
4.11 **NOISE**

This section discusses the existing noise setting of the Project Site and assesses potential impacts related to noise that could result from the construction and operation of the Project. This section is based on the Noise and Vibration Report, prepared by Psomas, dated April 2024 (Psomas 2024b), which is included as Appendix L.

4.11.1 **SUMMARY OF PREVIOUS ENVIRONMENTAL DOCUMENTATION**

MND for the Pacific Place Project

The Noise analysis for the MND for the Prior Project approved by the City in 2021, determined that implementation of the Prior Project would have less than significant impacts with mitigation incorporated related to noise.

The MND determined that the Prior Project's construction would generate noise that would be audible at nearby sensitive receptors and may be temporarily annoying in the absence of mitigation. Therefore, mitigation measures were required to limit the noise from construction activities to nearby sensitive receptors and would reduce construction noise impacts to less than significant. In addition, the MND determined that noise impacts resulting from the Prior Project's operation would be less than significant with implementation of required mitigation measures. The MND determined that traffic noise generated by the Prior Project would be less than significant and no mitigation measures were required.

The MND determined that the Prior Project would not generate or expose persons or structures to excessive groundborne vibration from the construction phase. Vibration levels would not exceed the damage or annoyance thresholds when construction activities occur under maximum (i.e., closest to the receptor) exposure conditions. Therefore, the MND concluded that impacts from construction equipment vibration would thus be less than significant and no mitigation measures were required.

Lastly, the MND determined that the Project Site is not located within an adopted Airport Land Use Plan. The nearest airport is Long Beach Airport, located approximately two miles east of the Project Site. The Project Site is located outside the Long Beach Airport 65 dBA (A-weighted decibels) CNEL (Community Noise Equivalent Level) noise contours and would not expose people on the Project Site to noise related to airport operations. It was therefore determined that no impact would occur, and no mitigation measures were required.

MND Mitigation Measures

The MND required implementation of the following mitigation measures (MMs) regarding noise to reduce potential impacts associated with implementation of the Prior Project to less than significant levels.

NOI-1 Prior to issuance of grading permits for proposed development of the Artesia parcels and the McDonald Trust parcels, the Project Applicant shall demonstrate that the contracts for the General Contractor and subcontractors, as appropriate, contain the following provisions:

1. Noise-generating construction activities shall be limited to the hours specified in the Long Beach Municipal Code, Section 8.80.202.

2. Equipment and material staging areas and vehicle maintenance areas shall be located on the western portion of the site as far as practicable from sensitive receptors.
3. All construction equipment shall be equipped with manufacturer's specified or better mufflers.
4. Stationary construction equipment, such as generators, welders, and compressors, shall be oriented so that the loudest noise is directed away from sensitive receptors.
5. Residents within 300 feet of the Project Site and the Los Cerritos School shall be notified of the planned construction and construction schedule at least two weeks prior to the start of construction. The notice shall provide a contact for submitting complaints about excessive construction noise.

NOI-2 Prior to approval of plans through plan check for the Artesia parcels self-storage building, the Applicant shall provide evidence that the HVAC units noise complies with the requirements of Section 8.80.200 of the Long Beach Municipal Code.

NOI-3 Prior to approval of plans through plan check for the Artesia parcels carwash, the Applicant shall provide evidence that the carwash and mechanical room complies with the requirements of Section 8.80.160 of the Long Beach Municipal Code.

NOI-4 Prior to approval of plans through plan check for the McDonald Trust parcels warehouse, the Applicant shall post signs at the north truck parking area that limits truck idling to one truck at a time and idling time to less than five minutes. The Applicant shall also post signs at the north parking area requiring refrigerated trucks or other trucks with internal combustion auxiliary power systems to park in the truck parking area west of the warehouse. All sign locations shall be clearly shown on project plans.

NOI-5 Prior to approval of plans through plan check for the McDonald Trust parcels self-storage building, the Applicant shall provide evidence that the HVAC units noise complies with the requirements of Section 8.80.200 of the Long Beach Municipal Code.

As set forth below, the DEIR analysis confirms that there are no new impacts and no increase in the severity of previously identified impacts beyond those identified in the MND.

4.11.2 ENVIRONMENTAL SETTING

A. Existing Conditions

Noise-Sensitive Receptors

The City's Noise Element states, "The highest priority for protection from noise are noise sensitive uses or uses typically occupied by groups which are particularly vulnerable to the impacts of noise. Examples of noise sensitive uses include residential neighborhoods, schools, hospitals, religious facilities, libraries, offices and parks" (Long Beach 2023a).

The closest sensitive receptors to the Project Site are the single-family residences located approximately 160 feet east of the Project Site along the east side of Del Mar Avenue. The Metro A line rail tracks are between the Project Site and Del Mar Avenue. Mature trees occupy the space between the railroad and Del Mar Avenue. Other sensitive receptors located within the vicinity of the Project Site include Los Cerritos Elementary School and Los Cerritos Park.

Existing Noise Levels

Noise levels were measured at the Project Site on March 20, 2020. The results of the noise measurements are shown in Table 4.11-1. The primary noise sources at the Project Site are vehicles on the Interstate (I) 405 to I-710 ramp, vehicles on the I-405, and train operations on the Metro A line tracks. Vehicles on the I-710 are a lesser noise source, but audible. These noise measurements were collected during the early stages of the COVID-19 lockdowns (Governor Gavin Newsom issued the statewide “stay at home” order on March 19, 2020), which resulted in lower ambient noise levels than typical conditions, and subsequently, a lower environmental baseline (California 2020). Nevertheless, utilizing lower ambient (i.e., background) noise levels for the noise analysis constitute a more conservative analysis pursuant to the thresholds below for the evaluation of significant impacts of environmental noise attributable to a proposed project.

**TABLE 4.11-1
EXISTING NOISE LEVELS**

| Site Location and Description | Time Started/ Duration ^a | Noise Level (dBA) | | |
|------------------------------------------|----------------------------------------|-------------------|------------------------------|---------|
| | | Minimum | L _{eq} (Average) | Maximum |
| Location 1 (south property boundary) | 1:52 PM/22.9 minutes | 59.2 | 64.9 | 77.5 |
| Location 2 (west property boundary) | 2:19 PM/20.6 minutes | 63.4 | 67.1 | 77.0 |
| Location 3 (northeast property boundary) | 2:44 PM/20.5 minutes | 54.8 | 63.4 | 79.4 |
| Location 4 (southeast property boundary) | 3:13 PM/16.1 minutes | 58.7 | 66.1 | 82.2 |

dBA: A-weighted decibels; L_{eq}: average noise level

^a All noise measurements were taken on March 20, 2020

B. Regulatory Framework

State

State of California General Plan Guidelines

The State of California adopts suggested land use noise compatibility levels as part of its General Plan Guidelines. These suggested guidelines provide urban planners with an integral tool to gauge the compatibility of land uses relative to existing and future noise levels. The guidelines identify normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable noise levels for various land uses. A conditionally acceptable designation implies new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use is made and needed noise insulation features are incorporated into the design. By comparison, a normally acceptable designation indicates that standard construction can occur with no special noise reduction requirements. The land use compatibility guidelines are intended to be an advisory resource when considering changes in land use and policies, such as zoning modifications. The Land Use Compatibility Guidelines are shown in Table 4.11-2. (California 2017)

Appendix G of the CEQA Guidelines¹ establishes thresholds for the evaluation of significant impacts of environmental noise attributable to a proposed project. Under these thresholds, a proposed project would have a significant noise impact if the project would result in:

1. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
2. Generation of excessive groundborne vibration or groundborne noise levels; and
3. For a project located within the vicinity of a private airstrip or 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, exposure of people residing or working in the project area to excessive noise levels. (California 2017)

¹ Cal. Code Regs., Title 14, Chapter 3, Appendix G.

**TABLE 4.11-2
LAND USE COMPATIBILITY GUIDELINES FOR NOISE EXPOSURE**

| Land Use Type | Community Noise Exposure | | | | | | |
|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|--------------------------|-----------------------|----------------------|
| | L _{dn} or CNEL, dB | | | | | | |
| | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
| Residential - Low Density Single Family Duplex, Mobile Homes | Normally Acceptable | Normally Acceptable | Normally Acceptable | Normally Acceptable | Conditionally Acceptable | Normally Unacceptable | Clearly Unacceptable |
| Residential - Multi-Family | Normally Acceptable | Normally Acceptable | Normally Acceptable | Normally Acceptable | Conditionally Acceptable | Normally Unacceptable | Clearly Unacceptable |
| Transient Lodging - Hotels, Motels | Normally Acceptable | Normally Acceptable | Normally Acceptable | Normally Acceptable | Conditionally Acceptable | Normally Unacceptable | Clearly Unacceptable |
| Schools, Libraries, Churches, Hospitals, Nursing Homes | Normally Acceptable | Normally Acceptable | Normally Acceptable | Normally Acceptable | Conditionally Acceptable | Normally Unacceptable | Clearly Unacceptable |
| Auditoriums, Concert Halls, Amphitheaters | Normally Acceptable | Normally Acceptable | Normally Acceptable | Normally Acceptable | Conditionally Acceptable | Normally Unacceptable | Clearly Unacceptable |
| Sports Arena, Outdoor Spectator Sports | Normally Acceptable | Normally Acceptable | Normally Acceptable | Normally Acceptable | Conditionally Acceptable | Normally Unacceptable | Clearly Unacceptable |
| Playgrounds, Neighborhood Parks | Normally Acceptable | Normally Acceptable | Normally Acceptable | Normally Acceptable | Conditionally Acceptable | Normally Unacceptable | Clearly Unacceptable |
| Golf Courses, Riding Stables, Water Recreation, Cemeteries | Normally Acceptable | Normally Acceptable | Normally Acceptable | Normally Acceptable | Conditionally Acceptable | Normally Unacceptable | Clearly Unacceptable |
| Office Buildings - Business, Commercial & Professional | Normally Acceptable | Normally Acceptable | Normally Acceptable | Normally Acceptable | Conditionally Acceptable | Normally Unacceptable | Clearly Unacceptable |
| Industrial, Manufacturing, Utilities, Agriculture | Normally Acceptable | Normally Acceptable | Normally Acceptable | Normally Acceptable | Conditionally Acceptable | Normally Unacceptable | Clearly Unacceptable |
| Normally Acceptable | <i>Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.</i> | | | | | | |
| Conditionally Acceptable | <i>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.</i> | | | | | | |
| Normally Unacceptable | <i>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.</i> | | | | | | |
| Clearly Unacceptable | <i>New construction or development should generally not be undertaken.</i> | | | | | | |
| <i>Source: California Office of Planning and Research, General Plan Guidelines (2017), Appendix D.</i> | | | | | | | |

Local

City of Long Beach

City of Long Beach General Plan Noise Element

The Noise Element is a mandatory element of the City of Long Beach General Plan and sets forth policies regarding noise and land use throughout the City. The Noise Element was last updated in 1975 and was implemented through a 1977 noise ordinance. Since that time, the City's physical makeup, population, regional context, and the regulatory guidance around noise have changed significantly. (Long Beach 2023a)

Long Beach is an urban, developed City. As with any developed environment, it is subject to numerous noise sources. Major sources of noise include traffic, rail, aircraft, and stationary sources. Many freeways and corridors throughout Long Beach contribute to traffic noise within the City, including I-405, I-605, I-710, State Route 22, State Route 91, Pacific Coast Highway or State Route 1, and Long Beach Boulevard. Rail noise sources include three freight rail lines and one public transit line, the Metro Blue Line, that pass through the City. Aircraft noise is from the Long Beach Airport, located within City limits. It is also noted that the Port of Long Beach is a source of noise in the City. Nevertheless, the Port is located approximately three miles south of the Project Site and would not affect ambient noise levels within the vicinity of the Project Site. Heavy truck traffic associated with the transport of cargo along the I-710 corridor is the primary source of noise associated with the Port. These truck trips contributed to the ambient noise environment and were captured during the collection of noise measurements. (Long Beach 2023a)

The overall noise environment is a conglomeration of noise from several sources. Mobility sources, including vehicular traffic, rail, aircraft, and watercraft, contribute to the daily transportation-related noise in Long Beach. Special events act as an additional noise source, and occur on a periodic basis. The final category of noise sources is construction and nuisance noises, which includes machinery, heating ventilation and air conditioning systems, compressors, and landscape maintenance equipment among others. (Long Beach 2023a)

Commercial, commercial-industrial, light-industrial, and to a lesser extent residential land uses in the City have the potential to generate high noise levels impacting surrounding land uses. Noise sources from these land uses include stationary sources such as air conditioning or refrigeration units, power tools, lawn equipment, generators, and other powered mechanical equipment. Additionally, activities that are not necessarily "stationary" include parking lot activities, truck deliveries, and events, which are oftentimes classified as stationary sources along with the sources mentioned above. (Long Beach 2023a)

"Noise Sensitive receptors," or groups which are particularly vulnerable to the impacts of noise, are given the highest priority for protection by the City. Examples of noise sensitive receptors include residential neighborhoods, schools, hospitals, religious facilities, libraries, offices, and parks. Areas of Long Beach with noise sensitive receptors should be protected through proper land use planning. (Long Beach 2023a)

Major vibration sources in the City include construction activities, rail operations, heavy vehicle traffic, and vehicle loading and delivery operations. Other sources which have the potential to cause vibration impacts include aircraft operations, low-frequency music, and some stationary sources. Similar to noise standards, cities can adopt vibration exposure standards regarding the sensitivity of land uses which may be affected. In relation to vibration impacts, there are two factors that are considered in assessing the level of impact expected: the potential for damage to

a building or structure and the potential of annoyance to people. Also, similar to potential noise impacts, the most efficient actions to help reduce vibration impacts occur during the planning and permitting phases of any project or development. (Long Beach 2023a)

Strategies and policies from the Noise Element that are applicable to the Project are set forth in Table 4.10-1 of Section 4.10, Land Use and Planning, with a Project consistency analysis.

City of Long Beach Municipal Code

The City of Long Beach Noise Ordinance is codified as Chapter 8.80 – Noise of the Long Beach Municipal Code. The following would be applicable to the Project:

8.80.130 - Disturbing noises prohibited.

- A. Notwithstanding any other provision of this Chapter, and in addition thereto, it is unlawful for any person to willfully make or continue, or cause to be made or continued, a loud, unnecessary, or unusual noise which disturbs the peace and quiet of any neighborhood or which causes any discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area.
- B. The standards which shall be considered in determining whether a violation of the provisions of this Section exist shall include, but not be limited to the following:
 - 1. The sound level of the objectionable noise;
 - 2. The sound level of the ambient noise;
 - 3. The proximity of the noise to residential sleeping facilities;
 - 4. The nature and zoning of the area within which the noise emanates;
 - 5. The density of the inhabitation of the area within which the noise emanates;
 - 6. The time of day or night the noise occurs;
 - 7. The duration of the noise and its tonal, informational, or musical content;
 - 8. Whether the noise is continuous, recurrent, or intermittent;
 - 9. Whether the noise is produced by a commercial or noncommercial activity.

The Noise Ordinance designates land use districts for the purpose of setting noise standards. The Project Site is in District Three – Predominantly industrial with other land use types also present. The properties to the east and northeast of the Project Site are in District One – Predominantly residential with other land use types also present. (Long Beach 2023b)

Section 8.80.150 – Exterior noise limits.

Sound levels by receiving land use district sets exterior noise standards for the five districts identified in that Section of the Municipal Code. The Project Site is located within District Three, while the adjacent sensitive receptors are located within District One. The exterior noise standards for Districts One and Three as shown in Table 4.11-3, respectively. (Long Beach 2023b)

**TABLE 4.11-3
LONG BEACH EXTERIOR NOISE STANDARDS**

| Noise District | Noise Level ^a | Time Period |
|----------------|--------------------------|------------------|
| One | 50 dBA | 7:00 AM–10:00 PM |
| | 45 dBA | 10:00 PM–7:00 AM |
| Three | 65 dBA | Any time |

dBA: A-weighted decibels
^a Districts Three and Four limits are intended primarily for use at their boundaries rather than for noise control within those districts.
Source: City of Long Beach 2023b

With respect to exterior noise levels, the Noise Ordinance states the following:

- A. The noise standards for the various land use districts identified by the noise control office as presented in Table 4.11-3 shall, unless otherwise specifically indicated, apply to all such property within a designated district.
- B. No person shall operate or cause to be operated any source of sound at any location within the incorporated limits of the City or allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, which causes the noise level when measured from any other property, either incorporated or unincorporated, to exceed:
 - 1. The noise standard for that land use district as specified in Table 21 for a cumulative period of more than thirty (30) minutes in any hour; or
 - 2. The noise standard plus five (5) decibels for a cumulative period of more than fifteen (15) minutes in any hour; or
 - 3. The noise standard plus ten (10) decibels for a cumulative period of more than five (5) minutes in any hour; or
 - 4. The noise standard plus fifteen (15) decibels for a cumulative period of more than one (1) minute in any hour; or
 - 5. The noise standard plus twenty (20) decibels or the maximum measured ambient, for any period of time.
- C. If the measured ambient level exceeds that permissible within any of the first four (4) noise limit categories in Subsection B of this Section, the allowable noise exposure standard shall be increased in five (5) decibels increments in each category as appropriate to encompass or reflect the ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category in Subsection B of this Section, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.
- D. If the measurement location is on a boundary between two (2) different districts, the noise level limit applicable shall be the arithmetic mean of the two (2) districts. (Long Beach 2023b)

Section 8.80.200 – Noise disturbances – Acts specified

- E. Loading and unloading. Loading, unloading, opening, closing or other handling of boxes, crates, containers, building materials, garbage cans, or similar objects between the hours of ten p.m. and seven a.m. the following day in such a manner as to cause

a noise disturbance across a residential real property line or at any time to violate the provisions of Sections 8.80.150 and 8.80.170;

- N. Air-conditioning or air refrigerating equipment. Operating or permitting the operation of any air-conditioning or air refrigerating equipment in such a manner as to exceed any of the following sound levels measured as specified in the American Society of Heating, Refrigeration and Air Conditioning Engineers Code of Recommended Practices, as outlined in Table 4.11-4, below. (Long Beach 2023b)

Section 8.80.290 – Exemption – From exterior noise standards.

Section 8.80.290 exempts air conditioning equipment from the exterior noise standards. Standards for air conditioning equipment are provided in Section 8.80.200 – Noise disturbances — Acts specified, subsection N, Air-conditioning, or air refrigerating equipment, which prohibits operating or permitting the operation of any air-conditioning or air refrigerating equipment in such a manner as to exceed any of the sound levels shown in Table 4.11-4.

**TABLE 4.11-4
AIR CONDITIONING NOISE STANDARDS**

| Measurement Location | dB(A) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Any point on neighboring property line, five feet above grade level, no closer than three feet from any wall | 55 |
| Center of neighboring patio five feet above grade level, no closer than three feet from any wall | 50 |
| Outside the neighboring living area window nearest the equipment location, not more than three feet from the window opening, but at least three feet from any other surface | 50 |
| Source: Long Beach 2023b | |

8.80.202 - Construction activity—Noise regulations.

Section 8.80.202 - Construction activity — Noise regulations prohibits construction work “or any other related building activity which produce loud or unusual noise which annoys or disturbs a reasonable person of normal sensitivity...”

- between the hours of seven p.m. and seven am. the following day on weekdays, except for emergency work authorized by the Building Official. For purposes of this Section, a federal holiday shall be considered a weekday;
- between the hours of seven p.m. on Friday and nine a.m. on Saturday and after six p.m. on Saturday; and
- at any time on Sunday, except when a Sunday work permit is issued. (Long Beach 2023b)

4.11.3 PROJECT IMPACT ANALYSIS

A. Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, a project would result in a significant biological resources impact if it would:

Threshold 4.11a *Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Threshold 4.11b *Would the project result in generation of excessive groundborne vibration or groundborne noise levels?*

Threshold 4.11c *For a project located within the vicinity of a private airstrip or 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?*

B. Methodology

Analysis of existing noise and potential increases in noise associated with implementation of the Project is based on noise monitoring and noise prediction modeling conducted as part of the Project's environmental analysis. Similarly, the analysis of vibration generated during Project construction was conducted based on methodology established by the United States Department of Transportation (USDOT) Federal Transit Administration (FTA). Noise and vibration analysis methodology is further detailed in Appendix L, Noise and Vibration Report, of this DEIR.

Construction noise levels reported in the U.S. Environmental Protection Agency's (USEPA's) Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances were used to estimate future construction noise levels for the Project (USEPA 1971). Typically, the estimated construction noise levels are governed primarily by equipment that produces the highest noise levels. Construction noise levels for each generalized construction phase (i.e., ground clearing/demolition [site preparation], excavation [grading], foundation/building construction [building construction], paving, and finishing and site cleanup [application of architectural coatings]) are based on a typical construction equipment mix for an industrial/retail public works project and do not include use of atypical and/or vibration-intensive equipment (e.g., impact pile drivers). All construction equipment is anticipated to be fitted with the original equipment manufacturer or manufacturer approved equivalent mufflers or intake silencers to maintain, at minimum, published noise emission levels. Vibration levels resulting from Project construction were also calculated and compared to thresholds established for building damage and annoyance assuming that equipment is operating on the Project eastern boundary closest to vibration sensitive uses.

Lastly, operational noise and increases in roadway noise derived from the Project are also discussed.

C. Standard Requirements

The following standard requirements (SR) are applicable to the Project.

- SR NOI-1** For all noise-producing activities occurring on weekdays and federal holidays, no person shall operate or permit the operation of any tools or equipment used for construction, alteration, repair, remodeling, drilling, demolition or any other related building activity which produce loud or unusual noise which annoys or disturbs a reasonable person of normal sensitivity between the hours of seven p.m. and seven am. the following day on weekdays, except for emergency work authorized by the Building Official. For purposes of this Section, a federal holiday shall be considered a weekday. (Municipal Code Section 8.80.202)
- SR NOI-2** For all noise-producing activities occurring on Saturdays, no person shall operate or permit the operation of any tools or equipment used for construction, alteration, repair, remodeling, drilling, demolition, or any other related building activity which produce loud or unusual noise which annoys or disturbs a reasonable person of normal sensitivity between the hours of seven p.m. on Friday and nine a.m. on Saturday and after six p.m. on Saturday, except for emergency work authorized by the Building Official. (Municipal Code Section 8.80.202)
- SR NOI-3** For all noise-producing activities occurring on Sundays, no person shall operate or permit the operation of any tools or equipment used for construction, alteration, repair, remodeling, drilling, demolition or any other related building activity at any time on Sunday, except for emergency work authorized by the Building Official or except for work authorized by permit issued by the Noise Control Officer. (Municipal Code Section 8.80.202)
- SR NOI-4** Owner's/employer's responsibility. It is unlawful for the landowner, construction company owner, contractor, subcontractor, or employer of persons working, laboring, building, or assisting in construction to permit construction activities in violation of provisions in Section 8.80.202 of the City of Long Beach Municipal Code. (Municipal Code Section 8.80.202)
- SR NOI-5** Any person who wants to do construction work on a Sunday must apply for a work permit from the Noise Control Officer. The Noise Control Officer may issue a Sunday work permit if there is good cause shown; and in issuing such a permit, consideration will be given to the nature of the work and its proximity to residential areas. The permit may allow work on Sundays, only between nine a.m. and six p.m., and it shall designate the specific dates when it is allowed. (Municipal Code Section 8.80.202)

D. Impact Analysis

Threshold 4.11a *Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Construction Noise

Nearby sensitive receptors would be subject to elevated noise levels due to the operation of Project-related construction equipment. Construction activities would be carried out in discrete steps, each with its own mix of equipment and, consequently, its own noise characteristics. As

construction progresses, the character of the resulting noise levels would change based on the type and quantity of construction equipment in use. Noise levels reported in the USEPA's *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances* were used to estimate future construction noise levels for the Project (USEPA 1971). Estimated construction noise levels are primarily associated with equipment types that produce the highest noise levels. Construction noise levels for each generalized construction phase (i.e., ground clearing/demolition [site preparation], excavation [grading], foundation/building construction [building construction], paving, and finishing and site cleanup [application of architectural coatings]) are based on a typical construction equipment mix for an industrial/retail project and do not include use of atypical, very loud, and vibration-intensive equipment (e.g., impact pile drivers). Project-related construction would not use any atypical, very load and vibration-intensive equipment.

The degree to which noise-sensitive receptors are affected by construction activities depends heavily on their proximity. Estimated noise levels attributable to the development of the Project are shown in Table 4.11-5. All noise sensitive receptors are east and northeast of the Project Site.

**TABLE 4.11-5
CONSTRUCTION NOISE LEVELS AT NOISE-SENSITIVE USES**

| Construction Phase | Noise Levels (L _{eq} dBA) | | | | | | | |
|------------------------------------|------------------------------------------------------------------------|--------------|------------------------------|--------------|------------------------------------|--------------|----------------------------------------------------------------|----------------|
| | Residential Use North of Los Cerritos School and the School Playground | | Los Cerritos School Building | | Northern Part of Los Cerritos Park | | Southern Part of Los Cerritos Park and Residence South of Park | |
| | Max (160 ft) | Avg (565 ft) | Max (170 ft) | Avg (520 ft) | Max (345 ft) | Avg (650 ft) | Max (975 ft) | Avg (1,435 ft) |
| Ground Clearing | 74 | 63 | 73 | 64 | 67 | 62 | 58 | 55 |
| Excavation | 79 | 68 | 78 | 69 | 72 | 67 | 63 | 60 |
| Foundation Construction | 67 | 56 | 66 | 57 | 60 | 55 | 51 | 48 |
| Building Construction | 74 | 63 | 73 | 64 | 67 | 62 | 58 | 55 |
| Paving and Finishing/Site Cleanup) | 79 | 68 | 78 | 69 | 72 | 67 | 63 | 60 |

L_{eq} dBA: Average noise energy level; Max: maximum; avg: average; ft: feet
 Note: Noise levels from construction activities do not take into account attenuation provided by intervening structures.
 Source: USEPA 1971

Table 4.11-5 shows both the maximum and average noise levels that would occur during construction. Maximum noise levels represent the maximum noise levels that would occur during construction and were calculated using the distance between the closest noise sensitive use/receptor and the closest point of the Project Site. Maximum noise levels would occur only intermittently because construction equipment would move around the Project Site and would be located at the Project Site's boundary for short periods of time.

Average noise levels represent the typical noise levels that would occur during construction and were calculated using the distance between the closest noise sensitive use/receptor and the center of the Project Site.

Noise levels from general Project-related construction activities would range from 51 to 79 dBA maximum noise levels (L_{max}) and 48 to 69 dBA average noise levels (L_{eq}).

The City of Long Beach does not have quantitative construction noise limits. As described above, Chapter 8.80 – Noise of the City’s Municipal Code prescribes specific time periods for construction activities that generate noise. Also, as noted above, the City considers the primary method of restricting noise from construction to be through limiting the hours in which construction activity is permitted to the least noise sensitive portions of the day. Thus, Project construction activities would not expose persons to or generate noise levels in excess of the applicable standards.

Notwithstanding, construction noise would be audible at the nearby sensitive receptors and may be temporarily annoying, therefore resulting in a potentially significant impact.

Operational Noise

On-Site Noise

The primary source of on-site noise would be the heating, ventilating, and air conditioning (HVAC) units on the roof of the self-storage building. The City of Long Beach Municipal Code sets standards for HVAC units, as described above in Table 4.11-4.

Minor on-site noise sources would include vehicles entering and leaving the Project Site, use of the car wash, and use of the dump station. On-site vehicles would be moving at low speeds. The car wash station would consist of a mini car wash station with a pressurized hose and two canister vacuums available for recreational vehicle (RV) owners to manually wash their vehicles. This car wash would not be open to the public and it is anticipated that there would be an average of 8 car washes per day. There would be no blowers, which are the primary source of noise associated with automatic car washes. The car wash station is located approximately 465 feet away from the property line of the nearest noise sensitive use (Los Cerritos Elementary School). This distance would attenuate noise levels by the vacuums and pressurized hose from the car wash to levels that are below the noise limits established in Municipal Code Section 8.80.160 – Exterior noise limits.

Hours of operation for the self-storage facility would be 5 AM to 10 PM. This is the time period in which customers would be permitted access to the facility. The Project Site is located in Noise District Three which limits noise levels to 65 dBA throughout the entire day and the nearby sensitive receptors are in Noise District One which limits noise levels to 45 dBA 10 PM to 7 AM and 50 dBA from 7 AM to 10 PM. Noise from these minor sources would not exceed these limits because loading/unloading activities would primarily occur indoors. Municipal Code Section 8.80.200.E – Loading and Unloading, regulates noise associated with loading and unloading activities.

Therefore, without implementation of mitigation, the Project has the potential to result in a significant impact related to on-site operational noise.

Traffic Noise

Project-related off-site noise sources (i.e., roadway traffic noise) have the potential to increase noise levels on local roadways proximate to the Project Site. Traffic related noise impacts could occur based on whether Project-related off-site noise sources (i.e. roadway traffic noise) would cause the ambient noise levels measured at the property line of affected noise-sensitive receptors to increase by 3 dBA in CNEL. Operation of the Project would increase traffic as compared to future estimated traffic volumes. As shown in Table 4.11-6, the Project is estimated to only generate a net increase in traffic volumes of between 0.3 - 6.0 percent.

**TABLE 4.11-6
DAILY VEHICLE TRIPS**

| Roadway Segment | | Future No Project Volumes (trips) | Future with Project Volumes (trips) | Project Only Volumes (trips) | Percentage Increase of Project Volumes (%) |
|----------------------|--------------------------|-----------------------------------|-------------------------------------|------------------------------|--------------------------------------------|
| Wardlow Road | West of Pacific Place | 22,032 | 22,112 | 80 | 0.4 |
| Wardlow Road | East of Pacific Place | 23,509 | 23,589 | 80 | 0.3 |
| Pacific Place | South of Wardlow Road | 13,494 | 13,574 | 80 | 0.6 |
| Pacific Place | Wardlow Road to Off-Ramp | 10,663 | 10,943 | 279 | 2.6 |
| Pacific Place | North of Off-Ramp | 6,252 | 6,651 | 399 | 6.0 |
| Source: Psomas 2024b | | | | | |

Table 4.11-7 shows the estimated increase in street segment traffic volumes associated with the Project. Because the Project would result in a maximum of 6 percent increase in average daily vehicle trips, the net increase in noise would be a maximum of 0.3 dBA based on the Federal Highway Administration's RD-77-108 Highway Traffic Noise Model. Noise levels of less than 1 decibel are not discernable to human hearing even under laboratory conditions. An increase of less than 1 decibel would occur in association with the net increase in average daily vehicle trips. Three decibels is considered to be the minimum change that is needed for humans to detect a change in noise levels in outdoor environments. A 3-decibel increase occurs when traffic volumes double on roadways. As such, the Project would not result in a substantial permanent change in noise levels and would result in less than significant noise impacts related to traffic noise.

**TABLE 4.11-7
TRAFFIC NOISE ANALYSIS**

| Roadway Segment | | Daily Traffic Volumes | | | | Traffic Noise Levels at 50 feet (dBA CNEL) | | | | |
|-----------------|---------------------|-----------------------|-------------------|--------------|---------------------|--------------------------------------------|-------------------|---------------------|-------------------------------|-----------------------|
| | | Existing | Future No Project | Project Only | Future with Project | Existing | Future no Project | Future with Project | Cumulative and Project Change | Change due to Project |
| Wardlow | West of Pacific | 20,300 | 22,032 | 80 | 22,112 | 74.3 | 74.7 | 74.7 | 0.4 | 0.0 |
| Wardlow | East of Pacific | 22,500 | 23,509 | 80 | 23,589 | 74.7 | 74.9 | 74.9 | 0.2 | 0.0 |
| Pacific | South of Wardlow | 13,200 | 13,494 | 80 | 13,574 | 73.3 | 73.4 | 73.5 | 0.1 | 0.0 |
| Pacific | Wardlow to Off-Ramp | 9,700 | 10,663 | 279 | 10,943 | 72.0 | 72.4 | 72.5 | 0.5 | 0.1 |
| Pacific | North of Off-Ramp | 5,800 | 6,252 | 399 | 6,651 | 69.8 | 70.1 | 70.4 | 0.6 | 0.3 |

Source: Psomas 2024b

Mitigation Measures

- MM NOI-1** Prior to issuance of grading permits, the Project Applicant shall demonstrate that the contracts for the General Contractor and subcontractors, as appropriate, contain the following provisions:
1. Noise-generating construction activities shall be limited to the hours specified in the Long Beach Municipal Code, Section 8.80.202.
 2. Equipment and material staging areas and vehicle maintenance areas shall be located on the western portion of the site as far as practicable from sensitive receptors.
 3. All construction equipment shall be equipped with manufacturer's specified or better mufflers.
 4. Stationary construction equipment, such as generators, welders, and compressors, shall be oriented so that the loudest noise is directed away from sensitive receptors.
 5. Residents within 300 feet of the Project site and the Los Cerritos School shall be notified of the planned construction and construction schedule at least two weeks prior to the start of construction. The notice shall provide a contact for submitting complaints about any excessive construction noise.
- MM NOI-2** Prior to approval of plans through plan check for the self-storage building, the Applicant shall provide evidence that the HVAC units noise levels comply with the requirements of Section 8.80.200 of the Long Beach Municipal Code.

Level of Significance After Mitigation

Temporary Increases in Ambient Noise: The Project would implement **MM NOI-1**, which requires a menu of measures to limit the noise from construction activities to sensitive receptors and would reduce construction noise impacts to less than significant. Thus, increases in noise related to Project construction would be less than significant with implementation of **MM NOI-1**.

Permanent Increases in Ambient Noise: **MM NOI-2** would be incorporated to ensure compliance with the Municipal Code Section 8.80.200.N – Air Conditioning or Air Refrigerating Equipment. Thus, operational noise impacts from the Project would be less than significant with implementation of **MM NOI-2**.

Traffic Noise: A less than significant Impact would occur and therefore no mitigation is required.

Impact Comparison Summary: With implementation of **MM NOI-1** and **MM NOI-2**, impacts would be less than significant. This analysis of noise impacts is consistent with the impact analysis in the MND, which identified less than significant impacts with mitigation, pursuant to this threshold.

Threshold 4.11b ***Would the project result in generation of excessive groundborne vibration or groundborne noise levels?***

Construction Vibration

The Project would not generate or expose persons or structures to excessive groundborne vibration from the construction phase. There are no applicable City standards for vibration-

induced annoyance or structural damage from vibration generated during construction. The California Department of Transportation (Caltrans) has adopted vibration damage thresholds shown in Table 4.11-8 to assess the potential for structural damage from Project-generated vibration.

**TABLE 4.11-8
VIBRATION DAMAGE THRESHOLD CRITERIA**

| Structure and Condition | Maximum ppv (in/sec) | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------------------------|
| | Transient Sources | Continuous/Frequent Intermittent Sources |
| Extremely fragile historic buildings, ruins, ancient monuments | 0.12 | 0.08 |
| Fragile buildings | 0.20 | 0.10 |
| Historic and some old buildings | 0.50 | 0.25 |
| Older residential structures | 0.50 | 0.30 |
| New residential structures | 1.00 | 0.50 |
| Modern industrial/commercial buildings | 2.00 | 0.50 |
| ppv: peak particle velocity; in/sec: inch(es) per second Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment. Source: Caltrans 2020 | | |

The structural damage threshold for “Older residential structures”, 0.3 peak particle velocity (ppv) inch per second (in/sec), was conservatively selected for analysis of vibration impacts to residences east of the Project Site.

The Caltrans vibration annoyance potential guideline thresholds are shown in Table 4.11-9. Based on the guidance in Table 4.11-9, the “distinctly perceptible” vibration level of 0.24 ppv in/sec is considered as a threshold for a potentially significant vibration impact for human annoyance.

**TABLE 4.11-9
VIBRATION ANNOYANCE CRITERIA**

| Average Human Response | ppv (in/sec) |
|------------------------------------------------------------------------------------|--------------|
| Severe | 2.000 |
| Strongly perceptible | 0.900 |
| Distinctly perceptible | 0.240 |
| Barely perceptible | 0.035 |
| ppv: peak particle velocity; in/sec: inch(es) per second Source: Caltrans 2020. | |

Table 4.11-10 summarizes typical vibration levels measured during construction activities for various vibration-inducing types of equipment.

**TABLE 4.11-10
VIBRATION LEVELS FOR CONSTRUCTION EQUIPMENT**

| Equipment | | ppv at 25 ft (in/sec) |
|------------------------------------------------------------------|-------------|-----------------------|
| Pile driver (impact) | upper range | 1.518 |
| | typical | 0.644 |
| Pile driver (sonic) | upper range | 0.734 |
| | typical | 0.170 |
| Vibratory roller | | 0.210 |
| Large bulldozer | | 0.089 |
| Caisson drilling | | 0.089 |
| Loaded trucks | | 0.076 |
| Jackhammer | | 0.035 |
| Small bulldozer | | 0.003 |
| ppv: peak particle velocity; ft: feet; in/sec: inches per second | | |
| Source: Caltrans 2020; FTA 2018. | | |

As shown in Table 4.11-10, pile driving, and blasting are the sources of the most severe vibration during construction. Neither impact pile driving nor blasting would be used during Project construction. Vibratory rollers, large bulldozers, caisson drilling, and loaded trucks may be used during Project construction. The closest sensitive receptors are residences approximately 160 feet east of the Project Site. Table 4.11-11 shows calculated vibration levels at those residences conservatively assuming that equipment is operating on the Project eastern boundary closest to vibration sensitive uses.

**TABLE 4.11-11
VIBRATION LEVELS AT SENSITIVE USES**

| Equipment | Vibration Levels (ppv) | |
|-------------------------------------------------------------------|--------------------------------------------------------|--|
| | <i>Residential Use to the East of the Project Site</i> | |
| | (ppv @ 195 ft) | |
| Vibratory roller | 0.010 | |
| Large bulldozer | 0.004 | |
| Small bulldozer | 0.000 | |
| Loaded trucks | 0.003 | |
| Structural damage threshold | 0.300 | |
| Exceeds threshold? | No | |
| Annoyance threshold | 0.240 | |
| Exceeds threshold? | No | |
| ppv: peak particle velocity; Max: maximum; avg: average; ft: feet | | |
| Source: Psomas 2024b | | |

As shown in Table 4.11-9, vibration levels would not exceed the damage or annoyance thresholds when construction activities occur under maximum (i.e., closest to the receptor) exposure conditions. Impacts from construction equipment vibration would thus be less than significant.

Operational Vibration

The largest sources of vibration generated onsite during Project operation would be the RVs and moving trucks travelling throughout the Project Site. Vibration generated by vehicles and trucks is influenced by a number of factors, including pavement condition; vehicle speed; vehicle weight; type of suspension; and tire condition (under-inflated or over-inflated) [FTA 2018]. Vibration generated by RVs and moving trucks would be minimal due to several factors, namely:

- Condition of pavement onsite: The Project Site would feature new pavement, which would be smooth. Smooth pavement, as opposed to worn pavement riddled with potholes and cracks, mitigates the intensity of vibration generated by trucks, since pavement that contains cracks and potholes increases the force of tires striking the pavement (Transportation Association of Canada 2006).
- Vehicle speed: Trucks and RVs travelling throughout the Project Site would be travelling at low speeds (typically between 5 to 15 miles per hour). According to the FTA, truck speed would need to double to result in a vibration level increase of approximately 4 to 6 VdB (vibration decibels) (FTA 2018).
- Distance from source to receiver: The distance between the Project Site and the closest sensitive receptor (160 feet from property line to property line and 195 feet from the property line of the Project Site to the nearby single-family residential located along the east side of Del Mar Avenue) would attenuate levels of vibration generated onsite.

Therefore, due to the Project-specific conditions outlined above, vibration generated by RVs and moving trucks traveling throughout the Project Site would not affect nearby sensitive receptors. As a result, potential impacts resulting from operational vibration would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Temporary Groundborne Vibration: A less than significant impact would occur and no mitigation is required.

Permanent Groundborne Vibration: A less than significant impact would occur and no mitigation is required.

Impact Comparison Summary: The Project would result in a less than significant impact. This analysis of noise impacts is consistent with the impact analysis in the MND, which identified less than significant impacts, pursuant to this threshold.

Threshold 4.11c ***For a project located within the vicinity of a private airstrip or 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?***

The Project Site is not located within an adopted Airport Land Use Plan. The nearest airport is Long Beach Airport, located approximately two miles east of the Project Site. The Project would be located outside the Long Beach Airport 65 dBA CNEL noise contours and would not expose people working on the Project Site to noise related to airport operations. No impact would occur.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Private Airstrip, Airport Land Use Plan, or Public Airport: No impact would occur and therefore no mitigation is required.

Impact Comparison Summary: No impact would result from the Project's implementation with respect to excessive noise levels generated from nearby public airports or private airstrips. This analysis of aviation noise is consistent with the impact analysis provided in the MND, which identified no impacts under this threshold.

4.11.4 CUMULATIVE IMPACTS

As described above, the Project would result in significant adverse impacts related to construction and operational noise and construction vibration. Projects considered in the cumulative impact analysis consist of six projects within the City of Long Beach. These projects are described in more detail in Table 4-1, Cumulative Projects List, which is provided in Section 4.0, Impact Analysis. The preceding analysis concluded that nearby noise sensitive receptors would only be exposed to construction noise during the least noise sensitive hours of the day consistent with the City's Municipal Code. Any construction activities occurring from any other nearby projects would also be required to adhere to the time of occurrence requirements established by the City. Ambient noise from the I-710 and I-405 is the primary source of ambient noise in the local area. While the Project's construction activities would marginally add to the overall noise level within the area, noise from the freeways would help mask noise generated by the Project's construction activities. Due to the short-term nature of construction noise, localized nature of construction noise, and occurrence during the least noise sensitive portions of the day, cumulative construction noise would not represent a significant cumulative impact.

For long-term noise impacts related to traffic, development of the Project would contribute to cumulative noise impacts; however, cumulative plus Project traffic noise increases would only result in a maximum increase of 0.6 dBA, which is below the level for which human hearing can detect a noticeable change in noise levels. As a result, cumulative traffic noise impacts would be less than significant. The Project would result in potentially significant ongoing operational noise impacts.

The Project as well as any other nearby projects have the potential to result in vibratory impacts during construction, and in short- and long-term noise impacts. Noise and vibration impacts during construction would be localized and would occur intermittently for varying periods of time throughout the construction of the Project within the Project Site. Noise and vibratory impacts during Project construction would result in a potentially significant impact.

Mitigation Measures

MM NOI-1 Prior to issuance of grading permits, the Project Applicant shall demonstrate that the contracts for the General Contractor and subcontractors, as appropriate, contain the following provisions:

1. Noise-generating construction activities shall be limited to the hours specified in the Long Beach Municipal Code, Section 8.80.202.

2. Equipment and material staging areas and vehicle maintenance areas shall be located on the western portion of the site as far as practicable from sensitive receptors.
3. All construction equipment shall be equipped with manufacturer's specified or better mufflers.
4. Stationary construction equipment, such as generators, welders, and compressors, shall be oriented so that the loudest noise is directed away from sensitive receptors.
5. Residents within 300 feet of the Project site and the Los Cerritos School shall be notified of the planned construction and construction schedule at least two weeks prior to the start of construction. The notice shall provide a contact for submitting complaints about any excessive construction noise.

MM NOI-2 Prior to approval of plans through plan check for the self-storage building, the Applicant shall provide evidence that the HVAC units noise levels comply with the requirements of Section 8.80.200 of the Long Beach Municipal Code.

Level of Significance After Mitigation

Cumulative Impacts: Noise and vibratory impacts during Project construction would be reduced to a less than significant level by complying with Chapter 8.80 – Noise of the City's Municipal Code, as well as by implementing **MM NOI-1**, which requires a menu of measures to limit the noise from construction activities to sensitive receptors. The Project would result in a less than significant impact related to ongoing operational noise with implementation of **MM NOI-2**, which requires proof that the HVAC units noise levels comply with the requirements of Section 8.80.200 of the Long Beach Municipal Code. Any other nearby development projects would be required to evaluate their cumulative contributions to operational noise and to incorporate appropriate mitigation measures, which would ensure that cumulative noise impacts of the Project and any other nearby projects would be less than significant. Therefore, cumulative impacts resulting from the Project would be reduced to a less than significant level with implementation of **MM NOI-1** and **MM NOI-2**.

4.11.5 REFERENCES

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