3.9

NOISE

3.9.1 Introduction

This section provides a discussion of the regulatory and environmental setting for noise as it pertains to the proposed Project and its alternatives, an evaluation of potential noise impacts from construction and operation, level of significance of proposed Project noise exposure, and, where applicable, potential noise mitigation measures.

Technical acoustical terms commonly used in this section are defined in Table 3.9-1.

3.9.2 Environmental Setting

3.9.2.1 Noise Fundamentals

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound can be caused by its *pitch* or its *loudness*. *Pitch* is the height or depth of a tone or sound, depending on the relative rapidity (frequency) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. *Loudness* is the amplitude of sound waves combined with the reception characteristics of the ear. Amplitude may be compared with the height of an ocean wave—it has an oscillating high and low point. Technical acoustical terms commonly used in this section are defined in Table 3.9-1.

Table 3.9-1. Definitions of Acoustical Terms

Term	*Definition*
Decibel (dB)	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20 micro Pascals.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micro Pascals (or micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels. Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency (Hertz [Hz])	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sounds are below 20 Hz and ultrasonic sounds are above 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 average A-weighted noise level during the measurement period. The hourly L_{eq} used for this report is denoted as dBA $L_{eq[h]}$.
Community Noise Equivalent Level (CNEL)	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and after addition of 10 decibels to sound levels in the night between 10:00 p.m. and 7:00 a.m.
Day/Night Noise Level (L_{dn})	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 p.m. and 7:00 a.m.
L_{01}, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time 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	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.

3.9.2.1.1 Decibels and Frequency

In addition to the concepts of pitch and loudness, there are several noise measurement scales which are used to describe noise. The *decibel (dB)* is a unit of measurement that indicates the relative amplitude of a sound. Zero on the decibel scale is based on the lowest sound pressure that a healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a 10-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its level.

Each 10-decibel increase in sound level is perceived as approximately a doubling of loudness over a wide range of amplitudes. Since decibels are logarithmic units, sound pressure levels are not added arithmetically. When two sounds of equal sound pressure level are added, the result is a sound pressure level that is 3 dB higher. For example, if the sound level were 70 dB when 100 cars pass by, then it would be 73 dB when 200 cars pass the observer. Doubling the amount of energy would result in a 3 dB increase to the sound level.

Frequency relates to the number of pressure oscillations per second, or *Hertz (Hz)*. The range of sound frequencies that can be heard by healthy human ears is from about 20 Hz at the low frequency end to 20,000 Hz (20 kilohertz [kHz]) at the high frequency end.

There are several methods for characterizing sound. The most common is the *A-weighted sound level,* or *dBA*. This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Studies have shown that the A-weighted level is closely correlated with annoyance to traffic noise. Other frequency weighting networks, such as *C weighting,* or *dBC*, have been devised to describe noise levels for specific types of noise (e.g., explosives). Table 3.9-2 shows typical A-weighted noise levels that occur in human environments.

Table 3.9-2. Typical Noise Levels in the Environment

Common Outdoor Noise Source	*Noise Level (dBA)*	*Common Indoor Noise Source*
	120 dBA	
Jet fly-over at 300 meters		Rock concert
	110 dBA	
Pile driver at 30 meters	100 dBA	
		Night club with live music
	90 dBA	
Large truck passes by at 15 meters		
	80 dBA	Noisy restaurant
		Garbage disposal at 1 meter
Gas lawn mower at 30 meters	70 dBA	Vacuum cleaner at 3 meters
Commercial/Urban area daytime		Normal speech at 1 meter
Suburban expressway at 90 meters	60 dBA	
Suburban daytime		Active office environment
	50 dBA	
Urban area nighttime		Quiet office environment
	40 dBA	

Common Outdoor Noise Source	*Noise Level (dBA)*	*Common Indoor Noise Source*
Suburban nighttime		
Quiet rural areas	30 dBA	Library
		Quiet bedroom at night
Wilderness area	20 dBA	
	10 dBA	Quiet recording studio
Threshold of human hearing	0 dBA	Threshold of human hearing

3.9.2.1.2 Noise Descriptors

Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations is utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This energy-equivalent sound/noise descriptor is called L_{eq}. A common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration. The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within approximately plus or minus 1 dBA. Two metrics describe the 24-hour average, L_{dn} and CNEL. Both include penalties for noise during the nighttime, but CNEL also penalizes noise during the evening. CNEL and L_{dn} are normally within 1 dBA of each other and are used interchangeably in this section.

3.9.2.1.3 Human Response to Noise

Studies have shown that under controlled conditions in an acoustics laboratory, a healthy human ear is able to discern changes in sound levels of 1 dBA. In the normal environment, the healthy human ear can detect changes of about 2 dBA; however, it is widely accepted that changes of 3 dBA in the normal environment are considered just noticeable to most people. A change of 5 dBA is readily perceptible, and a change of 10 dBA is perceived as being twice as loud.

Noise and Health

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 2005). 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. Acute sounds of $L_{AF} > 120$ dB can cause mechanical damage to hair cells of the cochlea (the auditory portion of the inner ear) and cause hearing impairment (Babisch 2005). As discussed in Section 3.9.2.1.1, $L_{AF} > 120$ dB is equivalent to a rock concert or a plane flying overhead at 300 meters. The World Health Organization and the EPA consider $L_{Aeq} = 70$ dBA to be a safe daily average noise level for the ear. However, even this "ear-safe" level may cause disturbance to sleep and concentration and may be linked to chronic health impacts such as hypertension and heart disease (Babisch 2006). A number of studies have looked at the potential health effects from the sound of chronic lower noise levels, such as traffic, especially as these noise levels affect children. In as study of school children in Germany, blood pressure was found to be 10 mmHg higher in a group of students exposed to road traffic noise from high traffic transit routes (Babisch 2006). A study by Kwanda (2004) showed that in pregnant women, exposure to airplane noise was found to be associated with decreased fetal body weight.

3.9.2.1.4 Sound Propagation

When sound propagates over a distance, it changes in both level and frequency content. The manner in which noise is reduced with distance depends on the following important factors.

Geometric spreading. Sound from a single source (i.e., a *point* source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates (or drops off) at a rate of 6 dBA for each doubling of distance. Highway noise is not a single, stationary source of sound. The movement of vehicles on a highway makes the source of the sound appear to emanate from a line (i.e., a *line* source) rather than from a point. This results in cylindrical spreading rather than the spherical spreading resulting from a point source. The change in sound level from a line source is 3 dBA per doubling of distance.

Ground absorption. Usually the noise path between the source and the observer is very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation because of geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is done for simplification only; for distances of less than 60 meters (300 feet), prediction results based on this scheme are sufficiently accurate. For acoustically hard sites (i.e., sites with a reflective surface, such as a parking lot or a smooth body of water) between the source and the receiver, no excess ground attenuation is assumed. For acoustically absorptive, or soft, sites (i.e., sites with an absorptive ground surface, such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dBA per doubling of distance is normally assumed. When added to the geometric spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dBA per doubling of distance for a line source and 7.5 dBA per doubling of distance for a point source.

Atmospheric effects. Research by Caltrans and others has shown that atmospheric conditions can have a major effect on noise levels. Wind has been shown to be the single most important meteorological factor within approximately 150 meters (500 feet), whereas vertical air temperature gradients are more important over longer distances. Other factors, such as air temperature, humidity, and turbulence, also have major effects. Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lower noise levels. Increased sound levels can also occur because of temperature inversion conditions (i.e., increasing temperature with elevation).

Shielding by natural or human-made features. A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by this shielding depends on the size of the object, proximity to the noise source and receiver, surface weight, solidity, and the frequency content of the noise source. Natural terrain features (such as hills and dense woods) and human-made features (such as buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receiver specifically to reduce noise. A barrier that breaks the line of sight between a source and a receiver will typically result in at least 5 dB of noise reduction. A higher barrier may provide as much as 20 dB of noise reduction.

3.9.2.2 Existing Noise Environment

3.9.2.2.1 Existing Noise Measurements

On three separate days during the daytime hours in November 2007, short-term noise measurements were taken at 15 measurements sites around the Port and the surrounding neighborhoods of San Pedro in order to establish the existing ambient noise profile in the vicinity of the Port of Los Angeles. There were three objective reasons for choosing a measurement site. First, measurement sites were chosen near noise sensitive land uses that would potentially be impacted by proposed project-related noise. Noise-sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Noise-sensitive land uses typically include residences, hospitals, schools, guest lodging, libraries, and certain types of passive recreational uses. Noise sensitive land uses within 500 feet of the project site include:

- residences and hotels along Harbor Boulevard, Via Cabrillo Marina, Crescent Avenue, and Shoshonean Road;
- passive parks such as John S. Gibson Jr. Park;
- live-aboards in the Cabrillo Way Marina;
- YWCA of the Harbor area, which includes a day care center at 100 W. 5th Street; and
- churches such as the Norwegian Seaman's Church on 1035 South Beacon Street.

The measurements obtained represent the existing baseline noise level for all nearby sensitive receivers and are used as a basis for comparison when determining noise impacts affecting those receivers. Second, measurement sites were chosen because they were near current or future project-related noise generating sources. In the case of existing noise sources, the close proximity of the measurement site to the noise source provided an opportunity to quantify the noise energy emanating from the source, and the metrics obtained from the noise measurement was subsequently used in the analysis to determine noise impacts caused by the noise generator at various distances from the source. In some cases, measurement sites were near both the sensitive receivers and the noise source. Lastly, some of the measurement sites were also chosen to provide a representative sampling of various locations scattered throughout the district of San Pedro in order to provide adequate noise-measurement coverage and to estimate the variability of noise levels within the vicinity of the Port.

A Brüel & Kjær Model 2236 automated digital noise acquisition system and sound meter was used to measure the noise levels. The sound meter was mounted on a tripod, and large windscreen covered the sound meter's microphone to dampen the effect of unwanted wind-generated noise. For each measurement site, 20 minutes of data were collected and stored internally within the sound meter for subsequent downloading and post-processing on a computer. Both before and after each set of measurements were taken, a Brüel & Kjær calibrator with calibrations traceable to the National Institute of Standards and Technology was used to calibrate the sound meter to ensure that the sound levels were accurately measured. Data samples were collected at 1-second intervals. At the conclusion of each set of measurements, the L_{eq}, L_{min}, L_{max}, L10, L50 and L90 noise descriptors for the full 20-minute time period were recorded on a data log and then the internal buffer on the sound meter was reset to prepare it for recording noise levels at the next measurement site. Prevailing weather conditions at each site were noted along with any other factors that might adversely alter the quality of the noise measurements.

Starting on January 18, 2008 and ending on January 19, 2008 long-term (24+ hour) measurements were taken at two locations near the harbor. The same set of procedures that was used to conduct the short-term measurements was also used for conducting the long-term measurements, except the long-term measurements were unattended during their measurement period. At the completion of all noise measurements, a comprehensive data analysis was undertaken to identify and quantify distinct noise events that had been witnessed to occur during the measurement period. Requisite statistical metrics that were not initially output by the sound meter during the measurement cycle were then calculated from the data. The results of those measurements are displayed in Table 3.9-3, and the locations are displayed in Figure 3.9-1.

It should be noted that since nothing within the proposed project area has changed substantially between December 2006 and January 2008 that would cause the noise environment to change significantly, all noise measurements that were gathered for the analysis of this report provide an accurate portrayal of the noise environment in the district of San Pedro as it existed in December 2006. Because December 2006 represents the baseline date, the noise measurements displayed in Table 3.9-3 will represent the baseline ambient noise levels.

Table 3.9-3. Short-Term and Long-Term Noise Measurement Data (dBA)

Site	*Location*	*Date*	*Time*	L_{max}	L_{min}	$L_{(1)}$	$L_{(10)}$	$L_{(50)}$	$L_{(90)}$	L_{eq}
ST-1	At the north end of Palos Verdes Street where it ends in a cul-de-sac	11/13/2007	11:23	74.0	60.0	70.0	67.5	65.0	63.0	65.7
ST-2	At the corner of Harbor Boulevard and 3rd Street	11/13/2007	11:56	82.9	47.7	76.8	72.0	65.5	56.5	68.3
ST-3	At the corner of Beacon Street and 1st Street	11/13/2007	12:31	78.9	48.0	70.4	64.5	58.0	53.0	61.6
ST-4	At the corner of Beacon Street and 12st Street	11/13/2007	13:35	83.6	48.7	71.5	64.0	56.0	51.0	62.6
ST-5	At the corner of Beacon Street and 9th Street	11/13/2007	14:04	80.7	50.6	71.6	65.5	58.5	53.5	62.4
ST-6	On Harbor Boulevard in front of the Sunrise Hotel	11/16/2007	11:11	89.2	55.4	79.5	74.0	64.5	57.5	70.4
ST-7	At the corner of 17th Street and Crescent Avenue	11/16/2007	12:09	81.2	44.5	71.8	63.0	53.5	46.5	60.7
ST-8	Near the 6th Street/Downtown Waterfront Red Car Station	11/16/2007	12:40	74.2	51.0	70.0	62.5	57.5	53.5	60.2
ST-9	Under the Vincent Thomas Bridge near the Catalina terminus building	11/16/2007	13:26	82.1	62.4	78.8	76.0	72.0	68.5	73.3
ST-10	At the south end of Beacon Street before it merges into Crescent Avenue	11/16/2007	15:20	71.5	48.1	64.8	58.5	52.5	50.0	55.8
ST-11	At the south end of Ports O'Call adjacent to a grass field	11/16/2007	14:48	67.0	50.1	64.4	56.0	52.5	51.0	54.9
ST-12	On O'Farrell Street west of Beacon Street adjacent to the Caltrans Lot.	11/28/2007	11:46	84.5	54.0	71.6	62.0	58.5	56.0	62.1
ST-13	Near the south end of Miner Street	11/28/2007	12:23	73.4	42.7	65.0	54.0	49.0	44.5	53.9

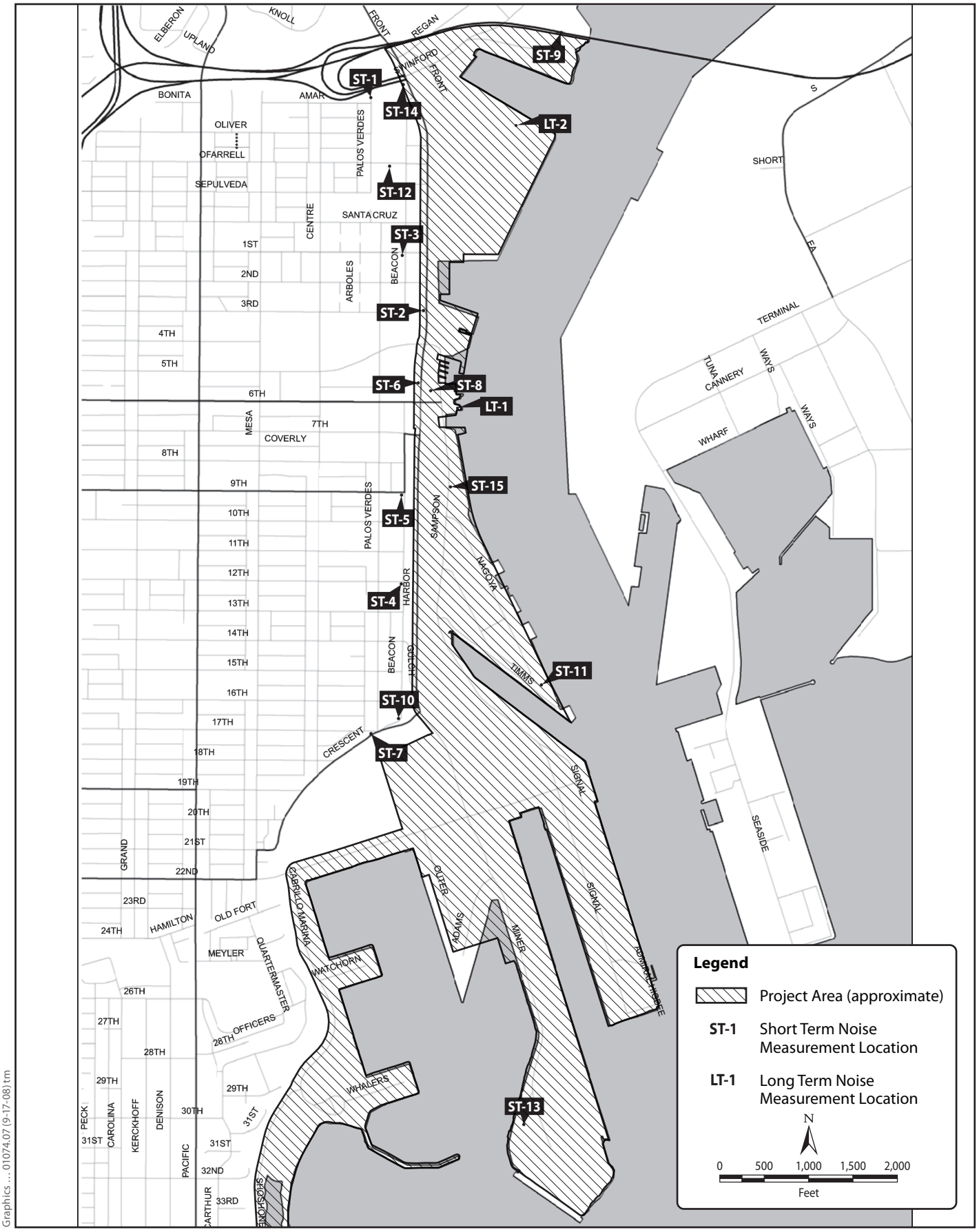

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Figure 3.9-1
Short-Term Measurement Locations

Site	*Location*	*Date*	*Time*	L_{max}	L_{min}	$L_{(1)}$	$L_{(10)}$	$L_{(50)}$	$L_{(90)}$	L_{eq}
ST-14	On a walkpath near the corner of Swinford Street and Harbor Boulevard	11/28/2007	13:51	80.0	61.7	77.2	73.0	68.5	65.0	70.2
ST-15	On Sampson Way near the Fisherman's Seafood Restaurant	11/28/2007	14:35	77.2	52.1	70.7	65.0	59.0	55.0	62.0
LT-1	On the rooftop of the Los Angeles Maritime Museum	01/18/2008–01/19/2008	11:27–16:27	89.4	48.0	68.7	61.5	57.6	53.2	60.3
LT-2	On the rooftop of the Terminal 93 building	01/18/2008–01/19/2008	11:07–17:46	83.5	53.1	67.9	64.8	62.5	55.9	62.6

Mapped locations shown in Figure 3.9-1 are described in the following paragraphs.

ST-1: At the north end of Palos Verdes Street

Site ST-1 is located in a residential area on the south side of a chain-link fence at the north end of Palos Verdes Street where the street ends in a cul-de-sac prior to reaching Swinford Street. A clear view of the Vincent Thomas Bridge could be seen to the east. This site is about 20 feet higher in elevation than Swinford Street. Even though Palos Verdes Street does not experience much traffic, the large volume of traffic traveling along Swinford Street accounts for the majority of noise measured at this site. Because of its close proximity to Swinford Street, the L_{eq} at ST-1 was 65.7 dBA. This is about 3 dB greater than what was measured for similar neighborhoods. A loud car passed by and generated an L_{max} of 74.0 dBA.

ST-2: At the corner of Harbor Boulevard and 3rd Street

Site ST-2 is located at the northwestern corner of Harbor Boulevard and 3rd Street, adjacent to the south end of an apartment complex. Because this site is right next to Harbor Boulevard, the measured noise levels were higher than at Site ST-1. Harbor Boulevard experiences a high volume of trucks, buses, and cars. All of these contributed to the background noise which was measured as having an L_{eq} of 68.3 dBA. Despite the fact that the average noise level was high, the L_{min} was 47.7 dBA. The times of relative quiet were due to the traffic lulls on Harbor Boulevard.

ST-3: At the corner of Beacon Street and 1st Street

Site ST-3 is offset to the west from Harbor Boulevard by one short city block. Measurements were taken near the southwestern corner of 1st Street and Beacon

Street in front of an apartment complex. The 1st Street and Beacon Street intersection was not extremely busy, but a portion of Harbor Boulevard was still visible from this measurement site despite being obstructed by buildings that were interspersed between Harbor Boulevard and Beacon Street. The traffic traveling along Harbor Boulevard accounts for most of the noise occurring at this site. The loudest noise at this site was 78.9 dBA; it emanated from a truck traveling along Harbor Boulevard as it passed 1st Street. Since the distance of the centerline of Harbor Boulevard to Site ST-2 was much greater than the distance to Site ST-3, the sound level at ST-3 was significantly lower than what was measured at Site ST-2. The L_{eq} at this site was 61.6 dBA.

ST-4: At the corner of Beacon Street and 12th Street

The southwestern corner of Beacon Street and 12th Street was the location for Site ST-4. This section of Beacon Street was not extremely busy with traffic, but Harbor Boulevard traffic could still be heard despite the fact that Harbor Boulevard was behind a cliff and 30 feet lower in elevation than the measurement site. A passing SUV generated an L_{max} of 83.6 dBA. A mother and her three children walked past the meter on two occasions, but the noise contribution was not significant. A helicopter flew near the site on three separate occasions and was audible, but not loud. The L_{eq} at this site, which was 62.6 dBA, was close to that which was measured at Site ST-3 (61.6 dBA).

ST-5: Just north of the Healthview Physical Rehabilitation Center

North of the Healthview Physical Rehabilitation Center on 9th Street just west of Beacon Street is where noise measurements were taken for Site ST-5. This site was located about 1,000 feet north of Site ST-4 on Beacon Street. The L_{eq} at this site, which was 62.4 dBA, differed from the L_{eq} at Site ST-4 by only 0.2 dB. The similarity between the L_{eq} noise levels measured at these two sites is consistent with the fact that the topography and traffic flow of these two sites was also very similar. Just like Site ST-4, the loudest noise occurring at his site was generated by a passing SUV; it generated an L_{max} value of 80.7 dB. There appeared to be more pedestrian activity in the vicinity of this site than at Site ST-4, presumably due to the proximity of this site to the rehabilitation center; however, since most of the pedestrians didn't actually come close to the sound meter, their impact on the measured sound level was not significant.

ST-6: In front of the Sunrise Hotel

The location of measurement Site ST-6 was on the sidewalk in front of the Sunrise Hotel on the west side of Harbor Boulevard. This site was very noisy due to the large volume of traffic that was traveling along Harbor Boulevard; this site had the highest maximum noise level of any of the measurement sites. An L_{max} value of 89.2 dBA

recorded at this site was due to a very large, heavy truck that was traveling along Harbor Boulevard and passed by the sound meter. This site also has the largest spread between the L_{min} and L_{max} values of any of the sites measured; the difference between the minimum and maximum values is 33.8 dB. The nearly constant stream of traffic on Harbor Boulevard produced an average sound level of 70.4 dBA.

ST-7: At the corner of 17th Street and Crescent Avenue

Noise measurements were taken for Site ST-7 where 17th Street and Crescent Avenue cross at an acute angle on the western corner of the intersection, adjacent to a residence. Crescent Avenue is not a main thoroughfare for traffic, so the measured L_{eq} of 60.7 dBA is consistent with the low traffic flow that was observed at this site. Traffic passing through the Crescent Avenue and 17th Street intersection had to stop at a stop sign. Numerous pickup trucks were observed traveling along Crescent Avenue, and one of them produced the maximum noise level of 81.2 dBA as it passed by.

ST-8: Near the 6th Street/Downtown Waterfront Red Car Station

Noise measurements were taken for Site ST-8 about 30 feet north of the 6th Street/ Downtown Waterfront Red Car station in front of a chain link fence facing the train tracks. The traffic noise that emanated from Harbor Boulevard was attenuated by the presence of the American Merchant Marines Veterans Memorial due to the obstructed view of Harbor Boulevard. During the measurement period, two Waterfront Red Car trains passed by the sound meter; one train was traveling north, and the other was traveling south. The crossing bell signaled the arrival of the northbound train, and it produced a momentary noise level of 70.6 dBA. The train horn sounded and produced the maximum noise level of 72.5 dBA. The northbound train arrived at the 6th Street station and departed. As the northbound train was leaving the station, the southbound train arrived at the station. The total time that the trains were close enough to the sound meter to register noise levels above the ambient background noise was a little less than 2 minutes. During that 2-minute period, the average noise level from all sources reached 65.4 dBA. During the remaining 18 minutes when there were no trains nearby, the noise level averaged 58.9 dBA. While the trains were passing, the noise level increased by almost 7 dB above what had existed without the trains being present. The averaged net effect of the train noise over the 20-minute measurement period was significantly lower than 7 dB, however, due to the fact that trains were near the sound meter only 10% of the time. The combined effect of 18 minutes without train noise and 2 minutes with train noise produced an average noise level of 60.2 dBA. The presence of the train effectively raised the average noise level by about 1.3 dB above ambient levels.

ST-9: Under the Vincent Thomas Bridge

Site ST-9 was located in a parking lot directly under the Vincent Thomas Bridge near the Catalina Terminus Building. There was a constant stream of vehicles flowing across the bridge, and the sound of the traffic streaming overhead constituted the predominate source of noise at this site. The sound of traffic crossing the bridge made a distinctively different sound than vehicles traveling on a highway. In addition to the noise resulting from the contact of the tire rubber with the top surface of the bridge, the whole bridge shook and rattled. This site was also located close to a helicopter pad, so when the helicopters took off and landed, they could be heard as well. However, the higher noise levels generated by the bridge effectively masked most of the helicopter noise. This site had the highest average noise level of all the measurement sites; the L_{eq} was 73.3 dBA. This site also had the highest minimum noise level with an L_{min} value of 62.4 dBA.

ST-10: At the south end of Beacon Street

At the far southwestern end of Beacon Street just prior to where it curves west and merges into Crescent Avenue was the location of Site ST-10. This section of the road was under temporary construction. Measurements at this site were started, but a construction crew began moving heavy equipment near the sound meter, so noise measurements had to be stopped. Once the construction crew had gone home for the day, the measurements were repeated. This section of road was not well traveled, and there weren't many vehicles that passed by during the measurement period. This site was somewhat breezy. The Goodyear Blimp flew near the site, but it did not make a significant noise impact. The measured L_{eq} was 48.1 dBA. Despite being so close to the road, the sound meter recorded an L_{max} of only 71.5 dBA.

ST-11: At the south end of the Ports O'Call

Measurement Site ST-11 was located at the south end of the Ports O'Call near the Jankovich Fueling Station in front of a chain link fence adjacent to a grass field. There was not much traffic noise except that from a car that was driving through the parking lot; it generated an L_{max} of 67.0. A car alarm also went off briefly and was audible, though it wasn't loud. Birds were chirping, and a helicopter and airplane were heard as well. This site had the second-lowest average noise level. The lack of activity around this site translated into a quiet L_{eq} of 54.9 dBA.

ST-12: On O'Farrell Street west of Beacon Street

Site ST-12 is in a residential area between Beacon Street and Palos Verdes Street on the north side of O'Farrell Street. This site was in front of a chain link fence that overlooked the Caltrans lot below. The Vincent Thomas Bridge was visible to the northeast. O'Farrell Street slopes upward to the west, so the elevation of this site was higher than Harbor Boulevard. A pickup truck passed by the sound meter, producing

an L_{max} of 84.5 dBA. A car across the street from the sound meter sounded its horn three times during the measurement period. These honks generated momentary sound levels of about 65 dBA. A train was heard in the distance, but the noise it generated did not stand out above the prevailing noise levels. The average noise level at this site was consistent with other sites that were similarly situated with respect to Harbor Boulevard. The L_{eq} was 62.1 dBA.

ST-13: Near the south end of Miner Street

Site ST-13 is located just west of Miner Street near the far south end of the Port of Los Angeles near the San Pedro Boatworks, about 50 feet east of several storage sheds. This was the quietest of all sites measured because this site was far away from highly traveled roads and only infrequently did cars drive by on Miner Street. This low-activity environment produced an L_{eq} of 53.9 dBA and an L_{min} of 42.7 dBA. Since the waterfront was not too far from the measurement site, seagulls could be heard. A brief burst of laughter from a person near one of the docked boats was audible, but the noise it generated was not significantly higher than most of the other distinct sounds that occurred during the measurement period. A helicopter flew directly over the measurement site, momentarily altering the sound level and producing an L_{max} of 73.4 dBA.

ST-14: Near the corner of Swinford Street and Harbor Boulevard

On a walk path near the corner of Swinford Street and Harbor Boulevard was the location of Site ST-14. There was a high percentage of heavy trucks seen traveling along Swinford Street, and one of them generated the L_{max} of 80.0. Since Swinford Street accepts traffic that exits off the Harbor Freeway as well as traffic that is destined for the Vincent Thomas Bridge, there was a constant supply of vehicles traveling along this roadway. This site had the second highest minimum noise level with an L_{min} of 61.7 dBA. The L_{eq} at this site was 70.2 dBA.

ST-15: On Sampson Way near the Fisherman's Seafood Restaurant

Noise measurements were taken for Site ST-15 about 50 feet north of the Fisherman's Seafood Restaurant and about 370 feet east of Harbor Boulevard on the east side of Sampson Way. Samson Way is the street that leads into the Ports O'Call, and although Sampson Way didn't experience a high volume of traffic during the measurement period, the interarrival time between passing cars wasn't long. A pickup truck motoring along Sampson Way produced an L_{max} of 77.2 dBA as it passed the sound meter. Other ambient noises included a man on a loudspeaker, seagulls, a helicopter, and music from the Fisherman's Seafood Restaurant. The volume of the music was not perceived as being louder than passing vehicles at their closest approach, so it was not possible to estimate the noise contribution of the

music to the total overall noise level. The L_{eq}, which was 62.0 dBA at this site, was not significantly different from the average noise level at similarly busy measurement sites.

LT-1: On the rooftop of the Los Angeles Maritime Museum

Site LT-1 was located just east of the access door on the rooftop of the Los Angeles Maritime Museum. The sound meter was set up around 11:37 a.m. of January 18. The weather was clear. The meter was retrieved on January 19 at 4:26 p.m. Around 4:12 p.m. on January 19, the Norwegian Star departed from Berth 92 and blew its horn. The sound of the horn was measured at 76.3 dBA. No other significant noise events were witnessed during the setup and retrieval period. The sound meter recorded an L_{max} of 89.4 dBA at 8:46 p.m. on January 18. It is unknown what the source of the noise was. The quietest period, 48.0 dBA, was at 2:04 a.m. on January 19. Noise measurements were taken for close to 29 hours, and for that time period the L_{eq} registered 60.3 dBA. This value is only 0.1 dB different than the noise value measured at ST-8, which is about 320 feet away from LT-1. For the 24-hour time period between 12 p.m. on January 18 through 12 p.m. on January 19, the CNEL at this location was 64.8 dBA.

LT-2: On the rooftop of the Terminal 93 Building

Site LT-2 was located about 200 feet northwest of the southeast access stairs on the rooftop of the Terminal 93 building. This site is adjacent to where the cruise ships dock at Berth 93. During the measurement period, a cruise ship arrived at Berth 93 and departed, and another one arrived but did not depart prior to the conclusion of the measurement period due to a significant delay in the ship's schedule. An L_{max} of 83.5 dBA was recorded at 5:38 p.m. on January 18. The Monarch of the Seas was in port at Berth 93 during this period, and it departed in the evening of January 18. It is not known what actually caused this L_{max}, but its timing does correspond with the departure time of the ship. The graph of the hourly noise level at Site LT-2 shows that the L_{eq} dropped from about 65 dBA to 57 dBA between the hours of 5:00 and 6:00 p.m. and remained at this level until around 7:00 a.m. the following morning, when the L_{eq} rose to about 65 dBA. These changes in noise level correspond with the departure and arrival times of the cruise ships. An L_{min} of 53.1 dBA was recorded at 3:14 a.m. on January 19. The L_{eq} that was recorded during the measurement period registered 62.6 dBA. For the 24-hour time period between 12:00 p.m. on January 18 through 10:00 p.m. on January 19, the CNEL at this location was 65.9 dBA.

A graph of the noise metrics for the two long-term measurement sites is shown in Figure 3.9-2 and Figure 3.9-3. These graphs show the noise metrics plotted on an hourly basis for a 28-hour period. The 28-hour time period was chosen because it contains the greatest number of whole hours starting at the hour during the time interval where the sound meters at both measurement Sites LT-1 and LT-2 were recording data.

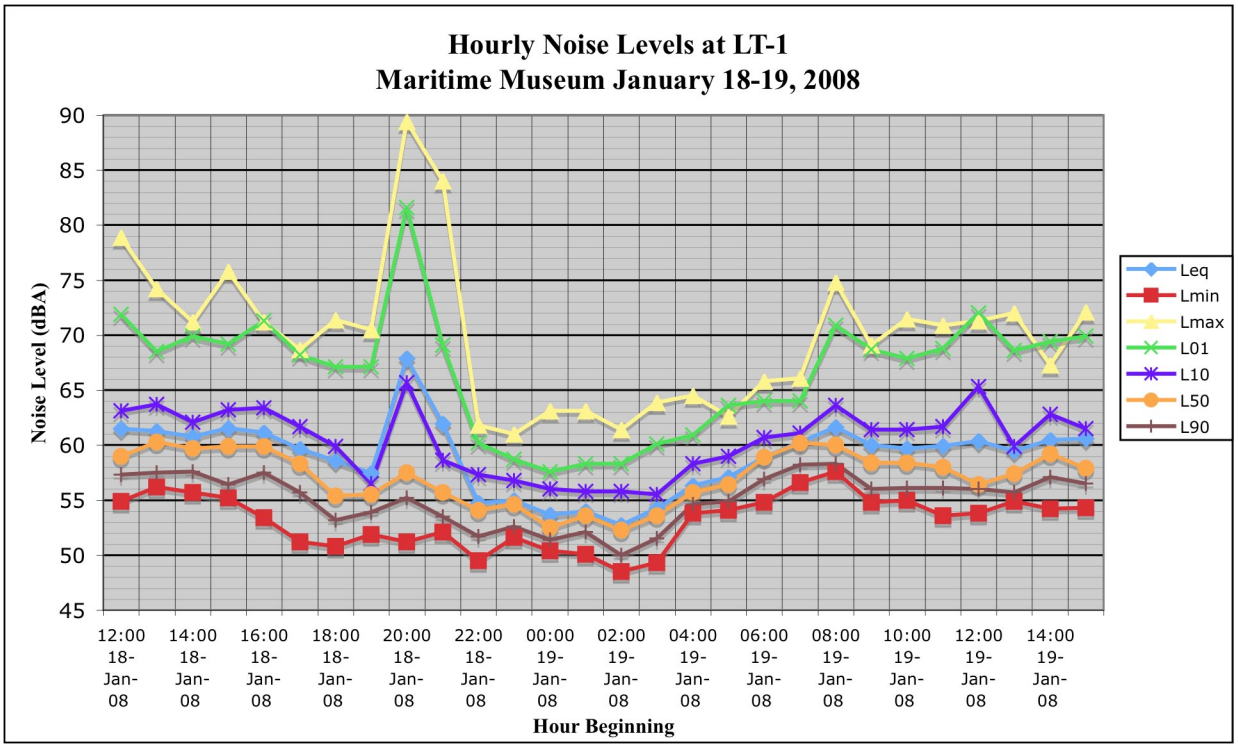

Figure 3.9-2
Hourly Noise Levels at LT-1

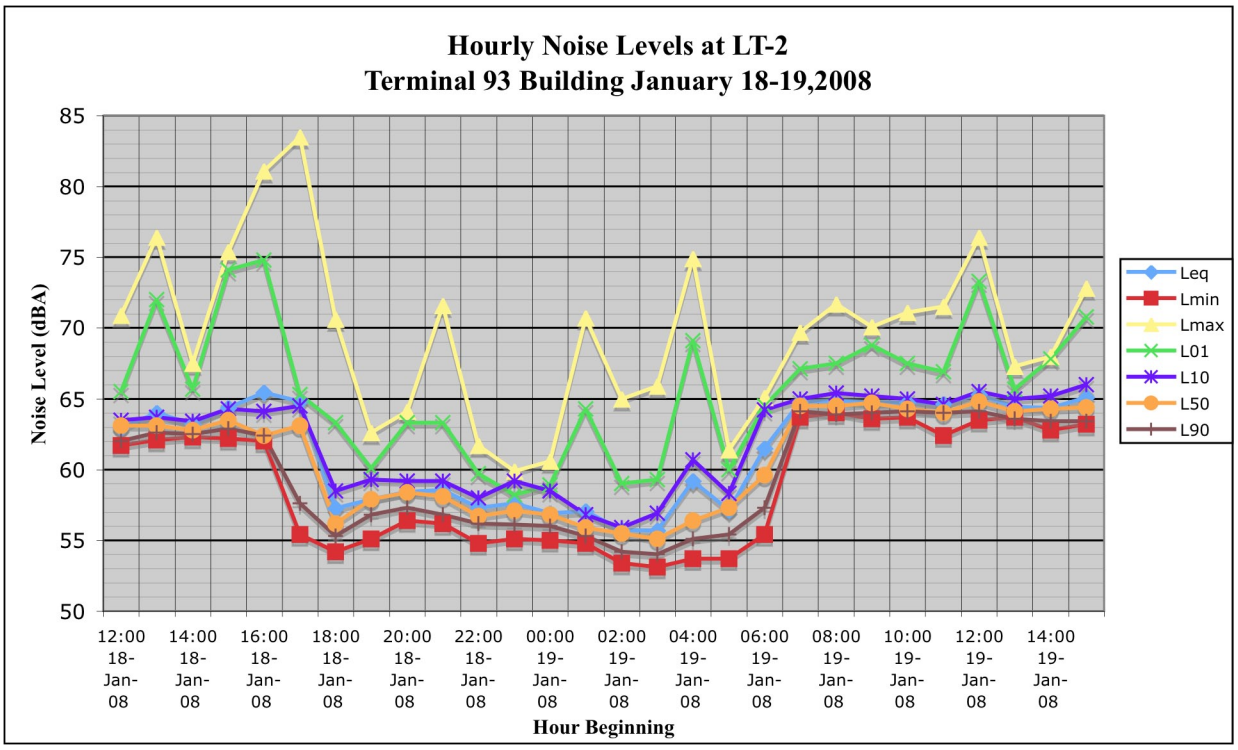

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Figure 3.9-3
Hourly Noise Levels at LT-2

3.9.2.2.2 Existing Roadway Noise Levels

The highway noise levels projected in this section were computed using the Traffic Noise Model (TNM Version 2.5) computer program. The TNM program uses traffic volume by vehicle type, vehicle speed, roadway geometry, and terrain type to compute the L_{eq}. To obtain the existing noise level using the CNEL metric, the traffic volumes that were input into the TNM program were appropriately scaled such that the resulting predicted output noise levels generated by TNM would automatically be CNEL instead of L_{eq}. Traffic volumes were computed from the existing weekday peak AM turning movements contained in the May 2008 San Pedro Waterfront Traffic Study supplied by Fehr & Peers/Kaku Associates (Appendix M) for 36 intersections in the vicinity of San Pedro. The existing CNEL noise levels along those roadway segments at 50 feet from the centerline of the roadway are shown in Table 3.9-4. ADT is also provided in Appendix K.

Table 3.9-4. Modeled Existing Roadway Traffic Noise Levels

Roadway Segment	*Speed (mph)*	*Existing ADT*	*Existing CNEL @ 50 ft*
1st Street			
East of Harbor Boulevard	30	513	52.9
Harbor Boulevard to Centre Street	30	1,388	56.8
Centre Street to Pacific Avenue	30	4,213	61.4
Pacific Avenue to Grand Avenue	30	5,500	62.5
Grand Avenue to Gaffey Street	30	6,738	63.5
Gaffey Street to Cabrillo Avenue	30	19,863	68.0
3rd Street			
East of Harbor Boulevard	30	0	N/A
Harbor Boulevard to Centre Street	30	2,013	58.3
5th Street			
East of Harbor Boulevard	30	538	56.1
Harbor Boulevard to Centre Street	30	5,838	62.8
Centre Street to Pacific Avenue	30	5,850	62.8
Pacific Avenue to Grand Avenue	30	4,675	61.8
Grand Avenue to Gaffey Street	30	6,363	63.1
Gaffey Street to Cabrillo Avenue	30	8,138	64.1
6th Street			
Sampson Way to Harbor Boulevard	30	1,450	56.6
Harbor Boulevard to Centre Street	30	1,938	58.2

Roadway Segment	*Speed (mph)*	*Existing ADT*	*Existing CNEL @ 50 ft*
Centre Street to Pacific Avenue	30	2,500	59.2
Pacific Avenue to Grand Avenue	30	2,038	58.3
Grand Avenue to Gaffey Street	30	2,638	59.3
Gaffey Street to Cabrillo Avenue	30	2,513	59.1
7th Street			
Sampson Way to Harbor Boulevard	30	0	52.6
Harbor Boulevard to Centre Street	30	5,550	62.6
Centre Street to Pacific Avenue	30	2,850	59.8
Pacific Avenue to Grand Avenue	30	3,275	60.4
Grand Avenue to Gaffey Street	30	5,850	62.8
Gaffey Street to Cabrillo Avenue	30	8,413	64.2
9th Street			
Centre Street to Pacific Avenue	35	4,075	62.7
Pacific Avenue to Grand Avenue	35	7,475	65.2
Grand Avenue to Gaffey Street	35	10,150	66.5
Gaffey Street to Patton Avenue	35	13,625	67.8
Patton Avenue to Western Avenue	35	7,288	65.1
Western Avenue to Chandeleur Drive	35	7,238	65.1
13th Street			
Centre Street to Pacific Avenue	25	2,863	58.7
Pacific Avenue to Grand Avenue	25	5,350	61.4
Grand Avenue to Gaffey Street	25	10,325	64.0
Gaffey Street to Meyler Street	25	11,413	64.6
17th Street			
Centre Street to Pacific Avenue	35	3,400	61.8
Pacific Avenue to Grand Avenue	35	6,563	64.5
Grand Avenue to Gaffey Street	35	5,688	64.0
Gaffey Street to Meyler Street	35	6,813	64.9
19th Street			
Mesa Street to Pacific Avenue	35	2,150	59.9
Pacific Avenue to Grand Avenue	35	2,813	61.0
Grand Avenue to Gaffey Street	35	4,750	63.3
Gaffey Street to Meyler Street	35	8,350	65.7

Roadway Segment	*Speed (mph)*	*Existing ADT*	*Existing CNEL @ 50 ft*
22nd Street			
Signal Place to Miner Street	25	2,000	57.3
Miner Street to Via Cabrillo Marina	25	8,626	63.4
Via Cabrillo Marina to Mesa Street	25	8,263	63.2
Mesa Street to Pacific Avenue	25	9,038	63.4
Pacific Avenue to Grand Avenue	25	5,538	61.5
Grand Avenue to Gaffey Street	25	6,425	62.0
Gaffey Street to Meyler Street	25	1,550	56.3
25th Street			
Gaffey Street to Patton Avenue	35	10,713	66.8
Patton Avenue to Western Avenue	35	13,075	67.6
Western Avenue to Moray Avenue	35	14,463	68.0
110 Freeway			
Harbor Boulevard On Ramp	50	8,100	69.6
Gaffey Street On Ramp	50	51,075	77.6
Crescent Avenue			
Sampson Way to Harbor Boulevard	30	0	48.6
Harbor Boulevard to 20th Street	30	4,475	61.7
Gaffey Street			
Miraflores Avenue to Summerland Avenue	35	21,600	69.8
Summerland Avenue to 110 Freeway	35	17,588	69.4
110 Freeway to Sepulveda Street	35	67,150	74.5
Sepulveda Street to 1st Street	35	62,988	74.3
1st Street to 3rd Street	35	43,613	72.8
3rd Street to 5th Street	35	41,925	72.6
5th Street to 6th Street	35	37,638	72.2
6th Street to 7th Street	35	36,588	72.0
7th Street to 8th Street	35	32,438	71.6
8th Street to 9th Street	35	31,813	71.5
9th Street to 11th Street	35	29,138	71.0
11th Street to 13th Street	35	29,388	71.2
13th Street to 15th Street	35	25,700	70.5
15th Street to 17th Street	35	22,050	69.8

Roadway Segment	*Speed (mph)*	*Existing ADT*	*Existing CNEL @ 50 ft*
17th Street to 18th Street	35	19,000	69.3
18th Street to 19th Street	35	18,513	69.1
19th Street to 20th Street	35	15,038	68.3
20th Street to 22nd Street	35	14,675	68.1
22nd Street to 23rd Street	35	14,975	68.2
23rd Street to 25th Street	35	13,475	67.7
25th Street to 26th Street	35	6,438	64.6
Gulch Road			
Harbor Boulevard to Beacon Street	25	1,500	55.9
Front Street			
Pacific Avenue to Knoll Drive	35	4,588	63.1
Knoll Drive to 110 Freeway	35	8,325	65.8
Harbor Boulevard			
110 Freeway to Swinford Street	35	16,338	68.6
Swinford Street to Beacon Street	35	28,625	70.9
Beacon Street to O'Farrell Street	35	31,700	71.4
O'Farrell Street to Santa Cruz Street	35	30,550	71.3
Santa Cruz Street to 1st Street	35	27,013	70.8
1st Street to 2nd Street	35	25,663	70.5
2nd Street to 3rd Street	35	24,400	70.3
3rd Street to 5th Street	35	23,801	70.2
5th Street to 6th Street	35	20,763	69.6
6th Street to 7th Street	35	18,775	69.2
7th Street to Gulch Road	35	13,213	67.7
Gulch Road to Crescent Avenue	35	12,975	67.5
Miner Street			
Crescent Avenue to 22nd Street	35	8,944	66.0
South of 22nd	35	975	57.0
O'Farrell Street			
Harbor Boulevard to Centre Street	25	1,575	56.2
Pacific Avenue			
Channel Street to Front Street	35	22,775	70.1
Front Street to Oliver Street	35	19,263	69.3

Roadway Segment	*Speed (mph)*	*Existing ADT*	*Existing CNEL @ 50 ft*
Oliver Street to 1st Street	35	18,950	69.3
1st Street to 3rd Street	35	21,488	69.7
3rd Street to 5th Street	35	20,863	69.6
5th Street to 6th Street	35	21,351	69.7
6th Street to 7th Street	35	21,694	69.8
7th Street to 8th Street	35	21,888	69.8
8th Street to 9th Street	35	20,688	69.6
9th Street to 11th Street	35	18,888	69.2
11th Street to 13th Street	35	17,050	68.7
13th Street to 15th Street	35	15,188	68.2
15th Street to 17th Street	35	13,238	67.6
17th Street to 18th Street	35	10,950	66.9
18th Street to 19th Street	35	8,888	66.0
19th Street to 20th Street	35	8,875	66.0
20th Street to 22nd Street	35	9,213	66.1
22nd Street to 23rd Street	35	12,763	67.2
Summerland Avenue			
110 Freeway to Gaffey Street	35	9,475	65.9
Gaffey Street to Summerland Avenue	35	11,750	67.0
Swinford Street			
Front Street to Harbor Boulevard	35	1,525	60.5
Harbor Boulevard to 110 Freeway	35	19,725	68.9
Via Cabrillo Marina			
South of 22nd Street	35	2,500	60.5
Western Avenue			
Bynner Drive to 9th Street	35	24,425	70.3
9th Street to 19th Street	35	27,825	70.9
19th Street to 25th Street	35	14,050	68.0
25th Street to Paseo del Mar	35	5,388	63.8

Table 3.9-4 shows the major noise corridors in the area occur along 1st Street, 3rd Street, 5th Street, 6th Street, 7th Street, 9th Street, 13th Street, 17th Street, 19th Street, 22nd Street, 25th Street, 110 Freeway, Crescent Avenue, Gaffey Street, Gulch Road,

Front Street, Harbor Boulevard, Miner Street, O'Farrell Street, Pacific Avenue, Summerland Avenue, Swinford Street, Via Cabrillo Marina, and Western Avenue.

3.9.3 Applicable Regulations

The *L.A. CEQA Thresholds Guide* (City of Los Angeles 2006) includes the following checklist questions regarding environmental noise impacts:

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

b) Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

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

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above the 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?

Significance criteria for this project are based upon questions a, c, and d from the *L.A. CEQA Thresholds Guide.* This includes impacts resulting from construction activities and impacts resulting from operation during each stage of construction and operation of the proposed Project. Question b deals with vibration impacts on people. Construction, specifically pile driving, would generate vibration, but no features of the proposed Project or alternatives would generate significant levels of vibration. Pile driving would typically need to occur within 50 feet of residential or other sensitive areas to be felt as "distinctly perceptible." This is based on a vibration significance threshold level of 0.24 inches/second at the receptor and a typical source vibration level of 0.644 in/sec at 25 feet per the Caltrans *Transportation and Construction Induced Vibration Guidance Manual* (June 2004). The nearest sensitive use to pile driving would be the North Harbor construction, which would be no closer than 220 feet to a residential area. Therefore, vibration impacts would not be an issue for the proposed Project and its alternatives, and it is not addressed further in this document. Questions e and f are not applicable to this assessment. Background information is presented in the following paragraphs regarding applicable or related regulations adopted by the City of Los Angeles or other agencies.

3.9.3.1 City of Los Angeles Municipal Code

Section 41.40 of the City of Los Angeles Municipal Code establishes when construction work is prohibited. The Municipal Code section states the following:

> No person shall between the hours of 9:00 pm and 7:00 am of the following day perform any construction or repair work of any kind upon or any excavating for, any building or structure, where any of the foregoing entails the use of any power-driven drill, driven machine, excavator, or any other machine, tool, device, or equipment which makes loud noises to the disturbance of persons occupying sleeping quarters in any dwelling, hotel, or apartment or other place of residence. In addition, the operation, repair or servicing of construction equipment and the jobsite delivering of construction materials in such areas shall be prohibited during the hours herein specified. Any person who knowingly and willfully violates the foregoing provision shall be deemed guilty of a misdemeanor punishable as elsewhere provided in this code.

The code section then provides certain provisions for exceptions and exemptions. Chapter 11 of the Municipal Code sets forth noise regulations, including regulations applicable to construction noise impacts. Section 112.05 establishes maximum noise levels for powered equipment or powered hand tools. This section states:

> Between the hours of 7:00 am and 10:00 pm in any residential zone of the City or within 500 feet thereof, no person shall operate or cause to be operated any powered equipment or powered hand tool that produces a maximum noise level exceeding the following noise limits at a distance of 50 feet there from (a) 75 dBA for construction, industrial and agricultural machinery including crawler tractors, dozers, rotary drills and augers, loaders, power shovels, cranes, derricks, motor graders, paving machines, off-highway trucks, ditchers, trenchers, compactors, scrapers, wagons, pavement breakers, depressors, and pneumatic or other powered equipment; (b) 75 dBA for powered equipment of 20 horsepower or less intended for infrequent use in residential areas including chain saws, log chippers, and powered hand tools; and (c) 65 dBA for powered equipment intended for repetitive use in residential areas including lawn mowers, backpack mowers, small lawn and garden tools, and riding tractors.
>
> The noise limits for particular equipment listed above in (a), (b) and (c) shall be deemed to be superseded and replaced by noise limits for such equipment from and after their establishment by final regulations adopted by the Federal Environmental Protection Agency and published in the Federal Register.
>
> Said noise limitations shall not apply where compliance therewith is technically infeasible. The burden of proving that compliance is technically infeasible shall be upon the person or persons charged with a violation of this section. Technical infeasibility shall mean that said noise limitations cannot be complied with despite the use of mufflers, shields, sound barriers, and/or other noise reduction device and techniques during the operation of the equipment.

The Municipal Code specifies ambient noise levels that cannot be exceeded by more than 5 dB at adjacent properties by a number of sources including radios, television sets, air conditioning equipment, certain powered equipment, and automotive repair.

Any noise levels caused by these uses which exceeds the ambient noise level on the premises of any other occupied property by more than 5 dB is a violation of the code. The limiting noise levels vary by land use and are found in Section 111.03 of the Municipal Code. The more critical limit applies to residential zones and the presumed ambient noise levels are 50 dBA (L_{eq}) during the day (7 a.m. to 10 p.m.) and 40 dBA (L_{eq}) during the night (10 p.m. to 7 a.m.).

The Municipal Code does restrict the use of audible signaling devices of the type commonly used on ships. Section 114.04 of the code reads as follows:

> It shall be unlawful for any person, within any residential zone of the City or within 500 feet thereof, to sound, blow, or operate and audible signaling device, including sequential airhorns or electronically operated vehicular loud speaker music devices, which can be heard for a distance greater than 200 feet for any purpose.

3.9.3.2 Los Angeles Noise Element of the General Plan

The Noise Element of the City of Los Angeles General Plan provides a broad perspective of the noise issues throughout the city and identifies goals, policies, and implementation measures to guide future actions by the City. The Noise Element identifies the freight train activities associated with the Los Angeles and Long Beach Harbors as a major noise generator in the City. It also points out that, generally, train noise is buffered from sensitive noise uses by surrounding industrial, warehouse, and commercial uses.

The Noise Element identifies NEPA and CEQA as the primary regulations that guide environmental assessments in the City. CEQA requires that mitigation measures be incorporated into the proposed Project to avoid or minimize significant impacts to the maximum extent feasible.

Under the Goals, Objectives, and Policies chapter of the Noise Element, Objective 1 is to "reduce airport and harbor related noise impacts." No specific measures or further discussion relating to harbor operations is provided in this chapter. However, the following chapter in the Noise Element, Chapter IV—Implementation, identifies specific implementation policies for the Los Angeles Harbor. Implementation program P2 applies to both airports and the harbor and states:

> Noise abatement, mitigation and compatibility measures shall be incorporated into the city's general plan airport and harbor elements, including, where feasible, sound proofing of impacted sensitive uses, buffering, land use reconfiguration, modification of associated circulation and transportation systems, modification of operational procedures, conversion or phasing out of uses that are incompatible with airport or harbor uses, and/or other measures designed to reduce airport and harbor related noise impacts on adjacent communities.

3.9.4 Impacts and Mitigation Measures

3.9.4.1 Methodology

3.9.4.1.1 Construction Noise Estimation Methodology

Noise Generated by Construction Equipment

As pointed out previously, it is not known with certainty what type of equipment would be used during the construction of each proposed project element. Construction noise calculations provide only a rough estimate of the potential noise impacts that construction activities can have on their surrounding environment, so rather than enumerating all equipment that would be used for the construction of each proposed project element, all proposed project elements have been categorized as to belonging to one of four broad noise groups based on the expected level of effort needed during construction. An L_{eq} is assigned to each of these noise groups and represents the typical average noise level that would be expected to occur at a given distance (e.g., 50 feet) from the construction site as a result of the noise that is generated by equipment operating on the construction site. For each noise group, the average noise level is calculated by summing up the average noise energy generated by all pieces of equipment belonging to that group. The average noise generated by each piece of construction equipment is based on both the maximum noise generated by the equipment while it is operating as well as the percentage of time during the construction period that the equipment would be expected to be operating. This method is consistent with the Federal Highway Administration's Roadway Construction Noise Model (RCNM). The four noise groups are described below.

Small

This category is to be applied to proposed project elements where light construction activities are expected to occur such as landscaping, hardscaping, and lighting. Transporting items to the construction site and removing refuge via trucks would also generate noise during small construction activities. This category can usually be applied to small projects that do not involve the construction of major structures. Some of the equipment involved in small construction may include, but is not limited to, the following items:

- flatbed truck,
- pickup truck,
- dump truck,
- generators, and
- vibratory concrete mixer.

Small construction projects can be expected to generate an L_{eq} of 80 dBA at 50 feet from construction.

Medium

This category describes all activities that are larger in scope and would require louder construction activity in a given area than small proposed project elements, but the noise generated is not sufficiently high to justify applying the heavy construction label. Medium construction might, at times, employ heavy construction equipment, but the duration, intensity, and frequency-of-use of such equipment is less than what would be expected during heavy construction. The equipment that may be involved in medium construction would include everything that is utilized in the small construction category and may also include, but is not limited to, the following items:

- concrete mixer truck,
- compactor,
- paver, and
- chain saw.

Medium construction projects can be expected to generate an L_{eq} of 85 dBA at 50 feet from construction.

Heavy

Any activity that is involved in the demolition of buildings would fall into this category, as well as the construction of some large buildings, and the excavation of earth on land. The equipment that could be involved in heavy construction would be everything that is in the medium construction category and may also include, but is not limited to, the following items:

- jackhammer,
- excavator,
- crane,
- scraper,
- roller, and
- concrete saw.

Heavy construction projects can be expected to generate an L_{eq} of 89 dBA at 50 feet from construction.

Pile Driving

This category is reserved for those activities near the Los Angeles Harbor that require building foundations for piers and wharfs as well as excavating underwater sediment. This type of construction tends to be the noisiest. Some of the equipment that would be involved in pile driving activities would be everything that is in the heavy construction category and may also include, but is not limited to, the following items:

- pile driver,
- dredge,
- slurry trenching machine, and
- pump.

Pile driving construction projects can be expected to generate an L_{eq} of 101 dBA at 50 feet from construction.

Ambient Noise Level Estimation

To estimate construction noise impacts due to each of the proposed project elements, ambient noise levels at all sensitive receivers closest to the proposed project elements also need to be determined. Noise measurements were not taken at all sensitive receivers within the proposed project area because it would be infeasible to do so; however, most sensitive receivers are within close proximity to a noise measurement site. In general, two locations that are in close proximity to each other will have very similar noise levels. For the purpose of determining construction impacts due to proposed project elements, it was assumed that the average ambient noise level at the nearest sensitive receiver to a proposed project element is the same as the 20-minute L_{eq} that was taken at a noise measurement site near the sensitive receiver. The noise measurement site that is chosen was the closest measurement site to the sensitive receiver that also had a similar noise profile. Most of the time, the closest noise measurement site to the sensitive receiver is chosen. However, another alternative measurement site, which is slightly further away, may be chosen instead because the noise sources affecting the sensitive receiver are the same as those affecting the alternative measurement site. This situation is dictated by the local topography and can occur when intervening obstacles that are located between the nearest noise measurement site and a noise source attenuate the sound waves arriving at the nearest measurement site, while none of the same obstacles exist between the original noise source and either the nearest sensitive receiver or the alternative noise measurement site. In that case, the alternative noise measurement site would be chosen because its noise level would more closely match that of the sensitive receiver. Another situation might also arise if the nearest noise measurement site had an unobstructed view of a noise generator while both the sensitive receiver and the alternative noise measurement site did not.

Construction Noise Calculations

Determining the construction noise impact of a proposed project element at its nearest sensitive receiver requires the calculation of the noise level at the nearest sensitive receiver due to construction activities that occur at the proposed project element's construction site. Knowing the distance of the nearest sensitive receiver to the construction site and the noise generated by the operating construction equipment, the noise level at the nearest sensitive receiver due to construction-only noise can be calculated. This noise level represents the noise generated by just the

proposed project element's construction activities. For the purpose of estimating the worst-case impact due to construction noise at the nearest sensitive receiver, it is assumed that the distance from the nearest sensitive receiver to the construction area is equal to the distance of the nearest sensitive receiver to the closest point that lies within the boundary of the construction area.

As was mentioned previously, construction activities would typically last more than 10 days in any 3-month period for all of the proposed project elements. According to threshold NOI-1, an impact would be considered significant if noise from these construction activities would exceed existing ambient exterior noise levels by 5 dBA or more at a noise sensitive use. The final column of the construction noise table identifies whether the 5-dBA threshold is exceeded and a significant impact is projected.

Construction Noise Impact Variability

All short-term noise measurements were made during the daytime, and because nothing would indicate that those noise measurements were atypical, the construction noise impact analysis, which is dependent upon the value of the short-term measurements data, would also be valid during the daytime hours.

Because construction activities may continue up until 9:00 p.m., construction noise can also impact sensitive receivers during the evening hours. Since a construction noise impact is dependent upon the difference between the cumulative noise and the ambient noise, any factor that would cause the estimated ambient noise level at the nearest sensitive receiver to decrease in magnitude would translate into a greater noise impact. In order to estimate evening construction noise impacts, the evening ambient noise levels at sensitive receivers are estimated as described in the next paragraph.

The long-term measurements provide evening noise levels as well as daytime noise levels. If the data from these noise measurements are analyzed, a noise difference value (or delta; i.e., evening L_{eq} minus daytime L_{eq}) between the evening and the nighttime measurements at those measurement sites can be calculated. This delta noise value, although strictly valid only at the measurement site at which the data were recorded, can provide a reasonable estimate of the delta noise value that would be expected at other sites within the proposed project area. The long-term noise measurements taken at the Los Angeles Maritime Museum show that the L_{eq} recorded during the evening hours was actually higher than the L_{eq} recorded during the daytime hours; the noise delta was 4 dB. If the noise delta is positive, as it is in this case, all of the proposed project elements would experience less of a construction noise impact during the evening than during the daytime. Some of these of these reduced evening construction noise impacts would then be under the 5 dB significance threshold necessary to classify them as significant. Since the measured daytime noise levels provide an adequate representation of the evening noise levels, the daytime noise levels will be used as the basis for comparison when determining the significance of daytime and evening construction noise impacts.

3.9.4.1.2 Traffic Noise Estimation Methodology

The traffic noise tables set forth in the analysis below were modeled using single-source assumptions, and display traffic noise levels and changes in traffic noise levels at a standard distance of 50 feet from the roadway. These noise levels, which are shown alongside each roadway segment in the various tables, represent the noise level due to the entire road as measured by noise receptors that are both 50 feet from the centerline of the roadway segment and centered between the end points of the roadway segment. Only the traffic noise from the road being modeled is shown.

The determination of the traffic noise impacts for the proposed Project and all alternatives is evaluated using a two-phase approach. The first phase in the analysis uses the Traffic Noise Model program described above to identify roadway segments for which the projected noise level increase is below 3 dB. 3dB is used as the threshold at this first phase because it is the lowest increment of change that could potentially cause a significant impact according to the significance criteria discussed below. Any roadway segment that does not experience a noise increase that exceeds the significance threshold would not cause a significant impact.

The second phase in the analysis evaluates all roadway segments for which the Traffic Noise Model predicted an increased dB of 3 or higher to determine whether the increase constitutes a significant impact based upon the significance thresholds set forth below.

Since a noise receptor near a roadway segment can be affected by noise from other nearby roads, the noise contribution from these other roads needs to be considered when determining the actual noise impacts from changes in noise due to the first road. This is important to remember when evaluating total traffic noise impacts at affected uses because very often an affected use may be near two roadway segments that belong to two different roads, and the total noise level at the affected use is the addition of the noise contributions from both roadway segments. A situation like this usually happens when the affected use is near the intersection of two roads. In that case, vehicles traveling along either of those roads will generate noise that is received by the receptor. The effect of this is that a roadway segment that appears to experience a large project-related noise increase using the single-source assumptions may not experience such a large an increase at all because the existing ambient noise level at the receptor is actually larger than is what is reported in the traffic noise table.

To get the true existing modeled ambient noise level, the noise contribution (i.e., noise energy) from both roadway segments, and not their dB values, will need to be added to get the total noise level. This total noise energy level can then be converted into the decibel scale. Due to the logarithmic nature of the dB scale, the total noise level which results from the contributions from two sources will be not be greater than 3 dB above the noise level generated by the louder of the two noise sources. (Due to the logarithmic addition of noise levels, two noise sources with a noise level of 60 dBA will combine for a total noise of 63 dBA. However, a noise source of 60 dBA and a second noise source of 70 dBA will combine for a total noise of 70.4 dBA.) When a comparison is then made between the with-project and without-

project conditions, the difference in noise value may be less than significant; therefore, all roadway segments that appear from a cursory examination of the table to make a significant noise impact must have their existing ambient noise levels checked to make sure that they are not overestimated as a result of noise generated by a roadway segments belonging to nearby roads.

3.9.4.2 Thresholds of Significance

3.9.4.2.1 CEQA Criteria

The *L.A. CEQA Thresholds Guide* (City of Los Angeles 2006) contains the following significance thresholds related to construction noise. Quantification of ambient noise levels (existing and projected at the time of construction) is measured in CNEL

NOI-1: A project would have a significant impact on noise levels from construction if construction activities lasting more than 1 day would exceed existing ambient exterior noise levels by 10 dBA or more at a noise sensitive use; or if construction activities lasting more than 10 days in a 3-month period would exceed existing ambient exterior noise levels by 5 dBA or more at a noise sensitive use.

NOI-2: A project would have a significant impact on noise levels from construction if construction activities would exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.

NOI-3: A project would normally have a significant impact on noise levels from operations (motor vehicle, railroad, or cruise ship) if the project causes the operational ambient noise level measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the 'normally unacceptable' or 'clearly unacceptable category,' or any 5 dBA in CNEL or greater noise increase.

NOI-3 is applicable to all operational activities, including both stationary source noise and increases in motor vehicle traffic and railroad operations. Sensitive receivers in the Port area that are potentially affected by operational noise from the proposed Project include residential land uses (single- and multi-family housing, boats used as residences) and neighborhood parks. At these land uses, a significant impact would occur if the proposed Project causes CNEL noise levels to increase by (1) 5 dBA or greater where the existing CNEL is less than 70 dBA; or (2) 3 dBA or greater where the existing CNEL exceeds 70 dBA.

Table 3.9-5. City of Los Angeles Guidelines for Noise Compatible Land Use

Land Use	*Community Noise Exposure CNEL, dB*			
	Normally Acceptable	*Conditionally Acceptable*	*Normally Unacceptable*	*Clearly Unacceptable*
Single Family, Duplex, Mobile Homes	50–60	55–70	70–75	above 70
Multi-Family Homes	60–65	60–70	70–75	above 70
Schools, Libraries, Churches, Hospitals, Nursing Homes	50–70	60–70	70–80	above 80
Playgrounds, Neighborhood Parks	50–70	—	67–75	above 72

Notes:

Normally Acceptable: Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction 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 should generally 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 should generally not be undertaken.

Source: *L.A. CEQA Thresholds Guide*, City of Los Angeles 2006

NOI-4: A project would have a significant impact on noise levels from operation if the proposed project or alternatives would result in noise levels at a noise sensitive use attributable to airport operations exceeding 65 dB CNEL and increasing ambient noise levels by 1.5 dB CNEL or greater.

The nearest airport is the Torrance Municipal Airport, which is over 4 miles from the proposed Project; therefore, there would be no significant impacts related to airport noise for the proposed Project or any of the alternatives.

3.9.4.2.2 NEPA Criteria

The significance thresholds identified in Section 3.9.4.2.1 will be used to evaluate NEPA impacts. However, the criteria will only be applied to elements of the proposed Project that require federal permits or approval. For example, an improvement to a landside park area would not require federal approval and, therefore, would not be subject to the significance threshold.

3.9.4.3 Impacts and Mitigation

The potential for noise from construction and operation of the proposed Project and its alternatives to affect the noise environment at sensitive receiver locations in the surrounding San Pedro district of the City of Los Angeles is assessed in this section.

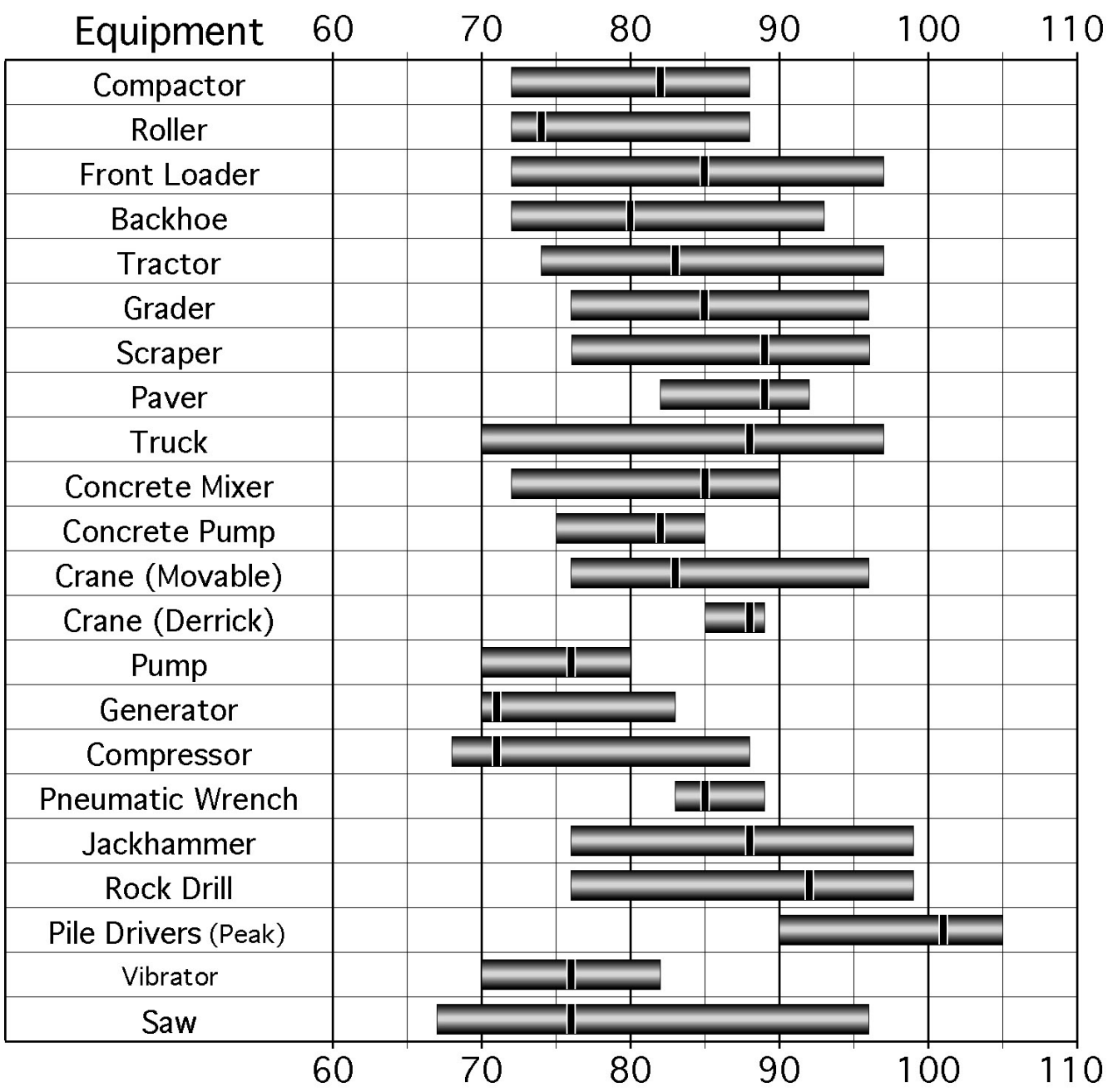
3.9.4.3.1 Proposed Project

Impact NOI-1: The proposed Project would exceed construction noise standards.

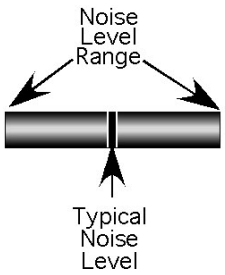
This section estimates the noise impacts due to construction activities that would occur as a result of the proposed Project. Figure 3.9-4 shows the noise level ranges of typical construction equipment. During any construction project, the overall average noise levels vary with the level of construction activity and the types of equipment that are on site and operating at a particular time. Projections of construction noise are only a rough approximation of the potential noise levels. The type of equipment needed for a construction project is often not known with certainty until the contractor for the project has been procured. Even the same pieces of equipment may vary substantially in the noise levels generated due to the age of equipment, condition of equipment, type of muffler installed, and how it is being operated. Usually, the noise levels at a given receptor are primarily dependent on the loudest and closest piece of equipment. For example, if several graders are working a site, the closest grader would be primarily responsible for the noise heard at a nearby receptor. Also, if a grader and a compressor are both operating, then the grader, which is inherently louder, would determine the noise levels at the receptor even if the compressor is slightly closer to the receptor. Topography and atmospheric conditions can also affect the noise levels at the receptor.

Hourly average noise levels have been estimated based on the types of equipment that are expected to be on site to complete the various construction projects. These sources include landside equipment such as loaders, dozers, and trucks, and waterside equipment such as hoists, generators, and tugs. These levels represent the noise levels that would occur during the noisiest phase of construction, i.e., wharf construction with simultaneous pile driving. The following standard controls would be implemented during proposed project construction and are assumed in the noise assessment:

- **Construction Hours.** Limit construction to the hours of 7:00 a.m. to 9:00 p.m. on weekdays, between 8:00 a.m. and 6:00 p.m. on Saturdays, and prohibit construction equipment noise anytime on Sundays and federal holidays as prescribed in the City of Los Angeles Noise Ordinance.
- **Construction Days.** Do not conduct noise-generating construction activities on Sundays or federal holidays.



LEGEND



Sources: "Handbook of Noise Control," by Cyril Harris, 1979
"Transit Noise and Vibration Impact Assessment" by Federal Transit Administration, 1995

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Figure 3.9-4
Construction Noise

- **Construction Equipment.** Properly muffle and maintain all construction equipment powered by internal combustion engines.
- **Idling Prohibitions.** Prohibit unnecessary idling of internal combustion engines near noise sensitive areas. The Port's "Sustainable Construction Guidelines for Reducing Air Emissions" prohibit idling for more than 5 minutes for any equipment or vehicles that are not in use.
- **Equipment Location.** Locate all stationary noise-generating construction equipment, such as air compressors and portable power generators, as far as practical from existing noise sensitive land uses.

Table 3.9-6 displays the projected noise impacts at each proposed project element's nearest sensitive receiver due to construction-related activities that are part of the proposed Project. This table compares the average cumulative noise level (i.e. L_{eq} of ambient + construction) at the nearest sensitive receiver with the nearest sensitive receiver's average ambient noise level (i.e. preexisting L_{eq} without proposed project-related construction noise). The difference between these two values is used as the basis for determining whether or not a significant noise impact would occur. In particular, a noise impact lasting more than 10 days in a 3-month period is recognized as significant if the difference between the cumulative L_{eq} at the nearest sensitive receiver minus the ambient L_{eq} at that same receiver exceeds a threshold of 5 dB. It was assumed that the construction of all proposed project elements shown in Table 3.9-6 would last more than 10 days in a 3-month period; therefore, the 5 dB significance criteria also applies to all proposed project elements. Because there would not be any construction between the hours of 9:00 p.m. and 7:00 a.m., all decibel changes to the 24-hour CNEL metric resulting from construction noise would be no greater than the changes to L_{eq} predicted by Table 3.9-6.

Proposed Project Element Construction Noise

Below is a description of the construction noise impacts resulting from each proposed project element based upon the information contained in Table 3.9-6. Of the 51 proposed project elements (see Table 3.9-6), 35 would result in a more than 5 dBA increase in ambient noise levels. The impacts are determined on a project-element basis and not on an impacted-location basis. Because of this, an affected use that is in close proximity to two or more project elements may be impacted by concurrent construction at nearby project elements. It is possible that a combined impact due to the construction of those nearby project elements may be significant even if none of the project elements individually make a significant impact. In this sense, there would be overlap between project elements. Since a detailed schedule for the construction of each project element has not yet been provided, it was assumed that many of the elements would overlap and that there would be a significant construction noise impact at the analyzed locations from the combination of simultaneous project element construction.

At any given location within the project area, the noise level is determined by all noise sources contributing noise to that location. When two or more project elements are under construction simultaneously, the noise coming from the construction sites of those project elements can combine with the ambient noise level. This can result

in a higher noise level increase at a given location than would occur at that location if the noise level from only one project element were to combine with the ambient noise. In this way, sensitive land uses that might not be impacted by individual project elements may be impacted as a result of the cumulative noise increases caused by two or more project elements.

To determine the location of those areas that potentially could experience a cumulative noise impact under construction, several points within the project area were chosen for examination. All locations were examined and only those locations with overlapping noise elements were analyzed to determine significance. Locations farther away than one-quarter mile from any project element were not considered because the noise impacts at those locations would be too small. Once the locations were selected, the cumulative construction noise level (i.e. noise level due to all project elements and ambient noise) at each selected location was computed under the extreme worst-case scenario, which assumed that all project elements are under construction simultaneously.

Neglecting line of sight obstructions, the analysis showed that the cumulative noise level at all selected locations would be no more than 8.4 dB above what would occur if only the project element with the predominant noise level were to impact that point. The 8.4 dB represents the maximum change. All locations experienced a change that was less than this, and a noise increase of 3 or 4 dB was common. When line of sight obstruction is taken into account, the cumulative noise change would be less. Only land sensitive uses within a block of construction would be potentially impacted by the cumulative construction noise of all project elements. Construction noise impacts due to individual proposed project elements are identified below.

It should be noted that in the following paragraphs of this section that none of the live-aboards (i.e., people living on boats in a marina) that are located in the Ports O'Call marina are recognized as sensitive receivers because all of these live-aboards would be relocated elsewhere prior to the start of construction at Ports O'Call; therefore, they would not be affected by construction noise while they are located in the Ports O'Call marina. All live-aboards in the Cabrillo Marina are recognized as sensitive receivers.

North Harbor: The planned location for the Inner Harbor cut, which is located in the North Harbor, is close to residences that front Harbor Boulevard. Pile driving, which generates high noise levels, and dredging, which is not as loud as pile driving, would both be expected to occur during the construction phase. As discussed in Section 3.9.4.1.1, pile driving activities would produce an L_{eq} of 101 dBA at 50 feet from the source. Since the nearest residences are 220 feet away from the pile driving activities, the L_{eq} at the nearest residences is projected to be 89 dBA. Site ST-2, which is close to the sensitive receiver, has an ambient L_{eq} of 68.3 dBA. With a noise increase of over 20 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

Table 3.9-6. Construction Noise Due To Proposed Project Elements

Proposed Project Element	*Type of Equipment*	*Construction L_{eq} (dBA) @ 50 ft.*	*Distance to Receptor (feet)*	*Type of Receptor*	*Closest Measurement Site*	*Ambient L_{eq} (dBA) @ Receptor*	*Constructio n L_{eq} (dBA) @ Receptor*	*Ambient + Project L_{eq} (dBA) @ Receptor*	*Change in Noise (dB)*	*Over 5 dB Significance Threshold*
North Harbor	Pile Driving	101	220	Residence	ST-2	68.3	88.1	89	20.7	YES
Downtown Harbor	Pile Driving	101	230	Sunrise Hotel	ST-6	70.4	87.7	88	17.6	YES
7th Street Harbor	Pile Driving	101	390	Sunrise Hotel	ST-6	70.4	83.2	84	13.6	YES
7th Street Pier	Pile Driving	101	390	Sunrise Hotel	ST-6	70.4	83.2	84	13.6	YES
Town Square	Medium	85	150	Sunrise Hotel	ST-6	70.4	75.5	77	6.6	YES
Downtown Civic Fountain	Medium	85	310	Sunrise Hotel	ST-6	70.4	69.2	73	2.6	NO
John S. Gibson Jr. Park	Small	80	80	Sunrise Hotel	ST-6	70.4	75.9	77	6.6	YES
Waterfront Promenade										
Ports O'Call	Pile Driving	101	1,170	Residence	ST-4	62.6	73.6	74	11.4	YES
S. P. Slip	Medium	85	540	Residence	ST-4	62.6	64.3	67	4.4	NO
City Dock No. 1	Pile Driving	101	1,380	Live-aboard	ST-13	53.9	72.2	73	19.1	YES
Outer Harbor	Medium	85	40	Live-aboard	ST-13	53.9	86.9	87	33.1	YES
Cabrillo Beach	Medium	85	30	Youth Camp	ST-13	53.9	89.4	90	36.1	YES
Salt Marsh	Medium	85	420	Fort MacArthur	ST-13	53.9	66.5	67	13.1	YES
Pedestrian and Waterfront Accesses										
Swinford Street	Medium	85	190	Residence	ST-14	70.2	73.4	76	5.8	YES

O'Farrell Street	Medium	85	510	Residence	ST-12	62.1	64.8	67	4.9	NO
1st Street	Medium	85	220	Residence	ST-2	68.3	72.1	74	5.7	YES
3rd Street	Medium	85	120	Residence	ST-2	68.3	77.4	78	9.7	YES
5th Street	Medium	85	260	Sunrise Hotel	ST-6	70.4	70.7	74	3.6	NO
6th Street	Medium	85	140	Sunrise Hotel	ST-6	70.4	76.1	78	7.6	YES
7th Street	Medium	85	470	Sunrise Hotel	ST-6	70.4	65.5	72	1.6	NO
Pedestrian Bridge at 13th Street	Medium	85	70	Residence	ST-4	62.6	82.1	83	20.4	YES
Vehicular @ 1st Street	Medium	85	220	Residence	ST-2	68.3	72.1	74	5.7	YES
Fishermen's Park	Medium	85	1,120	Residence	ST-4	62.6	58.0	64	1.4	NO
Outer Harbor Park	Medium	85	510	Live-aboard	ST-13	53.9	64.8	66	12.1	YES
San Pedro Park	Medium	85	190	Residence	ST-10	55.8	73.4	74	18.2	YES
Warehouses 9 and 10	Small	80	340	Residence	ST-7	60.7	63.3	66	5.3	YES
Cruise Ship Facilities										
Inner Harbor Berths and Terminal Facilities	Heavy	89	1,050	Residence	ST-2	68.3	62.6	70	1.7	NO
Outer Harbor Berths and Terminal Facilities	Pile Driving	101	660	Live-aboard	ST-13	53.9	78.6	79	25.1	YES
Inner Harbor Parking	Heavy	89	420	Apartment	ST-12	62.1	70.5	72	9.9	YES

Outer Harbor Parking	Heavy	89	510	Live-aboard	ST-13	53.9	68.8	69	15.1	YES
Ports O'Call Redevelopment										
Development	Medium	85	680	Residence	ST-5	62.4	62.3	66	3.6	NO
Parking	Heavy	89	230	Residence	ST-5	62.4	75.7	76	13.6	YES
S. P. Railyard Demolition	Heavy	89	260	Residence	ST-5	62.4	74.7	75	12.6	YES
Waterfront Red Car Maintenance Facility										
Temporary Location	Medium	85	860	Residence	ST-10	55.8	60.3	62	6.2	YES
13th Street Location	Medium	85	220	Residence	ST-4	62.6	72.1	73	10.4	YES
Waterfront Red Car Extension	Medium	85	50	Doubletree Hotel	ST-10	55.8	85.0	86	30.2	YES
Ralph J. Scott Fireboat Display	Heavy	89	450	Sunrise Hotel	ST-6	70.4	69.9	74	3.6	NO
Demolition of Westway Terminal	Heavy	89	1,010	Live-aboard	ST-13	53.9	62.9	64	10.1	YES
Tugboats										
Crowley Tug Building	Heavy	89	240	Residence	ST-2	68.3	75.4	77	8.7	YES
Millennium Tug Building	Heavy	89	390	Residence	ST-2	68.3	71.2	73	4.7	NO
Los Angeles Maritime Institute	Medium	85	220	Residence	ST-2	68.3	72.1	74	5.7	YES
S.S. Lane Victory	Small	80	250	Residence	ST-2	68.3	66.0	71	2.7	NO
Jankovich and Sons Fueling Station										
Existing Location at	Small	80	1,500	Residence	ST-10	55.8	50.5	57	1.2	NO

Ports O'Call										
New Location at Berth 240	Pile Driving	101	1,660	Penitentiary	ST-11	54.9	70.6	71	16.1	YES
Catalina Express	Pile Driving	101	1,970	Apartment	ST-14	70.2	69.1	73	2.8	NO
Expansion of Sampson Way	Heavy	89	440	Residence	ST-5	62.4	70.1	71	8.6	YES
7th Street/ Sampson Way Intersect Improvements	Medium	85	470	Sunrise Hotel	ST-6	70.4	65.5	72	1.6	NO
Harbor Boulevard Landscaping	Small	80	30	Residence	ST-4	62.6	84.4	85	22.4	YES
Harbor Boulevard Lane Capacity	Heavy	89	40	Sunrise Hotel	ST-6	70.4	90.9	91	20.6	YES
Surface Parking Adjacent To Acapulco Restaurant	Medium	85	480	Sunrise Hotel	ST-6	70.4	65.4	72	1.6	NO
Shaded proposed project elements require federal approval.										

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Downtown Harbor: Construction of the Downtown Harbor also involves pile driving and dredging. Pile driving would be the predominant noise factor affecting nearby sensitive receivers. Heavy construction noise would also affect this area. The 7th Street Harbor and Ports O'Call, which are both nearby, would also involve pile driving, and the pile driving that would occur at both of those places may occur at a different time then when pile driving at the Downtown Harbor would occur. The Downtown Harbor would be about 230 feet from the Sunrise Hotel, which is the nearest sensitive receiver. The L_{eq} at the Sunrise Hotel due to construction noise generated by the Downtown Harbor is projected to be 88 dBA. Site ST-6, which is the closest measurement site to the Sunrise Hotel, has an ambient L_{eq} of 70.4 dBA. With a noise increase of over 17 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

7th Street Harbor: Pile driving and dredging would both occur during the construction of the 7th Street Harbor. Pile driving is the predominant noise factor impacting nearby sensitive receivers. Heavy construction noise would also affect this area. The Downtown Harbor and Ports O'Call, which are both nearby, would also involve pile driving, and the pile driving that would occur at both of those places may occur at a different time then when pile driving at the 7th Street Harbor would occur. The Sunrise Hotel would be 390 feet away from construction, and the L_{eq} at the Sunrise Hotel due to construction is projected to be 84 dBA. The Sunrise Hotel is close to Site ST-6. Site ST-6 has an ambient L_{eq} of 70.4 dBA. With a noise increase of over 13 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

7th Street Pier: Just like the 7th Street Harbor, the L_{eq} at the nearest sensitive use is projected to be 84 dBA. The nearest sensitive use is near Site ST-6. Site ST-6 has an ambient L_{eq} of 70.4 dBA. With a noise increase of over 13 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

Town Square: The Town Square is located near the Downtown Civic Fountain. Only medium construction equipment would be operating during construction. The Town Square would be 150 feet away from the Sunrise Hotel, which is the closest sensitive receiver. The L_{eq} at the Sunrise Hotel is projected to be 77 dBA due to construction activities. The Sunrise Hotel is close to Site ST-6, which has an ambient L_{eq} of 70.4 dBA. With a noise increase of over 6 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

Downtown Civic Fountain: As discussed in Section 3.9.4.1.1, medium construction activities would produce and L_{eq} of 85 dBA at 50 feet from the source. Medium construction equipment operating during construction of the Downtown Civic Fountain would generate an L_{eq} of 73 dBA at the Sunrise Hotel, which is about 310 feet away. The location of the Sunrise Hotel is close to Site ST-6. Site ST-6 has an ambient L_{eq} of 70.4 dBA. With a noise increase of less than 3 dB at the property line of the nearest sensitive receiver, construction noise would not exceed the significance threshold.

John S. Gibson Jr. Park: The renovation that would be taking place at John S. Gibson Jr. Park is expected to involve only small construction equipment. At 80 feet from the park, the occupants of the Sunrise Hotel would expect an L_{eq} of 77 dBA resulting from construction noise. The Sunrise Hotel is close to Site ST-6, which has an ambient L_{eq} of 70.4 dBA. With an increase of over 6 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

Waterfront Promenade:

Ports O'Call Promenade: The construction of the Ports O'Call Promenade calls for pile driving. Currently, there are live-aboards in Ports O'Call marina, but they would all move to the Cabrillo Marina prior to the start of construction at Ports O'Call, so they are not considered the nearest sensitive receivers. The nearest sensitive receiver to the Ports O'Call Promenade is a residence on Beacon Street about 760 feet away. Although this residence is 760 feet away from the closest point on the Ports O'Call Promenade, no pile driving would be occurring at the closest point. The closest residence to pile driving at Ports O'Call is about 1,170 feet away, and the noise contribution from pile driving would be the predominant noise contributor. The L_{eq} at the closest residence due to pile driving is projected to be 74 dBA. The nearest residence is close to Site ST-4, which has an ambient L_{eq} of 62.6 dBA. With an increase of over 11 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

SP Slip Promenade: No pile driving is planned during construction of the SP Slip Promenade. With the use of medium construction equipment, the L_{eq} at the nearest residence on Beacon Street 540 feet away would be 67 dBA. The nearest residence is close to Sites ST-4 where the ambient L_{eq} is 62.6 dBA. With a noise increase of less than 5 dB at the property line of the nearest sensitive receiver, construction noise would not exceed the significance threshold.

City Dock No. 1 Promenade: The City Dock Promenade would be built on the existing City Dock No. 1 structure, but pile driving would occur on the east side of City Dock No. 1 next to the main channel. Live-aboards are located in the Cabrillo Marina Phase II area, 1,380 feet west of where pile driving activity at City Dock No. 1 would be taking place. About 1,190 feet east of City Dock No. 1 across the main channel is Terminal Island. The construction noise level at the Cabrillo Marina Phase II due to pile driving is projected to be 73 dBA. The location of the Cabrillo Marina Phase II is close to Site ST-13, which has an ambient L_{eq} of 53.9 dBA. Both the ambient and construction noise levels at Terminal Island would be very similar to those at the marina. With an increase of over 19 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

Outer Harbor Promenade: The noise due to the construction of the Outer Harbor Promenade is expected to be similar to the noise generated by the City Dock No. 1 Promenade. Live-aboards are located in the Cabrillo Marina Phase II about 40 feet away from construction at the Outer Harbor Promenade. The noise level at the location of the live-aboards due to medium construction equipment is projected to be 87 dBA. The live-aboards are close to Site ST-13, which has an

ambient L_{eq} of 53.9 dBA. With an increase of over 33 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

Cabrillo Beach Youth Camp: With medium construction equipment involved, the nearest sensitive receiver to the Cabrillo Beach Youth Camp Promenade would experience an L_{eq} of 63 dBA at 650 feet from construction. Based on a reference ambient noise level of 53.9 dBA (same as Site ST-13) for the sensitive receiver, a noise increase of over 9 dB would occur at the property line of the nearest sensitive receiver; therefore, construction noise would exceed the significance threshold.

Salt Marsh Promenade: The Salt Marsh Promenade is about 420 feet away from the nearest residence at Fort MacArthur. No pile driving has been specified, so the nearest residence can expect an L_{eq} of 67 dBA resulting from the use of medium construction equipment. Site ST-13, which has an ambient L_{eq} of 53.9 dBA, is the closest measurement site to the nearest residence. With an increase of over 13 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

Pedestrian and Waterfront Access Linkages:

Pedestrian Bridge at 13th Street: The Pedestrian Bridge at 13th Street would be close to residences on Beacon Street; the nearest residence is about 70 feet away. The construction noise level at this residence resulting from the close proximity of the residence to construction activities is projected to be 83 dBA. The nearest measurement site is Site ST-4. Site ST-4 has an ambient L_{eq} of 62.6 dBA. With an increase of over 20 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

1st Street Access: The 1st Street waterfront access is about 220 feet away from the nearest sensitive receiver, which is a residence located on Harbor Boulevard. The ambient noise level at this residence is similar to the ambient noise level at Site ST-2. Site ST-2 has an L_{eq} of 68.3 dBA. With the presence of construction noise, the L_{eq} at the residence is projected to be 74 dBA. With an increase of over 5 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

3rd Street Access: The nearest sensitive receiver to the 3rd Street waterfront access is a residence on Harbor Boulevard at 3rd Street. This residence would expect an L_{eq} of 78 dBA due to construction noise. The location of the 3rd Street access is also the location of Site ST-2. The ambient L_{eq} at Site ST-2 was 68.3 dBA. With an increase of over 9 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

5th Street Access: The noise at the nearest sensitive receiver to the 5th Street waterfront access would expect an L_{eq} of 74 dBA. The nearest sensitive receiver is close to Site ST-6. Site ST-6 has an ambient L_{eq} of 70.4 dBA. With an increase of less 4 dB at the property line of the nearest sensitive receiver, construction noise would not exceed the significance threshold.

6th Street Access: The noise at the nearest sensitive receiver to the 6th Street waterfront access would expect an L_{eq} of 78 dBA. The nearest sensitive receiver is close to Site ST-6. Site ST-6 has an ambient L_{eq} of 70.4 dBA. With an increase of over 7 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

7th Street Access: The Sunrise Hotel is the closest sensitive receiver to the 7th Street waterfront access. The L_{eq} at the Sunrise Hotel due construction noise is projected to be 72 dBA. Site ST-6, which is in front of the Sunrise Hotel, has an ambient L_{eq} of 70.4 dBA. With an increase of less than 2 dB at the property line of the nearest sensitive receiver, construction noise would not exceed the significance threshold.

Vehicular Access at 1st Street: The L_{eq} at a residence on Harbor Boulevard, which is also the nearest sensitive receiver, would be about the same as that noise which is due to the pedestrian waterfront access at 1st Street. An L_{eq} of 74 dBA due to construction noise is projected at the residence. The location of the 1st Street access is close to Site ST-2, which has an ambient L_{eq} of 68.3 dBA. With an increase of over 5 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

Fishermen's Park: Fishermen's Park would be located in the Ports O'Call. Only medium construction is expected to be used. The nearest residence is over 1,120 feet away on Beacon Street. The projected noise level at the nearest residence is 64 dBA. The nearest residence is close to Site ST-4. Site ST-4 has an ambient L_{eq} of 62.6 dBA. With an increase of less than 2 dB at the property line of the nearest sensitive receiver, construction noise would not exceed the significance threshold.

Outer Harbor Park: Outer Harbor Park is about 510 feet away from live-aboards in the Cabrillo Marina Phase II area. The L_{eq} at the location of the live-aboards resulting from medium construction equipment is projected to be 66 dBA. The closest measurement site is to the live-aboards is Site ST-13, which has an ambient L_{eq} of 53.9 dBA. With an increase of over 12 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

San Pedro Park: The closest sensitive receiver to San Pedro Park is a residence near the corner of Harbor Boulevard and Crescent Avenue; it is about 190 feet away from San Pedro Park. Using medium equipment, the noise level at nearest residence due to construction is projected to be 74 dBA. The location of the nearest residence is close to Site ST-10. Site ST-10 has an ambient L_{eq} of 55.8 dBA. With an increase of over 18 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

Warehouses Nos. 9 and 10: The current uses would be scheduled to vacate the premises of Warehouses Nos. 9 and 10, so no actual construction activity is planned. Using the lowest noise level group to estimate the noise impacts, the nearest residence, which is about 340 feet away, would expect an L_{eq} of 66 dBA due to reuse of the structures. The location of the nearest sensitive receiver is at 17th Street and Crescent Avenue, which is also the location of Site ST-7. Site ST-7 has an ambient

L_{eq} of 60.7 dBA. With an increase of over 5 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

Cruise Ship Facilities:

Inner Harbor Berths and Terminal Facilities: Construction of the terminal facility would be located close to the waterfront in the North Harbor about 1,050 feet from the nearest sensitive receiver, which is located on Harbor Boulevard. The L_{eq} due to construction noise at the nearest sensitive receiver is projected to be 70 dBA. The nearest sensitive receiver is close to Site ST-2. Site ST-2 has an ambient L_{eq} of 68.3 dBA. With an increase of less than 2 dB at the property line of the nearest sensitive receiver, construction noise would not exceed the significance threshold.

Outer Harbor Berths and Terminal Facilities: The construction of the Outer Harbor Berth would involve pile driving. The nearest sensitive receiver to the construction area is a live-aboard in the Cabrillo Marina Phase II area 660 feet away. The noise that would be generated by construction of the Outer Harbor Berth is projected to be 79 dBA at the location of the live-aboard. The live-aboard is close to Site ST-13. Site ST-13 has an ambient L_{eq} of 53.9 dBA. With an increase of over 25 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

Inner Harbor Parking Structure: The nearest sensitive receiver to the Inner Harbor Parking Structure is located on Beacon Street 420 feet west of where construction would be occurring. Site ST-12, which is the nearest measurement site, has an ambient L_{eq} of 62.1 dBA. The L_{eq} at the nearest sensitive receiver due to construction noise is projected to be 72 dBA. With an increase of over 9 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

Outer Harbor Parking Structure: Live-aboards are the closest sensitive receivers to where the Outer Harbor parking structure would be built. The nearest live-aboard to the Outer Harbor is projected to experience an L_{eq} of 69 dBA due to heavy construction at the Outer Harbor Parking Structure. Site ST-13, which has an ambient L_{eq} of 53.9 dBA, is the closest measurement site to the live-aboard. With an increase of over 15 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

Ports O'Call Redevelopment

Development: The closest sensitive receiver to the Ports O'Call development would be one of the residences that lie along Beacon Street close to near Site ST-5, where the ambient L_{eq} is 62.4 dBA. The L_{eq} due to construction is projected to be 68 dBA. With an increase of less than 4 dB at the property line of the nearest sensitive receiver, construction noise would not exceed the significance threshold.

Parking: With the use of heavy equipment, noise levels at the nearest residence on Beacon Street due to the construction of the Ports O'Call parking structures would produce an L_{eq} of 76 dBA. The closest measurement site to the nearest

residence is Site ST-4. Site ST-4 has an L_{eq} of 62.6 dBA. With an increase of over 13 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

S.P. Railyard Demolition: Due to the use of heavy construction equipment that would be used during the demolition of the S.P. Railyard, the L_{eq} at the nearest residence on Beacon Street is projected to be 75 dBA. The nearest residence is 260 feet away from construction activity at the S.P. Railyard is close to Site ST-5. Site ST-5 has an ambient L_{eq} of 62.4 dBA. With an increase of over 12 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

Waterfront Red Car Maintenance Facility: The Waterfront Red Car Maintenance Facility refers to both the old facility and the new facility.

Temporary Location of Waterfront Red Car Maintenance Facility: Medium construction would be involved and would produce a noise level of 61 dBA at the nearest residence, which is close to Site ST-10. Site ST-10 has an ambient L_{eq} of 55.8 dBA, so construction noise would exceed the significance threshold.

New Location: The new Waterfront Red Car Maintenance Facility would be located at the 13th Street Bluff, and medium sized equipment would be used during construction. The L_{eq} at the nearest residence is projected to be 73 dBA. Site ST-5, which is close to the nearest residence, has an ambient L_{eq} of 62.4 dBA. With an increase of over 10 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

Ralph J. Scott Fireboat Display: Construction of the display building, which would house the Ralph J. Scott Fireboat, would involve heavy construction equipment and would produce an L_{eq} which is projected to be 74 dBA at the Sunrise Hotel, or Site ST-6, which has an ambient L_{eq} of 70.4 dBA. With an increase of less than 3 dB at the property line of the nearest sensitive receiver, construction noise would not exceed the significance threshold.

Demolition of Westway Terminal: The Westway Terminal is about 1,010 feet from live-aboards in the Cabrillo Marina Phase II area. Demolition of the Westway Terminal would involve heavy construction equipment. The live-aboards in the marina can expect an L_{eq} of 64 dBA due to construction activities. The live-aboards are close to Site ST-13, which has an L_{eq} of 53.9 dBA. With an increase of over 10 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

Tugboat Buildings:

Crowley Tug Building: Construction of the new 10,000 sq. ft. Crowley tugboat building would generate an L_{eq} which is projected to be 77 dBA at the nearest residence, which is about 240 feet away on Harbor Boulevard. Site ST-2, which is the closest measurement site, has a measured ambient L_{eq} of 68.3 dBA. With an increase of over 8 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

Millennium Tug Building: The construction of the Millennium tugboat building would generate an L_{eq} that is projected to be 73 dBA at the nearest residence, which is about 390 feet away on Harbor Boulevard. Site ST-2, which is the closest measurement site, has a measured ambient L_{eq} of 68.3 dBA. With an increase of less than 5 dB at the property line of the nearest sensitive receiver, construction noise would not exceed the significance threshold.

Los Angeles Maritime Institute: New construction using medium equipment would produce an L_{eq} of 74 dBA at the nearest residence 220 feet away. Site ST-2, which has an ambient L_{eq} of 68.3 dBA, is the closest measurement site to the nearest sensitive receiver. With an increase of just over 5 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

S.S. Lane Victory: Currently, the S.S. Lane Victory is located at Berth 94 and is about 2,000 feet away from the nearest sensitive receiver, which is located on Harbor Boulevard. The ambient noise level at the Vincent Thomas Bridge near Berth 94 was measured to be 73.3 dBA. Due to the remoteness of Berth 94 from the nearest sensitive receiver and the high ambient noise levels that already exist at Berth 94, no significant noise impacts due to construction activities at Berth 94 are projected. The S.S. Lane Victory would be relocated to the Inner Harbor and would be about 250 feet from the nearest residence on Harbor Boulevard. The nearest residence to the new location of the S.S. Lane Victory is close to Site ST-2. Site ST-2 has an L_{eq} of 68.3 dBA. Relocation of the S.S. Lane Victory should involve only small construction equipment, so the L_{eq} at nearest residence due to construction activities is projected to be 71 dBA. With an increase of less than 3 dB at the property line of the nearest sensitive receiver, construction noise would not exceed the significance threshold.

Fueling Station:

Existing Jankovich Fueling Station: Currently, Jankovich Fueling Station is located at the southern portion of the Ports O'Call. The nearest residence to the existing Jankovich station is on Beacon Street 1,500 feet to the west. With the use of small construction equipment in the removal of the current facility, the L_{eq} at the nearest residence is projected to be 57 dBA. Site ST-10 is the closest measurement site to the nearest residence, and it has an L_{eq} of 55.8 dBA. With an increase of less than 2 dB at the property line of the nearest sensitive receiver, construction noise at the nearest sensitive receiver would not exceed the significance threshold.

Proposed Fueling Station at Berth 240: Under the proposed Project, a new fueling station would be developed at Berth 240 on Terminal Island. Construction of the new facility at Berth 240 would involve pile driving. The closest sensitive receiver to the new fueling facility is located on the west side of Terminal Island, 1,660 feet south of Berth 240. Because of its close proximity to the Main Channel, the existing ambient L_{eq} at the nearest sensitive receiver on the west side of Terminal Island would be similar in magnitude to the L_{eq} measured at Site ST-11. Site ST-11, which is adjacent to the Main Channel at Ports O' Call, has an L_{eq} of 54.9 dBA. The noise level at the nearest sensitive receiver due

to pile driving at Berth 240 is projected to be 71 dBA. With an increase of over 16 dB at the property line of the nearest sensitive receiver, construction of the new fueling station at Berth 240 would cause the noise to exceed the significance threshold.

Catalina Channel Express, Inc (Catalina Express): Pile driving would be taking place at the Catalina Express terminal at Berth 94. The noise from pile driving and other construction would generate an L_{eq} of 73 dBA at the nearest residence, which is about 1,970 feet to the west of Berth 94. Site ST-14 is the closest measurement site to the sensitive receiver, and it has an ambient L_{eq} of 70.2 dBA. With an increase of less than 3 dB at the property line of the nearest sensitive receiver, construction noise would not exceed the significance threshold.

Expansion of Sampson Way: With the use of heavy construction equipment involved in the expansion of Sampson Way, the L_{eq} at the nearest residence, which lies on Beacon Street and is 440 feet away from the construction, is projected to be 71 dBA. The nearest measurement site to the nearest residence is Site ST-5. Site ST-5 has an ambient L_{eq} of 62.4 dBA. With an increase of over 8 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

7th Street/Sampson Way Intersection Improvements: The intersection improvements at the crossing of 7th Street and Sampson Way would involve medium construction equipment. At 470 feet from the proposed Project, the L_{eq} at the nearest residence is projected to be 72 dBA as a result of construction. The closest measurement site to the nearest residence is Site ST-6, which is located on Harbor Boulevard. Site ST-6 has an L_{eq} of 70.4 dBA. With an increase of less than 2 dB at the property line of the nearest sensitive receiver, construction noise would not exceed the significance threshold.

Harbor Boulevard Improvements:

Landscaping: Landscape and hardscape improvements along Harbor Boulevard have been proposed for the proposed Project. The nearest sensitive receiver is on Beacon Street south of 7th Street about 30 feet away from where landscaping would be occurring on the west side of Harbor Boulevard. With the use of small equipment during construction, the L_{eq} is projected to be 85 dBA at the nearest sensitive receiver. The closest measurement site is ST-4. Site ST-4 has an L_{eq} of 62.6 dBA. With an increase of over 22 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

Lane Capacity: The nearest receptors north of 7th Street are about 40 feet away from where construction along the median of Harbor Boulevard would be occurring. The closest measurement site is Site ST-6. Site ST-6, which is also on Harbor Boulevard, has an L_{eq} of 70.4 dBA. The L_{eq} at the nearest sensitive receiver is projected to be 91 dBA. With an increase of over 20 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

Surface Parking Adjacent to Acapulco Restaurant: Surface parking is planned west of the Acapulco restaurant. Only medium construction equipment would be involved in construction. Site ST-6, which has an L_{eq} of 70.4 dBA, is the closest measurement site. The L_{eq} generated by construction is projected to be 72 dBA at the nearest residence. With an increase of less than 2 dB at the property line of the nearest sensitive receiver, construction noise would not exceed the significance threshold.

Waterfront Red Car Extension: The Waterfront Red Car Line would be extended south of 22nd Street to the Outer Harbor along Miner Street and to Cabrillo Beach along Shoshonean Way. The area where Shoshonean Way passes by the Doubletree Hotel is the point where the Waterfront Red Car Line is closest to a sensitive receiver. When medium construction equipment is being used, a portion of the Doubletree Hotel that is about 50 feet away from where construction would occur would experience an L_{eq} of 86 dBA. Site ST-10, which is the closest measurement site to the Doubletree Hotel, has an ambient L_{eq} of 55.8 dBA. With an increase of more than 30 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

Dredge and Fill Activities: For the proposed Project, a total of 605,000 cubic yards of material would be dredged from the North, Downtown, and 7th Street Harbors, and these are the only locations where dredging would occur. Pile driving has also been slated at all three of these locations. The noise that results from dredging is automatically accounted for when a proposed project element is assigned to the pile driving noise group because dredging equipment is included in the pile driving construction equipment mix. All construction items that require pile driving and dredging have been addressed elsewhere in this section under their respective proposed project element paragraphs. It was determined that all of the construction items that require dredging would make a significant construction noise impact. See the paragraphs describing construction for the North, Downtown, and 7th Street Harbors project elements.

CEQA Impact Determination

Construction due to the proposed Project would cause a significant impact. The following mitigation measure would help to reduce impacts resulting from construction noise.

Mitigation Measures

MM NOI-1. Construct temporary noise barriers, use quiet construction equipment, and notify residents. The following will reduce the impact of noise from construction activities:

a) **Temporary Noise Barriers.** When construction is occurring within 500 feet of a residence or park, temporary noise barriers (solid fences or curtains) will be located between noise-generating construction activities and sensitive receivers.

b) **Quiet Equipment Selection.** Select quiet construction equipment whenever possible. Comply where feasible with noise limits established in the City of Los Angeles Noise Ordinance.

c) **Notification.** Notify residents within 500 feet to the proposed project site of the construction schedule in writing.

Residual Impacts

Even after implementation of Mitigation Measures MM NOI-1, considering the distances between the construction noise sources and receivers, the standard controls and temporary noise barriers would not be sufficient to reduce the projected increase in the ambient noise level to the point where it would no longer cause a substantial increase. Construction equipment noise levels generated would remain significant. Thus, impacts to residents resulting from buffer construction, as well as impacts to live-aboards from construction, would be significant and unavoidable.

NEPA Impact Determination

Impacts would be significant, but to a lesser extent than analyzed under CEQA (i.e., many of the upland locations are not subject to federal control and responsibility or NEPA). The following proposed project elements would make a significant impact under NEPA:

- North Harbor
- Downtown Harbor
- 7th Street Harbor
- 7th Street Pier
- Waterfront Promenade
  - Ports O'Call
  - City Dock No. 1
  - Outer Harbor
  - Cabrillo Beach
  - Salt Marsh
- Cruise Ship Facilities
  - Outer Harbor Berths and Terminal Facilities
- Tugboats
  - Crowley Tug Building
- Los Angeles Maritime Institute
- New fueling facility at Berth 240

Mitigation Measures

Implement Mitigation Measure MM NOI-1.

Residual Impacts

Impacts would be significant and unavoidable.

Impact NOI-2: Construction activities for the proposed Project would not exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.

No construction activities are planned to occur between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.

CEQA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact NOI-3a: The proposed Project would cause noise from motor vehicle traffic measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.

This section examines traffic noise impacts from the proposed Project on the surrounding land uses. Increases in traffic noise levels due to traffic generated by the proposed Project are also examined. Impacts from noise produced by traffic generated by the proposed Project are estimated based on the traffic projections presented in the traffic study prepared for the proposed Project by Fehr & Peers/Kaku Associates in May 2008 (Appendix M).

CEQA Traffic Impacts

To estimate the traffic noise level increases and impacts due to the development of the proposed Project, comparisons have been made between the noise levels generated by three different proposed Project scenarios. Table 3.9-7 shows the noise levels and changes for some of these scenarios for all roadway segments. The first scenario is the existing baseline condition, and the noise level for this scenario, which is shown in the third column of Table 3.9-7, is the noise level in CNEL generated by existing (2007) traffic volumes. The second scenario is the existing-plus-project noise condition, and the noise level for this scenario, which is shown in the fourth column of Table 3.9-7, is the noise level in CNEL that would exist today if the proposed Project were already built. This noise level is based on the addition of the existing traffic volume and a change in traffic volume attributable to the proposed Project. The change in traffic volume attributable to the proposed Project is based on the year 2037 projected traffic volumes and represents the difference between the year 2037 with-project traffic volume and the year 2037 without-project traffic volume. The third scenario is the year 2037 with-project condition, and the noise level for this scenario is the noise level that would exist in the year 2037 if the proposed Project were built.

A comparison between the existing noise level and the existing-plus-project noise level yields a change in noise level attributable to the proposed Project as it would exist today. This is shown in the fifth column of Table 3.9-7. A comparison between the existing noise level and the year 2037 with-project noise level yields the cumulative increase in noise which is attributable to the proposed Project as well as growth in the area between now and the year 2037. This is shown in the sixth column of Table 3.9-7. Traffic noise level increases greater than or equal to 3 dB, but less than 5 dB are shown in bold font, and traffic noise level increases greater than or equal to 5 dB are shown in bold underline font. Roadway segments that experience traffic noise increases greater than 3 dB are discussed in detail following the table. There are six roadway segments that are predicted by the model to have a 3 dB or greater noise increase due to the proposed Project.

Traffic noise increases for the year 2015 were also examined, and for all roadway segments, the traffic volumes for the year 2015 were found to be less than the traffic

volumes for the year 2037. Therefore, the noise increases due to traffic in the year 2015 would be less than the noise increases due to traffic in the year 2037.

Table 3.9-7. Traffic Noise Increases Due To the Proposed Project

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @50 ft*	*Existing Plus Project CNEL @50 ft*	*dB Increase Due To Project*	*Cumulative Increase Over 2007*
1st Street					
East of Harbor Boulevard	30	52.9	62.3	**9.4**	**10.5**
Harbor Boulevard to Centre Street	30	56.8	60.9	**4.1**	**6.2**
Centre Street to Pacific Avenue	30	61.4	63.2	1.8	**3.3**
Pacific Avenue to Grand Avenue	30	62.5	63.9	1.4	2.8
Grand Avenue to Gaffey Street	30	63.5	64.7	1.2	2.5
Gaffey Street to Cabrillo Avenue	30	68.0	68.0	0.0	0.8
3rd Street					
East of Harbor Boulevard	30	**N/A**	**N/A**	**N/A**	**N/A**
Harbor Boulevard to Centre Street	30	58.3	58.8	0.5	**3.7**
5th Street					
East of Harbor Boulevard	30	56.1	*	*	-10.3
Harbor Boulevard to Centre Street	30	62.8	62.7	-0.1	1.2
Centre Street to Pacific Avenue	30	62.8	62.8	0.0	1.4
Pacific Avenue to Grand Avenue	30	61.8	61.8	0.0	1.5
Grand Avenue to Gaffey Street	30	63.1	63.1	0.0	1.3
Gaffey Street to Cabrillo Avenue	30	64.1	64.1	0.0	0.8
6th Street					
Sampson Way to Harbor Boulevard	30	56.6	*	*	-11.1
Harbor Boulevard to Centre Street	30	58.2	57.3	-0.9	0.6
Centre Street to Pacific Avenue	30	59.2	59.3	0.1	1.1
Pacific Avenue to Grand Avenue	30	58.3	58.4	0.1	1.1
Grand Avenue to Gaffey Street	30	59.3	59.4	0.1	1.0
Gaffey Street to Cabrillo Avenue	30	59.1	59.2	0.1	1.0
7th Street					
Sampson Way to Harbor Boulevard	30	52.6	63.8	**11.2**	**11.2**
Harbor Boulevard to Centre Street	30	62.6	63.5	0.9	1.7

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @50 ft*	*Existing Plus Project CNEL @50 ft*	*dB Increase Due To Project*	*Cumulative Increase Over 2007*
Centre Street to Pacific Avenue	30	59.8	60.0	0.2	1.5
Pacific Avenue to Grand Avenue	30	60.4	60.5	0.1	1.4
Grand Avenue to Gaffey Street	30	62.8	62.9	0.1	1.2
Gaffey Street to Cabrillo Avenue	30	64.2	64.2	0.0	0.8
9th Street					
Centre Street to Pacific Avenue	35	62.7	62.9	0.2	1.7
Pacific Avenue to Grand Avenue	35	65.2	65.3	0.1	1.3
Grand Avenue to Gaffey Street	35	66.5	66.6	0.1	1.2
Gaffey Street to Patton Avenue	35	67.8	67.9	0.1	1.0
Patton Avenue to Western Avenue	35	65.1	65.2	0.1	1.1
Western Avenue to Chandeleur Drive	35	65.1	65.2	0.1	1.0
13th Street					
Centre Street to Pacific Avenue	25	58.7	59.0	0.3	1.0
Pacific Avenue to Grand Avenue	25	61.4	61.5	0.1	0.8
Grand Avenue to Gaffey Street	25	64.0	64.0	0.0	0.8
Gaffey Street to Meyler Street	25	64.6	64.6	0.0	0.8
17th Street					
Centre Street to Pacific Avenue	35	61.8	61.9	0.1	0.8
Pacific Avenue to Grand Avenue	35	64.5	64.5	0.0	0.8
Grand Avenue to Gaffey Street	35	64.0	64.0	0.0	0.8
Gaffey Street to Meyler Street	35	64.9	64.9	0.0	0.8
19th Street					
Mesa Street to Pacific Avenue	35	59.9	60.0	0.1	0.9
Pacific Avenue to Grand Avenue	35	61.0	61.1	0.1	0.9
Grand Avenue to Gaffey Street	35	63.3	63.4	0.1	0.9
Gaffey Street to Meyler Street	35	65.7	65.8	0.1	0.9
22nd Street					
Signal Place to Miner Street	25	57.3	60.3	**3.0**	**3.5**
Miner Street to Via Cabrillo Marina	25	63.4	64.2	0.8	1.6

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @50 ft*	*Existing Plus Project CNEL @50 ft*	*dB Increase Due To Project*	*Cumulative Increase Over 2007*
Via Cabrillo Marina to Mesa Street	25	63.2	64.1	0.9	1.6
Mesa Street to Pacific Avenue	25	63.4	64.2	0.8	1.5
Pacific Avenue to Grand Avenue	25	61.5	62.6	1.1	1.8
Grand Avenue to Gaffey Street	25	62.0	62.9	0.9	1.6
Gaffey Street to Meyler Street	25	56.3	56.3	0.0	0.8
25th Street					
Gaffey Street to Patton Avenue	35	66.8	67.0	0.2	1.0
Patton Avenue to Western Avenue	35	67.6	67.7	0.1	1.0
Western Avenue to Moray Avenue	35	68.0	68.1	0.1	1.0
110 Freeway					
Harbor Boulevard On Ramp	50	69.6	72.1	2.5	**6.7**
Gaffey Street On Ramp	50	77.6	77.8	0.2	1.2
Crescent Avenue					
Sampson Way to Harbor Boulevard	30	48.6	48.6	0.0	0.0
Harbor Boulevard to 20th Street	30	61.7	61.9	0.2	0.9
Gaffey Street					
Miraflores Avenue to Summerland Avenue	35	69.8	69.8	0.0	1.1
Summerland Avenue to 110 Freeway	35	69.4	69.4	0.0	1.2
110 Freeway to Sepulveda Street	35	74.5	74.7	0.2	1.2
Sepulveda Street to 1st Street	35	74.3	74.5	0.2	1.2
1st Street to 3rd Street	35	72.8	72.9	0.1	1.1
3rd Street to 5th Street	35	72.6	72.7	0.1	1.0
5th Street to 6th Street	35	72.2	72.3	0.1	1.0
6th Street to 7th Street	35	72.0	72.1	0.1	1.0
7th Street to 8th Street	35	71.6	71.7	0.1	1.0
8th Street to 9th Street	35	71.5	71.6	0.1	1.0
9th Street to 11th Street	35	71.0	71.2	0.2	0.9
11th Street to 13th Street	35	71.2	71.4	0.2	0.9
13th Street to 15th Street	35	70.5	70.7	0.2	0.9

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @50 ft*	*Existing Plus Project CNEL @50 ft*	*dB Increase Due To Project*	*Cumulative Increase Over 2007*
15th Street to 17th Street	35	69.8	70.0	0.2	0.9
17th Street to 18th Street	35	69.3	69.5	0.2	1.0
18th Street to 19th Street	35	69.1	69.3	0.2	1.0
19th Street to 20th Street	35	68.3	68.6	0.3	1.1
20th Street to 22nd Street	35	68.1	68.4	0.3	1.1
22nd Street to 23rd Street	35	68.2	68.3	0.1	0.9
23rd Street to 25th Street	35	67.7	67.8	0.1	1.0
25th Street to 26th Street	35	64.6	64.6	0.0	0.8
Gulch Road					
Harbor Boulevard to Beacon Street	25	55.9	56.3	0.4	1.2
Front Street					
Pacific Avenue to Knoll Drive	35	63.1	63.7	0.6	2.5
Knoll Drive to 110 Freeway	35	65.8	66.2	0.4	2.3
Harbor Boulevard					
110 Freeway to Swinford Street	35	68.6	70.0	1.4	**4.0**
Swinford Street to Beacon Street	35	70.9	72.5	1.6	2.4
Beacon Street to O'Farrell Street	35	71.4	73.1	1.7	**3.0**
O'Farrell Street to Santa Cruz Street	35	71.3	73.1	1.8	**3.1**
Santa Cruz Street to 1st Street	35	70.8	72.8	2.0	**3.1**
1st Street to 2nd Street	35	70.5	72.6	2.1	**3.0**
2nd Street to 3rd Street	35	70.3	72.4	2.1	**3.0**
3rd Street to 5th Street	35	70.2	72.4	2.2	**3.0**
5th Street to 6th Street	35	69.6	72.1	2.5	**3.2**
6th Street to 7th Street	35	69.2	72.0	2.8	**3.4**
7th Street to Gulch Road	35	67.7	70.2	2.5	**3.2**
Gulch Road to Crescent Avenue	35	67.5	69.9	2.4	**3.1**
Miner Street					
Crescent Avenue to 22nd Street	35	66.0	69.1	**3.1**	**3.8**
South of 22nd Street	35	57.0	67.9	**10.9**	**11.8**
O'Farrell Street					

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @50 ft*	*Existing Plus Project CNEL @50 ft*	*dB Increase Due To Project*	*Cumulative Increase Over 2007*
Harbor Boulevard to Centre Street	25	56.2	56.3	0.1	1.2
Pacific Avenue					
Channel Street to Front Street	35	70.1	70.2	0.1	1.2
Front Street to Oliver Street	35	69.3	69.3	0.0	0.8
Oliver Street to 1st Street	35	69.3	69.3	0.0	0.8
1st Street to 3rd Street	35	69.7	69.7	0.0	0.8
3rd Street to 5th Street	35	69.6	69.6	0.0	0.8
5th Street to 6th Street	35	69.7	69.7	0.0	0.8
6th Street to 7th Street	35	69.8	69.8	0.0	0.8
7th Street to 8th Street	35	69.8	69.8	0.0	0.8
8th Street to 9th Street	35	69.6	69.6	0.0	0.8
9th Street to 11th Street	35	69.2	69.2	0.0	0.8
11th Street to 13th Street	35	68.7	68.7	0.0	0.8
13th Street to 15th Street	35	68.2	68.2	0.0	0.8
15th Street to 17th Street	35	67.6	67.7	0.1	0.8
17th Street to 18th Street	35	66.9	67.0	0.1	0.8
18th Street to 19th Street	35	66.0	66.1	0.1	0.9
19th Street to 20th Street	35	66.0	66.1	0.1	0.8
20th Street to 22nd Street	35	66.1	66.2	0.1	0.8
22nd Street to 23rd Street	35	67.2	67.2	0.0	0.8
Summerland Avenue					
110 Freeway to Gaffey Street	35	65.9	65.9	0.0	0.8
Gaffey Street to Summerland Avenue	35	67.0	67.0	0.0	0.9
Swinford Street					
Front Street to Harbor Boulevard	35	60.5	48.7	-11.8	**8.3**
47 Ramp	35	68.9	69.9	1.0	1.7
Via Cabrillo Marina					
South of 22nd Street	35	60.5	60.5	0.0	0.8
Western Avenue					

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @50 ft*	*Existing Plus Project CNEL @50 ft*	*dB Increase Due To Project*	*Cumulative Increase Over 2007*
Bynner Drive to 9th Street	35	70.3	70.3	0.0	0.8
9th Street to 19th Street	35	70.9	70.9	0.0	0.8
19th Street to 25th Street	35	68.0	68.0	0.0	0.8
25th Street to Paseo del Mar	35	63.8	63.8	0.0	0.8
* The proposed Project removes traffic from this roadway segment due to a change in circulation patterns, and noise would decrease a substantial but indeterminate amount.					

1st Street

East of Harbor Boulevard

No residences exist east of Harbor Boulevard. Currently, the traffic traveling along this roadway segment is nominal, and the modeled existing noise level due to 1st Street is 52.9 CNEL at 50 feet from the centerline of the roadway. With the increase in noise of 9.4 dB over existing conditions, the projected noise due to the Project would be 62.3 CNEL. Although this roadway is projected to have an apparent increase of 9.4 dB as a result of the proposed Project according to the model, this increase is misleading because the model does not take into account noise generated by adjacent roadways. The effect of noise contributions from adjacent roadways can increase the existing noise level above what is reported by the model. Usually, it is the noise from the roadway being modeled that determines the noise level, and the model provides an accurate estimate of the noise level. In this case, however, 1st Street east of Harbor Boulevard is very close to Harbor Boulevard, and the existing ambient noise contribution along 1st Street due to noise emanating from Harbor Boulevard is higher than the noise contribution due to 1st Street alone. Because of this, the modeled existing noise level for 1st Street east of Harbor Boulevard is underreported by the model. The section of Harbor Boulevard close to 1st Street has a modeled existing noise level of 70.5 CNEL. When the noise contribution from Harbor Boulevard is accounted for, the existing noise level along 1st Street is much higher than the modeled noise level due to the Project. No significant noise impacts would occur along this roadway segment.

Harbor Boulevard to Centre Street

This section of the roadway is almost completely surrounded by residences on both sides of 1st Street. The residences are about 33 feet from the centerline of the roadway. The modeled noise level for current traffic is 56.8 CNEL at 50 feet and 58.6 CNEL at the property line of the residences. The projected with-project noise level would be 60.9 CNEL at 50 feet and 62.7 CNEL at the property line of the nearest residence. At points along 1st Street away from Harbor Boulevard, the noise increase is determined mainly by traffic traveling along 1st Street. The increase in

noise is 4.1 dB, and the with-project noise is less than 70 dBA. This roadway segment would not experience a significant noise impact since the noise at the property line does not exceed 70 CNEL and the total increase in CNEL is less than 5 dBA.

7th Street

Sampson Way to Harbor Boulevard

This is the roadway segment that would accept northbound traffic exiting from Sampson Way once the 6th Street connection between Sampson Way and Harbor Boulevard is closed. No residences or affected uses are located on 7th Street along this section of the roadway. The nearest affected use is a government office building at the corner of 7th Street and Harbor Boulevard, about 110 feet beyond the end point of the roadway segment. Since this office building is located on Harbor Boulevard, the current noise level at the property line of the office building is due mainly to traffic traveling along Harbor Boulevard. The current traffic along Harbor Boulevard from 6th Street to 7th Street produces a CNEL of 69.2 dBA. The projected with-project noise level along 7th Street is 63.8 CNEL at 50 feet, and at 110 feet (i.e., the distance from 7th Street between Sampson Way and Harbor Boulevard to the office building) this noise would be 60.4 CNEL. The with-project noise impact from 7th Street between Sampson Way and Harbor Boulevard would produce less noise at the property line of the nearest affected use (i.e., City Hall) than what currently exists at City Hall. Under the with-project condition, fewer vehicles would travel down 7th Street, and City Hall is closer to 7th Street than Harbor Boulevard. This roadway segment would not experience a significant increase in noise, and no significant impact is projected.

22nd Street

Signal Place to Miner Street

There is a warehouse along the roadway segment at 50 feet from the roadway. The modeled noise level for existing conditions is 57.3 CNEL at 50 feet from the centerline of the roadway. With a project-only noise increase over existing conditions of 3.0 dB, the with-project noise level is modeled to be 60.3 CNEL at 50 feet. No residences are located along this section of the roadway, and the nearest residence is over 1,200 feet away. Since the with-project noise levels are well below 70 CNEL and since the noise increase is 3.0 dB, there would not be any significant noise impact along this roadway.

Miner Street

Crescent Avenue to 22nd Street

No residences are located on Miner Street along this section of the roadway. The nearest residence is just north of this section of the roadway near the corner of Crescent Avenue and Harbor Boulevard. The only nearest affected uses are Warehouses No. 9 and No. 10 and the temporary Waterfront Red Car maintenance

Facility. The closest affected use is 85 feet from the roadway. The modeled noise level for existing conditions is 66.0 CNEL at 50 feet and 63.7 CNEL at 85 feet. The proposed project-only noise increase over existing conditions would be 3.1 dB, making the with-project noise level is 69.1 CNEL at 50 feet and 66.8 CNEL at 85 feet. With a with-project noise level of less than 70 CNEL and a noise increase of 3.1 dB, there would not be a significant noise impact to this roadway segment.

South of 22nd Street

This roadway leads into and out of the Outer Harbor. Adjacent to this roadway segment is the Cabrillo Marina. The closest affected uses to this roadway segment are live-aboards in the marina. The distance from the roadway to the live-aboards is at least 80 feet. The modeled noise level for existing conditions is 57.0 CNEL at 50 feet and 55.0 CNEL at 80 feet. The with-project noise level is 67.9 CNEL at 50 feet and 65.9 CNEL at 80 feet, the proposed project-only noise increase over existing conditions would be 10.9 dB. This is a substantial increase in noise. There would be a significant impact to this roadway segment since the noise increase is greater than 5 dB.

CEQA Impact Determination

Miner Street south of 22nd Street is the only street segment that would result in a significant impact from the proposed project. For all other street segments, no significant noise impacts are anticipated, and impacts would be less than significant.

Mitigation Measures

No mitigation is available that would reduce noise impacts to live-aboards in the marina to a less-than-significant level.

Residual Impacts

Impacts would be significant and unavoidable.

NEPA Traffic Impacts

To estimate the traffic noise level increases and impacts due to the development of the proposed Project under NEPA, comparisons have been made between the noise levels generated by three different proposed project scenarios. Table 3.9-8 shows the noise levels and changes for some of these scenarios for all roadway segments. The first scenario is the NEPA baseline, which represents existing traffic plus traffic that is generated solely by the No-Federal-Action Alternative (Alternative 5). This scenario is shown in the third column of Table 3.9-8. The second scenario is the existing-plus-project noise condition, and the noise level for this scenario, which is shown in the fourth column of Table 3.9-8, is the noise level in CNEL that would exist today if the proposed Project were already built. This noise level is based upon the addition of the existing traffic volume and a change in traffic volume attributable to the proposed Project. The change in traffic volume attributable to the proposed Project is based on the year 2037 projected traffic volumes and represents the

difference between the year 2037 with-project traffic volume and the year 2037 without-project traffic volume. The third scenario is the year 2037 with-project condition, and the noise level for this scenario is the noise level that would exist in the year 2037 if the proposed Project were built.

A comparison between the NEPA noise level and the existing-plus-project noise level yields a change in noise level that represents the NEPA impacts, or in other words, the impact over NEPA baseline. This is shown in the fifth column of Table 3.9-8. A comparison between the NEPA noise level and the year 2037 with-project noise level yields the cumulative increase in noise which is attributable to the nonfederal elements as well as growth in the area between now and the year 2037. This is shown in the sixth column of Table 3.9-8. Traffic noise level increases greater than or equal to 3 dB, but less than 5 dB are shown in bold font, and traffic noise level increases greater than or equal to 5 dB are shown in bold underline font.

Traffic noise increases for the year 2015 were also examined, and for all roadway segments, the traffic volumes for the year 2015 were found to be less than the traffic volumes for the year 2037. Therefore, the noise increases due to traffic in the year 2015 would be less than the noise increases due to traffic in the year 2037.

Table 3.9-8. Traffic Noise Increases Due To the Proposed Project under NEPA

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus Project CNEL @ 50 ft*	*NEPA dB Increase Due To Project*	*NEPA Cumulative Increase Over 2007*
1st Street					
East of Harbor Boulevard	30	61.1	62.3	1.2	2.3
Harbor Boulevard to Centre Street	30	60.7	60.9	0.1	2.2
Centre Street to Pacific Avenue	30	63.1	63.2	0.1	1.6
Pacific Avenue to Grand Avenue	30	63.9	63.9	0.1	1.5
Grand Avenue to Gaffey Street	30	64.7	64.7	0.1	1.4
Gaffey Street to Cabrillo Avenue	30	68.0	68.0	0.0	0.8
3rd Street					
East of Harbor Boulevard	30	**N/A**	**N/A**	**N/A**	**N/A**
Harbor Boulevard to Centre Street	30	58.7	58.8	0.0	**3.2**
5th Street					
East of Harbor Boulevard	30	*	*	*	*
Harbor Boulevard to Centre Street	30	62.7	62.7	0.0	1.4
Centre Street to Pacific Avenue	30	62.8	62.8	0.0	1.3
Pacific Avenue to Grand Avenue	30	61.8	61.8	0.0	1.5

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus Project CNEL @ 50 ft*	*NEPA dB Increase Due To Project*	*NEPA Cumulative Increase Over 2007*
Grand Avenue to Gaffey Street	30	63.1	63.1	0.0	1.3
Gaffey Street to Cabrillo Avenue	30	64.1	64.1	0.0	0.8
6th Street					
Sampson Way to Harbor Boulevard	30	*	*	*	*
Harbor Boulevard to Centre Street	30	57.1	57.3	0.2	1.8
Centre Street to Pacific Avenue	30	59.3	59.3	0.0	1.0
Pacific Avenue to Grand Avenue	30	58.4	58.4	0.1	1.0
Grand Avenue to Gaffey Street	30	59.4	59.4	0.0	0.9
Gaffey Street to Cabrillo Avenue	30	59.1	59.2	0.0	0.9
7th Street					
Sampson Way to Harbor Boulevard	30	63.3	63.8	0.5	0.5
Harbor Boulevard to Centre Street	30	63.4	63.5	0.0	0.9
Centre Street to Pacific Avenue	30	59.9	60.0	0.0	1.4
Pacific Avenue to Grand Avenue	30	60.5	60.5	0.0	1.3
Grand Avenue to Gaffey Street	30	62.9	62.9	0.0	1.1
Gaffey Street to Cabrillo Avenue	30	64.2	64.2	0.0	0.8
9th Street					
Centre Street to Pacific Avenue	35	62.8	62.9	0.1	1.6
Pacific Avenue to Grand Avenue	35	65.3	65.3	0.0	1.2
Grand Avenue to Gaffey Street	35	66.5	66.6	0.0	1.1
Gaffey Street to Patton Avenue	35	67.9	67.9	0.0	0.9
Patton Avenue to Western Avenue	35	65.2	65.2	0.0	1.0
Western Avenue to Chandeleur Drive	35	65.2	65.2	0.0	0.9
13th Street					
Centre Street to Pacific Avenue	25	59.0	59.0	0.0	0.7
Pacific Avenue to Grand Avenue	25	61.5	61.5	0.0	0.8
Grand Avenue to Gaffey Street	25	64.0	64.0	0.0	0.8
Gaffey Street to Meyler Street	25	64.6	64.6	0.0	0.8
17th Street					
Centre Street to Pacific Avenue	35	61.9	61.9	0.0	0.8

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus Project CNEL @ 50 ft*	*NEPA dB Increase Due To Project*	*NEPA Cumulative Increase Over 2007*
Pacific Avenue to Grand Avenue	35	64.5	64.5	0.0	0.8
Grand Avenue to Gaffey Street	35	64.0	64.0	0.0	0.7
Gaffey Street to Meyler Street	35	64.9	64.9	0.0	0.8
19th Street					
Mesa Street to Pacific Avenue	35	60.0	60.0	0.0	0.8
Pacific Avenue to Grand Avenue	35	61.0	61.1	0.0	0.9
Grand Avenue to Gaffey Street	35	63.3	63.4	0.1	0.9
Gaffey Street to Meyler Street	35	65.7	65.8	0.1	0.9
22nd Street					
Signal Place to Miner Street	25	59.0	60.3	1.2	1.8
Miner Street to Via Cabrillo Marina	25	63.8	64.2	0.4	1.2
Via Cabrillo Marina to Mesa Street	25	63.6	64.1	0.4	1.2
Mesa Street to Pacific Avenue	25	63.8	64.2	0.4	1.1
Pacific Avenue to Grand Avenue	25	62.0	62.6	0.6	1.4
Grand Avenue to Gaffey Street	25	62.4	62.9	0.5	1.3
Gaffey Street to Meyler Street	25	56.3	56.3	0.0	0.8
25th Street					
Gaffey Street to Patton Avenue	35	66.9	67.0	0.0	0.9
Patton Avenue to Western Avenue	35	67.7	67.7	0.0	0.9
Western Avenue to Moray Avenue	35	68.1	68.1	0.0	0.9
110 Freeway					
Harbor Boulevard On Ramp	50	69.8	72.1	2.3	**6.4**
Gaffey Street On Ramp	50	77.8	77.8	0.1	1.0
Crescent Avenue					
Sampson Way to Harbor Boulevard	30	48.6	48.6	0.0	0.0
Harbor Boulevard to 20th Street	30	61.9	61.9	0.0	0.7
Gaffey Street					
Miraflores Avenue to Summerland Avenue	35	69.8	69.8	0.0	1.1
Summerland Avenue to 110 Freeway	35	69.4	69.4	0.0	1.2

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus Project CNEL @ 50 ft*	*NEPA dB Increase Due To Project*	*NEPA Cumulative Increase Over 2007*
110 Freeway to Sepulveda Street	35	74.6	74.7	0.1	1.1
Sepulveda Street to 1st Street	35	74.5	74.5	0.1	1.1
1st Street to 3rd Street	35	72.8	72.9	0.1	1.1
3rd Street to 5th Street	35	72.6	72.7	0.1	1.0
5th Street to 6th Street	35	72.2	72.3	0.1	0.9
6th Street to 7th Street	35	72.0	72.1	0.1	0.9
7th Street to 8th Street	35	71.6	71.7	0.1	0.9
8th Street to 9th Street	35	71.5	71.6	0.1	0.9
9th Street to 11th Street	35	71.0	71.2	0.1	0.9
11th Street to 13th Street	35	71.2	71.4	0.1	0.9
13th Street to 15th Street	35	70.5	70.7	0.1	0.9
15th Street to 17th Street	35	69.8	70.0	0.2	0.9
17th Street to 18th Street	35	69.4	69.5	0.2	0.9
18th Street to 19th Street	35	69.2	69.3	0.2	0.9
19th Street to 20th Street	35	68.4	68.6	0.2	1.0
20th Street to 22nd Street	35	68.2	68.4	0.2	1.0
22nd Street to 23rd Street	35	68.3	68.3	0.0	0.8
23rd Street to 25th Street	35	67.8	67.8	0.0	0.9
25th Street to 26th Street	35	64.6	64.6	0.0	0.8
Gulch Road					
Harbor Boulevard to Beacon Street	25	56.1	56.3	0.2	1.0
Front Street					
Pacific Avenue to Knoll Drive	35	63.3	63.7	0.5	2.3
Knoll Drive to 110 Freeway	35	65.9	66.2	0.3	2.2
Harbor Boulevard					
110 Freeway to Swinford Street	35	68.7	70.0	1.3	**3.9**
Swinford Street to Beacon Street	35	71.5	72.5	1.0	1.8
Beacon Street to O'Farrell Street	35	72.1	73.1	1.0	2.3
O'Farrell Street to Santa Cruz Street	35	72.1	73.1	1.0	2.3
Santa Cruz Street to 1st Street	35	71.7	72.8	1.1	2.3

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus Project CNEL @ 50 ft*	*NEPA dB Increase Due To Project*	*NEPA Cumulative Increase Over 2007*
1st Street to 2nd Street	35	71.3	72.6	1.2	2.1
2nd Street to 3rd Street	35	71.2	72.4	1.3	2.2
3rd Street to 5th Street	35	71.1	72.4	1.3	2.1
5th Street to 6th Street	35	70.7	72.1	1.4	2.1
6th Street to 7th Street	35	70.6	72.0	1.4	2.1
7th Street to Gulch Road	35	68.1	70.2	2.1	2.8
Gulch Road to Crescent Avenue	35	67.6	69.9	2.3	**3.0**
Miner Street					
Crescent Avenue to 22nd Street	35	66.1	69.1	**3.0**	**3.7**
South of 22nd Street	35	57.0	67.9	**10.9**	**11.8**
O'Farrell Street					
Harbor Boulevard to Centre Street	25	56.3	56.3	0.0	1.1
Pacific Avenue					
Channel Street to Front Street	35	70.1	70.2	0.1	1.2
Front Street to Oliver Street	35	69.3	69.3	0.0	0.8
Oliver Street to 1st Street	35	69.3	69.3	0.0	0.8
1st Street to 3rd Street	35	69.7	69.7	0.0	0.8
3rd Street to 5th Street	35	69.6	69.6	0.0	0.8
5th Street to 6th Street	35	69.7	69.7	0.0	0.8
6th Street to 7th Street	35	69.8	69.8	0.0	0.8
7th Street to 8th Street	35	69.8	69.8	0.0	0.8
8th Street to 9th Street	35	69.6	69.6	0.0	0.8
9th Street to 11th Street	35	69.2	69.2	0.0	0.8
11th Street to 13th Street	35	68.7	68.7	0.0	0.8
13th Street to 15th Street	35	68.2	68.2	0.0	0.8
15th Street to 17th Street	35	67.6	67.7	0.0	0.8
17th Street to 18th Street	35	67.0	67.0	0.0	0.8
18th Street to 19th Street	35	66.1	66.1	0.0	0.8
19th Street to 20th Street	35	66.1	66.1	0.0	0.8
20th Street to 22nd Street	35	66.2	66.2	0.0	0.8

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus Project CNEL @ 50 ft*	*NEPA dB Increase Due To Project*	*NEPA Cumulative Increase Over 2007*
22nd Street to 23rd Street	35	67.2	67.2	0.0	0.8
Summerland Avenue					
110 Freeway to Gaffey Street	35	65.9	65.9	0.0	0.8
Gaffey Street to Summerland Avenue	35	67.0	67.0	0.0	0.9
Swinford Street					
Front Street to Harbor Boulevard	35	*	48.7	*	*
47 Ramp	35	69.4	69.9	0.5	1.2
Via Cabrillo Marina					
South of 22nd Street	35	60.5	60.5	0.0	0.8
Western Avenue					
Bynner Drive to 9th Street	35	70.3	70.3	0.0	0.8
9th Street to 19th Street	35	70.9	70.9	0.0	0.8
19th Street to 25th Street	35	68.0	68.0	0.0	0.8
25th Street to Paseo del Mar	35	63.8	63.8	0.0	0.8
* The proposed Project removes traffic from this roadway segment due to a change in circulation patterns, and noise would decrease a substantial but indeterminate amount.					

NEPA Impact Determination

Miner Street south of 22nd Street is the only street segment that would result in a significant impact. For all other street segments, no significant noise impacts are anticipated, and impacts would be less than significant.

Mitigation Measures

No mitigation is available.

Residual Impacts

Impacts would be significant and unavoidable.

Impact NOI-3b: The proposed Project would not cause noise from railroad operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.

From noise measurements made near the Waterfront Red Car Line, it has been determined that two Waterfront Red Car train operations (one northbound and one southbound) in a 20-minute period generate an L_{eq} of 64.3 dBA at 25 feet from the railroad tracks. With the proposed Waterfront Red Car route, the closest distance of any affected use to the Waterfront Red Car Line is along Shoshonean Way at the Doubletree Hotel, about 45 feet from the Red Car tracks. The existing daytime ambient L_{eq} at the hotel is about 54 dBA, and the CNEL is less than 70 dBA. Assuming six Red Car operations per hour pass by the hotel, the L_{eq} due to the combination of the Waterfront Red Car traffic and the existing ambient noise would be no greater than 62.5 dBA at the nearest affected use. The effect of the operation of the Red Car Line is to increase the L_{eq} by 8.5 dB above the existing daytime ambient noise levels. This is a significant increase; however, most affected uses surrounding the Waterfront Red Car Line are farther than 45 feet from the railroad track, so the L_{eq} generated by the Waterfront Red Car Line at the property line of these other affected uses would be much lower than 62.5 dBA, which is the worst case. Using 3 dB and 5 dB as a noise increase threshold, any location that is greater than 124 feet from the Red Car tracks would experience less than a 5 dB daytime increase in L_{eq} above ambient levels due to the noise generated by the Red Car, and any location that is greater than 269 feet from the tracks would experience less than a 3 dB daytime increase in L_{eq} during daytime operations, For all distances greater than 90 feet from the Red Car tracks, the daytime L_{eq} associated with the Waterfront Red Car Line would be less than 60 dBA. For all of the preceding discussion, the noise increases were calculated using the L_{eq} metric, but the noise increases using the 24-hour CNEL metric is what determines whether or not there is a significant impact. The Red Car Line would be not be operating during the nighttime hours (10 p.m. to 7 a.m.), and it may not operate during some or all of the evening hours (7 p.m. to 10 p.m.). The CNEL metric imposes a penalty for noises made during these hours (i.e., a noise that occurs during the evening or nighttime hours will cause a larger increase in CNEL than the same noise that occurs during the daytime hours). In addition, the noise increase due to the Red Car operations would not take place during the whole 24-hour day. Both of these effects decrease the impact of the noises generated by Red Car operations with respect to the CNEL metric as compared to those increase predicted by the L_{eq} metric. The effect of not having Red Car Line operating during the more heavily weighted evening and nighttime time periods means that the dB increase with respect to the CNEL metric due to Red Car operations would be less than the dB increase with respect to the corresponding L_{eq} metric. The exact discrepancy between the noise increases as determined by each of these two metrics (L_{eq} and CNEL) is determined by the ambient evening and nighttime L_{eq} that exists at the impacted location. Depending upon the evening and nighttime ambient noise levels, the dB increase with respect to the CNEL metric could be significantly lower than the dB increase that is determined by the daytime L_{eq} metric. If the L_{eq} at the nearest affected use were as unrealistically low as 48 dBA for the entire evening and

nighttime time periods, the dB increase with respect to the CNEL metric would be no more than 4.7 dB as opposed to the 8.5 dB increase in the daytime L_e metric. Existing higher evening and nighttime noise levels would decrease the CNEL noise impact further and result in a lower increase in CNEL than 4.7 dB. Long-term (24+ hour) noise measurements that were taken at other sites have an evening and nighttime L_{eq} that is higher 48 dBA. Assuming that the percentage mix of daytime, evening and nighttime noise near the Red Car Line is the same as that measured at one of the two long-term sites, the noise increase at the nearest affected use (i.e. 45 feet from the Red Car tracks) due to the operation of the Red Car Line would cause a noise increase of only 3.3 dB with respect to the CNEL metric. In any case, the noise increase with respect to the CNEL metric should be no more than 4.7 dB. Because the projected noise level at the nearest affected use is less than 70 CNEL (normally unacceptable per the compatibility guidelines), the threshold of significance is 5 dB. Even under the worst-case scenario the increase in CNEL due to the Red Car Line operations would be 4.7 dB. Since this is under 5 dB, there would not be any projected significant impacts due to the Waterfront Red Car operations.

CEQA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact NOI-3c: The proposed Project would not cause noise from cruise ship operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.

From the long-term noise measurements made at the Terminal 93 building, it was determined that the L_{eq} at a distance of 180 feet from a large cruise ship is about 64.3 dBA. The proposed Project would bring cruise ships into the Outer Harbor, where they were not before. The closest affected use to the Outer Harbor is live-aboards in the Cabrillo Marina. The Cabrillo Marina has an existing ambient L_{eq} of 53.9 dBA. The distance from the live-aboards to Berth 45 in the Outer Harbor is 660 feet. The L_{eq} at the live-aboards due to a cruise ship that is docked at Berth 45 would be 55.8 dBA. The combined (ambient noise plus cruise ship) L_{eq} at the live-aboards would then be 58.0 dBA, and the increase in noise above ambient levels at the live-aboards would be 4.1 dB. Because of its movement across the water, all other cruise ship traffic would produce only transitory noise impacts that would be less than what is experienced by live-aboards due to a cruise ship that is docked at the Outer Harbor. There would be no significant noise impacts due to cruise ship operations as a result of the proposed Project. It should be noted that this analysis is based on an hour when the cruise ship is most active, typically during the loading or unloading of passengers. The noise levels and impacts in terms of the CNEL scale would be much lower since cruise ships are typically not active in port during the nighttime hours.

CEQA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

3.9.4.3.2 Alternative 1—Alternative Development Scenario 1

Impact NOI-1: Alternative 1 would exceed construction noise standards.

All construction noise impacts for Alternative 1 would be the same as the proposed Project except the following:

Outer Harbor Berths and Terminal Facilities: The Outer Harbor Berths and Terminal Facilities for Alternative 1 would reduce the number of cruise ship berths that would be built in the Outer Harbor compared to the proposed Project; however, the type of construction and noise levels for this alternative would be the same as for the proposed Project. See conclusions for the Outer Harbor Berths construction under the proposed Project. Construction noise would exceed the significance threshold.

Inner Harbor Parking: The size of the Inner Harbor parking structure would be reduced in scale; however, the type of construction and noise levels for this alternative would be the same as for the proposed Project. Construction noise would exceed the significance threshold.

Outer Harbor Parking: The size of the Outer Harbor surface parking would be reduced from 400 surface parking spaces to 200 surface parking spaces; however, the type of construction and noise levels for this alternative would be the same as for the proposed Project. Construction noise would exceed the significance threshold.

Waterfront Red Car Museum and Maintenance Facility: Both the Waterfront Red Car Museum and Maintenance Facility would be located at Warehouse No. 1 at City Dock No. 1. Live-aboards in the Cabrillo Marina are the closest sensitive receiver to construction activity, about 1,080 feet from Warehouse No. 1. Site ST-13, which has an L_{eq} of 53.9 dBA, is the nearest measurement site. The L_{eq} at the location of the live-aboards due to construction is projected to be 60 dBA. With an increase of more than 6 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

Harbor Boulevard Lane Capacity: Under this alternative, the construction due to the reduction in lane capacity along Harbor Boulevard would produce an L_{eq} of 89 dBA at the nearest residence, which is 50 feet away. Construction noise would exceed the significance threshold.

CEQA Impact Determination

Impacts resulting from construction activities would be significant.

Mitigation Measures

Implement Mitigation Measure MM NOI-1.

Residual Impacts

As discussed under the proposed Project, Mitigation Measure MM NOI-1 would reduce impacts; however, impacts would remain significant. Impacts would be significant and unavoidable.

NEPA Impact Determination

Impacts would be significant, but to a lesser extent than analyzed under CEQA (i.e., many of the upland locations are not subject to federal control and responsibility or NEPA). The following proposed project elements would make a significant impact under NEPA:

- North Harbor;
- Downtown Harbor;
- 7th Street Harbor;
- 7th Street Pier;
- Waterfront Promenade:
  - Ports O'Call,
  - City Dock No. 1,
  - Outer Harbor,
  - Cabrillo Beach, and
  - Salt Marsh;
- Cruise Ship Facilities:
  - Outer Harbor Berths and Terminal Facilities;
- Tugboats:
  - Crowley Tug Building;
- Los Angeles Maritime Institute; and
- New fueling facility at Berth 240.

Mitigation Measures

Implement Mitigation Measure MM NOI-1.

Residual Impacts

Impacts would be significant and unavoidable.

Impact NOI-2: Construction activities for Alternative 1 would not exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.

No construction activities are planned to occur between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.

CEQA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact NOI-3a: Alternative 1 would cause noise from motor vehicle traffic measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.

CEQA Traffic Impacts

Methods for calculating traffic noise impacts for Alternative 1 are the same as those described under the proposed Project.

There are five roadway segments, one less than the proposed Project, that have a 3 dB or greater noise increase due to Alternative 1. Since a 3 dB increase in noise is the minimum increase that could trigger a significant impact, any increase under 3 dB would not result in an increase. It should be kept in mind that a 3 dB increase would only result in a significant impact if the existing CNEL is over 70 dBA. Under the proposed Project, Miner Street from Crescent Avenue to 22nd Street would be significantly impacted, but this roadway segment would not be significantly impacted under Alternative 1 because the traffic volume increase for this roadway segment is not sufficient to make a significant impact. The most likely explanation for the reason why this road segment is not significantly impacted under Alternative 1 is because the northbound Harbor Boulevard traffic cul-de-sacs at 13th Street, which translates into less traffic and less noise along Miner Street from Crescent Avenue to 22nd Street.

Traffic noise increases for the year 2015 were also examined, and for all roadway segments, the traffic volumes for the year 2015 were found to be less than the traffic volumes for the year 2037. Therefore, the noise increases due to traffic in the year 2015 would be less than the noise increases due to traffic in the year 2037.

Table 3.9-9. Traffic Noise Increases Due To Alternative 1

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @50 ft*	*Existing Plus ALT 1 CNEL @ 50 ft*	*dB Increase Due To ALT 1*	*Cumulative Increase Over 2007*
1st Street					
East of Harbor Boulevard	30	52.9	61.8	**8.9**	**10.1**
Harbor Boulevard to Centre Street	30	56.8	60.4	**3.6**	**5.9**
Centre Street to Pacific Avenue	30	61.4	63.0	1.6	**3.1**
Pacific Avenue to Grand Avenue	30	62.5	63.7	1.2	2.7
Grand Avenue to Gaffey Street	30	63.5	64.5	1.0	2.4
Gaffey Street to Cabrillo Avenue	30	68.0	68.0	0.0	0.8
3rd Street					
East of Harbor Boulevard	30	**N/A**	**N/A**	**N/A**	**N/A**
Harbor Boulevard to Centre Street	30	58.3	58.7	0.4	**3.7**
5th Street					
East of Harbor Boulevard	30	56.1	*	*	-10.3
Harbor Boulevard to Centre Street	30	62.8	62.7	-0.1	1.2
Centre Street to Pacific Avenue	30	62.8	62.8	0.0	1.4
Pacific Avenue to Grand Avenue	30	61.8	61.8	0.0	1.5
Grand Avenue to Gaffey Street	30	63.1	63.1	0.0	1.3

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @50 ft*	*Existing Plus ALT 1 CNEL @ 50 ft*	*dB Increase Due To ALT 1*	*Cumulative Increase Over 2007*
Gaffey Street to Cabrillo Avenue	30	64.1	64.1	0.0	0.8
6th Street					
Sampson Way to Harbor Boulevard	30	56.6	*	*	-11.1
Harbor Boulevard to Centre Street	30	58.2	57.3	-0.9	0.6
Centre Street to Pacific Avenue	30	59.2	59.3	0.1	1.1
Pacific Avenue to Grand Avenue	30	58.3	58.4	0.1	1.1
Grand Avenue to Gaffey Street	30	59.3	59.4	0.1	1.0
Gaffey Street to Cabrillo Avenue	30	59.1	59.2	0.1	1.0
7th Street					
Sampson Way to Harbor Boulevard	30	52.6	67.9	**15.3**	**15.3**
Harbor Boulevard to Centre Street	30	62.6	63.3	0.7	1.6
Centre Street to Pacific Avenue	30	59.8	59.9	0.1	1.5
Pacific Avenue to Grand Avenue	30	60.4	60.5	0.1	1.4
Grand Avenue to Gaffey Street	30	62.8	62.8	0.0	1.2
Gaffey Street to Cabrillo Avenue	30	64.2	64.2	0.0	0.8
9th Street					
Centre Street to Pacific Avenue	35	62.7	62.8	0.1	1.6
Pacific Avenue to Grand Avenue	35	65.2	65.3	0.1	1.3
Grand Avenue to Gaffey Street	35	66.5	66.6	0.1	1.1
Gaffey Street to Patton Avenue	35	67.8	67.9	0.1	1.0
Patton Avenue to Western Avenue	35	65.1	65.2	0.1	1.1
Western Avenue to Chandeleur Drive	35	65.1	65.2	0.1	1.0
13th Street					
Centre Street to Pacific Avenue	25	58.7	59.0	0.3	1.0
Pacific Avenue to Grand Avenue	25	61.4	61.5	0.1	0.8
Grand Avenue to Gaffey Street	25	64.0	64.0	0.0	0.8
Gaffey Street to Meyler Street	25	64.6	64.6	0.0	0.8
17th Street					
Centre Street to Pacific Avenue	35	61.8	61.9	0.1	0.8
Pacific Avenue to Grand Avenue	35	64.5	64.5	0.0	0.8

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @50 ft*	*Existing Plus ALT 1 CNEL @ 50 ft*	*dB Increase Due To ALT 1*	*Cumulative Increase Over 2007*
Grand Avenue to Gaffey Street	35	64.0	64.0	0.0	0.8
Gaffey Street to Meyler Street	35	64.9	64.9	0.0	0.8
19th Street					
Mesa Street to Pacific Avenue	35	59.9	60.0	0.1	0.9
Pacific Avenue to Grand Avenue	35	61.0	61.1	0.1	0.9
Grand Avenue to Gaffey Street	35	63.3	63.4	0.1	0.9
Gaffey Street to Meyler Street	35	65.7	65.8	0.1	0.9
22nd Street					
Signal Place to Miner Street	25	57.3	62.2	**4.9**	**5.2**
Miner Street to Via Cabrillo Marina	25	63.4	64.1	0.7	1.4
Via Cabrillo Marina to Mesa Street	25	63.2	63.9	0.7	1.4
Mesa Street to Pacific Avenue	25	63.4	64.0	0.6	1.3
Pacific Avenue to Grand Avenue	25	61.5	62.3	0.8	1.5
Grand Avenue to Gaffey Street	25	62.0	62.6	0.6	1.4
Gaffey Street to Meyler Street	25	56.3	56.3	0.0	0.8
25th Street					
Gaffey Street to Patton Avenue	35	66.8	66.9	0.1	1.0
Patton Avenue to Western Avenue	35	67.6	67.7	0.1	1.0
Western Avenue to Moray Avenue	35	68.0	68.1	0.1	1.0
110 Freeway					
Harbor Boulevard On Ramp	50	69.6	70.8	1.2	**6.2**
Gaffey Street On Ramp	50	77.6	77.8	0.2	1.1
Crescent Avenue					
Sampson Way to Harbor Boulevard	30	48.6	48.6	0.0	0.0
Harbor Boulevard to 20th Street	30	61.7	61.8	0.1	0.9
Gaffey Street					
Miraflores Avenue to Summerland Avenue	35	69.8	69.8	0.0	1.1
Summerland Avenue to 110 Freeway	35	69.4	69.4	0.0	1.2
110 Freeway to Sepulveda Street	35	74.5	74.7	0.2	1.2
Sepulveda Street to 1st Street	35	74.3	74.5	0.2	1.2

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @50 ft*	*Existing Plus ALT 1 CNEL @ 50 ft*	*dB Increase Due To ALT 1*	*Cumulative Increase Over 2007*
1st Street to 3rd Street	35	72.8	72.9	0.1	1.1
3rd Street to 5th Street	35	72.6	72.7	0.1	1.0
5th Street to 6th Street	35	72.2	72.3	0.1	0.9
6th Street to 7th Street	35	72.0	72.1	0.1	0.9
7th Street to 8th Street	35	71.6	71.7	0.1	0.9
8th Street to 9th Street	35	71.5	71.6	0.1	0.9
9th Street to 11th Street	35	71.0	71.1	0.1	0.9
11th Street to 13th Street	35	71.2	71.3	0.1	0.9
13th Street to 15th Street	35	70.5	70.6	0.1	0.9
15th Street to 17th Street	35	69.8	69.9	0.1	0.9
17th Street to 18th Street	35	69.3	69.4	0.1	0.9
18th Street to 19th Street	35	69.1	69.2	0.1	0.9
19th Street to 20th Street	35	68.3	68.5	0.2	1.0
20th Street to 22nd Street	35	68.1	68.3	0.2	1.0
22nd Street to 23rd Street	35	68.2	68.3	0.1	0.9
23rd Street to 25th Street	35	67.7	67.8	0.1	0.9
25th Street to 26th Street	35	64.6	64.6	0.0	0.8
Gulch Road					
Harbor Boulevard to Beacon Street	25	55.9	50.3	-5.6	-3.2
Front Street					
Pacific Avenue to Knoll Drive	35	63.1	63.5	0.4	2.4
Knoll Drive to 110 Freeway	35	65.8	66.0	0.2	2.2
Harbor Boulevard					
110 Freeway to Swinford Street	35	68.6	69.2	0.6	**3.6**
Swinford Street to Beacon Street	35	70.9	72.0	1.1	2.0
Beacon Street to O'Farrell Street	35	71.4	72.6	1.2	2.6
O'Farrell Street to Santa Cruz Street	35	71.3	72.5	1.2	2.6
Santa Cruz Street to 1st Street	35	70.8	72.2	1.4	2.7
1st Street to 2nd Street	35	70.5	72.0	1.5	2.5
2nd Street to 3rd Street	35	70.3	71.8	1.5	2.6

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @50 ft*	*Existing Plus ALT 1 CNEL @ 50 ft*	*dB Increase Due To ALT 1*	*Cumulative Increase Over 2007*
3rd Street to 5th Street	35	70.2	71.8	1.6	2.5
5th Street to 6th Street	35	69.6	71.4	1.8	2.6
6th Street to 7th Street	35	69.2	71.3	2.1	2.8
7th Street to Gulch Road	35	67.7	60.9	-6.8	-2.8
Gulch Road to Crescent Avenue	35	67.5	61.0	-6.5	-2.6
Miner Street					
Crescent Avenue to 22nd Street	35	66.0	67.0	1.0	2.1
South of 22nd Street	35	57.0	65.3	**8.3**	**9.7**
O'Farrell Street					
Harbor Boulevard to Centre Street	25	56.2	56.3	0.1	1.2
Pacific Avenue					
Channel Street to Front Street	35	70.1	70.2	0.1	1.2
Front Street to Oliver Street	35	69.3	69.3	0.0	0.8
Oliver Street to 1st Street	35	69.3	69.3	0.0	0.8
1st Street to 3rd Street	35	69.7	69.7	0.0	0.8
3rd Street to 5th Street	35	69.6	69.6	0.0	0.8
5th Street to 6th Street	35	69.7	69.7	0.0	0.8
6th Street to 7th Street	35	69.8	69.8	0.0	0.8
7th Street to 8th Street	35	69.8	69.8	0.0	0.8
8th Street to 9th Street	35	69.6	69.6	0.0	0.8
9th Street to 11th Street	35	69.2	69.2	0.0	0.8
11th Street to 13th Street	35	68.7	68.7	0.0	0.8
13th Street to 15th Street	35	68.2	68.2	0.0	0.8
15th Street to 17th Street	35	67.6	67.7	0.1	0.8
17th Street to 18th Street	35	66.9	67.0	0.1	0.8
18th Street to 19th Street	35	66.0	66.1	0.1	0.9
19th Street to 20th Street	35	66.0	66.1	0.1	0.8
20th Street to 22nd Street	35	66.1	66.2	0.1	0.8
22nd Street to 23rd Street	35	67.2	67.2	0.0	0.8
Summerland Avenue					

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @50 ft*	*Existing Plus ALT 1 CNEL @ 50 ft*	*dB Increase Due To ALT 1*	*Cumulative Increase Over 2007*
110 Freeway to Gaffey Street	35	65.9	65.9	0.0	0.8
Gaffey Street to Summerland Avenue	35	67.0	67.0	0.0	0.9
Swinford Street					
Front Street to Harbor Boulevard	35	60.5	*	*	**7.6**
47 Ramp	35	68.9	69.6	0.7	1.4
Via Cabrillo Marina					
South of 22nd Street	35	60.5	60.5	0.0	0.8
Western Avenue					
Bynner Drive to 9th Street	35	70.3	70.3	0.0	0.8
9th Street to 19th Street	35	70.9	70.9	0.0	0.8
19th Street to 25th Street	35	68.0	68.0	0.0	0.8
25th Street to Paseo del Mar	35	63.8	63.8	0.0	0.8
* Alternative 1 removes traffic from this roadway segment due to a change in circulation patterns, and noise would decrease a substantial but indeterminate amount.					

1st Street

East of Harbor Boulevard

No residences exist east of Harbor Boulevard. Currently, the traffic traveling along this roadway segment is nominal, and the modeled existing noise level due to 1st Street is 52.9 CNEL at 50 feet from the centerline of the roadway. With the increase in noise of 8.9 dB over existing conditions, the projected noise due to Alternative 1 would be 61.8 CNEL. Although this roadway is projected to have an apparent increase of 8.9 dB as a result of Alternative 1 according to the model, this increase is misleading because the model does not take into account noise generated by adjacent roadways. See the discussion of this roadway segment under the Proposed Project for a more detailed explanation of this effect. When the noise contribution from Harbor Boulevard is accounted for, the existing noise level along 1st Street is much higher than the modeled noise level due to Alternative 1. No significant noise impacts would occur along this roadway segment.

Harbor Boulevard to Centre Street

This section of the roadway is almost completely surrounded by residences on both sides of 1st Street. The residences are about 33 feet from the centerline of the roadway. The modeled noise level for current traffic is 56.8 CNEL at 50 feet and 58.6 CNEL at the property line of the residences. The projected with-project noise

level would be 60.4 CNEL at 50 feet and 62.2 CNEL at the property line of the nearest residence. At points along 1st Street away from Harbor Boulevard, the noise increase is determined mainly by traffic traveling along 1st Street. The increase in noise is 3.6 dB, and the with-Alternative 1 noise is less than 70 dBA. This roadway segment would not experience a significant noise impact since the noise at the property line does not exceed 70 CNEL and the total increase in CNEL is less than 5 dB.

7th Street

Sampson Way to Harbor Boulevard

This is the roadway segment that would accept northbound traffic exiting from Sampson Way once the 6th Street connection between Sampson Way and Harbor Boulevard is closed. No residences or affected uses are located on 7th Street along this section of the roadway. The nearest affected use is a government office building (i.e., City Hall) at the corner of 7th Street and Harbor Boulevard, about 110 feet beyond the end point of the roadway segment. Since this office building is located on Harbor Boulevard, the current noise level at the property line of the office building is due mainly to traffic traveling along Harbor Boulevard. The current traffic along Harbor Boulevard from 6th Street to 7th Street produces a CNEL of 69.2 dBA. The projected with-Alternative 1 noise level along 7th Street is 67.9 CNEL at 50 feet, and at 110 feet this noise would be 64.5 CNEL. The with-Alternative 1 noise impact from 7th Street between Sampson Way and Harbor Boulevard would produce less noise at the property line of the nearest affected use (i.e., City Hall) than what currently exists today. Under the with-project condition, fewer vehicles would travel down 7th Street, and City Hall is closer to 7th Street than Harbor Boulevard. This roadway segment would not experience a significant increase in noise, and no significant impact is projected.

22nd Street

Signal Place to Miner Street

There is a warehouse along the roadway segment at 50 feet from the roadway. The modeled noise level for existing conditions is 57.3 CNEL at 50 feet from the centerline of the roadway. With a Alternative 1-only noise increase over existing conditions of 4.9 dB, the with-Alternative 1 noise level is modeled to be 62.2 CNEL at 50 feet. No residences are located along this section of the roadway, and the nearest residence is over 1,200 feet away. Because the with-Alternative 1 noise levels are well below 70 CNEL and because the noise increase is 4.9 dB, there would not be any significant noise impact along this roadway.

Miner Street

South of 22nd Street

This roadway leads into and out of the Outer Harbor. Adjacent to this roadway segment is the Cabrillo Marina. The closest affected uses to this roadway segment

are live-aboards in the marina. The distance from the roadway to the live-aboards is at least 80 feet. The modeled noise level for existing conditions is 57.0 CNEL at 50 feet and 55.0 CNEL at 80 feet. The with-Alternative 1 noise level is 65.3 CNEL at 50 feet and 63.3 CNEL at 80 feet. The Alternative 1-only noise increase over existing conditions would be 8.3 dB. This is a substantial increase in noise. There would be a significant impact to this roadway segment since the noise increase is greater than 5 dB.

CEQA Impact Determination

Miner Street south of 22nd Street is the only street segment that would result in a significant impact from the alternative. For all other street segments, no significant noise impacts are anticipated, and impacts would be less than significant.

Mitigation Measures

No mitigation is available.

Residual Impacts

There would be a significant and unavoidable impact.

NEPA Traffic Impacts

Methods for calculating NEPA traffic noise impacts for Alternative 1 are the same as those described under the proposed Project.

Traffic noise increases for the year 2015 were also examined, and for all roadway segments, the traffic volumes for the year 2015 were found to be less than the traffic volumes for the year 2037. Therefore, the noise increases due to traffic in the year 2015 would be less than the noise increases due to traffic in the year 2037.

Table 3.9-10. Traffic Noise Increases Due To Alternative 1 under NEPA

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus ALT 1 CNEL @ 50 ft*	*NEPA dB Increase Due To Project*	*NEPA Cumulative Increase Over 2007*
1st Street					
East of Harbor Boulevard	30	61.1	61.8	0.6	1.9
Harbor Boulevard to Centre Street	30	60.7	60.4	-0.3	2.0
Centre Street to Pacific Avenue	30	63.1	63.0	-0.2	1.4
Pacific Avenue to Grand Avenue	30	63.9	63.7	-0.1	1.3
Grand Avenue to Gaffey Street	30	64.7	64.5	-0.1	1.2
Gaffey Street to Cabrillo Avenue	30	68.0	68.0	0.0	0.8

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus ALT 1 CNEL @ 50 ft*	*NEPA dB Increase Due To Project*	*NEPA Cumulative Increase Over 2007*
3rd Street					
East of Harbor Boulevard	30	**N/A**	**N/A**	**N/A**	**N/A**
Harbor Boulevard to Centre Street	30	58.7	58.7	0.0	**3.2**
5th Street					
East of Harbor Boulevard	30	*	*	*	*
Harbor Boulevard to Centre Street	30	62.7	62.7	0.0	1.4
Centre Street to Pacific Avenue	30	62.8	62.8	0.0	1.3
Pacific Avenue to Grand Avenue	30	61.8	61.8	0.0	1.5
Grand Avenue to Gaffey Street	30	63.1	63.1	0.0	1.3
Gaffey Street to Cabrillo Avenue	30	64.1	64.1	0.0	0.8
6th Street					
Sampson Way to Harbor Boulevard	30	*	*	*	*
Harbor Boulevard to Centre Street	30	57.1	57.3	0.2	1.8
Centre Street to Pacific Avenue	30	59.3	59.3	0.0	1.0
Pacific Avenue to Grand Avenue	30	58.4	58.4	0.0	1.0
Grand Avenue to Gaffey Street	30	59.4	59.4	0.0	0.9
Gaffey Street to Cabrillo Avenue	30	59.1	59.2	0.0	0.9
7th Street					
Sampson Way to Harbor Boulevard	30	63.3	63.8	0.5	0.5
Harbor Boulevard to Centre Street	30	63.4	63.3	-0.1	0.7
Centre Street to Pacific Avenue	30	59.9	59.9	0.0	1.4
Pacific Avenue to Grand Avenue	30	60.5	60.5	0.0	1.2
Grand Avenue to Gaffey Street	30	62.9	62.8	0.0	1.1
Gaffey Street to Cabrillo Avenue	30	64.2	64.2	0.0	0.8
9th Street					
Centre Street to Pacific Avenue	35	62.8	62.8	0.0	1.5
Pacific Avenue to Grand Avenue	35	65.3	65.3	0.0	1.2
Grand Avenue to Gaffey Street	35	66.5	66.6	0.0	1.1
Gaffey Street to Patton Avenue	35	67.9	67.9	0.0	0.9
Patton Avenue to Western Avenue	35	65.2	65.2	0.0	1.0

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus ALT 1 CNEL @ 50 ft*	*NEPA dB Increase Due To Project*	*NEPA Cumulative Increase Over 2007*
Western Avenue to Chandeleur Drive	35	65.2	65.2	0.0	0.9
13th Street					
Centre Street to Pacific Avenue	25	59.0	59.0	0.0	0.7
Pacific Avenue to Grand Avenue	25	61.5	61.5	0.0	0.8
Grand Avenue to Gaffey Street	25	64.0	64.0	0.0	0.8
Gaffey Street to Meyler Street	25	64.6	64.6	0.0	0.8
17th Street					
Centre Street to Pacific Avenue	35	61.9	61.9	0.0	0.7
Pacific Avenue to Grand Avenue	35	64.5	64.5	0.0	0.8
Grand Avenue to Gaffey Street	35	64.0	64.0	0.0	0.7
Gaffey Street to Meyler Street	35	64.9	64.9	0.0	0.8
19th Street					
Mesa Street to Pacific Avenue	35	60.0	60.0	0.0	0.8
Pacific Avenue to Grand Avenue	35	61.0	61.1	0.0	0.9
Grand Avenue to Gaffey Street	35	63.3	63.4	0.0	0.9
Gaffey Street to Meyler Street	35	65.7	65.8	0.0	0.8
22nd Street					
Signal Place to Miner Street	25	59.0	62.2	**3.2**	**3.5**
Miner Street to Via Cabrillo Marina	25	63.8	64.1	0.3	1.0
Via Cabrillo Marina to Mesa Street	25	63.6	63.9	0.2	1.0
Mesa Street to Pacific Avenue	25	63.8	64.0	0.2	1.0
Pacific Avenue to Grand Avenue	25	62.0	62.3	0.3	1.1
Grand Avenue to Gaffey Street	25	62.4	62.6	0.3	1.0
Gaffey Street to Meyler Street	25	56.3	56.3	0.0	0.8
25th Street					
Gaffey Street to Patton Avenue	35	66.9	66.9	0.0	0.9
Patton Avenue to Western Avenue	35	67.7	67.7	0.0	0.8
Western Avenue to Moray Avenue	35	68.1	68.1	0.0	0.9
110 Freeway					
Harbor Boulevard On Ramp	50	69.8	70.8	0.9	**6.0**

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus ALT 1 CNEL @ 50 ft*	*NEPA dB Increase Due To Project*	*NEPA Cumulative Increase Over 2007*
Gaffey Street On Ramp	50	77.8	77.8	0.0	1.0
Crescent Avenue					
Sampson Way to Harbor Boulevard	30	48.6	48.6	0.0	0.0
Harbor Boulevard to 20th Street	30	61.9	61.8	0.0	0.7
Gaffey Street					
Miraflores Avenue to Summerland Avenue	35	69.8	69.8	0.0	1.1
Summerland Avenue to 110 Freeway	35	69.4	69.4	0.0	1.2
110 Freeway to Sepulveda Street	35	74.6	74.7	0.0	1.0
Sepulveda Street to 1st Street	35	74.5	74.5	0.0	1.0
1st Street to 3rd Street	35	72.8	72.9	0.0	1.1
3rd Street to 5th Street	35	72.6	72.7	0.0	1.0
5th Street to 6th Street	35	72.2	72.3	0.0	0.9
6th Street to 7th Street	35	72.0	72.1	0.0	0.9
7th Street to 8th Street	35	71.6	71.7	0.0	0.9
8th Street to 9th Street	35	71.5	71.6	0.0	0.9
9th Street to 11th Street	35	71.0	71.1	0.1	0.8
11th Street to 13th Street	35	71.2	71.3	0.1	0.8
13th Street to 15th Street	35	70.5	70.6	0.1	0.8
15th Street to 17th Street	35	69.8	69.9	0.1	0.8
17th Street to 18th Street	35	69.4	69.4	0.1	0.8
18th Street to 19th Street	35	69.2	69.2	0.1	0.8
19th Street to 20th Street	35	68.4	68.5	0.1	0.9
20th Street to 22nd Street	35	68.2	68.3	0.1	0.9
22nd Street to 23rd Street	35	68.3	68.3	0.0	0.8
23rd Street to 25th Street	35	67.8	67.8	0.0	0.8
25th Street to 26th Street	35	64.6	64.6	0.0	0.8
Gulch Road					
Harbor Boulevard to Beacon Street	25	56.1	50.3	-5.8	-3.4
Front Street					
Pacific Avenue to Knoll Drive	35	63.3	63.5	0.2	2.2

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus ALT 1 CNEL @ 50 ft*	*NEPA dB Increase Due To Project*	*NEPA Cumulative Increase Over 2007*
Knoll Drive to 110 Freeway	35	65.9	66.0	0.1	2.1
Harbor Boulevard					
110 Freeway to Swinford Street	35	68.7	69.2	0.5	**3.5**
Swinford Street to Beacon Street	35	71.5	72.0	0.4	1.3
Beacon Street to O'Farrell Street	35	72.1	72.6	0.5	1.9
O'Farrell Street to Santa Cruz Street	35	72.1	72.5	0.5	1.9
Santa Cruz Street to 1st Street	35	71.7	72.2	0.5	1.8
1st Street to 2nd Street	35	71.3	72.0	0.6	1.7
2nd Street to 3rd Street	35	71.2	71.8	0.7	1.7
3rd Street to 5th Street	35	71.1	71.8	0.7	1.6
5th Street to 6th Street	35	70.7	71.4	0.7	1.5
6th Street to 7th Street	35	70.6	71.3	0.7	1.4
7th Street to Gulch Road	35	68.1	60.9	-7.1	-3.2
Gulch Road to Crescent Avenue	35	67.6	61.0	-6.6	-2.8
Miner Street					
Crescent Avenue to 22nd Street	35	66.1	67.0	0.9	2.0
South of 22nd Street	35	57.0	65.3	**8.3**	**9.7**
O'Farrell Street					
Harbor Boulevard to Centre Street	25	56.3	56.3	0.0	1.1
Pacific Avenue					
Channel Street to Front Street	35	70.1	70.2	0.0	1.1
Front Street to Oliver Street	35	69.3	69.3	0.0	0.8
Oliver Street to 1st Street	35	69.3	69.3	0.0	0.8
1st Street to 3rd Street	35	69.7	69.7	0.0	0.8
3rd Street to 5th Street	35	69.6	69.6	0.0	0.8
5th Street to 6th Street	35	69.7	69.7	0.0	0.8
6th Street to 7th Street	35	69.8	69.8	0.0	0.8
7th Street to 8th Street	35	69.8	69.8	0.0	0.8
8th Street to 9th Street	35	69.6	69.6	0.0	0.8
9th Street to 11th Street	35	69.2	69.2	0.0	0.8

Roadway Segment	Speed (mph)	NEPA Baseline CNEL @ 50 ft	Existing Plus ALT 1 CNEL @ 50 ft	NEPA dB Increase Due To Project	NEPA Cumulative Increase Over 2007
11th Street to 13th Street	35	68.7	68.7	0.0	0.8
13th Street to 15th Street	35	68.2	68.2	0.0	0.8
15th Street to 17th Street	35	67.6	67.7	0.0	0.8
17th Street to 18th Street	35	67.0	67.0	0.0	0.8
18th Street to 19th Street	35	66.1	66.1	0.0	0.8
19th Street to 20th Street	35	66.1	66.1	0.0	0.8
20th Street to 22nd Street	35	66.2	66.2	0.0	0.8
22nd Street to 23rd Street	35	67.2	67.2	0.0	0.8
Summerland Avenue					
110 Freeway to Gaffey Street	35	65.9	65.9	0.0	0.8
Gaffey Street to Summerland Avenue	35	67.0	67.0	0.0	0.9
Swinford Street					
Front Street to Harbor Boulevard	35	*	*	*	*
47 Ramp	35	69.4	69.6	0.2	0.9
Via Cabrillo Marina					
South of 22nd Street	35	60.5	60.5	0.0	0.8
Western Avenue					
Bynner Drive to 9th Street	35	70.3	70.3	0.0	0.8
9th Street to 19th Street	35	70.9	70.9	0.0	0.8
19th Street to 25th Street	35	68.0	68.0	0.0	0.8
25th Street to Paseo del Mar	35	63.8	63.8	0.0	0.8

* Alternative 1 removes traffic from this roadway segment due to a change in circulation patterns, and noise would decrease a substantial but indeterminate amount.

NEPA Impact Determination

Miner Street south of 22nd Street is the only street segment that would result in a significant impact from the alternative. For all other street segments, no significant noise impacts are anticipated, and impacts would be less than significant.

Mitigation Measures

No mitigation is available.

Residual Impacts

Impacts would be significant and unavoidable.

Impact NOI-3b: Alternative 1 would not cause noise from railroad operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.

The only railroad operation planned under Alternative 1 is the Waterfront Red Car Line. Under Alternative 1, the Waterfront Red Car Line would be extended down to Cabrillo Beach along Shoshonean Way, the same as described under the proposed Project. The largest noise impact caused by the Waterfront Red Car Line under Alternative 1 is along Shoshonean Way. Because the noise impact would not be significant under the proposed Project, it would not be significant under Alternative 1.

CEQA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact NOI-3c: Alternative 1 would not cause noise from cruise ship operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.

Because Alternative 1 would include the construction of a new berth at Berths 45–47, the noise levels at the closest affected use receiver due to cruise ship operations at the new Outer Harbor Berth would be the same as for the proposed Project. The noise impacts due to cruise ship operations under Alternative 1 would be less than significant.

CEQA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

3.9.4.3.3 Alternative 2—Alternative Development Scenario 2

Impact NOI-1: Alternative 2 would exceed construction noise standards.

All construction noise impacts for Alternative 2 would be the same as the proposed Project except the following:

Inner Harbor Parking: The size of the Inner Harbor parking structure would be smaller in scale (i.e., the parking structure would provide only 2,900 spaces for

Alternative 2 instead of 4,000 spaces that would be provided by the proposed Project); however, the type of construction and noise levels for this alternative would be the same as for the proposed Project. Construction noise would exceed the significance threshold.

Outer Harbor Parking: The Outer Harbor parking would include a 2-level parking structure along with surface parking areas. Since building a parking structure will require heavy construction equipment, the type of construction and noise levels would be as high as for the proposed Project. Construction noise would exceed the significance threshold.

Harbor Boulevard Lane Capacity: Under this alternative, the construction due to the reduction in lane capacity along Harbor Boulevard would produce an L_{eq} of 89 dBA at the nearest residence, which is 30 feet away. Construction noise would exceed the significance threshold.

CEQA Impact Determination

Impacts resulting from construction activities would be significant.

Mitigation Measures

Implement Mitigation Measure MM NOI-1.

Residual Impacts

As discussed under the proposed Project, Mitigation MM NOI-1 would reduce impacts; however, impacts would remain significant. Impacts would be significant and unavoidable.

NEPA Impact Determination

Impacts would be significant, but to a lesser extent than analyzed under CEQA (i.e., many of the upland locations are not subject to federal control and responsibility or NEPA). The following proposed project elements would make a significant impact under NEPA.

- North Harbor;
- Downtown Harbor;
- 7th Street Harbor;
- 7th Street Pier;
- Waterfront Promenade:
  - Ports O'Call,
  - City Dock No. 1,
  - Outer Harbor,

- Cabrillo Beach, and
- Salt Marsh;

- Cruise Ship Facilities:
  - Outer Harbor Berths and Terminal Facilities;
- Tugboats:
  - Crowley Tug Building;
- Los Angeles Maritime Institute; and
- New fueling facility at Berth 240.

Mitigation Measures

Implement Mitigation Measure MM NOI-1.

Residual Impacts

Impacts would be significant and unavoidable.

Impact NOI-2: Construction activities for Alternative 2 would not exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.

No construction activities are planned to occur between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.

CEQA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact NOI-3a: Alternative 2 would cause noise from motor vehicle traffic measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.

CEQA Traffic Impacts

Methods for calculating traffic noise impacts for Alternative 2 are the same as those described under the proposed Project.

There are six roadway segments that have a 3 dB or greater noise increase due to Alternative 2. This is the same number of potentially significantly impacted roadway segments as the proposed Project. Since a 3 dB increase in noise is the minimum increase that could trigger a significant impact, any increase under 3 dB would not result in an increase. It should be kept in mind that a 3 dB increase would only result in a significant impact if the existing CNEL is over 70 dBA.

Traffic noise increases for the year 2015 were also examined, and for all roadway segments, the traffic volumes for the year 2015 were found to be less than the traffic volumes for the year 2037. Therefore, the noise increases due to traffic in the year 2015 would be less than the noise increases due to traffic in the year 2037.

Table 3.9-11. Traffic Noise Increases Due To Alternative 2

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @50 ft*	*Existing Plus ALT 2 CNEL @ 50 ft*	*dB Increase Due To ALT 2*	*Cumulative Increase Over 2007*
1st Street					
East of Harbor Boulevard	30	52.9	60.2	**7.3**	**9.0**
Harbor Boulevard to Centre Street	30	56.8	60.0	**3.2**	**5.6**
Centre Street to Pacific Avenue	30	61.4	62.7	1.3	**3.0**
Pacific Avenue to Grand Avenue	30	62.5	63.5	1.0	2.5
Grand Avenue to Gaffey Street	30	63.5	64.4	0.9	2.3
Gaffey Street to Cabrillo Avenue	30	68.0	68.0	0.0	0.8

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @50 ft*	*Existing Plus ALT 2 CNEL @ 50 ft*	*dB Increase Due To ALT 2*	*Cumulative Increase Over 2007*
3rd Street					
East of Harbor Boulevard	30	**N/A**	**N/A**	**N/A**	**N/A**
Harbor Boulevard to Centre Street	30	58.3	58.8	0.5	**3.7**
5th Street					
East of Harbor Boulevard	30	56.1	*	*	-8.6
Harbor Boulevard to Centre Street	30	62.8	62.7	-0.1	1.2
Centre Street to Pacific Avenue	30	62.8	62.8	0.0	1.4
Pacific Avenue to Grand Avenue	30	61.8	61.8	0.0	1.5
Grand Avenue to Gaffey Street	30	63.1	63.1	0.0	1.3
Gaffey Street to Cabrillo Avenue	30	64.1	64.1	0.0	0.8
6th Street					
Sampson Way to Harbor Boulevard	30	56.6	*	*	-12.2
Harbor Boulevard to Centre Street	30	58.2	57.2	-1.0	0.6
Centre Street to Pacific Avenue	30	59.2	59.3	0.1	1.1
Pacific Avenue to Grand Avenue	30	58.3	58.4	0.1	1.1
Grand Avenue to Gaffey Street	30	59.3	59.4	0.1	1.0
Gaffey Street to Cabrillo Avenue	30	59.1	59.2	0.1	1.0
7th Street					
Sampson Way to Harbor Boulevard	30	52.6	68.8	**16.2**	**16.2**
Harbor Boulevard to Centre Street	30	62.6	63.3	0.7	1.6
Centre Street to Pacific Avenue	30	59.8	59.9	0.1	1.5
Pacific Avenue to Grand Avenue	30	60.4	60.5	0.1	1.4
Grand Avenue to Gaffey Street	30	62.8	62.8	0.0	1.2
Gaffey Street to Cabrillo Avenue	30	64.2	64.2	0.0	0.8
9th Street					
Centre Street to Pacific Avenue	35	62.7	62.9	0.2	1.7
Pacific Avenue to Grand Avenue	35	65.2	65.3	0.1	1.3
Grand Avenue to Gaffey Street	35	66.5	66.6	0.1	1.2
Gaffey Street to Patton Avenue	35	67.8	67.9	0.1	1.0
Patton Avenue to Western Avenue	35	65.1	65.2	0.1	1.1

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @50 ft*	*Existing Plus ALT 2 CNEL @ 50 ft*	*dB Increase Due To ALT 2*	*Cumulative Increase Over 2007*
Western Avenue to Chandeleur Drive	35	65.1	65.2	0.1	1.0
13th Street					
Centre Street to Pacific Avenue	25	58.7	59.0	0.3	1.0
Pacific Avenue to Grand Avenue	25	61.4	61.5	0.1	0.8
Grand Avenue to Gaffey Street	25	64.0	64.0	0.0	0.8
Gaffey Street to Meyler Street	25	64.6	64.6	0.0	0.8
17th Street					
Centre Street to Pacific Avenue	35	61.8	61.9	0.1	0.8
Pacific Avenue to Grand Avenue	35	64.5	64.5	0.0	0.8
Grand Avenue to Gaffey Street	35	64.0	64.0	0.0	0.8
Gaffey Street to Meyler Street	35	64.9	64.9	0.0	0.8
19th Street					
Mesa Street to Pacific Avenue	35	59.9	60.0	0.1	0.9
Pacific Avenue to Grand Avenue	35	61.0	61.1	0.1	0.9
Grand Avenue to Gaffey Street	35	63.3	63.4	0.1	0.9
Gaffey Street to Meyler Street	35	65.7	65.8	0.1	0.9
22nd Street					
Signal Place to Miner Street	25	57.3	64.0	**6.7**	**7.0**
Miner Street to Via Cabrillo Marina	25	63.4	64.4	1.0	1.7
Via Cabrillo Marina to Mesa Street	25	63.2	64.2	1.0	1.7
Mesa Street to Pacific Avenue	25	63.4	64.3	0.9	1.6
Pacific Avenue to Grand Avenue	25	61.5	62.8	1.3	2.0
Grand Avenue to Gaffey Street	25	62.0	63.1	1.1	1.8
Gaffey Street to Meyler Street	25	56.3	56.3	0.0	0.8
25th Street					
Gaffey Street to Patton Avenue	35	66.8	67.0	0.2	1.0
Patton Avenue to Western Avenue	35	67.6	67.7	0.1	1.0
Western Avenue to Moray Avenue	35	68.0	68.1	0.1	1.0
110 Freeway					
Harbor Boulevard On Ramp	50	69.6	72.2	2.6	**6.7**

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @50 ft*	*Existing Plus ALT 2 CNEL @ 50 ft*	*dB Increase Due To ALT 2*	*Cumulative Increase Over 2007*
Gaffey Street On Ramp	50	77.6	77.8	0.2	1.2
Crescent Avenue					
Sampson Way to Harbor Boulevard	30	48.6	48.6	0.0	0.0
Harbor Boulevard to 20th Street	30	61.7	61.8	0.1	0.9
Gaffey Street					
Miraflores Avenue to Summerland Avenue	35	69.8	69.8	0.0	1.1
Summerland Avenue to 110 Freeway	35	69.4	69.4	0.0	1.2
110 Freeway to Sepulveda Street	35	74.5	74.7	0.2	1.2
Sepulveda Street to 1st Street	35	74.3	74.5	0.2	1.2
1st Street to 3rd Street	35	72.8	72.9	0.1	1.1
3rd Street to 5th Street	35	72.6	72.7	0.1	1.1
5th Street to 6th Street	35	72.2	72.4	0.2	1.0
6th Street to 7th Street	35	72.0	72.2	0.2	1.0
7th Street to 8th Street	35	71.6	71.8	0.2	1.0
8th Street to 9th Street	35	71.5	71.7	0.2	1.0
9th Street to 11th Street	35	71.0	71.2	0.2	0.9
11th Street to 13th Street	35	71.2	71.4	0.2	0.9
13th Street to 15th Street	35	70.5	70.7	0.2	1.0
15th Street to 17th Street	35	69.8	70.1	0.3	1.0
17th Street to 18th Street	35	69.3	69.6	0.3	1.0
18th Street to 19th Street	35	69.1	69.4	0.3	1.0
19th Street to 20th Street	35	68.3	68.7	0.4	1.1
20th Street to 22nd Street	35	68.1	68.5	0.4	1.1
22nd Street to 23rd Street	35	68.2	68.3	0.1	0.9
23rd Street to 25th Street	35	67.7	67.8	0.1	1.0
25th Street to 26th Street	35	64.6	64.6	0.0	0.8
Gulch Road					
Harbor Boulevard to Beacon Street	25	55.9	51.0	-4.9	-2.8
Front Street					
Pacific Avenue to Knoll Drive	35	63.1	63.7	0.6	2.5

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @50 ft*	*Existing Plus ALT 2 CNEL @ 50 ft*	*dB Increase Due To ALT 2*	*Cumulative Increase Over 2007*
Knoll Drive to 110 Freeway	35	65.8	66.2	0.4	2.3
Harbor Boulevard					
110 Freeway to Swinford Street	35	68.6	70.1	1.5	**4.0**
Swinford Street to Beacon Street	35	70.9	72.7	1.8	2.6
Beacon Street to O'Farrell Street	35	71.4	73.3	1.9	**3.1**
O'Farrell Street to Santa Cruz Street	35	71.3	73.3	2.0	**3.2**
Santa Cruz Street to 1st Street	35	70.8	73.0	2.2	**3.3**
1st Street to 2nd Street	35	70.5	72.8	2.3	**3.1**
2nd Street to 3rd Street	35	70.3	72.7	2.4	**3.2**
3rd Street to 5th Street	35	70.2	72.6	2.4	**3.2**
5th Street to 6th Street	35	69.6	72.3	2.7	**3.4**
6th Street to 7th Street	35	69.2	72.2	**3.0**	**3.6**
7th Street to Gulch Road	35	67.7	63.2	-4.5	-1.8
Gulch Road to Crescent Avenue	35	67.5	63.2	-4.3	-1.6
Miner Street					
Crescent Avenue to 22nd Street	35	66.0	68.3	2.3	**3.2**
South of 22nd Street	35	57.0	68.8	**11.8**	**12.5**
O'Farrell Street					
Harbor Boulevard to Centre Street	25	56.2	56.3	0.1	1.2
Pacific Avenue					
Channel Street to Front Street	35	70.1	70.2	0.1	1.2
Front Street to Oliver Street	35	69.3	69.3	0.0	0.8
Oliver Street to 1st Street	35	69.3	69.3	0.0	0.8
1st Street to 3rd Street	35	69.7	69.7	0.0	0.8
3rd Street to 5th Street	35	69.6	69.6	0.0	0.8
5th Street to 6th Street	35	69.7	69.7	0.0	0.8
6th Street to 7th Street	35	69.8	69.8	0.0	0.8
7th Street to 8th Street	35	69.8	69.8	0.0	0.8
8th Street to 9th Street	35	69.6	69.6	0.0	0.8
9th Street to 11th Street	35	69.2	69.2	0.0	0.8

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @50 ft*	*Existing Plus ALT 2 CNEL @ 50 ft*	*dB Increase Due To ALT 2*	*Cumulative Increase Over 2007*
11th Street to 13th Street	35	68.7	68.7	0.0	0.8
13th Street to 15th Street	35	68.2	68.2	0.0	0.8
15th Street to 17th Street	35	67.6	67.7	0.1	0.8
17th Street to 18th Street	35	66.9	67.0	0.1	0.8
18th Street to 19th Street	35	66.0	66.1	0.1	0.9
19th Street to 20th Street	35	66.0	66.1	0.1	0.8
20th Street to 22nd Street	35	66.1	66.2	0.1	0.8
22nd Street to 23rd Street	35	67.2	67.2	0.0	0.8
Summerland Avenue					
110 Freeway to Gaffey Street	35	65.9	65.9	0.0	0.8
Gaffey Street to Summerland Avenue	35	67.0	67.0	0.0	0.9
Swinford Street					
Front Street to Harbor Boulevard	35	60.5	*	*	**7.1**
47 Ramp	35	68.9	69.9	1.0	1.7
Via Cabrillo Marina					
South of 22nd Street	35	60.5	60.5	0.0	0.8
Western Avenue					
Bynner Drive to 9th Street	35	70.3	70.3	0.0	0.8
9th Street to 19th Street	35	70.9	70.9	0.0	0.8
19th Street to 25th Street	35	68.0	68.0	0.0	0.8
25th Street to Paseo del Mar	35	63.8	63.8	0.0	0.8

* Alternative 2 removes traffic from this roadway segment due to a change in circulation patterns, and noise would decrease a substantial but indeterminate amount.

1st Street

East of Harbor Boulevard

No residences exist east of Harbor Boulevard. Currently, the traffic traveling along this roadway segment is nominal, and the modeled existing noise level due to 1st Street is 52.9 CNEL at 50 feet from the centerline of the roadway. With the increase in noise of 7.3 dB over existing conditions, the projected noise due to the Alternative 2 would be 60.2 CNEL. Although this roadway is projected to have an apparent increase of 7.3 dB as a result of Alternative 2 according to the model, this increase is

misleading because the model does not take into account noise generated by adjacent roadways. See the discussion of this roadway segment under the Proposed Project for a more detailed explanation of this effect. When the noise contribution from Harbor Boulevard is accounted for, the existing noise level along 1st Street is much higher than the modeled noise level due to Alternative 2. No significant noise impacts would occur along this roadway segment.

Harbor Boulevard to Centre Street

This section of the roadway is almost completely surrounded by residences on both sides of 1st Street. The residences are about 33 feet from the centerline of the roadway. The modeled noise level for current traffic is 56.8 CNEL at 50 feet and 58.6 CNEL at the property line of the residences. The projected with-project noise level would be 60.0 CNEL at 50 feet and 61.8 CNEL at the property line of the nearest residence. At points along 1st Street away from Harbor Boulevard, the noise increase is determined mainly by traffic traveling along 1st Street. The increase in noise is 3.2 dB, and the with-Alternative 2 noise is less than 70 dBA. This roadway segment would not experience a significant noise impact since the noise at the property line does not exceed 70 CNEL.

7th Street

Sampson Way to Harbor Boulevard

This is the roadway segment that would accept northbound traffic exiting from Sampson Way once the 6th Street connection between Sampson Way and Harbor Boulevard is closed. No residences or affected uses are located on 7th Street along this section of the roadway. The nearest affected use is a government office building at the corner of 7th Street and Harbor Boulevard, about 110 feet beyond the end point of the roadway segment. Since this office building is located on Harbor Boulevard, the current noise level at the property line of the office building is due mainly to traffic traveling along Harbor Boulevard. The current traffic along Harbor Boulevard from 6th Street to 7th Street produces a CNEL of 69.2 dBA. The projected with-Alternative 2 noise level along 7th Street is 68.8 CNEL at 50 feet, and at 110 feet this noise would be 65.4 CNEL. The with-Alternative 2 noise impact from 7th Street between Sampson Way and Harbor Boulevard would produce less noise at the property line of the nearest affected use (i.e., City Hall) than what currently exists today. Under the with-project condition, fewer vehicles would travel down 7th Street, and City Hall is closer to 7th Street than Harbor Boulevard. This roadway segment would not experience a significant increase in noise, and no significant impact is projected.

22nd Street

Signal Place to Miner Street

There is a warehouse along the roadway segment at 50 feet from the roadway. The modeled noise level for existing conditions is 57.3 CNEL at 50 feet from the centerline of the roadway. With an Alternative 2-only noise increase over existing

conditions of 6.7 dB, the with-Alternative 2 noise level is modeled to be 64.0 CNEL at 50 feet. No residences are located along this section of the roadway, and the nearest residence is over 1,200 feet away. The with-Alternative 2 noise levels are well below 70 CNEL, but since the noise increase is 6.7 dB, there would be a significant noise impact along this roadway.

Harbor Boulevard

6th Street to 7th Street

No residences are located on Harbor Boulevard along this section of the roadway. The nearest affected use is the government building at the corner of 7th Street and Harbor Boulevard, about 50 feet from the centerline of Harbor Boulevard. The existing noise level at the property line of the government building is 69.2 CNEL at 50 feet. The projected with-Alternative 2 noise level 72.2 CNEL at 50 feet and 68.4 CNEL at 120 feet. Alternative 2 would increase the noise along this roadway segment by 3.0 and cause the CNEL to exceed 70 CNEL. There would be a significant noise impacts along this roadway segment.

Miner Street

South of 22nd Street

This roadway leads into and out of the Outer Harbor. Adjacent to this roadway segment is the Cabrillo Marina. The closest affected uses to this roadway segment are live-aboards in the marina. The distance from the roadway to the live-aboards is at least 80 feet. The modeled noise level for existing conditions is 57.0 CNEL at 50 feet and 55.0 CNEL at 80 feet. The with-Alternative 2 noise level 68.8 CNEL at 50 feet and 66.8 CNEL at 80 feet The Alternative 2-only noise increase over existing conditions would be 11.8 dB. This is a substantial increase in noise. There would be a significant impact to this roadway segment because the noise increase is greater than 5 dB.

CEQA Impact Determination

Three roadway segments would experience significant impacts: 22nd Street, Signal to Miner Street; Harbor Boulevard, 6th Street to 7th Street, and Miner Street, south of 22nd Street. For all other street segments, no significant noise impacts are anticipated. Impacts for the impacted streets would be significant and unavoidable. It should be noted that under the proposed Project, only Miner Street south of 22nd Street was significantly impacted. Alternative 2 would generate significant noise impacts to 22nd Street, from Signal Street to Miner Street, and to Harbor Boulevard, from 6th Street to 7th Street. The reason why Alternative 2 triggers significant impacts along those two roads is because the northbound Harbor Boulevard traffic cul-de-sacs at 13th Street and diverts traffic to 22nd Street and Miner Street.

Mitigation Measures

No mitigation is available.

Residual Impacts

Impacts would be significant and unavoidable.

NEPA Traffic Impacts

Methods for calculating NEPA traffic noise impacts for Alternative 2 are the same as those described under the proposed Project.

Traffic noise increases for the year 2015 were also examined, and for all roadway segments, the traffic volumes for the year 2015 were found to be less than the traffic volumes for the year 2037. Therefore, the noise increases due to traffic in the year 2015 would be less than the noise increases due to traffic in the year 2037.

Table 3.9-12. Traffic Noise Increases Due To Alternative 2 under NEPA

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus ALT 2 CNEL @ 50 ft*	*NEPA dB Increase Due To ALT 2*	*NEPA Cumulative Increase Over 2007*
1st Street					
East of Harbor Boulevard	30	61.1	60.2	-0.9	0.8
Harbor Boulevard to Centre Street	30	60.7	60.0	-0.8	1.7
Centre Street to Pacific Avenue	30	63.1	62.7	-0.4	1.2
Pacific Avenue to Grand Avenue	30	63.9	63.5	-0.4	1.2
Grand Avenue to Gaffey Street	30	64.7	64.4	-0.3	1.1
Gaffey Street to Cabrillo Avenue	30	68.0	68.0	0.0	0.8
3rd Street					
East of Harbor Boulevard	30	**N/A**	**N/A**	**N/A**	**N/A**
Harbor Boulevard to Centre Street	30	58.7	58.8	0.0	**3.2**
5th Street					
East of Harbor Boulevard	30	*	*	*	*
Harbor Boulevard to Centre Street	30	62.7	62.7	0.0	1.3
Centre Street to Pacific Avenue	30	62.8	62.8	0.0	1.3
Pacific Avenue to Grand Avenue	30	61.8	61.8	0.0	1.5
Grand Avenue to Gaffey Street	30	63.1	63.1	0.0	1.3
Gaffey Street to Cabrillo Avenue	30	64.1	64.1	0.0	0.8
6th Street					
Sampson Way to Harbor Boulevard	30	*	*	*	*

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus ALT 2 CNEL @ 50 ft*	*NEPA dB Increase Due To ALT 2*	*NEPA Cumulative Increase Over 2007*
Harbor Boulevard to Centre Street	30	57.1	57.2	0.1	1.7
Centre Street to Pacific Avenue	30	59.3	59.3	0.0	1.0
Pacific Avenue to Grand Avenue	30	58.4	58.4	0.1	1.0
Grand Avenue to Gaffey Street	30	59.4	59.4	0.0	0.9
Gaffey Street to Cabrillo Avenue	30	59.1	59.2	0.0	0.9
7th Street					
Sampson Way to Harbor Boulevard	30	63.3	63.8	0.5	0.5
Harbor Boulevard to Centre Street	30	63.4	63.3	-0.1	0.7
Centre Street to Pacific Avenue	30	59.9	59.9	0.0	1.4
Pacific Avenue to Grand Avenue	30	60.5	60.5	0.0	1.2
Grand Avenue to Gaffey Street	30	62.9	62.8	0.0	1.1
Gaffey Street to Cabrillo Avenue	30	64.2	64.2	0.0	0.8
9th Street					
Centre Street to Pacific Avenue	35	62.8	62.9	0.1	1.6
Pacific Avenue to Grand Avenue	35	65.3	65.3	0.1	1.2
Grand Avenue to Gaffey Street	35	66.5	66.6	0.0	1.1
Gaffey Street to Patton Avenue	35	67.9	67.9	0.0	0.9
Patton Avenue to Western Avenue	35	65.2	65.2	0.0	1.0
Western Avenue to Chandeleur Drive	35	65.2	65.2	0.0	0.9
13th Street					
Centre Street to Pacific Avenue	25	59.0	59.0	0.0	0.7
Pacific Avenue to Grand Avenue	25	61.5	61.5	0.0	0.8
Grand Avenue to Gaffey Street	25	64.0	64.0	0.0	0.8
Gaffey Street to Meyler Street	25	64.6	64.6	0.0	0.8
17th Street					
Centre Street to Pacific Avenue	35	61.9	61.9	0.0	0.7
Pacific Avenue to Grand Avenue	35	64.5	64.5	0.0	0.8
Grand Avenue to Gaffey Street	35	64.0	64.0	0.0	0.7
Gaffey Street to Meyler Street	35	64.9	64.9	0.0	0.8
19th Street					

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus ALT 2 CNEL @ 50 ft*	*NEPA dB Increase Due To ALT 2*	*NEPA Cumulative Increase Over 2007*
Mesa Street to Pacific Avenue	35	60.0	60.0	0.0	0.8
Pacific Avenue to Grand Avenue	35	61.0	61.1	0.0	0.9
Grand Avenue to Gaffey Street	35	63.3	63.4	0.1	0.9
Gaffey Street to Meyler Street	35	65.7	65.8	0.1	0.9
22nd Street					
Signal Place to Miner Street	25	59.0	64.0	**5.0**	**5.2**
Miner Street to Via Cabrillo Marina	25	63.8	64.4	0.6	1.3
Via Cabrillo Marina to Mesa Street	25	63.6	64.2	0.6	1.3
Mesa Street to Pacific Avenue	25	63.8	64.3	0.6	1.3
Pacific Avenue to Grand Avenue	25	62.0	62.8	0.9	1.6
Grand Avenue to Gaffey Street	25	62.4	63.1	0.8	1.4
Gaffey Street to Meyler Street	25	56.3	56.3	0.0	0.8
25th Street					
Gaffey Street to Patton Avenue	35	66.9	67.0	0.0	0.9
Patton Avenue to Western Avenue	35	67.7	67.7	0.0	0.9
Western Avenue to Moray Avenue	35	68.1	68.1	0.0	0.9
110 Freeway					
Harbor Boulevard On Ramp	50	69.8	72.2	2.3	**6.5**
Gaffey Street On Ramp	50	77.8	77.8	0.0	1.0
Crescent Avenue					
Sampson Way to Harbor Boulevard	30	48.6	48.6	0.0	0.0
Harbor Boulevard to 20th Street	30	61.9	61.8	0.0	0.7
Gaffey Street					
Miraflores Avenue to Summerland Avenue	35	69.8	69.8	0.0	1.1
Summerland Avenue to 110 Freeway	35	69.4	69.4	0.0	1.2
110 Freeway to Sepulveda Street	35	74.6	74.7	0.0	1.0
Sepulveda Street to 1st Street	35	74.5	74.5	0.0	1.0
1st Street to 3rd Street	35	72.8	72.9	0.1	1.1
3rd Street to 5th Street	35	72.6	72.7	0.1	1.0
5th Street to 6th Street	35	72.2	72.4	0.1	1.0

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus ALT 2 CNEL @ 50 ft*	*NEPA dB Increase Due To ALT 2*	*NEPA Cumulative Increase Over 2007*
6th Street to 7th Street	35	72.0	72.2	0.1	1.0
7th Street to 8th Street	35	71.6	71.8	0.1	1.0
8th Street to 9th Street	35	71.5	71.7	0.1	0.9
9th Street to 11th Street	35	71.0	71.2	0.2	0.9
11th Street to 13th Street	35	71.2	71.4	0.2	0.9
13th Street to 15th Street	35	70.5	70.7	0.2	0.9
15th Street to 17th Street	35	69.8	70.1	0.2	0.9
17th Street to 18th Street	35	69.4	69.6	0.2	1.0
18th Street to 19th Street	35	69.2	69.4	0.3	1.0
19th Street to 20th Street	35	68.4	68.7	0.3	1.1
20th Street to 22nd Street	35	68.2	68.5	0.3	1.1
22nd Street to 23rd Street	35	68.3	68.3	0.0	0.9
23rd Street to 25th Street	35	67.8	67.8	0.0	0.9
25th Street to 26th Street	35	64.6	64.6	0.0	0.8
Gulch Road					
Harbor Boulevard to Beacon Street	25	56.1	51.0	-5.1	-3.0
Front Street					
Pacific Avenue to Knoll Drive	35	63.3	63.7	0.5	2.3
Knoll Drive to 110 Freeway	35	65.9	66.2	0.3	2.2
Harbor Boulevard					
110 Freeway to Swinford Street	35	68.7	70.1	1.4	**4.0**
Swinford Street to Beacon Street	35	71.5	72.7	1.2	1.9
Beacon Street to O'Farrell Street	35	72.1	73.3	1.2	2.4
O'Farrell Street to Santa Cruz Street	35	72.1	73.3	1.2	2.4
Santa Cruz Street to 1st Street	35	71.7	73.0	1.3	2.4
1st Street to 2nd Street	35	71.3	72.8	1.4	2.3
2nd Street to 3rd Street	35	71.2	72.7	1.5	2.4
3rd Street to 5th Street	35	71.1	72.6	1.5	2.3
5th Street to 6th Street	35	70.7	72.3	1.6	2.3
6th Street to 7th Street	35	70.6	72.2	1.6	2.2

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus ALT 2 CNEL @ 50 ft*	*NEPA dB Increase Due To ALT 2*	*NEPA Cumulative Increase Over 2007*
7th Street to Gulch Road	35	68.1	63.2	-4.9	-2.1
Gulch Road to Crescent Avenue	35	67.6	63.2	-4.4	-1.8
Miner Street					
Crescent Avenue to 22nd Street	35	66.1	68.3	2.2	**3.0**
South of 22nd Street	35	57.0	68.8	**11.8**	**12.5**
O'Farrell Street					
Harbor Boulevard to Centre Street	25	56.3	56.3	0.0	1.1
Pacific Avenue					
Channel Street to Front Street	35	70.1	70.2	0.1	1.2
Front Street to Oliver Street	35	69.3	69.3	0.0	0.8
Oliver Street to 1st Street	35	69.3	69.3	0.0	0.8
1st Street to 3rd Street	35	69.7	69.7	0.0	0.8
3rd Street to 5th Street	35	69.6	69.6	0.0	0.8
5th Street to 6th Street	35	69.7	69.7	0.0	0.8
6th Street to 7th Street	35	69.8	69.8	0.0	0.8
7th Street to 8th Street	35	69.8	69.8	0.0	0.8
8th Street to 9th Street	35	69.6	69.6	0.0	0.8
9th Street to 11th Street	35	69.2	69.2	0.0	0.8
11th Street to 13th Street	35	68.7	68.7	0.0	0.8
13th Street to 15th Street	35	68.2	68.2	0.0	0.8
15th Street to 17th Street	35	67.6	67.7	0.0	0.8
17th Street to 18th Street	35	67.0	67.0	0.0	0.8
18th Street to 19th Street	35	66.1	66.1	0.0	0.8
19th Street to 20th Street	35	66.1	66.1	0.0	0.8
20th Street to 22nd Street	35	66.2	66.2	0.0	0.8
22nd Street to 23rd Street	35	67.2	67.2	0.0	0.8
Summerland Avenue					
110 Freeway to Gaffey Street	35	65.9	65.9	0.0	0.8
Gaffey Street to Summerland Avenue	35	67.0	67.0	0.0	0.9
Swinford Street					

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus ALT 2 CNEL @ 50 ft*	*NEPA dB Increase Due To ALT 2*	*NEPA Cumulative Increase Over 2007*
Front Street to Harbor Boulevard	35	*	*	*	*
47 Ramp	35	69.4	69.9	0.5	1.2
Via Cabrillo Marina					
South of 22nd Street	35	60.5	60.5	0.0	0.8
Western Avenue					
Bynner Drive to 9th Street	35	70.3	70.3	0.0	0.8
9th Street to 19th Street	35	70.9	70.9	0.0	0.8
19th Street to 25th Street	35	68.0	68.0	0.0	0.8
25th Street to Paseo del Mar	35	63.8	63.8	0.0	0.8
* Alternative 2 removes traffic from this roadway segment due to a change in circulation patterns, and noise would decrease a substantial but indeterminate amount.					

NEPA Impact Determination

Two of the three roadway segments that experienced significant impacts under CEQA would experience significant impacts under NEPA: 22nd Street, Signal to Miner Street and Miner Street, south of 22nd Street. For all other street segments, no significant noise impacts are anticipated. Impacts for the impacted streets would be significant and unavoidable.

Mitigation Measures

No mitigation is available.

Residual Impacts

Impacts would be significant and unavoidable.

Impact NOI-3b: Alternative 2 would not cause noise from railroad operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.

The only railroad operation planned under Alternative 2 is the Waterfront Red Car Line. Under Alternative 2, the Waterfront Red Car Line would be extended down to Cabrillo Beach along Shoshonean Way, the same as described under the proposed Project. The largest noise impact caused by the Waterfront Red Car Line under

Alternative 2 is along Shoshonean Way. Because the noise impact would not be significant under the proposed Project, it would not be significant under Alternative 2.

CEQA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact NOI-3c: Alternative 2 would not cause noise from cruise ship operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.

Two new cruise ship berths would be constructed in the Outer Harbor. These are the same two cruise ship berths that would be constructed under the proposed Project. The noise impacts for Alternative 2 due to cruise operations would be the same as for the proposed Project. The noise impacts due to cruise ship operations for Alternative 2 would be less than significant.

CEQA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

3.9.4.3.4 Alternative 3—Alternative Development Scenario 3 (Reduced Project)

Impact NOI-1: Alternative 3 would exceed construction noise standards.

All construction noise impacts for Alternative 3 would be the same as the proposed Project except the following:

Outer Harbor Berths and Terminal Facilities: The Outer Harbor Berths and Terminal Facilities for Alternative 3 would reduce the number of cruise ship berths that would be built in the Outer Harbor compared to the proposed Project; only one terminal and one cruise berth would be constructed under this alternative. However, the type of construction and noise levels for this alternative would be the same as for the proposed Project. Construction noise would exceed the significance threshold.

Inner Harbor Parking: The size of the Inner Harbor parking structure would be reduced in scale; however, the type of construction and noise levels for this alternative would be the same as for the proposed Project. Construction noise would exceed the significance threshold.

Outer Harbor Parking: The size of the Outer Harbor surface parking would be reduced from 400 surface parking spaces to 200 surface parking spaces; however, the type of construction and noise levels for this alternative would be the same as for the proposed Project. Construction noise would exceed the significance threshold.

Ports O'Call Development: The Ports O'Call Development for this alternative would be scaled down in size from the proposed Project. Construction noise would not exceed the significance threshold.

Ports O'Call Parking: No Ports O'Call parking structures would be built for this alternative, so there would not be any significant construction noise impacts.

Waterfront Red Car Museum: The Waterfront Red Car Museum would be located at the 7th Street Bluff instead of outside of the proposed project area. The nearest sensitive receiver to the 7th Street Bluff is a residence on Beacon Street. The closest measurement site is ST-5. Site ST-5 has an ambient L_{eq} of 62.4 dBA. The L_{eq} at the nearest sensitive receiver due to construction is projected to be 69 dBA. With a noise increase of over 6 dB at the property line of the nearest sensitive receiver, construction noise would exceed the significance threshold.

Harbor Boulevard Lane Capacity: Under this alternative, the construction due to the reduction in lane capacity along Harbor Boulevard would produce an L_{eq} of 89 dBA at the nearest residence, which is 50 feet away. Construction noise would exceed the significance threshold.

CEQA Impact Determination

Impacts resulting from construction activities would be significant.

Mitigation Measures

Implement Mitigation Measure MM NOI-1.

Residual Impacts

As discussed under the proposed Project, Mitigation MM NOI-1 would reduce impacts; however, impacts would remain significant. Impacts would be significant and unavoidable.

NEPA Impact Determination

Impacts would be significant, but to a lesser extent than analyzed under CEQA (i.e., many of the upland locations are not subject to federal control and responsibility or NEPA). The following proposed project elements would make a significant impact under NEPA.

- North Harbor;
- Downtown Harbor;
- 7th Street Harbor;
- 7th Street Pier;
- Waterfront Promenade:
  - Ports O'Call,
  - City Dock No. 1,
  - Outer Harbor,

- Cabrillo Beach, and
- Salt Marsh;

- Cruise Ship Facilities:
  - Outer Harbor Berths and Terminal Facilities;
- Tugboats:
  - Crowley Tug Building;
- Los Angeles Maritime Institute; and
- New fueling facility at Berth 240.

Mitigation Measures

Implement Mitigation Measure MM NOI-1.

Residual Impacts

Impacts would be significant and unavoidable.

Impact NOI-2: Construction activities for Alternative 3 would not exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.

No construction activities are planned to occur between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.

CEQA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact NOI-3a: Alternative 3 would cause noise from motor vehicle traffic measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.

CEQA Traffic Impacts

Methods for calculating traffic noise impacts for Alternative 3 are the same as those described under the proposed Project.

There are five roadway segments, one less than the proposed Project, that have a 3 dB or greater noise increase due to Alternative 3. Since a 3 dB increase in noise is the minimum increase that could trigger a significant impact, any increase under 3 dB would not result in a significant impact. It should be kept in mind that a 3 dB increase will only result in a significant impact if the existing CNEL is over 70 dBA.

Traffic noise increases for the year 2015 were also examined, and for all roadway segments, the traffic volumes for the year 2015 were found to be less than the traffic volumes for the year 2037. Therefore, the noise increases due to traffic in the year 2015 would be less than the noise increases due to traffic in the year 2037.

Table 3.9-13. Traffic Noise Increases Due To Alternative 3

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @ 50 ft*	*Existing Plus ALT 3 CNEL @ 50 ft*	*dB Increase Due To ALT 3*	*Cumulative Increase Over 2007*
1st Street					
East of Harbor Boulevard	30	52.9	59.1	**6.2**	**8.3**
Harbor Boulevard to Centre Street	30	56.8	60.4	**3.6**	**5.9**
Centre Street to Pacific Avenue	30	61.4	62.9	1.5	**3.1**
Pacific Avenue to Grand Avenue	30	62.5	63.7	1.2	2.7
Grand Avenue to Gaffey Street	30	63.5	64.5	1.0	2.4
Gaffey Street to Cabrillo Avenue	30	68.0	68.0	0.0	0.8
3rd Street					

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @ 50 ft*	*Existing Plus ALT 3 CNEL @ 50 ft*	*dB Increase Due To ALT 3*	*Cumulative Increase Over 2007*
East of Harbor Boulevard	30	**N/A**	**N/A**	**N/A**	**N/A**
Harbor Boulevard to Centre Street	30	58.3	58.5	0.2	**3.6**
5th Street					
East of Harbor Boulevard	30	56.1	*	*	-11.5
Harbor Boulevard to Centre Street	30	62.8	62.7	-0.1	1.2
Centre Street to Pacific Avenue	30	62.8	62.8	0.0	1.3
Pacific Avenue to Grand Avenue	30	61.8	61.8	0.0	1.5
Grand Avenue to Gaffey Street	30	63.1	63.1	0.0	1.3
Gaffey Street to Cabrillo Avenue	30	64.1	64.1	0.0	0.8
6th Street					
Sampson Way to Harbor Boulevard	30	56.6	*	*	-11.1
Harbor Boulevard to Centre Street	30	58.2	57.3	-0.9	0.6
Centre Street to Pacific Avenue	30	59.2	59.3	0.1	1.1
Pacific Avenue to Grand Avenue	30	58.3	58.4	0.1	1.1
Grand Avenue to Gaffey Street	30	59.3	59.3	0.0	0.9
Gaffey Street to Cabrillo Avenue	30	59.1	59.1	0.0	1.0
7th Street					
Sampson Way to Harbor Boulevard	30	52.6	63.8	**11.2**	**11.2**
Harbor Boulevard to Centre Street	30	62.6	63.3	0.7	1.6
Centre Street to Pacific Avenue	30	59.8	59.9	0.1	1.4
Pacific Avenue to Grand Avenue	30	60.4	60.4	0.0	1.3
Grand Avenue to Gaffey Street	30	62.8	62.8	0.0	1.1
Gaffey Street to Cabrillo Avenue	30	64.2	64.2	0.0	0.8
9th Street					
Centre Street to Pacific Avenue	35	62.7	62.8	0.1	1.6
Pacific Avenue to Grand Avenue	35	65.2	65.3	0.1	1.2
Grand Avenue to Gaffey Street	35	66.5	66.5	0.0	1.1
Gaffey Street to Patton Avenue	35	67.8	67.8	0.0	0.9
Patton Avenue to Western Avenue	35	65.1	65.2	0.1	1.1
Western Avenue to Chandeleur Drive	35	65.1	65.2	0.1	1.0

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @ 50 ft*	*Existing Plus ALT 3 CNEL @ 50 ft*	*dB Increase Due To ALT 3*	*Cumulative Increase Over 2007*
13th Street					
Centre Street to Pacific Avenue	25	58.7	58.9	0.2	0.9
Pacific Avenue to Grand Avenue	25	61.4	61.5	0.1	0.8
Grand Avenue to Gaffey Street	25	64.0	64.0	0.0	0.8
Gaffey Street to Meyler Street	25	64.6	64.6	0.0	0.8
17th Street					
Centre Street to Pacific Avenue	35	61.8	61.8	0.0	0.8
Pacific Avenue to Grand Avenue	35	64.5	64.5	0.0	0.8
Grand Avenue to Gaffey Street	35	64.0	64.0	0.0	0.8
Gaffey Street to Meyler Street	35	64.9	64.9	0.0	0.8
19th Street					
Mesa Street to Pacific Avenue	35	59.9	60.0	0.1	0.9
Pacific Avenue to Grand Avenue	35	61.0	61.1	0.1	0.9
Grand Avenue to Gaffey Street	35	63.3	63.4	0.1	0.9
Gaffey Street to Meyler Street	35	65.7	65.8	0.1	0.9
22nd Street					
Signal Place to Miner Street	25	57.3	61.4	**4.1**	**4.5**
Miner Street to Via Cabrillo Marina	25	63.4	63.9	0.5	1.3
Via Cabrillo Marina to Mesa Street	25	63.2	63.8	0.6	1.3
Mesa Street to Pacific Avenue	25	63.4	63.9	0.5	1.3
Pacific Avenue to Grand Avenue	25	61.5	62.2	0.7	1.5
Grand Avenue to Gaffey Street	25	62.0	62.6	0.6	1.4
Gaffey Street to Meyler Street	25	56.3	56.3	0.0	0.8
25th Street					
Gaffey Street to Patton Avenue	35	66.8	66.9	0.1	1.0
Patton Avenue to Western Avenue	35	67.6	67.7	0.1	0.9
Western Avenue to Moray Avenue	35	68.0	68.1	0.1	0.9
110 Freeway					
Harbor Boulevard On Ramp	50	69.6	70.5	0.9	**6.1**
Gaffey Street On Ramp	50	77.6	77.8	0.2	1.1

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @ 50 ft*	*Existing Plus ALT 3 CNEL @ 50 ft*	*dB Increase Due To ALT 3*	*Cumulative Increase Over 2007*
Crescent Avenue					
Sampson Way to Harbor Boulevard	30	48.6	48.6	0.0	0.0
Harbor Boulevard to 20th Street	30	61.7	61.8	0.1	0.8
Gaffey Street					
Miraflores Avenue to Summerland Avenue	35	69.8	69.8	0.0	1.1
Summerland Avenue to 110 Freeway	35	69.4	69.4	0.0	1.2
110 Freeway to Sepulveda Street	35	74.5	74.7	0.2	1.2
Sepulveda Street to 1st Street	35	74.3	74.5	0.2	1.2
1st Street to 3rd Street	35	72.8	72.9	0.1	1.1
3rd Street to 5th Street	35	72.6	72.7	0.1	1.0
5th Street to 6th Street	35	72.2	72.3	0.1	0.9
6th Street to 7th Street	35	72.0	72.1	0.1	0.9
7th Street to 8th Street	35	71.6	71.7	0.1	0.9
8th Street to 9th Street	35	71.5	71.6	0.1	0.9
9th Street to 11th Street	35	71.0	71.1	0.1	0.9
11th Street to 13th Street	35	71.2	71.3	0.1	0.9
13th Street to 15th Street	35	70.5	70.6	0.1	0.9
15th Street to 17th Street	35	69.8	69.9	0.1	0.9
17th Street to 18th Street	35	69.3	69.4	0.1	0.9
18th Street to 19th Street	35	69.1	69.2	0.1	0.9
19th Street to 20th Street	35	68.3	68.5	0.2	1.0
20th Street to 22nd Street	35	68.1	68.3	0.2	1.0
22nd Street to 23rd Street	35	68.2	68.3	0.1	0.9
23rd Street to 25th Street	35	67.7	67.8	0.1	0.9
25th Street to 26th Street	35	64.6	64.6	0.0	0.8
Gulch Road					
Harbor Boulevard to Beacon Street	25	55.9	56.2	0.3	1.1
Front Street					
Pacific Avenue to Knoll Drive	35	63.1	63.4	0.3	2.3
Knoll Drive to 110 Freeway	35	65.8	66.0	0.2	2.2

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @ 50 ft*	*Existing Plus ALT 3 CNEL @ 50 ft*	*dB Increase Due To ALT 3*	*Cumulative Increase Over 2007*
Harbor Boulevard					
110 Freeway to Swinford Street	35	68.6	69.1	0.5	**3.5**
Swinford Street to Beacon Street	35	70.9	72.0	1.1	2.0
Beacon Street to O'Farrell Street	35	71.4	72.6	1.2	2.6
O'Farrell Street to Santa Cruz Street	35	71.3	72.5	1.2	2.6
Santa Cruz Street to 1st Street	35	70.8	72.2	1.4	2.7
1st Street to 2nd Street	35	70.5	71.7	1.2	2.3
2nd Street to 3rd Street	35	70.3	71.6	1.3	2.4
3rd Street to 5th Street	35	70.2	71.5	1.3	2.2
5th Street to 6th Street	35	69.6	71.1	1.5	2.3
6th Street to 7th Street	35	69.2	71.0	1.8	2.6
7th Street to Gulch Road	35	67.7	68.6	0.9	1.9
Gulch Road to Crescent Avenue	35	67.5	68.4	0.9	1.9
Miner Street					
Crescent Avenue to 22nd Street	35	66.0	67.2	1.2	2.3
South of 22nd Street	35	57.0	65.3	**8.3**	**9.7**
O'Farrell Street					
Harbor Boulevard to Centre Street	25	56.2	56.2	0.0	1.2
Pacific Avenue					
Channel Street to Front Street	35	70.1	70.2	0.1	1.2
Front Street to Oliver Street	35	69.3	69.3	0.0	0.8
Oliver Street to 1st Street	35	69.3	69.3	0.0	0.8
1st Street to 3rd Street	35	69.7	69.7	0.0	0.8
3rd Street to 5th Street	35	69.6	69.6	0.0	0.8
5th Street to 6th Street	35	69.7	69.7	0.0	0.8
6th Street to 7th Street	35	69.8	69.8	0.0	0.8
7th Street to 8th Street	35	69.8	69.8	0.0	0.8
8th Street to 9th Street	35	69.6	69.6	0.0	0.8
9th Street to 11th Street	35	69.2	69.2	0.0	0.8
11th Street to 13th Street	35	68.7	68.7	0.0	0.8

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @ 50 ft*	*Existing Plus ALT 3 CNEL @ 50 ft*	*dB Increase Due To ALT 3*	*Cumulative Increase Over 2007*
13th Street to 15th Street	35	68.2	68.2	0.0	0.8
15th Street to 17th Street	35	67.6	67.6	0.0	0.8
17th Street to 18th Street	35	66.9	66.9	0.0	0.8
18th Street to 19th Street	35	66.0	66.1	0.1	0.8
19th Street to 20th Street	35	66.0	66.0	0.0	0.8
20th Street to 22nd Street	35	66.1	66.1	0.0	0.8
22nd Street to 23rd Street	35	67.2	67.2	0.0	0.8
Summerland Avenue					
110 Freeway to Gaffey Street	35	65.9	65.9	0.0	0.8
Gaffey Street to Summerland Avenue	35	67.0	67.0	0.0	0.9
Swinford Street					
Front Street to Harbor Boulevard	35	60.5	52.9	-7.6	**8.4**
47 Ramp	35	68.9	69.4	0.5	1.2
Via Cabrillo Marina					
South of 22nd Street	35	60.5	60.5	0.0	0.8
Western Avenue					
Bynner Drive to 9th Street	35	70.3	70.3	0.0	0.8
9th Street to 19th Street	35	70.9	70.9	0.0	0.8
19th Street to 25th Street	35	68.0	68.0	0.0	0.8
25th Street to Paseo del Mar	35	63.8	63.8	0.0	0.8
* Alternative 3 removes traffic from this roadway segment due to a change in circulation patterns, and noise would decrease a substantial but indeterminate amount.					

1st Street

East of Harbor Boulevard

No residences exist east of Harbor Boulevard. Currently, the traffic traveling along this roadway segment is nominal, and the modeled existing noise level due to 1st Street is 52.9 CNEL at 50 feet from the centerline of the roadway. With the increase in noise of 6.2 dB over existing, the projected noise due to Alternative 3 would be 59.1 CNEL. Although this roadway is projected to have an apparent increase of 6.2 dB as a result of Alternative 3 according to the model, this increase is misleading because the model does not take into account noise generated by adjacent roadways.

See the discussion of this roadway segment under the proposed Project for a more detailed explanation of this effect. When the noise contribution from Harbor Boulevard is accounted for, the existing noise level along 1st Street is much higher than the modeled noise level due to Alternative 3. No significant noise impacts would occur along this roadway segment.

Harbor Boulevard to Centre Street

This section of the roadway is almost completely surrounded by residences on both sides of 1st Street. The residences are about 33 feet from the centerline of the roadway. The modeled noise level for current traffic is 56.8 CNEL at 50 feet and 58.6 CNEL at the property line of the residences. The projected with-project noise level would be 60.4 CNEL at 50 feet and 62.2 CNEL at the property line of the nearest residence. At points along 1st Street away from Harbor Boulevard, the noise increase is determined mainly by traffic traveling along 1st Street. The increase in noise is 3.6 dB, and the with-Alternative 3 noise is less than 70 dBA. This roadway segment would not experience a significant noise impact because the noise at the property line does not exceed 70 CNEL.

7th Street

Sampson Way to Harbor Boulevard

This is the roadway segment that would accept northbound traffic exiting from Sampson Way once the 6th Street connection between Sampson Way and Harbor Boulevard is closed. No residences or affected uses are located on 7th Street along this section of the roadway. The nearest affected use is a government office building at the corner of 7th Street and Harbor Boulevard, about 110 feet beyond the end point of the roadway segment. Since this office building is located on Harbor Boulevard, the current noise level at the property line of the office building is due mainly to traffic traveling along Harbor Boulevard. The current traffic along Harbor Boulevard from 6th Street to 7th Street produces a CNEL of 69.2 dBA. The projected with-Alternative 3 noise level along 7th Street is 63.8 CNEL at 50 feet, and at 110 feet this noise would be 60.4 CNEL. The with-Alternative 3 noise impact from 7th Street between Sampson Way and Harbor Boulevard would produce less noise at the property line of the nearest affected use (i.e., City Hall) than what currently exists today. Under the with-project condition, fewer vehicles would travel down 7th Street, and City Hall is closer to 7th Street than Harbor Boulevard. This roadway segment would not experience a significant increase in noise, and no significant impact is projected.

22nd Street

Signal Place to Miner Street

There is a warehouse along the roadway segment at 50 feet from the roadway. The modeled noise level for existing conditions is 57.3 CNEL at 50 feet from the centerline of the roadway. With an Alternative 3-only noise increase over existing conditions of 4.1 dB, the with-Alternative 3 noise level is modeled to be 64.0 CNEL

at 50 feet. No residences are located along this section of the roadway, and the nearest residence is over 1,200 feet away. Because the with-Alternative 3 noise levels are well below 70 CNEL and because the noise increase is 4.1 dB, there would not be any significant noise impact along this roadway.

Miner Street

South of 22nd Street

This roadway leads into and out of the Outer Harbor. Adjacent to this roadway segment is the Cabrillo Marina. The closest affected uses to this roadway segment are live-aboards in the marina. The distance from the roadway to the live-aboards is at least 80 feet. The modeled noise level for existing conditions is 57.0 CNEL at 50 feet and 55.0 CNEL at 80 feet. The with-Alternative 3 noise level 65.3 CNEL at 50 feet and 63.3 CNEL at 80 feet The Alternative 3-only noise increase over existing conditions would be 8.3 dB. This is a substantial increase in noise. There would be a significant impact to this roadway segment because the noise increase is greater than 5 dB.

CEQA Impact Determination

Miner Street south of 22nd Street is the only street segment that would be significantly impacted. For all other street segments, no significant noise impacts are anticipated, and impacts would be less than significant.

Mitigation Measures

No mitigation is available.

Residual Impacts

Impacts would be significant and unavoidable.

NEPA Traffic Impacts

Methods for calculating NEPA traffic noise impacts for Alternative 3 are the same as those described under the proposed Project.

Traffic noise increases for the year 2015 were also examined, and for all roadway segments, the traffic volumes for the year 2015 were found to be less than the traffic volumes for the year 2037. Therefore, the noise increases due to traffic in the year 2015 would be less than the noise increases due to traffic in the year 2037.

Table 3.9-14. Traffic Noise Increases Due To Alternative 3 under NEPA

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus ALT 3 CNEL @ 50 ft*	*NEPA dB Increase Due To ALT 3*	*NEPA Cumulative Increase Over 2007*
1st Street					
East of Harbor Boulevard	30	61.1	59.1	-2.0	0.1
Harbor Boulevard to Centre Street	30	60.7	60.4	-0.3	1.9
Centre Street to Pacific Avenue	30	63.1	62.9	-0.2	1.4
Pacific Avenue to Grand Avenue	30	63.9	63.7	-0.2	1.3
Grand Avenue to Gaffey Street	30	64.7	64.5	-0.1	1.2
Gaffey Street to Cabrillo Avenue	30	68.0	68.0	0.0	0.8
3rd Street					
East of Harbor Boulevard	30	**N/A**	**N/A**	**N/A**	**N/A**
Harbor Boulevard to Centre Street	30	58.7	58.5	-0.2	**3.1**
5th Street					
East of Harbor Boulevard	30	*	*	*	*
Harbor Boulevard to Centre Street	30	62.7	62.7	0.0	1.4
Centre Street to Pacific Avenue	30	62.8	62.8	0.0	1.3
Pacific Avenue to Grand Avenue	30	61.8	61.8	0.0	1.5
Grand Avenue to Gaffey Street	30	63.1	63.1	0.0	1.3
Gaffey Street to Cabrillo Avenue	30	64.1	64.1	0.0	0.8
6th Street					
Sampson Way to Harbor Boulevard	30	*	*	*	*
Harbor Boulevard to Centre Street	30	57.1	57.3	0.2	1.8
Centre Street to Pacific Avenue	30	59.3	59.3	0.0	1.0
Pacific Avenue to Grand Avenue	30	58.4	58.4	0.0	1.0
Grand Avenue to Gaffey Street	30	59.4	59.3	0.0	0.9
Gaffey Street to Cabrillo Avenue	30	59.1	59.1	0.0	0.9
7th Street					
Sampson Way to Harbor Boulevard	30	63.3	63.8	0.5	0.5
Harbor Boulevard to Centre Street	30	63.4	63.3	-0.1	0.7
Centre Street to Pacific Avenue	30	59.9	59.9	-0.1	1.3

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus ALT 3 CNEL @ 50 ft*	*NEPA dB Increase Due To ALT 3*	*NEPA Cumulative Increase Over 2007*
Pacific Avenue to Grand Avenue	30	60.5	60.4	-0.1	1.2
Grand Avenue to Gaffey Street	30	62.9	62.8	-0.1	1.1
Gaffey Street to Cabrillo Avenue	30	64.2	64.2	0.0	0.8
9th Street					
Centre Street to Pacific Avenue	35	62.8	62.8	0.0	1.5
Pacific Avenue to Grand Avenue	35	65.3	65.3	0.0	1.2
Grand Avenue to Gaffey Street	35	66.5	66.5	0.0	1.1
Gaffey Street to Patton Avenue	35	67.9	67.8	0.0	0.9
Patton Avenue to Western Avenue	35	65.2	65.2	0.0	1.0
Western Avenue to Chandeleur Drive	35	65.2	65.2	0.0	0.9
13th Street					
Centre Street to Pacific Avenue	25	59.0	58.9	-0.1	0.6
Pacific Avenue to Grand Avenue	25	61.5	61.5	0.0	0.8
Grand Avenue to Gaffey Street	25	64.0	64.0	0.0	0.8
Gaffey Street to Meyler Street	25	64.6	64.6	0.0	0.8
17th Street					
Centre Street to Pacific Avenue	35	61.9	61.8	0.0	0.7
Pacific Avenue to Grand Avenue	35	64.5	64.5	0.0	0.8
Grand Avenue to Gaffey Street	35	64.0	64.0	0.0	0.7
Gaffey Street to Meyler Street	35	64.9	64.9	0.0	0.8
19th Street					
Mesa Street to Pacific Avenue	35	60.0	60.0	0.0	0.8
Pacific Avenue to Grand Avenue	35	61.0	61.1	0.0	0.9
Grand Avenue to Gaffey Street	35	63.3	63.4	0.0	0.9
Gaffey Street to Meyler Street	35	65.7	65.8	0.0	0.8
22nd Street					
Signal Place to Miner Street	25	59.0	61.4	2.3	2.8
Miner Street to Via Cabrillo Marina	25	63.8	63.9	0.1	0.9
Via Cabrillo Marina to Mesa Street	25	63.6	63.8	0.1	0.9

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus ALT 3 CNEL @ 50 ft*	*NEPA dB Increase Due To ALT 3*	*NEPA Cumulative Increase Over 2007*
Mesa Street to Pacific Avenue	25	63.8	63.9	0.1	0.9
Pacific Avenue to Grand Avenue	25	62.0	62.2	0.2	1.0
Grand Avenue to Gaffey Street	25	62.4	62.6	0.2	1.0
Gaffey Street to Meyler Street	25	56.3	56.3	0.0	0.8
25th Street					
Gaffey Street to Patton Avenue	35	66.9	66.9	0.0	0.8
Patton Avenue to Western Avenue	35	67.7	67.7	0.0	0.8
Western Avenue to Moray Avenue	35	68.1	68.1	0.0	0.8
110 Freeway					
Harbor Boulevard On Ramp	50	69.8	70.5	0.7	**5.9**
Gaffey Street On Ramp	50	77.8	77.8	0.0	1.0
Crescent Avenue					
Sampson Way to Harbor Boulevard	30	48.6	48.6	0.0	0.0
Harbor Boulevard to 20th Street	30	61.9	61.8	-0.1	0.7
Gaffey Street					
Miraflores Avenue to Summerland Avenue	35	69.8	69.8	0.0	1.0
Summerland Avenue to 110 Freeway	35	69.4	69.4	0.0	1.2
110 Freeway to Sepulveda Street	35	74.6	74.7	0.0	1.0
Sepulveda Street to 1st Street	35	74.5	74.5	0.0	1.0
1st Street to 3rd Street	35	72.8	72.9	0.0	1.1
3rd Street to 5th Street	35	72.6	72.7	0.0	1.0
5th Street to 6th Street	35	72.2	72.3	0.0	0.9
6th Street to 7th Street	35	72.0	72.1	0.0	0.9
7th Street to 8th Street	35	71.6	71.7	0.0	0.9
8th Street to 9th Street	35	71.5	71.6	0.0	0.9
9th Street to 11th Street	35	71.0	71.1	0.1	0.8
11th Street to 13th Street	35	71.2	71.3	0.1	0.8
13th Street to 15th Street	35	70.5	70.6	0.1	0.8

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus ALT 3 CNEL @ 50 ft*	*NEPA dB Increase Due To ALT 3*	*NEPA Cumulative Increase Over 2007*
15th Street to 17th Street	35	69.8	69.9	0.1	0.8
17th Street to 18th Street	35	69.4	69.4	0.1	0.8
18th Street to 19th Street	35	69.2	69.2	0.1	0.8
19th Street to 20th Street	35	68.4	68.5	0.1	0.9
20th Street to 22nd Street	35	68.2	68.3	0.1	0.9
22nd Street to 23rd Street	35	68.3	68.3	0.0	0.8
23rd Street to 25th Street	35	67.8	67.8	0.0	0.8
25th Street to 26th Street	35	64.6	64.6	0.0	0.8
Gulch Road					
Harbor Boulevard to Beacon Street	25	56.1	56.2	0.1	0.8
Front Street					
Pacific Avenue to Knoll Drive	35	63.3	63.4	0.1	2.1
Knoll Drive to 110 Freeway	35	65.9	66.0	0.0	2.1
Harbor Boulevard					
110 Freeway to Swinford Street	35	68.7	69.1	0.4	**3.4**
Swinford Street to Beacon Street	35	71.5	72.0	0.5	1.4
Beacon Street to O'Farrell Street	35	72.1	72.6	0.4	1.8
O'Farrell Street to Santa Cruz Street	35	72.1	72.5	0.5	1.9
Santa Cruz Street to 1st Street	35	71.7	72.2	0.5	1.8
1st Street to 2nd Street	35	71.3	71.7	0.4	1.5
2nd Street to 3rd Street	35	71.2	71.6	0.4	1.5
3rd Street to 5th Street	35	71.1	71.5	0.4	1.3
5th Street to 6th Street	35	70.7	71.1	0.4	1.3
6th Street to 7th Street	35	70.6	71.0	0.4	1.2
7th Street to Gulch Road	35	68.1	68.6	0.5	1.5
Gulch Road to Crescent Avenue	35	67.6	68.4	0.8	1.8
Miner Street					
Crescent Avenue to 22nd Street	35	66.1	67.2	1.1	2.2
South of 22nd Street	35	57.0	65.3	**8.3**	**9.7**

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus ALT 3 CNEL @ 50 ft*	*NEPA dB Increase Due To ALT 3*	*NEPA Cumulative Increase Over 2007*
O'Farrell Street					
Harbor Boulevard to Centre Street	25	56.3	56.2	-0.1	1.0
Pacific Avenue					
Channel Street to Front Street	35	70.1	70.2	0.0	1.1
Front Street to Oliver Street	35	69.3	69.3	0.0	0.8
Oliver Street to 1st Street	35	69.3	69.3	0.0	0.8
1st Street to 3rd Street	35	69.7	69.7	0.0	0.8
3rd Street to 5th Street	35	69.6	69.6	0.0	0.8
5th Street to 6th Street	35	69.7	69.7	0.0	0.8
6th Street to 7th Street	35	69.8	69.8	0.0	0.8
7th Street to 8th Street	35	69.8	69.8	0.0	0.8
8th Street to 9th Street	35	69.6	69.6	0.0	0.8
9th Street to 11th Street	35	69.2	69.2	0.0	0.8
11th Street to 13th Street	35	68.7	68.7	0.0	0.8
13th Street to 15th Street	35	68.2	68.2	0.0	0.8
15th Street to 17th Street	35	67.6	67.6	0.0	0.8
17th Street to 18th Street	35	67.0	66.9	0.0	0.8
18th Street to 19th Street	35	66.1	66.1	0.0	0.8
19th Street to 20th Street	35	66.1	66.0	0.0	0.7
20th Street to 22nd Street	35	66.2	66.1	0.0	0.7
22nd Street to 23rd Street	35	67.2	67.2	0.0	0.8
Summerland Avenue					
110 Freeway to Gaffey Street	35	65.9	65.9	0.0	0.8
Gaffey Street to Summerland Avenue	35	67.0	67.0	0.0	0.9
Swinford Street					
Front Street to Harbor Boulevard	35	*	52.9	*	*
47 Ramp	35	69.4	69.4	0.0	0.7
Via Cabrillo Marina					
South of 22nd Street	35	60.5	60.5	0.0	0.8

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus ALT 3 CNEL @ 50 ft*	*NEPA dB Increase Due To ALT 3*	*NEPA Cumulative Increase Over 2007*
Western Avenue					
Bynner Drive to 9th Street	35	70.3	70.3	0.0	0.8
9th Street to 19th Street	35	70.9	70.9	0.0	0.8
19th Street to 25th Street	35	68.0	68.0	0.0	0.8
25th Street to Paseo del Mar	35	63.8	63.8	0.0	0.8
* Alternative 3 removes traffic from this roadway segment due to a change in circulation patterns, and noise would decrease a substantial but indeterminate amount.					

NEPA Impact Determination

Miner Street south of 22nd Street is the only street segment that would be significantly impacted. For all other street segments, no significant noise impacts are anticipated, and impacts would be less than significant.

Mitigation Measures

No mitigation is available.

Residual Impacts

Impacts would be significant and unavoidable.

Impact NOI-3b: Alternative 3 would not cause noise from railroad operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.

The only railroad operation planned under Alternative 3 is the Waterfront Red Car Line. Under Alternative 3, the Waterfront Red Car Line would be extended down to Cabrillo Beach along Shoshonean Way, the same as described under the proposed Project. The largest noise impact caused by the Waterfront Red Car Line under Alternative 3 is along Shoshonean Way. Because the noise impact would not be significant under the proposed Project, it would not be significant under Alternative 3.

CEQA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact NOI-3c: Alternative 3 would not cause noise from cruise ship operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.

Since Alternative 3 would include the construction of a new berth at Berths 45–47, the noise levels at the closest affected use receiver due to cruise ship operations at the new Outer Harbor berth would be the same as for the proposed Project. The noise impacts due to cruise ship operations under Alternative 3 would be less than significant.

CEQA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

3.9.4.3.5 Alternative 4—Alternative Development Scenario 4

Impact NOI-1: Alternative 4 would exceed construction noise standards.

All construction noise impacts for Alternative 4 would be the same as the proposed Project except the following:

North Harbor: The North Harbor would not be constructed, so there would not be any significant construction noise impacts resulting from this construction as listed in Table 3.9-6.

Outer Harbor Berths and Terminal Facilities: The Outer Harbor Berths and Terminal Facilities would not be constructed, so there would not be any significant construction noise impacts.

Inner Harbor Parking: The size of the Inner Harbor parking structure would be reduced in scale; however, the type of construction and noise levels for this alternative would be the same as for the proposed Project. Construction noise would exceed the significance threshold.

Outer Harbor Parking: The Outer Harbor parking would be reduced from 400 surface parking spaces to 60 surface parking spaces; however, the type of construction would be the same as for the proposed Project, so there would be a significant construction noise impact.

Waterfront Red Car Museum: The Waterfront Red Car Museum would be located alongside the Waterfront Red Car Maintenance Facility at the 13th Street Bluff location, and medium construction equipment would be used; therefore, all construction noise levels that would be valid for the Waterfront Red Car Maintenance Facility would also be valid for the Waterfront Red Car Museum. Construction noise would exceed the significance threshold.

Tugboats at the Crowley Tug Building: Since the tugboats would remain in their existing location, there would not be any significant construction noise impacts.

Los Angeles Maritime Institute: Since the Los Angeles Maritime Institute would remain in its existing location, there would not be any significant construction noise impacts.

S.S. Lane Victory: The S.S. Lane Victory would be relocated to Ports O'Call. Construction noise would not exceed the significance threshold.

CEQA Impact Determination

Impacts resulting from construction activities at the Inner Harbor and the Waterfront Red Car Museum and Maintenance Facility would be significant.

Mitigation Measures

Implement Mitigation Measure NOI-1.

Residual Impacts

As discussed under the proposed Project, Mitigation MM NOI-1 would reduce impacts; however, impacts would remain significant. Impacts would be significant and unavoidable.

NEPA Impact Determination

Impacts would be significant, but to a lesser extent than analyzed under CEQA (i.e., many of the upland locations are not subject to federal control and responsibility or NEPA). The following proposed project elements would make a significant impact under NEPA.

- Downtown Harbor;
- 7th Street Harbor;
- 7th Street Pier;
- Waterfront Promenade:
  - Ports O'Call,
  - City Dock No. 1,
  - Outer Harbor,
  - Cabrillo Beach, and
  - Salt Marsh; and
- New fueling facility at Berth 240.

There would be no significant construction impacts from the Inner Harbor parking, the Outer Harbor Berths and terminal facilities, the Crowley tug building, and the Los Angeles Maritime Institute.

Mitigation Measures

Implement Mitigation Measure MM NOI-1.

Residual Impacts

Impacts would be significant and unavoidable.

Impact NOI-2: Construction activities for Alternative 4 would not exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.

No construction activities are planned to occur between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.

CEQA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact NOI-3a: Alternative 4 would not cause noise from motor vehicle traffic measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.

CEQA Traffic Impact

Methods for calculating traffic noise impacts for Alternative 4 are the same as those described under the proposed Project.

There are three roadway segments, three segments less than the proposed Project that have a 3 dB or greater noise increase due to Alternative 4. Since a 3 dB increase in noise is the minimum increase that could trigger a significant impact, any increase under 3 dB would not result in a significant impact. It should be kept in mind that a 3 dB increase will only result in a significant impact if the existing CNEL is over 70 dBA.

Traffic noise increases for the year 2015 were also examined, and for all roadway segments, the traffic volumes for the year 2015 were found to be less than the traffic volumes for the year 2037. Therefore, the noise increases due to traffic in the year 2015 would be less than the noise increases due to traffic in the year 2037.

Table 3.9-15. Traffic Noise Increases Due To Alternative 4

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @ 50 ft*	*Existing Plus ALT 4 CNEL @ 50 ft*	*dB Increase Due To ALT 4*	*Cumulative Increase Over 2007*
1st Street					
East of Harbor Boulevard	30	52.9	61.1	**8.2**	**9.7**
Harbor Boulevard to Centre Street	30	56.8	60.7	**3.9**	**6.1**
Centre Street to Pacific Avenue	30	61.4	63.1	1.7	**3.2**
Pacific Avenue to Grand Avenue	30	62.5	63.9	1.4	2.8
Grand Avenue to Gaffey Street	30	63.5	64.7	1.2	2.5
Gaffey Street to Cabrillo Avenue	30	68.0	68.0	0.0	0.8
3rd Street					
East of Harbor Boulevard	30	**N/A**	**N/A**	**N/A**	**N/A**
Harbor Boulevard to Centre Street	30	58.3	58.8	0.5	**3.7**
5th Street					
East of Harbor Boulevard	30	56.1	*	*	-10.3
Harbor Boulevard to Centre Street	30	62.8	62.7	-0.1	1.2

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @ 50 ft*	*Existing Plus ALT 4 CNEL @ 50 ft*	*dB Increase Due To ALT 4*	*Cumulative Increase Over 2007*
Centre Street to Pacific Avenue	30	62.8	62.8	0.0	1.4
Pacific Avenue to Grand Avenue	30	61.8	61.8	0.0	1.5
Grand Avenue to Gaffey Street	30	63.1	63.1	0.0	1.3
Gaffey Street to Cabrillo Avenue	30	64.1	64.1	0.0	0.8
6th Street					
Sampson Way to Harbor Boulevard	30	56.6	*	*	-11.1
Harbor Boulevard to Centre Street	30	58.2	57.3	-0.9	0.6
Centre Street to Pacific Avenue	30	59.2	59.3	0.1	1.1
Pacific Avenue to Grand Avenue	30	58.3	58.4	0.1	1.1
Grand Avenue to Gaffey Street	30	59.3	59.4	0.1	1.0
Gaffey Street to Cabrillo Avenue	30	59.1	59.2	0.1	1.0
7th Street					
Sampson Way to Harbor Boulevard	30	52.6	63.3	**10.7**	**10.7**
Harbor Boulevard to Centre Street	30	62.6	63.5	0.9	1.7
Centre Street to Pacific Avenue	30	59.8	60.0	0.2	1.5
Pacific Avenue to Grand Avenue	30	60.4	60.5	0.1	1.4
Grand Avenue to Gaffey Street	30	62.8	62.8	0.0	1.2
Gaffey Street to Cabrillo Avenue	30	64.2	64.2	0.0	0.8
9th Street					
Centre Street to Pacific Avenue	35	62.7	62.8	0.1	1.6
Pacific Avenue to Grand Avenue	35	65.2	65.3	0.1	1.2
Grand Avenue to Gaffey Street	35	66.5	66.5	0.0	1.1
Gaffey Street to Patton Avenue	35	67.8	67.9	0.1	0.9
Patton Avenue to Western Avenue	35	65.1	65.2	0.1	1.1
Western Avenue to Chandeleur Drive	35	65.1	65.2	0.1	1.0
13th Street					
Centre Street to Pacific Avenue	25	58.7	59.0	0.3	1.0
Pacific Avenue to Grand Avenue	25	61.4	61.5	0.1	0.8
Grand Avenue to Gaffey Street	25	64.0	64.0	0.0	0.8
Gaffey Street to Meyler Street	25	64.6	64.6	0.0	0.8

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @ 50 ft*	*Existing Plus ALT 4 CNEL @ 50 ft*	*dB Increase Due To ALT 4*	*Cumulative Increase Over 2007*
17th Street					
Centre Street to Pacific Avenue	35	61.8	61.9	0.1	0.8
Pacific Avenue to Grand Avenue	35	64.5	64.5	0.0	0.8
Grand Avenue to Gaffey Street	35	64.0	64.0	0.0	0.8
Gaffey Street to Meyler Street	35	64.9	64.9	0.0	0.8
19th Street					
Mesa Street to Pacific Avenue	35	59.9	60.0	0.1	0.9
Pacific Avenue to Grand Avenue	35	61.0	61.1	0.1	0.9
Grand Avenue to Gaffey Street	35	63.3	63.3	0.0	0.9
Gaffey Street to Meyler Street	35	65.7	65.8	0.1	0.9
22nd Street					
Signal Place to Miner Street	25	57.3	59.0	1.7	2.4
Miner Street to Via Cabrillo Marina	25	63.4	63.8	0.4	1.2
Via Cabrillo Marina to Mesa Street	25	63.2	63.6	0.4	1.2
Mesa Street to Pacific Avenue	25	63.4	63.8	0.4	1.1
Pacific Avenue to Grand Avenue	25	61.5	62.0	0.5	1.3
Grand Avenue to Gaffey Street	25	62.0	62.3	0.3	1.2
Gaffey Street to Meyler Street	25	56.3	56.3	0.0	0.8
25th Street					
Gaffey Street to Patton Avenue	35	66.8	66.9	0.1	1.0
Patton Avenue to Western Avenue	35	67.6	67.7	0.1	0.9
Western Avenue to Moray Avenue	35	68.0	68.1	0.1	1.0
110 Freeway					
Harbor Boulevard On Ramp	50	69.6	69.9	0.3	**6.0**
Gaffey Street On Ramp	50	77.6	77.8	0.2	1.1
Crescent Avenue					
Sampson Way to Harbor Boulevard	30	48.6	48.6	0.0	0.0
Harbor Boulevard to 20th Street	30	61.7	61.9	0.2	0.9
Gaffey Street					
Miraflores Avenue to Summerland Avenue	35	69.8	69.8	0.0	1.1

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @ 50 ft*	*Existing Plus ALT 4 CNEL @ 50 ft*	*dB Increase Due To ALT 4*	*Cumulative Increase Over 2007*
Summerland Avenue to 110 Freeway	35	69.4	69.4	0.0	1.2
110 Freeway to Sepulveda Street	35	74.5	74.6	0.1	1.2
Sepulveda Street to 1st Street	35	74.3	74.5	0.2	1.2
1st Street to 3rd Street	35	72.8	72.8	0.0	1.1
3rd Street to 5th Street	35	72.6	72.6	0.0	1.0
5th Street to 6th Street	35	72.2	72.2	0.0	0.9
6th Street to 7th Street	35	72.0	72.0	0.0	0.9
7th Street to 8th Street	35	71.6	71.6	0.0	0.9
8th Street to 9th Street	35	71.5	71.5	0.0	0.9
9th Street to 11th Street	35	71.0	71.0	0.0	0.8
11th Street to 13th Street	35	71.2	71.2	0.0	0.8
13th Street to 15th Street	35	70.5	70.5	0.0	0.8
15th Street to 17th Street	35	69.8	69.8	0.0	0.8
17th Street to 18th Street	35	69.3	69.4	0.1	0.8
18th Street to 19th Street	35	69.1	69.2	0.1	0.8
19th Street to 20th Street	35	68.3	68.4	0.1	0.9
20th Street to 22nd Street	35	68.1	68.2	0.1	0.9
22nd Street to 23rd Street	35	68.2	68.3	0.1	0.9
23rd Street to 25th Street	35	67.7	67.8	0.1	0.9
25th Street to 26th Street	35	64.6	64.6	0.0	0.8
Gulch Road					
Harbor Boulevard to Beacon Street	25	55.9	56.1	0.2	1.0
Front Street					
Pacific Avenue to Knoll Drive	35	63.1	63.3	0.2	2.3
Knoll Drive to 110 Freeway	35	65.8	65.9	0.1	2.2
Harbor Boulevard					
110 Freeway to Swinford Street	35	68.6	68.7	0.1	**3.3**
Swinford Street to Beacon Street	35	70.9	71.6	0.7	1.6
Beacon Street to O'Farrell Street	35	71.4	72.1	0.7	2.3
O'Farrell Street to Santa Cruz Street	35	71.3	72.1	0.8	2.3

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @ 50 ft*	*Existing Plus ALT 4 CNEL @ 50 ft*	*dB Increase Due To ALT 4*	*Cumulative Increase Over 2007*
Santa Cruz Street to 1st Street	35	70.8	71.7	0.9	2.3
1st Street to 2nd Street	35	70.5	71.3	0.8	2.0
2nd Street to 3rd Street	35	70.3	71.2	0.9	2.0
3rd Street to 5th Street	35	70.2	71.1	0.9	1.9
5th Street to 6th Street	35	69.6	70.7	1.1	2.0
6th Street to 7th Street	35	69.2	70.6	1.4	2.2
7th Street to Gulch Road	35	67.7	68.1	0.4	1.5
Gulch Road to Crescent Avenue	35	67.5	67.6	0.1	1.3
Miner Street					
Crescent Avenue to 22nd Street	35	66.0	66.1	0.1	1.5
South of 22nd Street	35	57.0	57.0	0.0	**5.5**
O'Farrell Street					
Harbor Boulevard to Centre Street	25	56.2	56.3	0.1	1.2
Pacific Avenue					
Channel Street to Front Street	35	70.1	70.1	0.0	1.2
Front Street to Oliver Street	35	69.3	69.3	0.0	0.8
Oliver Street to 1st Street	35	69.3	69.3	0.0	0.8
1st Street to 3rd Street	35	69.7	69.7	0.0	0.8
3rd Street to 5th Street	35	69.6	69.6	0.0	0.8
5th Street to 6th Street	35	69.7	69.7	0.0	0.8
6th Street to 7th Street	35	69.8	69.8	0.0	0.8
7th Street to 8th Street	35	69.8	69.8	0.0	0.8
8th Street to 9th Street	35	69.6	69.6	0.0	0.8
9th Street to 11th Street	35	69.2	69.2	0.0	0.8
11th Street to 13th Street	35	68.7	68.7	0.0	0.8
13th Street to 15th Street	35	68.2	68.2	0.0	0.8
15th Street to 17th Street	35	67.6	67.7	0.1	0.8
17th Street to 18th Street	35	66.9	67.0	0.1	0.9
18th Street to 19th Street	35	66.0	66.1	0.1	0.9
19th Street to 20th Street	35	66.0	66.1	0.1	0.8

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @ 50 ft*	*Existing Plus ALT 4 CNEL @ 50 ft*	*dB Increase Due To ALT 4*	*Cumulative Increase Over 2007*
20th Street to 22nd Street	35	66.1	66.2	0.1	0.8
22nd Street to 23rd Street	35	67.2	67.2	0.0	0.8
Summerland Avenue					
110 Freeway to Gaffey Street	35	65.9	65.9	0.0	0.8
Gaffey Street to Summerland Avenue	35	67.0	67.0	0.0	0.9
Swinford Street					
Front Street to Harbor Boulevard	35	60.5	*	*	**7.9**
47 Ramp	35	68.9	69.4	0.5	1.3
Via Cabrillo Marina					
South of 22nd Street	35	60.5	60.5	0.0	0.8
Western Avenue					
Bynner Drive to 9th Street	35	70.3	70.3	0.0	0.8
9th Street to 19th Street	35	70.9	70.9	0.0	0.8
19th Street to 25th Street	35	68.0	68.0	0.0	0.8
25th Street to Paseo del Mar	35	63.8	63.8	0.0	0.8

* Alternative 4 removes traffic from this roadway segment due to a change in circulation patterns, and noise would decrease a substantial but indeterminate amount.

1st Street

East of Harbor Boulevard

No residences exist east of Harbor Boulevard. Currently, the traffic traveling along this roadway segment is nominal, and the modeled existing noise level due to 1st Street is 52.9 CNEL at 50 feet from the centerline of the roadway. With the increase in noise of 8.2 dB over existing, the projected noise due to Alternative 4 would be 61.1 CNEL. Although this roadway is projected to have an apparent increase of 8.2 dB as a result of Alternative 4 according to the model, this increase is misleading because the model does not take into account noise generated by adjacent roadways. See the discussion of this roadway segment under the proposed Project for a more detailed explanation of this effect. When the noise contribution from Harbor Boulevard is accounted for, the existing noise level along 1st Street is much higher than the modeled noise level due to Alternative 4. No significant noise impacts would occur along this roadway segment.

Harbor Boulevard to Centre Street

This section of the roadway is almost completely surrounded by residences on both sides of 1st Street. The residences are about 33 feet from the centerline of the roadway. The modeled noise level for current traffic is 56.8 CNEL at 50 feet and 58.6 CNEL at the property line of the residences. The projected with-project noise level would be 60.7 CNEL at 50 feet and 62.5 CNEL at the property line of the nearest residence. At points along 1st Street away from Harbor Boulevard, the noise increase is determined mainly by traffic traveling along 1st Street. The increase in noise is 3.9 dB and the with-Alternative 4 noise is less than 70 dBA. This roadway segment would not experience a significant noise impact since the noise at the property line does not exceed 70 CNEL.

7th Street

Sampson Way to Harbor Boulevard

This is the roadway segment that would accept northbound traffic exiting from Sampson Way once the 6th Street connection between Sampson Way and Harbor Boulevard is closed. No residences or affected uses are located on 7th Street along this section of the roadway. The nearest affected use is a government office building at the corner of 7th Street and Harbor Boulevard, about 110 feet beyond the end point of the roadway segment. Since this office building is located on Harbor Boulevard, the current noise levels at the property line of the office building is due mainly to traffic traveling along Harbor Boulevard. The current traffic along Harbor Boulevard from 6th Street to 7th Street produces a CNEL of 69.2 dBA. The projected with-Alternative 4 noise level along 7th Street is 63.3 CNEL at 50 feet, and at 110 feet this noise would be 59.9 CNEL. The with-Alternative 4 noise impact from 7th Street between Sampson Way and Harbor Boulevard would produce less noise at the property line of the nearest affected use (i.e., City Hall) than what currently exists today. Under the with-project condition, fewer vehicles would travel down 7th Street, and City Hall is closer to 7th Street than Harbor Boulevard. This roadway segment would not experience a significant increase in noise, and no significant impact is projected.

CEQA Impact Determination

For all street segments, no noise impacts are anticipated. Impacts would be less than significant. The noise increases for all potentially significantly impacted roadways for this for alternative were less than the increases for the same roadways under the proposed Project.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Traffic Impacts

Methods for calculating NEPA traffic noise impacts for Alternative 4 are the same as those described under the proposed Project.

Traffic noise increases for the year 2015 were also examined, and for all roadway segments, the traffic volumes for the year 2015 were found to be less than the traffic volumes for the year 2037. Therefore, the noise increases due to traffic in the year 2015 would be less than the noise increases due to traffic in the year 2037.

Table 3.9-16. Traffic Noise Increases Due To Alternative 4 under NEPA

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus ALT 4 CNEL @ 50 ft*	*NEPA dB Increase Due To ALT 4*	*NEPA Cumulative Increase Over 2007*
1st Street					
East of Harbor Boulevard	30	61.1	61.1	0.0	1.4
Harbor Boulevard to Centre Street	30	60.7	60.7	0.0	2.1
Centre Street to Pacific Avenue	30	63.1	63.1	0.0	1.5
Pacific Avenue to Grand Avenue	30	63.9	63.9	0.0	1.4
Grand Avenue to Gaffey Street	30	64.7	64.7	0.0	1.3
Gaffey Street to Cabrillo Avenue	30	68.0	68.0	0.0	0.8
3rd Street					
East of Harbor Boulevard	30	**N/A**	**N/A**	**N/A**	**N/A**
Harbor Boulevard to Centre Street	30	58.7	58.8	0.0	**3.2**
5th Street					
East of Harbor Boulevard	30	*	*	*	*
Harbor Boulevard to Centre Street	30	62.7	62.7	0.0	1.4
Centre Street to Pacific Avenue	30	62.8	62.8	0.0	1.3
Pacific Avenue to Grand Avenue	30	61.8	61.8	0.0	1.5
Grand Avenue to Gaffey Street	30	63.1	63.1	0.0	1.3
Gaffey Street to Cabrillo Avenue	30	64.1	64.1	0.0	0.8
6th Street					
Sampson Way to Harbor Boulevard	30	*	*	*	*
Harbor Boulevard to Centre Street	30	57.1	57.3	0.2	1.8
Centre Street to Pacific Avenue	30	59.3	59.3	0.0	1.0
Pacific Avenue to Grand Avenue	30	58.4	58.4	0.1	1.0

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus ALT 4 CNEL @ 50 ft*	*NEPA dB Increase Due To ALT 4*	*NEPA Cumulative Increase Over 2007*
Grand Avenue to Gaffey Street	30	59.4	59.4	0.0	0.9
Gaffey Street to Cabrillo Avenue	30	59.1	59.2	0.0	0.9
7th Street					
Sampson Way to Harbor Boulevard	30	63.3	63.8	0.5	0.5
Harbor Boulevard to Centre Street	30	63.4	63.5	0.0	0.9
Centre Street to Pacific Avenue	30	59.9	60.0	0.0	1.4
Pacific Avenue to Grand Avenue	30	60.5	60.5	0.0	1.3
Grand Avenue to Gaffey Street	30	62.9	62.8	0.0	1.1
Gaffey Street to Cabrillo Avenue	30	64.2	64.2	0.0	0.8
9th Street					
Centre Street to Pacific Avenue	35	62.8	62.8	0.0	1.5
Pacific Avenue to Grand Avenue	35	65.3	65.3	0.0	1.2
Grand Avenue to Gaffey Street	35	66.5	66.5	0.0	1.1
Gaffey Street to Patton Avenue	35	67.9	67.9	0.0	0.9
Patton Avenue to Western Avenue	35	65.2	65.2	0.0	1.0
Western Avenue to Chandeleur Drive	35	65.2	65.2	0.0	0.9
13th Street					
Centre Street to Pacific Avenue	25	59.0	59.0	0.0	0.7
Pacific Avenue to Grand Avenue	25	61.5	61.5	0.0	0.8
Grand Avenue to Gaffey Street	25	64.0	64.0	0.0	0.8
Gaffey Street to Meyler Street	25	64.6	64.6	0.0	0.8
17th Street					
Centre Street to Pacific Avenue	35	61.9	61.9	0.0	0.8
Pacific Avenue to Grand Avenue	35	64.5	64.5	0.0	0.8
Grand Avenue to Gaffey Street	35	64.0	64.0	0.0	0.7
Gaffey Street to Meyler Street	35	64.9	64.9	0.0	0.8
19th Street					
Mesa Street to Pacific Avenue	35	60.0	60.0	0.0	0.8
Pacific Avenue to Grand Avenue	35	61.0	61.1	0.0	0.9
Grand Avenue to Gaffey Street	35	63.3	63.3	0.0	0.9

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus ALT 4 CNEL @ 50 ft*	*NEPA dB Increase Due To ALT 4*	*NEPA Cumulative Increase Over 2007*
Gaffey Street to Meyler Street	35	65.7	65.8	0.0	0.8
22nd Street					
Signal Place to Miner Street	25	59.0	59.0	0.0	0.7
Miner Street to Via Cabrillo Marina	25	63.8	63.8	0.0	0.8
Via Cabrillo Marina to Mesa Street	25	63.6	63.6	0.0	0.8
Mesa Street to Pacific Avenue	25	63.8	63.8	0.0	0.8
Pacific Avenue to Grand Avenue	25	62.0	62.0	0.0	0.8
Grand Avenue to Gaffey Street	25	62.4	62.3	0.0	0.8
Gaffey Street to Meyler Street	25	56.3	56.3	0.0	0.8
25th Street					
Gaffey Street to Patton Avenue	35	66.9	66.9	0.0	0.8
Patton Avenue to Western Avenue	35	67.7	67.7	0.0	0.8
Western Avenue to Moray Avenue	35	68.1	68.1	0.0	0.9
110 Freeway					
Harbor Boulevard On Ramp	50	69.8	69.9	0.1	**5.7**
Gaffey Street On Ramp	50	77.8	77.8	0.0	0.9
Crescent Avenue					
Sampson Way to Harbor Boulevard	30	48.6	48.6	0.0	0.0
Harbor Boulevard to 20th Street	30	61.9	61.9	0.0	0.7
Gaffey Street					
Miraflores Avenue to Summerland Avenue	35	69.8	69.8	0.0	1.0
Summerland Avenue to 110 Freeway	35	69.4	69.4	0.0	1.2
110 Freeway to Sepulveda Street	35	74.6	74.6	0.0	1.0
Sepulveda Street to 1st Street	35	74.5	74.5	0.0	1.0
1st Street to 3rd Street	35	72.8	72.8	0.0	1.0
3rd Street to 5th Street	35	72.6	72.6	0.0	0.9
5th Street to 6th Street	35	72.2	72.2	0.0	0.9
6th Street to 7th Street	35	72.0	72.0	0.0	0.9
7th Street to 8th Street	35	71.6	71.6	0.0	0.9
8th Street to 9th Street	35	71.5	71.5	0.0	0.8

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus ALT 4 CNEL @ 50 ft*	*NEPA dB Increase Due To ALT 4*	*NEPA Cumulative Increase Over 2007*
9th Street to 11th Street	35	71.0	71.0	0.0	0.8
11th Street to 13th Street	35	71.2	71.2	0.0	0.8
13th Street to 15th Street	35	70.5	70.5	0.0	0.8
15th Street to 17th Street	35	69.8	69.8	0.0	0.8
17th Street to 18th Street	35	69.4	69.4	0.0	0.8
18th Street to 19th Street	35	69.2	69.2	0.0	0.8
19th Street to 20th Street	35	68.4	68.4	0.0	0.8
20th Street to 22nd Street	35	68.2	68.2	0.0	0.8
22nd Street to 23rd Street	35	68.3	68.3	0.0	0.8
23rd Street to 25th Street	35	67.8	67.8	0.0	0.8
25th Street to 26th Street	35	64.6	64.6	0.0	0.8
Gulch Road					
Harbor Boulevard to Beacon Street	25	56.1	56.1	0.0	0.8
Front Street					
Pacific Avenue to Knoll Drive	35	63.3	63.3	0.0	2.1
Knoll Drive to 110 Freeway	35	65.9	65.9	0.0	2.0
Harbor Boulevard					
110 Freeway to Swinford Street	35	68.7	68.7	0.0	**3.2**
Swinford Street to Beacon Street	35	71.5	71.6	0.0	1.0
Beacon Street to O'Farrell Street	35	72.1	72.1	0.0	1.5
O'Farrell Street to Santa Cruz Street	35	72.1	72.1	0.0	1.5
Santa Cruz Street to 1st Street	35	71.7	71.7	0.0	1.4
1st Street to 2nd Street	35	71.3	71.3	0.0	1.2
2nd Street to 3rd Street	35	71.2	71.2	0.0	1.2
3rd Street to 5th Street	35	71.1	71.1	0.0	1.0
5th Street to 6th Street	35	70.7	70.7	0.0	0.9
6th Street to 7th Street	35	70.6	70.6	0.0	0.8
7th Street to Gulch Road	35	68.1	68.1	0.0	1.1
Gulch Road to Crescent Avenue	35	67.6	67.6	0.0	1.2
Miner Street					

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus ALT 4 CNEL @ 50 ft*	*NEPA dB Increase Due To ALT 4*	*NEPA Cumulative Increase Over 2007*
Crescent Avenue to 22nd Street	35	66.1	66.1	0.0	1.3
South of 22nd Street	35	57.0	57.0	0.0	**5.5**
O'Farrell Street					
Harbor Boulevard to Centre Street	25	56.3	56.3	0.0	1.1
Pacific Avenue					
Channel Street to Front Street	35	70.1	70.1	0.0	1.1
Front Street to Oliver Street	35	69.3	69.3	0.0	0.8
Oliver Street to 1st Street	35	69.3	69.3	0.0	0.8
1st Street to 3rd Street	35	69.7	69.7	0.0	0.8
3rd Street to 5th Street	35	69.6	69.6	0.0	0.8
5th Street to 6th Street	35	69.7	69.7	0.0	0.8
6th Street to 7th Street	35	69.8	69.8	0.0	0.8
7th Street to 8th Street	35	69.8	69.8	0.0	0.8
8th Street to 9th Street	35	69.6	69.6	0.0	0.8
9th Street to 11th Street	35	69.2	69.2	0.0	0.8
11th Street to 13th Street	35	68.7	68.7	0.0	0.8
13th Street to 15th Street	35	68.2	68.2	0.0	0.8
15th Street to 17th Street	35	67.6	67.7	0.0	0.8
17th Street to 18th Street	35	67.0	67.0	0.0	0.8
18th Street to 19th Street	35	66.1	66.1	0.0	0.8
19th Street to 20th Street	35	66.1	66.1	0.0	0.8
20th Street to 22nd Street	35	66.2	66.2	0.0	0.8
22nd Street to 23rd Street	35	67.2	67.2	0.0	0.8
Summerland Avenue					
110 Freeway to Gaffey Street	35	65.9	65.9	0.0	0.8
Gaffey Street to Summerland Avenue	35	67.0	67.0	0.0	0.9
Swinford Street					
Front Street to Harbor Boulevard	35	*	*	*	*
47 Ramp	35	69.4	69.4	0.0	0.8
Via Cabrillo Marina					

Roadway Segment	*Speed (mph)*	*NEPA Baseline CNEL @ 50 ft*	*Existing Plus ALT 4 CNEL @ 50 ft*	*NEPA dB Increase Due To ALT 4*	*NEPA Cumulative Increase Over 2007*
South of 22nd Street	35	60.5	60.5	0.0	0.8
Western Avenue					
Bynner Drive to 9th Street	35	70.3	70.3	0.0	0.8
9th Street to 19th Street	35	70.9	70.9	0.0	0.8
19th Street to 25th Street	35	68.0	68.0	0.0	0.8
25th Street to Paseo del Mar	35	63.8	63.8	0.0	0.8
* Alternative 4 removes traffic from this roadway segment due to a change in circulation patterns, and noise would decrease a substantial but indeterminate amount.					

NEPA Impact Determination

For all street segments, no significant noise impacts are anticipated. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact NOI-3b: Alternative 4 would not cause noise from railroad operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.

The only railroad operation planned under Alternative 4 is the Waterfront Red Car Line. Under Alternative 4 the Waterfront Red Car Line would be extended down to Cabrillo Beach along Shoshonean Way, the same as described under the proposed Project. The largest noise impact caused by the Waterfront Red Car Line under Alternative 4 is along Shoshonean Way. Because the noise impact would not be significant under the proposed Project, it would not be significant under Alternative 4.

CEQA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact NOI-3c: Alternative 4 would not cause noise from cruise ship operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.

No new cruise berths would be located in the Outer Harbor. The cruise ship terminal at Berth 91 would be demolished, and a new terminal would be built. The noise levels in the Inner Harbor would not change substantially from the existing levels.

CEQA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The cruise ship operations for Alternative 4 are the same for Alternative 5 in terms of annual passengers and ships calls; therefore, there would be no significant impacts

under NEPA for Alternative 4 because there would be no significant impact under NEPA for Alternative 5.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

3.9.4.3.6 Alternative 5—No-Federal-Action Alternative

Impact NOI-1: Alternative 5 would exceed construction noise standards.

All construction noise impacts for Alternative 5 would be the same as the proposed Project except the following:

North Harbor: The North Harbor would not be constructed, so there would not be any construction noise impacts.

Downtown Harbor: The Downtown Harbor would not be constructed, so there would not be any construction noise impacts.

7th Street Harbor: The 7th Street Harbor would not be constructed, so there would not be any construction noise impacts.

7th Street Pier: The 7th Street Pier would not be constructed, so there would not be any construction noise impacts.

Ports O'Call Promenade: The Ports O'Call Promenade would not be constructed, so there would not be any construction noise impacts.

City Dock No. 1 Promenade: The City Dock No. 1 would not be constructed, so there would not be any construction noise impacts.

Outer Harbor Promenade: The Outer Harbor Promenade would not be constructed, so there would not be any construction noise impacts.

Cabrillo Beach Youth Waterfront Sports Center Promenade: The Cabrillo Beach Youth Waterfront Sports Center Promenade would be constructed along Shoshonean Way instead of along the waterside as specified by the proposed Project. The promenade would still be close enough to sensitive receivers to make a significant construction noise impact.

Salt Marsh Promenade: The Salt Marsh Promenade would be constructed along Shoshonean Way instead of along the waterside as specified by the proposed Project. The promenade would still be close enough to sensitive receivers to make a significant construction noise impact.

Outer Harbor Berths and Terminal Facilities: The Outer Harbor Berths and Terminal Facilities would not be constructed, so there would not be any construction noise impacts.

Inner Harbor Parking: The size of the Inner Harbor parking structure would be reduced in scale (i.e., the parking structure would provide only 3,525 spaces for Alternative 5 instead of 4,600 spaces that would be provided by the proposed Project); however, the type of construction and noise levels for this alternative would be the same as for the proposed Project. Construction noise would exceed the significance threshold.

Outer Harbor Parking: The Outer Harbor parking would be reduced from 400 surface parking spaces to 60 surface parking spaces; however, the type of construction would be the same as for the proposed Project, so there would be a significant construction noise impact.

Waterfront Red Car Museum: The Waterfront Red Car Museum would be located alongside the Waterfront Red Car Maintenance Facility at the 13th Street Bluff location, and medium construction equipment would be used; therefore, all construction noise levels that would be valid for the Waterfront Red Car Maintenance Facility would also be valid for the Waterfront Red Car Museum. Construction noise would exceed the significance threshold.

Tugboats at the Crowley Tug Building: Since the tugboats would remain in their existing location, there would not be any construction noise impacts.

Los Angeles Maritime Institute: Since the Los Angeles Maritime Institute would remain in its existing location, there would not be any construction noise impacts.

S.S. Lane Victory: Since the S.S. Lane Victory would remain in its existing location, there would not be any construction noise impacts.

Jankovich & Son Fueling Station: Since the Jankovich fueling station would remain in its existing location, there would not be any construction noise impacts.

Proposed Fueling Station at Berth 240: The new fueling station at Berth 240 would not be built. There would not be any construction noise impacts.

Catalina Express: Under this alternative, Catalina Express would relocate from Berth 96 to Berth 95 just north of the S.S. Lane Victory under a separate environmental review process for the China Shipping Project, and would construct floating docks. In contrast to the proposed Project, Catalina Express would remain in this location north of the S.S. Lane Victory and would not relocate to a permanent location at the S.S. Lane Victory site at Berth 95.

CEQA Impact Determination

Impacts resulting from construction activities at the Cabrillo Beach Youth Waterfront Sports Center Promenade, the Salt Marsh Promenade, the Inner Harbor parking, the Town Square, the demolition of the Westway Terminal, and the Waterfront Red Car Museum and Maintenance Facility would be expected to be of the same duration and severity as for the proposed Project and would be significant.

Mitigation Measures

Implement Mitigation Measure MM NOI-1.

Residual Impacts

As discussed under the proposed Project, Mitigation MM NOI-1 would reduce impacts; however, impacts would remain significant. Impacts would be significant and unavoidable.

NEPA Impact Determination

Because the No-Federal-Action Alternative is identical to the NEPA baseline, this alternative would have no impact under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact NOI-2: Construction activities for Alternative 5 would not exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.

No construction activities are planned to occur between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.

CEQA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Because the No-Federal-Action Alternative is identical to the NEPA baseline, this alternative would have no impact under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact NOI-3a: Alternative 5 would not cause noise from motor vehicle traffic measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.

CEQA Traffic Impacts

Methods for calculating traffic noise impacts for Alternative 5 are the same as those described under the proposed Project.

There are three roadway segments, three less than the proposed Project, that have a 3 dB or greater noise increase due to Alternative 5. Since a 3 dB increase in noise is the minimum increase that could trigger a significant impact, any increase under 3 dB would not result in an increase. It should be kept in mind that a 3 dB increase would only result in a significant impact if the existing CNEL is over 70 dBA.

Traffic noise increases for the year 2015 were also examined, and for all roadway segments, the traffic volumes for the year 2015 were found to be less than the traffic volumes for the year 2037. Therefore, the noise increases due to traffic in the year 2015 would be less than the noise increases due to traffic in the year 2037.

Table 3.9-17. Traffic Noise Increases Due To Alternative 5

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @ 50 ft*	*Existing Plus ALT 5 CNEL @ 50 ft*	*dB Increase Due To ALT 5*	*Cumulative Increase Over 2007*
1st Street					
East of Harbor Boulevard	30	52.9	61.1	**8.2**	**9.7**
Harbor Boulevard to Centre Street	30	56.8	60.7	**3.9**	**6.1**
Centre Street to Pacific Avenue	30	61.4	63.1	1.7	**3.2**
Pacific Avenue to Grand Avenue	30	62.5	63.9	1.4	2.8
Grand Avenue to Gaffey Street	30	63.5	64.7	1.2	2.5
Gaffey Street to Cabrillo Avenue	30	68.0	68.0	0.0	0.8
3rd Street					
East of Harbor Boulevard	30	**N/A**	**N/A**	**N/A**	**N/A**
Harbor Boulevard to Centre Street	30	58.3	58.7	0.4	**3.7**
5th Street					
East of Harbor Boulevard	30	56.1	*	*	-7.9
Harbor Boulevard to Centre Street	30	62.8	62.7	-0.1	1.2
Centre Street to Pacific Avenue	30	62.8	62.8	0.0	1.4
Pacific Avenue to Grand Avenue	30	61.8	61.8	0.0	1.5
Grand Avenue to Gaffey Street	30	63.1	63.1	0.0	1.3
Gaffey Street to Cabrillo Avenue	30	64.1	64.1	0.0	0.8
6th Street					
Sampson Way to Harbor Boulevard	30	56.6	*	*	-21.6
Harbor Boulevard to Centre Street	30	58.2	57.1	-1.1	0.5
Centre Street to Pacific Avenue	30	59.2	59.3	0.1	1.1
Pacific Avenue to Grand Avenue	30	58.3	58.4	0.1	1.1
Grand Avenue to Gaffey Street	30	59.3	59.4	0.1	1.0
Gaffey Street to Cabrillo Avenue	30	59.1	59.1	0.0	1.0
7th Street					
Sampson Way to Harbor Boulevard	30	52.6	63.3	**10.7**	**10.7**
Harbor Boulevard to Centre Street	30	62.6	63.4	0.8	1.7
Centre Street to Pacific Avenue	30	59.8	59.9	0.1	1.5
Pacific Avenue to Grand Avenue	30	60.4	60.5	0.1	1.4

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @ 50 ft*	*Existing Plus ALT 5 CNEL @ 50 ft*	*dB Increase Due To ALT 5*	*Cumulative Increase Over 2007*
Grand Avenue to Gaffey Street	30	62.8	62.9	0.1	1.2
Gaffey Street to Cabrillo Avenue	30	64.2	64.2	0.0	0.8
9th Street					
Centre Street to Pacific Avenue	35	62.7	62.8	0.1	1.6
Pacific Avenue to Grand Avenue	35	65.2	65.3	0.1	1.2
Grand Avenue to Gaffey Street	35	66.5	66.5	0.0	1.1
Gaffey Street to Patton Avenue	35	67.8	67.9	0.1	0.9
Patton Avenue to Western Avenue	35	65.1	65.2	0.1	1.1
Western Avenue to Chandeleur Drive	35	65.1	65.2	0.1	1.0
13th Street					
Centre Street to Pacific Avenue	25	58.7	59.0	0.3	1.0
Pacific Avenue to Grand Avenue	25	61.4	61.5	0.1	0.8
Grand Avenue to Gaffey Street	25	64.0	64.0	0.0	0.8
Gaffey Street to Meyler Street	25	64.6	64.6	0.0	0.8
17th Street					
Centre Street to Pacific Avenue	35	61.8	61.9	0.1	0.8
Pacific Avenue to Grand Avenue	35	64.5	64.5	0.0	0.8
Grand Avenue to Gaffey Street	35	64.0	64.0	0.0	0.8
Gaffey Street to Meyler Street	35	64.9	64.9	0.0	0.8
19th Street					
Mesa Street to Pacific Avenue	35	59.9	60.0	0.1	0.9
Pacific Avenue to Grand Avenue	35	61.0	61.0	0.0	0.9
Grand Avenue to Gaffey Street	35	63.3	63.3	0.0	0.9
Gaffey Street to Meyler Street	35	65.7	65.7	0.0	0.8
22nd Street					
Signal Place to Miner Street	25	57.3	59.0	1.7	2.4
Miner Street to Via Cabrillo Marina	25	63.4	63.8	0.4	1.2
Via Cabrillo Marina to Mesa Street	25	63.2	63.6	0.4	1.2
Mesa Street to Pacific Avenue	25	63.4	63.8	0.4	1.2
Pacific Avenue to Grand Avenue	25	61.5	62.0	0.5	1.3

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @ 50 ft*	*Existing Plus ALT 5 CNEL @ 50 ft*	*dB Increase Due To ALT 5*	*Cumulative Increase Over 2007*
Grand Avenue to Gaffey Street	25	62.0	62.4	0.4	1.2
Gaffey Street to Meyler Street	25	56.3	56.3	0.0	0.8
25th Street					
Gaffey Street to Patton Avenue	35	66.8	66.9	0.1	1.0
Patton Avenue to Western Avenue	35	67.6	67.7	0.1	0.9
Western Avenue to Moray Avenue	35	68.0	68.1	0.1	1.0
110 Freeway					
Harbor Boulevard On Ramp	50	69.6	69.8	0.2	**5.9**
Gaffey Street On Ramp	50	77.6	77.8	0.2	1.1
Crescent Avenue					
Sampson Way to Harbor Boulevard	30	48.6	48.6	0.0	0.0
Harbor Boulevard to 20th Street	30	61.7	61.9	0.2	0.9
Gaffey Street					
Miraflores Avenue to Summerland Avenue	35	69.8	69.8	0.0	1.1
Summerland Avenue to 110 Freeway	35	69.4	69.4	0.0	1.2
110 Freeway to Sepulveda Street	35	74.5	74.6	0.1	1.2
Sepulveda Street to 1st Street	35	74.3	74.5	0.2	1.2
1st Street to 3rd Street	35	72.8	72.8	0.0	1.1
3rd Street to 5th Street	35	72.6	72.6	0.0	1.0
5th Street to 6th Street	35	72.2	72.2	0.0	0.9
6th Street to 7th Street	35	72.0	72.0	0.0	0.9
7th Street to 8th Street	35	71.6	71.6	0.0	0.9
8th Street to 9th Street	35	71.5	71.5	0.0	0.9
9th Street to 11th Street	35	71.0	71.0	0.0	0.8
11th Street to 13th Street	35	71.2	71.2	0.0	0.8
13th Street to 15th Street	35	70.5	70.5	0.0	0.8
15th Street to 17th Street	35	69.8	69.8	0.0	0.8
17th Street to 18th Street	35	69.3	69.4	0.1	0.8
18th Street to 19th Street	35	69.1	69.2	0.1	0.8
19th Street to 20th Street	35	68.3	68.4	0.1	0.9

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @ 50 ft*	*Existing Plus ALT 5 CNEL @ 50 ft*	*dB Increase Due To ALT 5*	*Cumulative Increase Over 2007*
20th Street to 22nd Street	35	68.1	68.2	0.1	0.9
22nd Street to 23rd Street	35	68.2	68.3	0.1	0.9
23rd Street to 25th Street	35	67.7	67.8	0.1	0.9
25th Street to 26th Street	35	64.6	64.6	0.0	0.8
Gulch Road					
Harbor Boulevard to Beacon Street	25	55.9	56.1	0.2	1.0
Front Street					
Pacific Avenue to Knoll Drive	35	63.1	63.3	0.2	2.3
Knoll Drive to 110 Freeway	35	65.8	65.9	0.1	2.2
Harbor Boulevard					
110 Freeway to Swinford Street	35	68.6	68.7	0.1	**3.3**
Swinford Street to Beacon Street	35	70.9	71.5	0.6	1.6
Beacon Street to O'Farrell Street	35	71.4	72.1	0.7	2.3
O'Farrell Street to Santa Cruz Street	35	71.3	72.1	0.8	2.3
Santa Cruz Street to 1st Street	35	70.8	71.7	0.9	2.3
1st Street to 2nd Street	35	70.5	71.3	0.8	2.0
2nd Street to 3rd Street	35	70.3	71.2	0.9	2.0
3rd Street to 5th Street	35	70.2	71.1	0.9	1.9
5th Street to 6th Street	35	69.6	70.7	1.1	2.0
6th Street to 7th Street	35	69.2	70.6	1.4	2.2
7th Street to Gulch Road	35	67.7	68.1	0.4	1.5
Gulch Road to Crescent Avenue	35	67.5	67.6	0.1	1.3
Miner Street					
Crescent Avenue to 22nd Street	35	66.0	66.1	0.1	1.5
South of 22nd Street	35	57.0	57.0	0.0	**5.5**
O'Farrell Street					
Harbor Boulevard to Centre Street	25	56.2	56.3	0.1	1.2
Pacific Avenue					
Channel Street to Front Street	35	70.1	70.1	0.0	1.2
Front Street to Oliver Street	35	69.3	69.3	0.0	0.8

Roadway Segment	*Speed (mph)*	*Existing 2007 CNEL @ 50 ft*	*Existing Plus ALT 5 CNEL @ 50 ft*	*dB Increase Due To ALT 5*	*Cumulative Increase Over 2007*
Oliver Street to 1st Street	35	69.3	69.3	0.0	0.8
1st Street to 3rd Street	35	69.7	69.7	0.0	0.8
3rd Street to 5th Street	35	69.6	69.6	0.0	0.8
5th Street to 6th Street	35	69.7	69.7	0.0	0.8
6th Street to 7th Street	35	69.8	69.8	0.0	0.8
7th Street to 8th Street	35	69.8	69.8	0.0	0.8
8th Street to 9th Street	35	69.6	69.6	0.0	0.8
9th Street to 11th Street	35	69.2	69.2	0.0	0.8
11th Street to 13th Street	35	68.7	68.7	0.0	0.8
13th Street to 15th Street	35	68.2	68.2	0.0	0.8
15th Street to 17th Street	35	67.6	67.6	0.0	0.8
17th Street to 18th Street	35	66.9	67.0	0.1	0.8
18th Street to 19th Street	35	66.0	66.1	0.1	0.9
19th Street to 20th Street	35	66.0	66.1	0.1	0.8
20th Street to 22nd Street	35	66.1	66.2	0.1	0.8
22nd Street to 23rd Street	35	67.2	67.2	0.0	0.8
Summerland Avenue					
110 Freeway to Gaffey Street	35	65.9	65.9	0.0	0.8
Gaffey Street to Summerland Avenue	35	67.0	67.0	0.0	0.9
Swinford Street					
Front Street to Harbor Boulevard	35	60.5	*	*	**7.9**
47 Ramp	35	68.9	69.4	0.5	1.3
Via Cabrillo Marina					
South of 22nd Street	35	60.5	60.5	0.0	0.8
Western Avenue					
Bynner Drive to 9th Street	35	70.3	70.3	0.0	0.8
9th Street to 19th Street	35	70.9	70.9	0.0	0.8
19th Street to 25th Street	35	68.0	68.0	0.0	0.8
25th Street to Paseo del Mar	35	63.8	63.8	0.0	0.8

* Alternative 5 removes traffic from this roadway segment due to a change in circulation patterns, and noise would decrease a substantial but indeterminate amount.

1st Street

East of Harbor Boulevard

No residences exist east of Harbor Boulevard. Currently, the traffic traveling along this roadway segment is nominal, and the modeled existing noise level due to 1st Street is 52.9 CNEL at 50 feet from the centerline of the roadway. With the increase in noise of 8.2 dB over existing, the projected noise due to Alternative 5 would be 61.1 CNEL. Although this roadway is projected to have an increase of 8.2 dB as a result of Alternative 5 according to the model, this increase is misleading because the model does not take into account noise generated by adjacent roadways. See the discussion of this roadway segment under the proposed Project for a more detailed explanation of this effect. When the noise contribution from Harbor Boulevard is accounted for, the existing noise level along 1st Street is much higher than the modeled noise level due to Alternative 5. No significant noise impacts would occur along this roadway segment.

Harbor Boulevard to Centre Street

This section of the roadway is almost completely surrounded by residences on both sides of 1st Street. The residences are about 33 feet from the centerline of the roadway. The modeled noise level for current traffic is 56.8 CNEL at 50 feet and 58.6 CNEL at the property line of the residences. The projected with-Alternative 5 noise level would be 60.7 CNEL at 50 feet and 62.5 CNEL at the property line of the nearest residence. At points along 1st Street away from Harbor Boulevard, the noise increase is determined mainly by traffic traveling along 1st Street. The increase in noise is 3.9 dB and the with-Alternative 5 noise is less than 70 dBA. This roadway segment would not experience a significant noise impact since the noise at the property line does not exceed 70 CNEL.

7th Street

Sampson Way to Harbor Boulevard

This is the roadway segment that would accept northbound traffic exiting from Sampson Way once the 6th Street connection between Sampson Way and Harbor Boulevard is closed. No residences or affected uses are located on 7th Street along this section of the roadway. The nearest affected use is a government office building at the corner of 7th Street and Harbor Boulevard, about 110 feet beyond the end point of the roadway segment. Since this office building is located on Harbor Boulevard, the current noise levels at the property line of the office building is due mainly to traffic traveling along Harbor Boulevard. The current traffic along Harbor Boulevard from 6th Street to 7th Street produces a CNEL of 69.2 dBA. The projected with-Alternative 5 noise level along 7th Street is 63.3 CNEL at 50 feet, and at 110 feet this noise would be 59.9 CNEL. The with-Alternative 5 noise impact from 7th Street between Sampson Way and Harbor Boulevard would produce less noise at the property line of the nearest affected use (i.e., City Hall) than what currently exists

today. Under the with-project condition, fewer vehicles would travel down 7th Street, and City Hall is closer to 7th Street than Harbor Boulevard. This roadway segment would not experience a significant increase in noise, and no significant impact is projected.

CEQA Impact Determination

For all street segments, no significant noise impacts are anticipated. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Because the No-Federal-Action Alternative is identical to the NEPA baseline, this alternative would have no impact under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact NOI-3b: Alternative 5 would not cause noise from railroad operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.

The only railroad operation planned under Alternative 5 is the Waterfront Red Car Line. Under Alternative 5 the Waterfront Red Car Line would be extended down to Cabrillo Beach along Shoshonean Way, the same as described under the proposed Project. The largest noise impact caused by the Waterfront Red Car Line under Alternative 5 is along Shoshonean Way. Since the noise impact would not be significant under the proposed Project, it would not be significant under Alternative 5.

CEQA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Because the No-Federal-Action Alternative is identical to the NEPA baseline, this alternative would have no impact under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Impact NOI-3c: Alternative 5 would not cause noise from cruise ship operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.

No new cruise berths would be located in the Outer Harbor. The cruise ship terminal at Berth 91 would be demolished, and a new terminal would be built. The noise levels in the Inner Harbor would not change substantially from the existing levels.

CEQA Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Because the No-Federal-Action Alternative is identical to the NEPA baseline, this alternative would have no impact under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

3.9.4.3.7 Alternative 6—No-Project Alternative

Impact NOI-1: Alternative 6 would not exceed construction noise standards.

Since Alternative 6 is the no-project alternative, the proposed project elements that would be constructed for the proposed Project would not be constructed for Alternative 6. The following improvements would reasonably be expected to occur under Alternative 6 as part of the cumulative project baseline.

Town Square: This would be at a somewhat reduced scale compared to the proposed Project. This would occur regardless of the proposed Project, and the noise effects have been evaluated as part of the Waterfront Enhancements Mitigated Negative Declaration. No new significant impacts would occur.

Demolition of Westway Terminal: This would be the same as the proposed Project and would occur regardless of the proposed Project. Demolition of the Westway Terminal would temporarily generate noise that may be experienced by live-aboards in the Cabrillo Phase II area. However, Westway is located approximately 1,500 feet from the marina area, which would not produce elevated noise levels above standards that would significantly impact sensitive receivers, and construction would occur during daytime hours.

Catalina Express: Under this alternative, Catalina Express would relocate to floats at Berth 95. Construction noise would not occur.

CEQA Impact Determination

Impacts resulting from construction activities would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

This alternative is not applicable under NEPA.

Mitigation Measures

Not applicable.

Residual Impacts

Not applicable.

Impact NOI-2: Construction activities for Alternative 6 would not exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.

No construction activities are planned to occur for the cumulative projects between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday. Additionally, these improvements are part of the cumulative baseline and would not result in significant impacts.

CEQA Impact Determination

No impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

NEPA Impact Determination

This alternative is not applicable under NEPA.

Mitigation Measures

Not applicable.

Residual Impacts

Not applicable.

Impact NOI-3a: Alternative 6 would not cause noise from motor vehicle traffic measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.

Alternative 6 would result in minimal increases in traffic volumes associated with future organic growth of the cruise industry. However, the number of cruise ship calls would only increase from 258 to 275, an increase of 17 ships annually (and an average of 1 vessel per month) by 2015, and would remain constant through 2037. The projected small increase in traffic from this increase in cruise passengers would not result in significant noise impacts that exceed standards.

CEQA Impact Determination

No impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

NEPA Impact Determination

This alternative is not applicable under NEPA.

Mitigation Measures

Not applicable.

Residual Impacts

Not applicable.

Impact NOI-3b: Alternative 6 would not cause noise from railroad operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.

The Waterfront Red Car Line would continue to operate as it does currently. Noise would not increase above existing conditions. There would be no impacts.

CEQA Impact Determination

No impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

NEPA Impact Determination

This alternative is not applicable under NEPA.

Mitigation Measures

Not applicable.

Residual Impacts

Not applicable.

Impact NOI-3c: Alternative 6 would not cause noise from cruise ship operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.

The cruise ship operations would continue to operate as they do currently, with some future growth within the context of the existing facilities. Even with the projected increase in the number of cruise line passengers (from 1,150,548 under existing conditions to 1,374,982 in 2015 and up to 1,814,976 in 2037), noise would not increase significantly above what exists today as a direct result of this alternative. The number of cruise ships calls would only increase from 258 to 275, an increase of 17 ships annually (and an average of 1 vessel per month) by 2015, and would remain

constant through 2037. The projected small increase in traffic from this increase in cruise passengers would not result in significant noise impacts that exceed standards. There would be no significant impacts.

CEQA Impact Determination

No impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

NEPA Impact Determination

This alternative is not applicable under NEPA.

Mitigation Measures

Not applicable.

Residual Impacts

Not applicable.

3.9.4.3.8 Summary of Impact Determinations

Table 3.9-18 summarizes the CEQA and NEPA impact determinations of the proposed Project and its alternatives related to noise, as described in the detailed discussion in Sections 3.9.4.3.1 through 3.9.4.3.7. This table is meant to allow easy comparison between the potential impacts of the proposed Project and its alternatives with respect to this resource. Identified potential impacts may be based on federal, state, and City of Los Angeles significance criteria, LAHD criteria, and the scientific judgment of the report preparers.

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

1 **Table 3.9-18.** Summary Matrix of Potential Impacts and Mitigation Measures for Noise Associated with the Proposed Project and Alternatives

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
3.9 Noise				
Proposed Project	**Impact NOI-1:** The proposed Project would exceed construction noise standards.	CEQA: Significant	**MM NOI-1.** Construct temporary noise barriers, use quiet construction equipment, and notify residents. The following will reduce impact of noise from construction activities: a) **Temporary Noise Barriers.** When construction is occurring within 500 feet of a residence or park, temporary noise barriers (solid fences or curtains) will be located between noise-generating construction activities and sensitive receivers. b) **Quiet Equipment Selection.** Select quiet construction equipment whenever possible. Comply where feasible with noise limits established in the City of Los Angeles Noise Ordinance. c) **Notification.** Notify residents within 500 feet to the proposed project site of the construction schedule in writing.	CEQA: Significant and unavoidable
		NEPA: Significant	Implement Mitigation Measure MM NOI-1.	NEPA: Significant and unavoidable
	Impact NOI-2: Construction activities for the proposed Project would not exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant
	Impact NOI-3a: The	CEQA: Significant	No mitigation is available.	CEQA: Significant and

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
	proposed Project would cause noise from motor vehicle traffic measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.			unavoidable
		NEPA: Significant	No mitigation is available.	NEPA: Significant and unavoidable
	Impact NOI-3b: The proposed Project would not cause noise from railroad operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant
	Impact NOI-3c: The proposed Project would not cause noise from cruise ship operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
Alternative 1	**Impact NOI-1:** Alternative 1 would exceed construction noise standards.	CEQA: Significant	Implement Mitigation Measure MM NOI-1.	CEQA: Significant and unavoidable
		NEPA: Significant	Implement Mitigation Measure MM NOI-1.	NEPA: Significant and unavoidable
	Impact NOI-2: Construction activities for Alternative 1 would not exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant
	Impact NOI-3a: Alternative 1 would cause noise from motor vehicle traffic measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.	CEQA: Significant	No mitigation is available.	CEQA: Significant and unavoidable
		NEPA: Significant	No mitigation is available.	NEPA: Significant and unavoidable
	Impact NOI-3b: Alternative 1 would not cause noise from railroad operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
	within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.			
	Impact NOI-3c: Alternative 1 would not cause noise from cruise ship operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant
Alternative 2	**Impact NOI-1:** Alternative 2 would exceed construction noise standards.	CEQA: Significant	Implement Mitigation Measure MM NOI-1.	CEQA: Significant and unavoidable
		NEPA: Significant	Implement Mitigation Measure MM NOI-1.	NEPA: Significant and unavoidable
	Impact NOI-2: Construction activities for Alternative 2 would not exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant
	Impact NOI-3a:	CEQA: Significant	No mitigation is available.	CEQA: Significant and

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
	Alternative 2 would cause noise from motor vehicle traffic measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.			unavoidable
		NEPA: Significant	No mitigation is available.	NEPA: Significant and unavoidable
	Impact NOI-3b: Alternative 2 would not cause noise from railroad operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant
	Impact NOI-3c: Alternative 2 would not cause noise from cruise ship operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
Alternative 3	**Impact NOI-1:** Alternative 3 would exceed construction noise standards.	CEQA: Significant	Implement Mitigation Measure MM NOI-1.	CEQA: Significant and unavoidable
		NEPA: Significant	Implement Mitigation Measure MM NOI-1.	NEPA: Significant and unavoidable
	Impact NOI-2: Construction activities for Alternative 3 would not exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant
	Impact NOI-3a: Alternative 3 would cause noise from motor vehicle traffic measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.	CEQA: Significant	No mitigation is available.	CEQA: Significant and unavoidable
		NEPA: Significant	No mitigation is available.	NEPA: Significant and unavoidable
	Impact NOI-3b: Alternative 3 would not cause noise from railroad operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
	within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.			
	Impact NOI-3c: Alternative 3 would not cause noise from cruise ship operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant
Alternative 4	**Impact NOI-1:** Alternative 4 would exceed construction noise standards.	CEQA: Significant	Implement Mitigation Measure MM NOI-1.	CEQA: Significant and unavoidable
		NEPA: Significant	Implement Mitigation Measure MM NOI-1.	NEPA: Significant and unavoidable
	Impact NOI-2: Construction activities for Alternative 4 would not exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant
	Impact NOI-3a:	CEQA: Less than	No mitigation is required.	CEQA: Less than

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
	Alternative 4 would not cause noise from motor vehicle traffic measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.	significant		significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant
	Impact NOI-3b: Alternative 4 would not cause noise from railroad operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant
	Impact NOI-3c: Alternative 4 would not cause noise from cruise ship operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required.	NEPA: Less than significant

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
Alternative 5	**Impact NOI-1:** Alternative 5 would exceed construction noise standards.	CEQA: Significant	Implement Mitigation Measure MM NOI-1.	CEQA: Significant and unavoidable
		NEPA: No impact	No mitigation is required.	NEPA: No impact
	Impact NOI-2: Construction activities for Alternative 5 would not exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact
	Impact NOI-3a: Alternative 5 would not cause noise from motor vehicle traffic measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact
	Impact NOI-3b: Alternative 5 would not cause noise from railroad operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
	within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.			
	Impact NOI-3c: Alternative 5 would not cause noise from cruise ship operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: No impact	No mitigation is required.	NEPA: No impact
Alternative 6	**Impact NOI-1:** Alternative 6 would exceed construction noise standards.	CEQA: Less than significant	No mitigation is required.	CEQA: Less than significant
		NEPA: Not applicable	Not applicable.	NEPA: Not applicable
	Impact NOI-2: Construction activities for Alternative 6 would not exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.	CEQA: No impact	No mitigation is required.	CEQA: No impact
		NEPA: Not applicable	Not applicable.	NEPA: Not applicable
	Impact NOI-3a:	CEQA: No impact	No mitigation is required.	CEQA: No impact

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
	Alternative 6 would not cause noise from motor vehicle traffic measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.	NEPA: Not applicable	Not applicable.	NEPA: Not applicable
	Impact NOI-3b: Alternative 6 would not cause noise from railroad operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.	CEQA: No impact	No mitigation is required.	CEQA: No impact
		NEPA: Not applicable	Not applicable.	NEPA: Not applicable
	Impact NOI-3c: Alternative 6 would not cause noise from cruise ship operations measured at the property line of affected uses to increase by 3 dBA in CNEL, to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.	CEQA: No impact	No mitigation is required.	CEQA: No impact
		NEPA: Not applicable	Not applicable.	NEPA: Not applicable

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Notes:

* Impact descriptions for each of the alternatives are the same as for the proposed Project, unless otherwise noted.

† The term *not applicable* is used in cases where a particular impact is not identified as a CEQA- or NEPA-related issue in the threshold of significance criteria, or where there is no federal action requiring a NEPA determination of significance.

3.9.4.4 Mitigation Monitoring

Table 3.9-19. Mitigation Monitoring for Noise

Impact NOI-1: The proposed Project would exceed construction noise standards. *(Also applies to Impact NOI-1 for Alternatives 1–5.)*	
Mitigation Measure	**MM NOI-1. Construct temporary noise barriers, use quiet construction equipment, and notify residents.** The following will reduce impact of noise from construction activities: **a) Temporary Noise Barriers.** When construction is occurring within 500 feet of a residence or park, temporary noise barriers (solid fences or curtains) will be located between noise-generating construction activities and sensitive receivers. **b) Quiet Equipment Selection.** Select quiet construction equipment whenever possible. Comply where feasible with noise limits established in the City of Los Angeles Noise Ordinance. **c) Notification.** Notify residents within 500 feet to the proposed project site of the construction schedule in writing.
Timing	**a) Temporary Noise Barriers:** Prior to and during construction. **b) Quiet Equipment Selection:** Prior to and during construction **c) Notification:** Prior to construction
Methodology	**a) Temporary Noise Barriers:** Prior to any construction which will be located within 500 feet of any residence or park, temporary noise barriers such as a solid fence or acoustical blanket will be constructed to a height which breaks the line of sight of all construction equipment. Noise barriers will remain in place during the use of construction equipment. **b) Quiet Equipment Selection:** Prior to construction, all construction equipment and vehicles using internal combustion engines will be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features and be in an operating condition that meets or exceeds original factory specification. **c) Notification:** Prior to construction, all residences located within a 500-foot radius of the construction site will be notified in writing of the planned construction, including the duration of such construction and contact information for the construction foreman in the event of complaints.
Responsible Parties	Port Engineering and Construction Divisions, and construction contractor
Residual Impacts for Impact NOI-1	Significant

3.9.5 Significant Unavoidable Impacts

The proposed Project and Alternatives 1 through 5 would result in significant unavoidable noise impacts during construction. During construction, sensitive receivers would experience an increase of over 5 dBA in ambient noise levels at multiple locations. The inclusion of mitigation to reduce noise levels associated with aspects of construction (Mitigation Measure MM NOI-1) would reduce impacts, but not below the threshold. Therefore, noise impacts from construction would be considered significant and unavoidable.

During operations of the proposed Project and Alternatives 1 through 5, additional traffic on roadways surrounding the proposed Project would impact areas surrounding the proposed project site due to the increase in traffic quantity and resultant traffic noise. The proposed Project and Alternatives 1 and 3 would have significant impacts on some sensitive receivers located along Miner Street and no mitigation would be feasible. Operations of Alternative 2 would cause increases in traffic noise to sensitive receivers located along 22nd Street, Miner Street, and Harbor Boulevard, and no mitigation would be feasible to reduce impacts to less-than-significant levels.