1-1 (Table 3.9-5).

**Table 3.9-5. Los Angeles Presumed Ambient Noise Level (dBA)**

Zone	Day (7:00 a.m. to 10:00 p.m.)	Night (10:00 p.m. to 7:00 a.m.)
A1, A2, RA, RE, RS, RD, RW1, RW2, R1, R2, R3, R4, and R5	50	40
P, PB, CR, C1, C1.5, C2, C4, C5, and CM	60	55
M1, MR1, and MR2	60	55
M2 and M3	65	65

1 **3.9.3.2 City of Los Angeles General Plan Noise Element**

2 The City of Los Angeles General Plan Noise Element establishes standards for exterior  
 3 sound levels based on land use categories (Table 3.9-6). The Noise Element indicates  
 4 that the maximum acceptable outdoor noise exposure level for residential areas and  
 5 schools is below 70 dBA CNEL.

**Table 3.9-6: City of Los Angeles General Plan - Guidelines for Noise Compatible Land Uses**

Residential Single-Family, Duplex, Mobile Home	A	C	C	C	N	U	U
Residential Multi-family	A	A	C	C	N	U	U
Transient Lodging, Motel, Hotel	A	A	C	C	N	U	U
School, Library, Church, Hospital, Nursing Home	A	A	C	C	N	N	U
Auditorium, Concert Hall, Amphitheater	C	C	C	C/N	U	U	U
Sports Arena, Outdoor Spectator Sports	C	C	C	C	C/U	U	U
Playground, Neighborhood Park	A	A	A	A/N	N	N/U	U
Golf Course, Riding Stable, Water Recreation, Cemetery	A	A	A	A	N	A/N	U
Office Building, Business, Commercial, Professional	A	A	A	A/C	C	C/N	N
Agriculture, Industrial, Manufacturing, Utilities	A	A	A	A	A/C	C/N	N

Notes:

A = Normally acceptable. Specified land use is satisfactory, based upon assumption buildings involved are conventional construction, without any special noise insulation.

C = Conditionally acceptable. New construction or development only after a detailed analysis of noise mitigation is made and needed noise insulation features are included in proposed project design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning normally will suffice.

N = Normally unacceptable. New construction or development generally should be discouraged. A detailed analysis of noise reduction requirements must be made and noise insulation features included in the design of a project.

U = Clearly unacceptable. New construction or development generally should not be undertaken.

6 **3.9.4 Impacts and Mitigation Measures**

7 **3.9.4.1 Methodology**

8 **CEQA Baseline**

9 As described in Section 2.7.1, CEQA Guidelines Section 15125 requires EIRs to include  
 10 a description of the physical environmental conditions in the vicinity of a project that  
 11 exist at the time of the NOP. For purposes of this Draft EIS/EIR, the CEQA baseline  
 12 takes into account the throughput for the 12-month calendar year of 2019 in order to  
 13 provide a representative characterization of activity and resulting noise levels  
 14 throughout the year. As described above, a noise monitoring survey was conducted in  
 15 December 2021 to quantify existing ambient noise levels in the Project vicinity. This

1 survey was supplemented with sound level measurements taken in 2014 at one location.  
2 Noise levels measured in both surveys are considered to be representative of the baseline  
3 conditions.

#### 4 **NEPA Baseline**

5 For purposes of this Draft EIS/EIR, the evaluation of significance under NEPA is  
6 defined by comparing the Proposed Project or alternative to the NEPA baseline, which  
7 in this case is the NFA Alternative (Alternative 2). The NEPA baseline conditions are  
8 described in Section 2.7.2 and summarized in Table 2-1. The NEPA baseline condition  
9 includes the full range of construction and operational activities the applicant could  
10 implement and is likely to implement absent a federal action, in this case the issuance of  
11 a federal permit by the USACE. In this case, therefore, the NFA Alternative includes  
12 construction and operation of the expanded WBICTF railyard in the Berths 121-131  
13 Terminal but does not include construction and operation of a new wharf and cranes at  
14 Berths 126-129 or the associated dredging and disposal for deepening the berth.

### 15 **3.9.4.2 Thresholds of Significance**

16 The Port, as a City Department, uses guidance provided in the 2025 CEQA Guidelines  
17 Appendix G in conjunction with significance thresholds identified in the Los Angeles  
18 CEQA Thresholds Guide (City of Los Angeles 2006) to evaluate the potential for a  
19 project to result in significant noise impacts on sensitive receptors, including the  
20 residential areas adjacent to the Port in the communities of San Pedro and Wilmington.  
21 The Appendix G guidance criteria do not include quantitative thresholds whereas the  
22 City's CEQA thresholds criteria, which effectively incorporate the LAMC noise limits,  
23 are quantitative. In addition, the City's thresholds address noise, but not vibration, and  
24 do not address proximity to airports. Accordingly, for operational noise, this analysis  
25 uses the City's noise significance thresholds to evaluate noise impacts under CEQA  
26 criterion NOI-1 (i.e., NOI-1a, 1b, and 1c). For the issue of airports and airfields, the  
27 Notice of Preparation (Appendix 2 of Part 1) determined that because the Proposed  
28 Project is not in the vicinity of a public or private airfield or airport land use plan  
29 designation, there would be no impacts and the issue was eliminated from consideration  
30 in the Draft EIS/EIR.

31 In the case of construction (NOI-1a and NOI-1b), although construction would occur  
32 more than 500 feet from any residential zone and in a district zoned for industrial uses,  
33 and would therefore not be subject to LAMC limits or consideration of impacts under  
34 the City's CEQA thresholds guidance, this assessment applies the significance criteria  
35 established in the 2006 L.A. CEQA Thresholds Guide to provide a conservative  
36 assessment of construction noise impacts.

37 In accordance with the 2025 CEQA Guidelines Appendix G criteria, a project may result  
38 in a significant effect on the environment with respect to noise or vibration if it would  
39 result in:

40 **NOI-1: Generation of a substantial temporary or permanent increase in ambient**  
41 **noise levels in the vicinity of the project in excess of standards established**  
42 **in the local general plan or noise ordinance, or applicable standards of**  
43 **other agencies.**

44 **Environmental review of major projects in the City of Los Angeles rely on**  
45 **the City thresholds of significance, which are:**

- 1 a) Daytime construction activities lasting more than 10 days in a 3-month
- 2 period that would exceed existing ambient exterior noise levels by 5 dBA
- 3 or more at a noise-sensitive/receptor
- 4 b) Construction activities could result in noise levels that would exceed
- 5 the ambient noise level by 5 dBA at noise-sensitive receptors between the
- 6 hours of 9:00 p.m. and 7:00 a.m., Monday through Friday, before
- 7 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday
- 8 c) For operational noise, a significant noise impact would occur if project
- 9 operations cause the ambient noise level measured at the property line of
- 10 affected uses (i.e., sensitive receptors) to increase by 3 dBA in CNEL to or
- 11 within the ‘normally unacceptable’ or ‘clearly unacceptable category,’ or
- 12 any increase in CNEL 5 dBA or greater;
- 13 NOI-2: Generation of excessive groundborne vibration or groundborne noise
- 14 levels; or
- 15

**Table 3.9-7: L.A. CEQA Thresholds Guide Land Use Noise Compatibility Guidelines**

Single-Family, Duplex, Mobile Homes	50–60	55–70	70–75	above 70
Multifamily Homes	60–65	60–70	70–75	above 70
Schools, Libraries, Churches, Hospitals, Nursing Homes	50–70	60–70	70–80	above 80
Playgrounds, Neighborhoods Parks	50–70	—	67–75	above 72
Golf Courses, Riding Stables, Water, Recreation, Cemeteries	50–75	—	70–80	above 80

**Normally Acceptable:** Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction and without any special noise insulation requirements.

**Conditionally Acceptable:** New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air-conditioning, will normally suffice.

**Normally Unacceptable:** New construction or development generally should be discouraged. If new construction or development does proceed, a detailed analysis of the noise-reduction requirements must be made and needed noise insulation features included in the design.

**Clearly Unacceptable:** New construction or development generally should not be undertaken.

Source: City of Los Angeles (2006)

16  
17

### 3.9.4.3 Impact Determination

#### Proposed Project

**Impact NOI-1: Would the Proposed Project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

**NOI-1a: Daytime construction activities lasting more than 10 days in a 3-month period that would exceed existing ambient exterior noise levels by 5 dBA or more at a noise-sensitive/receptor.**

Construction of the Proposed Project would take place over approximately 2 years and would involve the elements described in Section 2.6, Proposed Project. Construction of each of the elements would last more than 10 days in a 3-month period. Construction is assumed to take place 6 days per week (Monday through Saturday) except national holidays. In general, construction would occur during daytime hours (8 hour shift), but dredging is assumed to occur 24 hours per day, 7 days per week for approximately 730 days (approximately 24 months).

Noise levels generated by construction equipment vary greatly depending on factors such the type, model, and condition of equipment, the amount of time that the equipment operates, and the activity performed. The dominant source of noise from most construction equipment is the engine, although in a few cases, such as impact pile driving or pavement-breaking, noise generated by the process dominates. Table 3.9-8 shows the maximum noise levels for a variety of construction equipment at a reference distance of 50 feet. These reference sound levels are representative of the noise levels that may occur during the noisiest construction activities.

The Port implements best management practices (BMPs) during construction through standards and other requirements contained in construction bid specifications for contractors. For example, the following BMPs that pertain to noise control would be adhered to during construction:

- Use of electric dredging equipment connected to a landside power grid as required by MM AQ-5.
- For on-road trucks, restriction of idling to a maximum of 5 minutes when not in use.
- Requirement that, for off-road construction equipment, engines on construction equipment shall be shut down when not in use for more than 5 minutes.
- Appointment of a construction relations officer to act as a community liaison concerning on-site construction activity.
- Scheduling pile driving to occur only between the hours of 7 am and 5 pm Monday through Saturday.

Overall average site construction noise levels vary with the numbers and types of equipment operating onsite at once and the proximity of the equipment to noise-sensitive receptors. Calculated hourly average noise levels, therefore, are estimated based on a typical complement of construction equipment that would be expected to be onsite to complete the various Proposed Project components. A list of expected

1 construction equipment types and numbers per each construction phase of the Project is  
2 provided in Appendix B-3.

3 The Project construction schedule indicates that the maximum level of construction  
4 activities would occur in the third quarter of the first year of construction (approximately  
5 October and November, 2026) due to the combination of dredging, disposal, rock dike  
6 construction, pile driving, wharf deck construction, and construction of the first half of  
7 the WBICTF expansion.

8 **Table 3.9-8: Construction Equipment Maximum Noise Emission Levels**

Equipment Type	Lmax @ 50 feet from Source, dBA	Factor, %
Air Compressor <sup>2</sup>	80	40
Backhoe	80	40
Clam Shovel	93	20
Concrete Mixer Truck	85	40
Concrete Pump Truck	82	20
Crane	85	16
Derrick Barge <sup>1,2</sup>	85	40
Dump Truck	80	50
Excavator <sup>2</sup>	85	40
Flat Bed Truck <sup>2</sup>	84	40
Forklift <sup>1</sup>	85	40
Front End Loader	80	40
Generator	82	50
Grader	85	40
Hoe Ram	90	20
Impact Pile Driver	95	20
Paver	85	50
Pickup Truck	75	40
Pump	81	50
Roller	85	20
Scraper	85	40
Tamper	85	40
Tractor	84	40
Tugboat <sup>1,2</sup>	85	40
Vacuum Street Sweeper <sup>2</sup>	80	10
Vibratory Pile Driver	95	20
Water Truck	84	40
Welder/Torch	74	40

Source: FHWA (2006).

For unavailable noise levels, RCNM levels for similar equipment were assumed.

<sup>1</sup>Port of Long Beach (2011), Pier S Marine Terminal and Back Channel Improvements DEIR, Appendix E Noise.

<sup>2</sup>Equipment associated with dredging and dredged material disposal activities

1 Sound levels from this maximum level of construction were predicted at the nearest  
 2 sensitive receivers to the terminal using the Computer Aided Noise Abatement  
 3 (CadnaA) model (Datakustik, 2022). CadnaA industrial noise calculation procedure  
 4 enables complete noise modeling of complex facilities using sound propagation factors  
 5 as adopted by the International Organization for Standardization (i.e., ISO 9613). On-  
 6 site truck sound levels were modeled using the traffic sound levels and methodologies  
 7 inherent in CadnaA's FHWA TNM module. On-site train and locomotive sound levels  
 8 were modeled using the rail sound levels and methodologies inherent in CadnaA's  
 9 FTA/FRA module. CadnaA considers distance, topography, intervening structures,  
 10 atmospheric attenuation, ground effects, and vegetation when estimating sound levels  
 11 from specific sources at distant receptor locations. Modeled peak-hour daytime  
 12 construction sound levels during this period are presented in Table 3.9-9. Noise model  
 13 receptor locations are displayed in Figure 3.9-2.

14 For the analysis of impacts under CEQA, worst-case construction noise levels were  
 15 compared to the representative ambient noise levels (as shown in Tables 3.9-4 and 3.9-  
 16 5) at each sensitive receiver to identify worst-case increases over ambient levels. As  
 17 shown in Table 3.9-9, daytime peak-hour construction noise levels (Leq) from the  
 18 Proposed Project would reach 59 dBA (at R1 and R6), and the worst-case increase in  
 19 hourly noise levels was estimated to be 4.7 dBA. Under CEQA considerations, none of  
 20 the receptors would experience noise levels exceeding significance thresholds due to  
 21 construction activities.

**Table 3.9-9: CEQA Analysis: Daytime Construction Noise, Proposed Project (hourly Leq, dBA)**

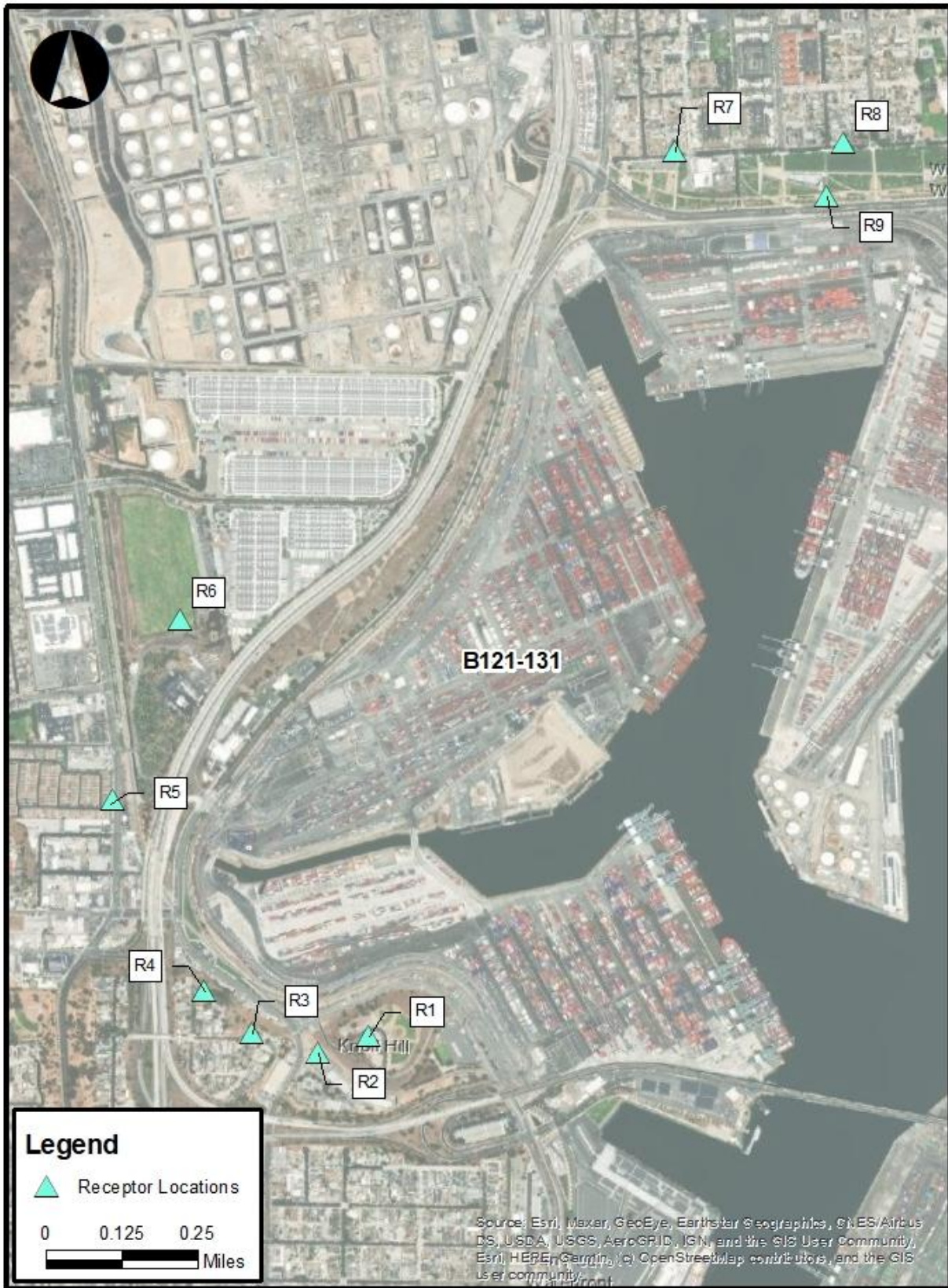
Receiver	Location	Ambient	Project Construction	Overall with Project <sup>1</sup>	Increase over Ambient	Significant Impact?
R1 / LT-1	Knoll Hill	57	59	61	4	N
R2 / ST-1	Harbor Occupational Center	62	54	63	1	N
R3 / ST-2	W MacArthur Ave/ W Elberon Ave Intersection	59	55	61	1	N
R4 / LT-2	557 Shields Drive	65	56	66	1	N
R5 / LT-5	783 Gatun Street (adjacent to Gaffey Street)	72	54	72	0	N
R6 / ST-3	Fields of Dreams Soccer Field	57	54	59	2	N
R7 / LT-3	1211 W Ct Street	59	57	61	2	N
R8 / LT-4	821 C St Unit B	61	54	61	1	N
R9 / ST-4	Wilmington Waterfront Park	69	58	70	0	N

Note: Apparent mathematical discrepancies are a result of rounding resultant levels to the nearest whole number.

<sup>1</sup> Overall with Project is the cumulative level of Project construction + ambient levels.

<sup>3</sup> Ambient values are based on lowest measured levels during daytime hours from Table 3.9-4 and Table 3.9-5.

1 **Figure 3.9-2. Noise Model Receptor Locations**



2

**Table 3.9-10: NEPA Analysis: Daytime Construction Noise, Proposed Project (hourly Leq, dBA)**

Receiver	Location	Ambient	NFA	NEPA Baseline <sup>1</sup>	Overall with Project <sup>2</sup>	Increase over Baseline	Significant Impact?
R1 / LT-1	Knoll Hill	57	57	60	61	1	N
R2 / ST-1	Harbor Occupational Center	62	52	62	63	0	N
R3 / ST-2	W MacArthur Ave/ W Elberon Ave Intersection	59	53	60	61	1	N
R4 / LT-2	557 Shields Drive	65	54	65	66	0	N
R5 / LT-5	783 Gatun Street (adjacent to Gaffey Street)	72	52	72	72	0	N
R6 / ST-3	Fields of Dreams Soccer Field	57	52	58	59	1	N
R7 / LT-3	1211 W Ct Street	59	52	59	61	1	N
R8 / LT-4	821 C St Unit B	61	50	61	61	0	N
R9 / ST-4	Wilmington Waterfront Park	69	53	69	70	0	N

Note: Apparent mathematical discrepancies are a result of rounding resultant levels to the nearest whole number.

<sup>1</sup> NEPA Baseline is the cumulative level of the NFA construction + ambient levels.

<sup>2</sup> Overall with Project is the cumulative level of Project construction + ambient levels.

<sup>3</sup> Ambient values are based on the lowest measured levels during daytime hours from Table 3.9-4 and Table 3.9-5. NFA values are based on modeled construction noise for Alternative 2 NFA.

1 For the analysis of impacts under NEPA, predicted cumulative noise levels with  
2 construction of the Proposed Project were compared to the NEPA baseline noise levels  
3 (i.e., construction of the NFA Alternative plus ambient levels). As shown in Table 3.9-  
4 10, projected increases are all 1 dBA or less. Under NEPA considerations, none of the  
5 receptors would experience noise levels exceeding significance thresholds due to  
6 construction activities.

7 **NOI-1b: Construction activities that could result in noise levels that would exceed**  
8 **the ambient noise level by 5 dBA at noise-sensitive receptors between the hours of**  
9 **9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00**  
10 **p.m. on Saturday, or at any time on Sunday.**

11 Most Project construction would occur primarily during the day, per the restrictions of  
12 the LAHD construction specifications, but dredging is assumed to occur 24 hours per  
13 day, 7 days per week. Equipment types and numbers used during the worst-case  
14 nighttime construction activity are identified in Appendix B-3. For this assessment,  
15 nighttime construction noise impacts at receptors represented by short-term noise  
16 measurements were evaluated using measured ambient levels from the nearest and/or  
17 most representative long-term measurement locations, because nighttime ambient  
18 conditions were not characterized during the short-term measurements.

19 The CEQA analysis (Table 3.9-11) indicates that nighttime peak-hour construction noise  
20 levels (Leq) from the Proposed Project would reach 46 dBA at the worst-affected  
21 location (R9). As shown in Table 3.9-11, the proposed nighttime construction would

1 result in increases over ambient levels of 1 dBA or less. Accordingly, none of the  
 2 receptors would experience construction noise levels exceeding significance thresholds.

3 Because no dredging would occur under the NEPA baseline, the nighttime NEPA  
 4 baseline level would be the same as the existing ambient levels. The NEPA  
 5 consideration of nighttime construction noise impacts would be the same as the CEQA  
 6 consideration, and none of the receptors would experience construction noise levels  
 7 exceeding significance thresholds.

**Table 3.9-11: CEQA Analysis: Nighttime Construction Noise, Proposed Project (hourly Leq, dBA)**

Receiver	Location	Ambient	Project Construction	Overall with Project <sup>1</sup>	Increase over Ambient	Significant Impact?
R1 / LT-1	Knoll Hill	50	43	51	1	N
R2 / ST-1	Harbor Occupational Center	50 <sup>2</sup>	41	50	1	N
R3 / ST-2	W MacArthur Ave/ W Elberon Ave Intersection	50 <sup>2</sup>	42	50	1	N
R4 / LT-2	557 Shields Drive	59	43	59	0	N
R5 / LT-5	783 Gatun Street (adjacent to Gaffey Street)	65	41	65	0	N
R6 / ST-3	Fields of Dreams Soccer Field	50 <sup>2</sup>	41	50	1	N
R7 / LT-3	1211 W Ct Street	51	45	52	1	N
R8 / LT-4	821 C St Unit B	53	42	54	0	N
R9 / ST-4	Wilmington Waterfront Park	53 <sup>2</sup>	46	54	1	N

Note: Apparent mathematical discrepancies are a result of rounding resultant levels to the nearest whole number.

<sup>1</sup> Overall with Project is the cumulative level of Project construction + Ambient levels

<sup>2</sup> Presumed Ambient Noise Level taken from nearest or most representative long-term receiver because nighttime ambient conditions were not measured for short-term receivers.

<sup>3</sup> Ambient values are based on lowest measured levels during nighttime hours from Table 3.9-4.

8 **NOI-1c: Ambient noise level measured at the property line of affected uses (i.e.,**  
 9 **sensitive receptors) that would increase by a CNEL of 3 dBA to or within**  
 10 **‘normally unacceptable’ or ‘clearly unacceptable’ land use categories, or any**  
 11 **increase in CNEL of 5 dBA or greater.**

12 Sources of existing on-site operational noise at the Berths 121-131 Terminal include  
 13 truck activity, train activity (diesel engine noise and the impact of railcars coupling  
 14 together), and container loading and unloading operations. Operations under the  
 15 Proposed Project would include fairly constant noise from container ships, container-  
 16 handling equipment, refrigerated containers, trucks, and locomotives. Short-term,  
 17 intermittent noise may come from the impact of containers being set down, backup  
 18 alarms, truck horns, and the sound of railcars coupling together.

19 Train horns are used when trains traverse the on-site crossing at Knoll Drive.  
 20 Locomotive horns soundings at this crossing are typically brief and were not identified  
 21 as a dominant noise source during the sound level measurements. Given that the train  
 22 horn models assume more standard soundings (15-20 seconds before hitting a crossing),  
 23 a noise model would overestimate train horn noise levels. In addition, overall CNEL

1 sound levels in the project vicinity are currently dominated by noises such as traffic and  
 2 other port activity. Therefore, any increase in CNEL levels due to the increased  
 3 frequency of horn soundings is expected to be minimal and were not modeled. The  
 4 sound levels in Table 3.9-12 would be those perceived inside the terminal; attenuation  
 5 would reduce sound levels perceived outside the terminal (i.e., at sensitive receptors).

6 The major offsite-site operational noise would be generated by trucks hauling containers  
 7 on local roadways. This noise would be added to overall traffic noise and other ambient  
 8 sources.

**Table 3.9-12: Summary of Source Noise Levels from Individual Sources**

Source	Representative Noise Level at 100 feet, dBA	Data Source
Ship-to-Shore Crane	68	1
RTG Crane	74	1
Top Pick	74	1
Yard Tractor (passby)	69	1
Forklift <sup>1</sup>	64	2
Refrigerated Container	56	1
General Cargo Ship <sup>1</sup>	66	2
Switch Engine	71	1
Train <sup>2</sup>	Varies	3
Cargo/Heavy Duty Truck <sup>2</sup>	Varies	3

Sources:

<sup>1</sup> Port of Seattle (2016) Terminal 5 Cargo Wharf Rehabilitation, Berth Deepening, and Improvements FEIS, Appendix B

<sup>2</sup> Port of Long Beach (2011) Pier S Marine Terminal and Back Channel Improvements DEIR, Appendix E Noise,.

<sup>3</sup> CadnaA TNM and FRA noise modules.

9 Offsite noise from additional trains generated by the Proposed Project (Table 2-1) is not  
 10 considered in this analysis because trains would access the Berths 121-131 Terminal via  
 11 the Alameda Corridor, the main rail line connecting the Port Complex with the national  
 12 main lines, near downtown Los Angeles (see Section 2.5.1). The noise impacts of trains  
 13 using that facility were examined in the EIR for the Alameda Corridor (ACTA 1993),  
 14 which concluded that impacts would be less than significant; that analysis was based on  
 15 train volumes that included forecasted future growth in cargo volumes (i.e., train  
 16 numbers). Between the Alameda Corridor and the Berths 121-131 Terminal, trains  
 17 would use a lead track that parallels Harry Bridges Boulevard and joins the Alameda  
 18 Corridor in the vicinity of Anaheim Street. Because this area is predominantly  
 19 commercial and industrial uses, sensitive receptors would not experience increased  
 20 CNEL noise levels that would exceed significance thresholds.

### 21 **Proposed Project Operational Noise CEQA**

22 At full operation in 2055, the Proposed Project's predicted peak-hour daytime noise  
 23 levels (Leq) at the nine receptor locations would range from 49 dBA at R8 to 57 dBA at  
 24 R1, R4, and R9. Predicted peak-hour nighttime noise levels would be the same.

1 The maximum predicted CNEL from operations in 2055 would be 64 dBA at R1, R4,  
 2 and R9 (Table 3.9- 13). The predicted increases in the CNEL at sensitive receptors range  
 3 between 0 and 4 dBA above ambient CNEL levels, with the greatest increase of 4 dBA  
 4 at R1. Under CEQA, none of the receptors would experience noise levels exceeding  
 5 significance thresholds due to full Proposed Project operation.

**Table 3.9- 13: CEQA Analysis: Future (2055) Noise from Operations, Proposed Project (CNEL, dBA)**

Receptor	Receptor Location	Ambient <sup>1</sup>	2055 Project	Overall with Project <sup>2</sup>	Increase over Ambient	Significant Impact?
R1 / LT-1	Knoll Hill	62	64	66	4	N
R2 / ST-1	Harbor Occupational Center	67	62	68	1	N
R3 / ST-2	W MacArthur Ave/ W Elberon Ave Intersection	64	63	66	2	N
R4 / LT-2	557 Shields Drive	71	64	72	1	N
R5 / LT-5	783 Gatun Street (adjacent to Gaffey Street)	77	60	77	0	N
R6 / ST-3	Fields of Dreams Soccer Field	62	60	65	2	N
R7 / LT-3	1211 W Ct Street	64	63	67	3	N
R8 / LT-4	821 C St Unit B	67	56	68	0	N
R9 / ST-4	Wilmington Waterfront Park	73	64	73	1	N

Note: Apparent mathematical discrepancies are a result of rounding resultant levels to the nearest whole number.

<sup>1</sup> CNEL levels for those locations represented by short-term measurements were estimated by comparing the hourly and CNEL levels at the nearest or most representative long-term measurement and making a similar adjustment.

<sup>2</sup> Overall with Project is the cumulative level of 2055 Project operation + ambient levels.

6 The evaluation of traffic-related noise increases along roadways in the project vicinity  
 7 included only those roadway segments that are within 500 feet of a sensitive receiver  
 8 (Appendix D-5). In a busy urban area with multiple major transportation corridors,  
 9 receivers farther than 500 feet from a single road segment would be affected primarily  
 10 by local traffic sources.

11 As shown in Table 3.9-14, a number of roadway segments in the vicinity of the terminal  
 12 currently experience traffic noise levels above 70 dBA CNEL and would continue to  
 13 experience future traffic noise levels above 70 CNEL with full operation in 2055.  
 14 Traffic noise levels above 70 CNEL are considered incompatible with residential uses as  
 15 identified in the Los Angeles City General Noise Element (See Table 3.9-8). However,  
 16 the maximum off-site noise increment resulting from the Proposed Project’s 2055 traffic  
 17 would be 1 dB. Accordingly, under CEQA none of the receptors would experience noise  
 18 level increases exceeding significance thresholds due to traffic related to the Proposed  
 19 Project in 2055.

**Table 3.9-14: CEQA Analysis: Baseline and Predicted Roadway Traffic Noise at 50 feet, Proposed Project (CNEL, dBA)**

Roadway Segment	2019 Baseline <sup>1</sup>	2019 Baseline + 2055 Project	Project Incremental Contribution	Significant Impact?
ALAMEDA ST				
w/o Eubank Ave	82	83	1	N
e/o N Eubank Ave	82	83	1	N
n/o Anaheim St	81	82	0	N
s/o Anaheim St	82	82	1	N
n/o Henry Ford Ave	84	84	0	N
s/o Henry Ford Ave	81	82	0	N
HARRY BRIDGES BLVD				
between Mar Vista Ave and Hawaiian Ave	82	82	1	N
between Hawaiian Ave and Wilmington Blvd	84	84	0	N
between Wilmington Blvd and Neptune Ave	80	81	1	N
between Neptune Ave and Fries Ave	81	82	1	N
between Fries Ave and Avalon Blvd	82	82	1	N
e/o Avalon Blvd	82	83	1	N
e/o Broad Ave	83	84	1	N
e/o Quay Ave	83	84	1	N
JOHN S GIBSON BLVD				
n/o I-110 Ramps	78	79	1	N
FRONT ST				
e/o John S. Gibson	70	70	0	N
n/o I-110 NB on-ramps	74	74	0	N
HARBOR BLVD				
n/o I-110 Harbor/Swinford Ramps	77	77	0	N
s/o I-110 Harbor/Swinford Ramps	72	72	0	N
HENRY FORD AVE				
s/o Denni St	82	82	0	N
n/o Anaheim St	82	82	0	N
s/o Alameda St	84	84	0	N
PACIFIC AVE				
s/o Channel St	72	72	0	N
n/o 1st Street	70	70	0	N
s/o Front Street	71	72	0	N
GAFFEY ST				
n/o Channel St	75	76	0	N
HARBOR FWY (I-110)				
between John S. Gibson Blvd Ramps <sup>1</sup>	84	84	0	N
n/o C Street <sup>1</sup>	85	86	1	N
s/o C Street <sup>1</sup>	86	86	1	N
s/o Channel St <sup>1</sup>	81	81	0	N
I-110 SB Ramp to Gaffey St	73	74	1	N
I-110 SB Ramp to SR-47 EB	77	77	0	N
I-110 SB Ramp to SR-47 EB Ramp	77	78	0	N
TERMINAL ISLAND FWY (SR-47)				

**Table 3.9-14: CEQA Analysis: Baseline and Predicted Roadway Traffic Noise at 50 feet, Proposed Project (CNEL, dBA)**

Roadway Segment	2019 Baseline <sup>1</sup>	2019 Baseline + 2055 Project	Project Incremental Contribution	Significant Impact?
Between N Pacific Ave and N Harbor Blvd <sup>2</sup>	80	81	0	
Vincent Thomas Bridge <sup>1</sup>	82	82	0	N
SR-47 WB Off Ramp to Gaffey St	73	73	0	N
SR-47 EB On Ramp from Gaffey St	73	73	0	N
SR-47 WB Ramp to I-110 NB	78	78	0	N
SR-47 WB On Ramp from Front St	71	71	0	N
SR-47 WB Off Ramp to Front St/Harbor Blvd	70	70	0	N
SR-47 EB Off Ramp to Front St/Harbor Blvd	75	75	0	N
SR-47 EB On Ramp from Front St/Harbor Blvd	73	73	0	N

Note: Apparent mathematical discrepancies are a result of rounding resultant levels to the nearest whole number.

<sup>1</sup> 2019 Baseline noise levels are modeled based on modeled traffic data.

<sup>2</sup> CNEL evaluated at 100 feet instead of 50 feet at this roadway segment.

1 **NEPA**

2 Noise from terminal activities under future Proposed Project conditions would be similar  
 3 to those described above for the CEQA analysis. However, the NEPA baseline noise  
 4 levels would be higher than the CEQA baseline noise levels (2019 ambient conditions)  
 5 because the NEPA baseline accounts for operational growth and completion of the  
 6 WBICTF railyard expansion. Therefore, the increase in noise between Proposed Project  
 7 conditions and NEPA baseline conditions would be less than the increase estimated  
 8 under CEQA.

9 To accurately gauge the increase in sound levels with the Proposed Project in 2055  
 10 compared to Alternative 2 (No Federal Action), the terminal sources are added to the  
 11 existing ambient levels to compare the overall cumulative levels for both Alternative 2  
 12 and the Proposed Project in 2055. As shown in Table 3.9-15, total sound levels with the  
 13 Proposed Project in 2055 would result in a 1 dBA or less increase over ambient levels.  
 14 Under NEPA, none of the receptors would experience noise level increases exceeding  
 15 significance thresholds due to Project activities.

**Table 3.9-15: NEPA Analysis: Predicted NEPA Baseline and Future (2055) Noise from Operations, Proposed Project (CNEL, dBA)**

Receptor	Receptor Location	Ambient <sup>1</sup>	2055 NFA	Overall with NFA <sup>2</sup>	Overall with Project <sup>2</sup> (Table 3.9-13)	Increase over Baseline	Significant Impact?
R1 / LT-1	Knoll Hill	62	63	66	66	0	N
R2 / ST-1	Harbor Occupational Center	67	62	68	68	0	N
R3 / ST-2	W MacArthur Ave/ W Elberon Ave Intersection	64	62	66	66	0	N
R4 / LT-2	557 Shields Drive	71	63	72	72	0	N
R5 / LT-5	783 Gatun Street (adjacent to Gaffey Street)	77	59	77	77	0	N
R6 / ST-3	Fields of Dreams Soccer Field	62	59	64	65	0	N
R7 / LT-3	1211 W Ct Street	64	60	65	67	1	N
R8 / LT-4	821 C St Unit B	67	54	68	68	0	N
R9 / ST-4	Wilmington Waterfront Park	73	60	73	73	0	N

Note: Apparent mathematical discrepancies are a result of rounding resultant levels to the nearest whole number.

<sup>1</sup> CNEL levels for those locations represented by short-term measurements were estimated by comparing the hourly and CNEL levels at the nearest or most representative long-term measurement and making a similar adjustment.

<sup>2</sup> Overall with NFA and Overall with Project include the addition of the ambient levels.

1 Roadway traffic noise under NEPA is presented in Appendix B-5. The Proposed  
 2 Project’s noise increments would be substantially less under NEPA than under CEQA  
 3 (shown in Table 3.9-14) because of the overall increase in future traffic that is part of the  
 4 NEPA baseline. Accordingly, the Proposed Project’s traffic would not cause an increase  
 5 in CNEL noise that would exceed 5 dB at any location.

6 **CEQA Impact Determination**

7 Because construction of the Proposed Project would not increase either daytime or  
 8 nighttime noise levels by 5 dBA or more over ambient background levels at any of the  
 9 receptor locations considered and because noise resulting from Proposed Project  
 10 operations would not cause increases in CNEL noise levels that would exceed 3 dB to or  
 11 within ‘normally unacceptable’ or ‘clearly unacceptable’ land use categories, or any  
 12 increase in CNEL of 5 dBA or greater (Table 3.9- 13), the impacts of the Proposed  
 13 Project would be less than significant with regard to construction and operational noise.

14 Automobile and truck traffic generated by the Proposed Project operations would not  
 15 cause an increase of 3 dB or more at any roadway location (Table 3.9-14). Accordingly,  
 16 the impacts of the Proposed Project’s off-site noise would be less than significant.

17 **Mitigation Measures**

18 No mitigation is required.

19 **Residual Impacts**

20 No impacts would occur.

1                   **NEPA Impact Determination**

2                   Operational CNEL noise associated with the Proposed Project would result in a 1 dBA  
3                   or less increase in noise levels at sensitive receptors, compared to the NEPA baseline  
4                   (Table 3.9-15). Accordingly, impacts on sensitive receptors would be less than  
5                   significant.

6                   Because Project-related increases in automobile and truck traffic on area roadways  
7                   would increase noise levels at adjacent noise sensitive receptors by less than 3 dBA,  
8                   impacts at adjacent noise-sensitive receptors would be less than significant.

9                   ***Mitigation Measures***

10                  No mitigation is required.

11                  ***Residual Impacts***

12                  No impacts would occur.

13                  **NOI-2: Would the Proposed Project result in generation of excessive**  
14                  **groundborne vibration or groundborne noise levels?**

15                  Construction and operation at the terminal would be more than 500 feet from the nearest  
16                  sensitive receivers. Groundborne vibration (and related groundborne noise) dissipates  
17                  rapidly over distance and would be minimal to non-existent at a distance of 500 feet.  
18                  Therefore, the Proposed Project would not result in excessive ground-borne vibration or  
19                  ground-borne noise levels.

20                  **CEQA Impact Determination**

21                  Because construction and operation of the Proposed Project would be minimal to non-  
22                  existent at the nearest sensitive receivers, impacts would be less than significant.

23                  ***Mitigation Measures***

24                  No mitigation is required.

25                  ***Residual Impacts***

26                  No impacts would occur.

27                  **NEPA Impact Determination**

28                  Because construction and operation of the Proposed Project would be minimal to non-  
29                  existent at the nearest sensitive receivers, impacts would be less than significant..

30                  ***Mitigation Measures***

31                  No mitigation is required.

32                  ***Residual Impacts***

33                  No impacts would occur.

34                  **Alternative 1 – No Project**

35                  Alternative 1 is a CEQA-only alternative. The No Project Alternative is not evaluated  
36                  under NEPA because NEPA requires an evaluation of the No Federal Action Alternative  
37                  (see Section 2.9.1.2).

Under Alternative 1, none of the proposed construction activities would occur in water or in water-side or backland areas. No new cranes would be added, the railyard would not be expanded, and no wharf improvements or dredging would occur. The existing Berths 121-131 Terminal would continue to operate in its baseline configuration (Section 2.9.1.1), reaching a total throughput of 1,332,000 TEUs per year.

**Impact NOI-1: Would construction of the No Project Alternative result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

Alternative 1 would not involve any construction activities. Accordingly, no noise would be generated under NOI-1a, or NOI-1b.

**NOI-1c: Ambient noise level measured at the property line of affected uses (i.e., sensitive receptors) that would increase by a CNEL of 3 dBA to or within ‘normally unacceptable’ or ‘clearly unacceptable’ land use categories, or any increase in CNEL of 5 dBA or greater.**

Under Alternative 1, operational noise sources would continue, with increased throughput compared to the CEQA baseline. Increased truck traffic would result in increased activity on Project-area roads.

Operational noise sources would include the intermittent sounds of operations, such as tugboats, container ships, container-yard cargo-handling operations, truck movements, locomotives in the WBICTF, and ongoing terminal-related maintenance activities. Table 3.9-12 summarizes noise from many of these sources. The sound levels in Table 3.9-12 would be those perceived inside the terminal; attenuation would reduce sound levels perceived outside the terminal (i.e., at sensitive receptors).

At full operation in 2055, the No Project Alternative’s predicted peak-hour noise levels (Leq) at the nine sensitive receptors studied in this analysis would be very similar to those of the Proposed Project. Day-time levels would range from 48 dBA at R8 to 57 dBA at R1 and R4. Nighttime levels would range from 48 dBA at R8 to 56 dBA at R1 and R4.

The maximum predicted CNEL noise from operations would be 63 dBA, at R1 and R4 (Table 3.9-16). CNEL at sensitive receptors would increase between 3 dBA or less above ambient levels, with the greatest increase at R1.

**Table 3.9-16: CEQA Analysis: Predicted Future (2055) Noise from Operations, No Project Alternative (CNEL, dBA)**

Receptor	Receptor Location	Ambient <sup>1</sup>	2055 No Project	Overall with No Project <sup>2</sup>	Increase over Ambient	Significant Impact?
R1 / LT-1	Knoll Hill	62	63	66	3	N
R2 / ST-1	Harbor Occupational Center	67	62	68	1	N
R3 / ST-2	W MacArthur Ave/ W Elberon Ave Intersection	64	62	66	2	N
R4 / LT-2	557 Shields Drive	71	63	72	1	N

**Table 3.9-16: CEQA Analysis: Predicted Future (2055) Noise from Operations, No Project Alternative (CNEL, dBA)**

Receptor	Receptor Location	Ambient <sup>1</sup>	2055 No Project	Overall with No Project <sup>2</sup>	Increase over Ambient	Significant Impact?
R5 / LT-5	783 Gatun Street (adjacent to Gaffey Street)	77	60	77	0	N
R6 / ST-3	Fields of Dreams Soccer Field	62	59	64	2	N
R7 / LT-3	1211 W Ct Street	64	60	65	1	N
R8 / LT-4	821 C St Unit B	67	55	68	0	N
R9 / ST-4	Wilmington Waterfront Park	73	61	73	0	N

Note: Apparent mathematical discrepancies are a result of rounding resultant levels to the nearest whole number.

<sup>1</sup> CNEL levels for those locations represented by short-term measurements were estimated by comparing the hourly and CNEL levels at the nearest or most representative long-term measurement and making a similar adjustment.

<sup>2</sup> Overall with No Project is the cumulative level of 2055 No Project operation + ambient levels.

- 1                   The future (2055) No Project traffic was added to the 2019 Baseline traffic to evaluate  
2                   the greatest future traffic CNEL noise increase. As Table 3.9-17 shows, the No Project's  
3                   traffic noise would not result in an increase of 3 dBA or greater at any roadway location.  
4

**Table 3.9-17: CEQA Analysis: Baseline and Predicted Roadway Traffic Noise at 50 feet, No Project Alternative (CNEL, dBA)**

Roadway Segment	2019 Baseline <sup>1</sup>	2019 Baseline + 2055 No Project	No Project Incremental Contribution	Significant Impact?
ALAMEDA ST				
w/o Eubank Ave	82	82	0	N
e/o N Eubank Ave	82	82	0	N
n/o Anaheim St	81	81	0	N
s/o Anaheim St	84	84	0	N
n/o Henry Ford Ave	81	81	0	N
s/o Henry Ford Ave	82	82	0	N
HARRY BRIDGES BLVD				
between Mar Vista Ave and Hawaiian Ave	82	82	0	N
between Hawaiian Ave and Wilmington Blvd	84	84	0	N
between Wilmington Blvd and Neptune Ave	80	80	0	N
between Neptune Ave and Fries Ave	81	82	0	N
between Fries Ave and Avalon Blvd	82	82	0	N
e/o Avalon Blvd	82	82	0	N
e/o Broad Ave	83	83	0	N
e/o Quay Ave	83	83	0	N
JOHN S GIBSON BLVD				
n/o I-110 Ramps	78	79	0	N
FRONT ST				
e/o John S. Gibson	70	70	0	N
n/o I-110 NB on Ramps	74	74	0	Y

**Table 3.9-17: CEQA Analysis: Baseline and Predicted Roadway Traffic Noise at 50 feet, No Project Alternative (CNEL, dBA)**

Roadway Segment	2019 Baseline <sup>1</sup>	2019 Baseline + 2055 No Project	No Project Incremental Contribution	Significant Impact?
HARBOR BLVD				
n/o I-110 Harbor/Swinford Ramps	77	77	0	N
s/o I-110 Harbor/Swinford Ramps	72	72	0	N
HENRY FORD AVE				
s/o Denni St	82	82	0	82
n/o Anaheim St	82	82	0	82
s/o Alameda St	84	84	0	84
PACIFIC AVE				
s/o Channel St	72	72	0	N
n/o 1 <sup>st</sup> Street	70	70	0	N
s/o Front Street	71	71	0	N
GAFFEY ST				
n/o Channel St	75	75	0	N
HARBOR FWY (I-110)				
between John S. Gibson Blvd Ramps <sup>2</sup>	84	84	0	N
n/o C Street <sup>1</sup>	85	85	0	N
s/o C Street <sup>1</sup>	86	86	0	N
s/o Channel St <sup>1</sup>	81	81	0	N
I-110 SB Ramp to Gaffey St	73	73	0	N
I-110 SB Ramp to SR-47 EB	77	77	0	N
I-110 SB Ramp to SR-47 EB Ramp	77	78	0	N
TERMINAL ISLAND FWY (SR-47)				
Between N Pacific Ave and N Harbor Blvd <sup>1</sup>	80	80	0	N
Vincent Thomas Bridge <sup>1</sup>	82	82	0	N
SR-47 WB Off Ramp to Gaffey St	73	73	0	N
SR-47 EB On Ramp from Gaffey St	73	73	0	N
SR-47 WB Ramp to I-110 NB	78	78	0	N
SR-47 WB On Ramp from Front St	71	71	0	N
SR-47 WB Off Ramp to Front St/Harbor Blvd	70	70	0	N
SR-47 EB Off Ramp to Front St/Harbor Blvd	75	75	0	N
SR-47 EB On Ramp from Front St/Harbor Blvd	73	73	0	N

<sup>1</sup> 2019 Baseline noise levels are modeled based on modeled traffic data.

<sup>2</sup> CNEL evaluated at 100 feet instead of 50 feet at this roadway segment.

1 **CEQA Impact Determination**

2 Noise resulting from operation of Alternative 1 would not result in increases in CNEL  
 3 noise of more than 3 dBA (Table 3.9-16). Accordingly, the No Project Alternative’s  
 4 impact with regard to operational noise would be less than significant.

5 Automobile and truck traffic generated by the No Project Alternative would not cause an  
 6 increase of 3 dB or more at any roadway location (Table 3.9-17). Accordingly, the  
 7 impacts of the No Project Alternative’s off-site noise would be less than significant.

1                    ***Mitigation Measures***

2                    No mitigation is required.

3                    ***Residual Impacts***

4                    Impacts would be less than significant.

5                    **NOI-2: Would the No Project Alternative result in generation of**  
6                    **excessive groundborne vibration or groundborne noise levels?**

7                    Operation at the Berths 121-131 Terminal would be more than 500 feet from the nearest  
8                    sensitive receivers. Groundborne vibration (and related groundborne noise) dissipates  
9                    rapidly over distance and would be minimal to non-existent at a distance of 500 feet.  
10                  Therefore, Alternative 1 is not expected to result in excessive ground-borne vibration or  
11                  ground-borne noise levels.

12                  **CEQA Impact Determination**

13                  Because noise from operation of Alternative 1 would be minimal to non-existent at the  
14                  nearest sensitive receivers, impacts would be less than significant.

15                  ***Mitigation Measures***

16                  No mitigation is required.

17                  ***Residual Impacts***

18                  No impacts would occur.

19                  **Alternative 2 – No Federal Action**

20                  Alternative 2, No Federal Action (NFA) is a NEPA-required alternative. This alternative  
21                  includes the activities that would occur absent a federal permit and is described in detail  
22                  in Section 2.9.1.2. No dredging, dredged material disposal, wharf construction, or wharf  
23                  crane installation would occur. However, the expansion of the WBICTF on-dock  
24                  railyard, with installation of RMG cranes, would occur. Construction is assumed to take  
25                  place 6 days per week (Monday through Saturday) except national holidays.  
26                  Construction would be limited to daytime hours only.

27                  The site would continue to operate as a container terminal, reaching its maximum  
28                  capacity of 1,332,000 TEUs by 2055. In this Draft EIS/EIR the NFA Alternative is also  
29                  analyzed under CEQA in order to consider the impacts of construction and operation of  
30                  the landside element (the WBICTF expansion).

31                  **Impact NOI-1: Would the No Federal Action Alternative result in**  
32                  **generation of a substantial temporary or permanent increase in**  
33                  **ambient noise levels in the vicinity of the project in excess of**  
34                  **standards established in the local general plan or noise ordinance,**  
35                  **or applicable standards of other agencies?**

36                  **NOI-1a: Daytime construction activities lasting more than 10 days in a 3-month**  
37                  **period that would exceed existing ambient exterior noise levels by 5 dBA or more**  
38                  **at a noise-sensitive/receptor**

39                  Construction of the WBICTF railyard expansion would involve the equipment shown in  
40                  Table 3.9-18, which shows the maximum noise levels for a variety of construction  
41                  equipment at a reference distance of 50 feet. These reference sound levels are

1 representative of the noise levels that would occur during the noisiest construction  
 2 activities. A list of expected construction equipment types and numbers per each  
 3 construction phase is provided in Appendix B-3.

**Table 3.9-18: Construction Equipment Maximum Noise Emission Levels  
 – No Federal Action Alternative (dBA)**

Backhoe	80	40
Concrete Mixer Truck	85	40
Concrete Pump Truck	82	20
Dump Truck	80	50
Excavator	85	40
Forklift <sup>1</sup>	85	40
Front End Loader	80	40
Grader	85	40
Paver	85	50
Pickup Truck	75	40
Roller	85	20
Tamper	85	40
Water Truck	84	40

Source: FHWA (2006).

For unavailable noise levels, RCNM levels for similar equipment were assumed.

<sup>1</sup>Port of Long Beach, Pier S Marine Terminal and Back Channel Improvements DEIR, Appendix E Noise, 2011.

4 Similar to the assessment of construction noise activities associated with the Proposed  
 5 Project, peak construction activity under the NFA Alternative was modeled using the  
 6 CadnaA noise model. Predicted peak-hour daytime construction noise levels (Leq) from  
 7 the NFA Alternative at the nine sensitive receptors analyzed in this Draft EIS/EIR range  
 8 from 50 dBA at R8 to 57 dBA at R1. The maximum increase over ambient levels would  
 9 be less than 3 dBA, at R1. Accordingly, none of the receptors would experience noise  
 10 levels exceeding significance thresholds due to construction activities.

11 **Table 3.9-19: CEQA Analysis: Daytime Construction Noise, No Federal Action**  
 12 **Alternative (hourly Leq, dBA)**

Receiver	Location	Ambient	NFA Alternative Construction	Overall with NFA Alternative <sup>1</sup>	Increase over Ambient	Significant Impact?
R1 / LT-1	Knoll Hill	57	57	60	3	No
R2 / ST-1	Harbor Occupational Center	62	52	62	0	No
R3 / ST-2	W MacArthur Ave/ W Elberon Ave Intersection	59	53	60	1	No
R4 / LT-2	557 Shields Drive	65	54	66	0	No

Receiver	Location	Ambient	NFA Alternative Construction	Overall with NFA Alternative <sup>1</sup>	Increase over Ambient	Significant Impact?
R5 / LT-5	783 Gatun Street (adjacent to Gaffey Street)	72	52	72	0	No
R6 / ST-3	Fields of Dreams Soccer Field	57	52	58	1	No
R7 / LT-3	1211 W Ct Street	59	52	59	1	No
R8 / LT-4	821 C St Unit B	61	50	61	0	No
R9 / ST-4	Wilmington Waterfront Park	69	53	69	0	No

Note: Apparent mathematical discrepancies are a result of rounding resultant levels to the nearest whole number.

<sup>1</sup> Overall with NFA Alternative is the cumulative level of 2055 NFA Alternative operation + ambient levels.

1                   **NOI-1b: Construction activities that could result in noise levels that**  
2                   **would exceed the ambient noise level by 5 dBA at noise-sensitive**  
3                   **receptors between the hours of 9:00 p.m. and 7:00 a.m. Monday**  
4                   **through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at**  
5                   **any time on Sunday.**

6                   Construction of Alternative 2 would be limited to expansion of the WBICTF and  
7                   installation of RMGs and their electrical infrastructure. All construction would take  
8                   place during the day, six days per week; accordingly, there would be no construction  
9                   noise during the specified nighttime hours.

10                   **NOI-1c: Ambient noise level measured at the property line of affected uses (i.e.,**  
11                   **sensitive receptors) that would increase by a CNEL of 3 dBA to or within**  
12                   **‘normally unacceptable’ or ‘clearly unacceptable’ land use categories, or any**  
13                   **increase in CNEL of 5 dBA or greater.**

14                   Under Alternative 2, operational noise sources would continue, with increased throughput  
15                   compared to the CEQA baseline. Increased truck and automobile traffic would result in  
16                   increased activity on Project-area roads and rail corridors.

17                   Operational noise sources would include the intermittent sounds of operations, such as  
18                   tugboats, container ships, container-yard cargo-handling operations, truck movements,  
19                   locomotives in the WBICTF, and ongoing terminal-related maintenance activities. Table  
20                   3.9-12 summarizes noise from many of these sources. The sound levels displayed in  
21                   Table 3.9-12 would be those perceived inside the terminal; attenuation would reduce  
22                   sound levels perceived outside the terminal (i.e., at sensitive receptors).

23                   At full operations, in 2055, the NFA Alternative’s predicted peak-hour noise levels  
24                   (L<sub>eq</sub>) at the nine sensitive receptors studied in this analysis would be very similar to  
25                   those of the Proposed Project. Daytime levels would range from 48 dBA at R8 to 57  
26                   dBA at R1 and R4. Nighttime levels would range from 48 dBA at R8 to 56 dBA at R1  
27                   and R4.

28                   At full operation in 2055, the NFA Alternative’s maximum predicted CNEL noise  
29                   would be 63 dBA (Table 3.9-20). The predicted increase in CNEL at sensitive receptors  
30                   would range from 0 dB to 3 dB above ambient, with the greatest increase at R1.

1 Accordingly, none of the receptors would experience noise levels exceeding significance  
 2 thresholds due to operation of the NFA Alternative.

3 **Table 3.9-20: CEQA Analysis: Baseline and Predicted Future (2055) CNEL Noise from**  
 4 **Operations, No Federal Action Alternative (dBA)**

Receptor	Receptor Location	Ambient <sup>1</sup>	2055 NFA Alternative	Overall with NFA Alternative <sup>2</sup>	Increase over Ambient	Significant Impact?
R1 / LT-1	Knoll Hill	62	62	65	3	N
R2 / ST-1	Harbor Occupational Center	67	61	68	1	N
R3 / ST-2	W MacArthur Ave/ W Elberon Ave Intersection	64	62	66	2	N
R4 / LT-2	557 Shields Drive	71	62	72	1	N
R5 / LT-5	783 Gatun Street (adjacent to Gaffey Street)	77	59	77	0	N
R6 / ST-3	Fields of Dreams Soccer Field	62	59	64	1	N
R7 / LT-3	1211 W Ct Street	64	58	65	1	N
R8 / LT-4	821 C St Unit B	67	53	68	0	N
R9 / ST-4	Wilmington Waterfront Park	73	59	73	0	N

Note: Apparent mathematical discrepancies are a result of rounding resultant levels to the nearest whole number.

<sup>1</sup> CNEL levels for those locations represented by short-term measurements were estimated by comparing the hourly and CNEL levels at the nearest or most representative long-term measurement and making a similar adjustment.

<sup>2</sup> Overall with NFA Alternative is the cumulative level of 2055 NFA Alternative operation + ambient levels.

5 The future (2055) NFA Alternative’s traffic was added to the 2019 Baseline traffic to  
 6 evaluate the greatest future traffic noise increase. As shown in Table 3.9-21, the NFA  
 7 Alternative’s traffic noise would not generate an incremental increase of 3 dB or greater  
 8 at any roadway location.

9 **Table 3.9-21: CEQA Analysis: Baseline and Predicted Roadway Traffic Noise at 50 feet,**  
 10 **No Federal Action Alternative (CNEL, dBA)**

Roadway Segment	2019 Baseline <sup>1</sup>	2019 Baseline + 2055 NFA Alternative	NFA Alternative Incremental Contribution	Significant Impact?
ALAMEDA ST				
w/o Eubank Ave	82	82	0	No
e/o N Eubank Ave	82	82	0	No
n/o Anaheim St	81	81	0	No
s/o Anaheim St	84	84	0	No
n/o Henry Ford Ave	81	81	0	No
s/o Henry Ford Ave	82	82	0	No
HARRY BRIDGES BLVD				0
between Mar Vista Ave and Hawaiian Ave	82	82	0	No
between Hawaiian Ave and Wilmington Blvd	84	84	0	No
between Wilmington Blvd and Neptune Ave	80	80	0	No
between Neptune Ave and Fries Ave	81	82	0	No
between Fries Ave and Avalon Blvd	82	82	0	No
e/o Avalon Blvd	82	82	0	No

Roadway Segment	2019 Baseline <sup>1</sup>	2019 Baseline + 2055 NFA Alternative	NFA Alternative Incremental Contribution	Significant Impact?
e/o Broad Ave	83	83	0	No
e/o Quay Ave	83	83	0	No
JOHN S GIBSON BLVD				
n/o I-110 Ramps	78	79	1	No
FRONT ST				
e/o John S. Gibson	70	70	0	No
n/o I-110 NB on Ramps	74	74	0	No
HARBOR BLVD				
n/o I-110 Harbor/Swinford Ramps	77	77	0	No
s/o I-110 Harbor/Swinford Ramps	72	72	0	No
HENRY FORD AVE				
s/o Denni St	82	82	0	No
n/o Anaheim St	82	82	0	No
s/o Alameda St	84	84	0	No
PACIFIC AVE				
s/o Channel St	72	72	0	No
n/o 1st Street	70	70	0	No
s/o Front Street	71	71	0	No
GAFFEY ST				
n/o Channel St	75	76	0	No
HARBOR FWY (I-110)				
between John S. Gibson Blvd Ramps <sup>2</sup>	84	84	0	No
n/o C Street <sup>1</sup>	85	85	0	No
s/o C Street <sup>1</sup>	86	86	0	No
s/o Channel St <sup>1</sup>	81	81	0	No
I-110 SB Ramp to Gaffey St	73	74	0	No
I-110 SB Ramp to SR-47 EB	77	77	0	No
I-110 SB Ramp to SR-47 EB Ramp	77	78	0	No
TERMINAL ISLAND FWY (SR-47)				
Between N Pacific Ave and N Harbor Blvd <sup>1</sup>	80	80	0	No
Vincent Thomas Bridge <sup>1</sup>	82	82	0	No
SR-47 WB Off Ramp to Gaffey St	73	73	0	No
SR-47 EB On Ramp from Gaffey St	73	73	0	No
SR-47 WB Ramp to I-110 NB	78	78	0	No
SR-47 WB On Ramp from Front St	71	71	0	No
SR-47 WB Off Ramp to Front St/Harbor Blvd	70	70	0	No
SR-47 EB Off Ramp to Front St/Harbor Blvd	75	75	0	No
SR-47 EB On Ramp from Front St/Harbor Blvd	73	73	0	No

<sup>1</sup> 2019 Baseline noise levels are modeled based on modeled traffic data.

<sup>2</sup> CNEL evaluated at 100 feet instead of 50 feet at this roadway segment.

1

2

1                   **CEQA Impact Determination**

2                   Construction of Alternative 2 would not result in an increase of more than 5 dB above  
3                   ambient noise levels at any noise-sensitive receptor and would not generate nighttime  
4                   noise. Operation of the NFA Alternative would not cause increases in noise levels that  
5                   would exceed 3 dB at any receptor location considered. Accordingly, impacts of  
6                   operation of the NFA Alternative would be less than significant.

7                   Automobile and truck traffic generated by Alternative 2 would not cause an increase of  
8                   3 dB or more at any roadway location. Accordingly, the impacts of Alternative 2's off-  
9                   site noise would be less than significant.

10                  ***Mitigation Measures***

11                  No mitigation is required.

12                  ***Residual Impacts***

13                  Impacts would be less than significant.

14                  **NEPA Impact Determination**

15                  The NFA Alternative would have the same operational conditions as the NEPA baseline,  
16                  as explained in Section 2.7.2. Accordingly, there would be no incremental difference  
17                  between Alternative 2 and the NEPA baseline, and Alternative 2 would have no impact  
18                  under NEPA.

19                  ***Mitigation Measures***

20                  No mitigation is required.

21                  ***Residual Impacts***

22                  No impacts would occur.

23                  **NOI-2: Would Alternative 2 result in generation of excessive**  
24                  **groundborne vibration or groundborne noise levels?**

25                  Construction and operation at the terminal would be more than 500 feet from the nearest  
26                  sensitive receivers. Groundborne vibration (and related groundborne noise) dissipates  
27                  rapidly over distance and would be minimal to non-existent at a distance of 500 feet.  
28                  Therefore, the Project is not expected to result in excessive ground-borne vibration or  
29                  ground-borne noise levels,

30                  **CEQA Impact Determination**

31                  Because noise from construction and operation of Alternative 2 would be minimal to  
32                  non-existent at the nearest sensitive receivers, impacts would be less than significant.

33                  ***Mitigation Measures***

34                  No mitigation is required.

35                  ***Residual Impacts***

36                  Impacts would be less than significant.

37                  **NEPA Impact Determination**

38                  The NFA Alternative would have the same construction as the NEPA baseline, as  
39                  explained in Section 2.7.2. Accordingly, there would be no incremental difference

1 between Alternative 2 and the NEPA baseline, and Alternative 2 would have no impact  
2 under NEPA.

3 ***Mitigation Measures***

4 No mitigation is required.

5 ***Residual Impacts***

6 No impacts would occur.

7 **3.9.4.4 Summary of Impact Determinations**

8 Table 3.9-22 summarizes the CEQA and NEPA impact determinations of the Proposed  
9 Project and its alternatives related to noise. This table is meant to identify the potential  
10 impacts of the Proposed Project and alternatives with respect to this resource. Identified  
11 potential impacts may be based on federal, state, or City significance criteria; LAHD  
12 criteria; and the scientific judgment of the report preparers.

13 For each impact threshold, the table describes the impact, notes the CEQA and NEPA  
14 impact determinations, describes any applicable mitigation measures, and notes the  
15 residual impacts (i.e., the impact remaining after mitigation). All impacts, whether  
16 significant or not, are included in this table.

17 **3.9.5 Significant Unavoidable Impacts**

18 Construction and operation of the Proposed Project, the No Project Alternative, and the  
19 No Federal Action Alternative would not result in sound levels exceeding the City of  
20 Los Angeles' thresholds for significance, and no significant noise impacts would occur.

**Table 3.9-22: Summary Matrix of Impacts and Mitigation Measures for Noise Associated with the Proposed Project and Alternatives**

Alternative	Environmental Impacts	Impact Determination	Mitigation Measures*	Residual Impacts After Mitigation*
Proposed Project	<b>NOI-1:</b> Would the Proposed Project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	CEQA: Less than significant	CEQA: No mitigation is required	CEQA: Less than significant
		NEPA: Less than significant	NEPA: No mitigation is required	NEPA: Less than significant
	<b>NOI-2:</b> Would the Proposed Project result in generation of excessive groundborne vibration or groundborne noise levels?	CEQA: Less than significant	CEQA: No mitigation is required	CEQA: Less than significant
		NEPA: Less than significant	NEPA: No mitigation is required	NEPA: Less than significant
Alternative 1 - No Project	<b>NOI-1:</b> Would Alternative 1 result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	CEQA: Less than significant impact	CEQA: No mitigation is required	CEQA: Less than significant impact
		NEPA: Not applicable	NEPA: Not applicable	NEPA: Not applicable
	<b>NOI-2:</b> Would construction of the Alternative 1 result in generation of excessive groundborne vibration or groundborne noise levels?	CEQA: Less than significant impact	CEQA: No mitigation is required	CEQA: Less than significant impact
		NEPA: Not applicable	NEPA: Not applicable	NEPA: Not applicable
Alternative 2 - No Federal Action	<b>NOI-1:</b> Would construction of Alternative 2 result in daytime construction activities lasting more than 10 days in a 3-month period that would exceed existing ambient exterior noise levels by 5 dBA or more at noise-sensitive receptors?	CEQA: Less than significant	CEQA: No mitigation is required	CEQA: Less than significant
		NEPA: No impact	NEPA: No mitigation is required	NEPA: No impact

**Table 3.9-22: Summary Matrix of Impacts and Mitigation Measures for Noise Associated with the Proposed Project and Alternatives**

Alternative	Environmental Impacts	Impact Determination	Mitigation Measures*	Residual Impacts After Mitigation*
	<b>NOI-2:</b> Would construction of Alternative 2 result in generation of excessive groundborne vibration or groundborne noise levels?	CEQA: Less than significant	CEQA: No mitigation is required	CEQA: Less than significant
		NEPA: No impact	NEPA: No mitigation is required	NEPA: No impact

\*Notes: Mitigation measures apply only for the Proposed Project and No Federal Action (Alternative 2). Therefore, residual impacts after mitigation are also only applicable for these alternatives.