4.11 Noise

This section evaluates the potential for impacts on noise resulting from implementation of The Cubes at Placentia Industrial Project (Proposed Project). Information presented in this section is primarily based on the following document:

- Ganddini, 2024. Placentia Avenue Industrial Noise Impact Analysis. July 2024. Included in Appendix K of this EIR.

No comments were received in response to the Notice of Preparation regarding noise. However, at the December 19, 2023, Draft EIR public scoping meeting, concern regarding noise along the boundary of the lot line of people's homes was expressed.

4.11.1.1 Environmental Setting

4.11.1.2 Fundamentals of Environmental Noise

Quantification of Noise

The California Department of Transportation (Caltrans) defines noise as sound that is loud, unpleasant, unexpected, or undesired. Further, for the purposes of noise analysis, noise only exists if a source, path, and receiver are present. Sound pressure waves must be produced by a source and transmitted through a medium, such as air. The sound must be perceived by, registered by, or affect a receptor, such as an ear or noise monitoring device (Caltrans 2013).

Sound pressure levels are quantified using a logarithmic ratio of actual sound pressures to a reference pressure squared, called bels. A bel is typically divided into tenths, or decibels (dB). Sound pressure alone is not a reliable indicator of loudness because frequency (or pitch) also affects how receptors respond to the sound. To account for the pitch of sounds and the corresponding sensitivity of human hearing to them, the raw sound pressure level is adjusted with a frequency-dependent A-weighting scale that is stated in units of decibels (dBA) (Caltrans 2013a). Typical A-weighted noise levels are listed in Table 4.11-1, Typical A-Weighted Noise Levels**.**

Table 4.11-1. Typical A-Weighted Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet flyover at 1,000 feet		
	— 100 —	
Gas lawn mower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 miles per hour		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	**— 70 —**	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	**— 60 —**	
		Large business office
Quiet urban daytime	**— 50 —**	Dishwasher next room
Quiet urban nighttime	**— 40 —**	Theater, large conference room (background)
Quiet suburban nighttime		
	— 30 —	Library
Quiet rural nighttime		Bedroom at night
	— 20 —	
		Broadcast/recording studio
	— 10 —	
Lowest threshold of human hearing	**— 0 —**	Lowest threshold of human hearing

Source: Caltrans 2013a.
Note: dBA = A-weighted decibel

A receptor's response to a given noise may vary depending on the sound level, duration of exposure, character of the noise sources, the time of day during which the noise is experienced, and the activity affected by the noise. Activities most affected by noise include rest, relaxation, recreation, study, and communications, such as quiet conversation or telephone calls. In consideration of these factors, different measures of noise exposure have been developed to quantify the extent of the effects from a variety of noise levels. For example, some measures consider the 24-hour noise environment of a location by using a weighted average that penalizes noise levels during normal relaxation and sleep hours. Other measures consider an average noise level over a period of time that includes ambient noise and a steady-state noise source for a given period of time within the averaging period (Caltrans 2013a). The indices for measuring community noise levels that are used in this report are defined below:

Leq, the equivalent energy level, provides an average acoustic or sound energy content of noise, measured during a prescribed period, such as 1 minute, 15 minutes, 1 hour, or 8 hours. The sound level may not be constant over the measured time period, but the average decibel sound level, given as dBA Leq, contains an equal amount of energy as the fluctuating sound level.

CNEL, the community noise equivalent level, is the average equivalent A-weighted sound level over a 24-hour period. This measurement applies weights to noise levels during evening and nighttime hours to compensate for the increased disturbance response of people at those times. CNEL is the equivalent sound level for a 24-hour period with a +5 dBA weighting applied to all sound occurring between 7:00 p.m. and 10:00 p.m. and a +10 dBA weighting applied to all sound occurring between 10:00 p.m. and 7:00 a.m.

Ldn, the day-night noise level, is a 24-hour Leq, except that the nighttime hours (10:00 p.m. to 7:00 a.m.) are assessed a 10 dBA penalty. This penalty attempts to account for the fact that nighttime noise levels are potentially more disturbing than equal daytime noise levels.

The decibel level of a sound decreases (or attenuates) as the distance from the source of that sound increases. For a single point source, such as a piece of mechanical equipment, the sound level normally decreases by approximately 6 dBA for each doubling of distance from the source. Sound that originates from a linear (or "line") source, such as vehicular traffic, attenuates by approximately 3 dBA per doubling of distance. Other contributing factors that affect sound reception include ground absorption, topography that provides a natural barrier, meteorological conditions, or the presence of human-made obstacles, such as buildings and sound barriers (Caltrans 2013a).

Noise Effects

Reaction to a given sound varies depending on acoustic characteristics of the source and the environment of the receptor. The A-scale deemphasizes low-frequency sounds because humans are more sensitive to high-frequency sounds that are more likely to cause hearing damage. People tend to compare an intruding noise to existing background noise levels. If a new noise is considerably louder or noticeable above existing levels, it is generally considered objectionable. The activity that the receptor is engaged in also affects response. For example, the same noise source, such as constant freeway traffic, may be more objectionable to people sleeping than to workers in a factory. A 3 dBA change is the smallest increment that is perceptible by most receivers, and a 5 dBA change in community noise level is clearly noticeable. Generally, 1 to 2 dBA changes are not detectable, except under controlled laboratory conditions. A sound that is 10 dBA greater than the reference sound is typically perceived as twice as loud (Caltrans 2013a).

Fundamentals of Environmental Vibration

Vibration is defined as dynamic excitation of an elastic system, such as the ground or a structure, that results in oscillatory movement of the system (Caltrans 2013). Typical human-made causes of earthborne vibration include trains and construction activities such as blasting, pile driving, and operation of heavy earthmoving equipment. The resulting waves transmitted through solid material are referred to as structureborne or groundborne vibration. Vibration energy spreads out as it travels through the ground, causing the vibration amplitude to decrease with distance away from the source. The vibration levels inside a building depend on the vibration energy that reaches the foundation and the characteristics of the structure that affect propagation of the vibration through it. A heavier building will typically experience lower vibration levels. The most common impact associated with vibration is annoyance resulting from the effects of vibration, such as building movement, rattling of windows, shaking of items on shelves or walls, and rumbling sounds. In more extreme cases, building damage may occur. Because the effects of vibration elicit a greater response than the vibration itself, vibration is typically only perceptible to people inside buildings (FTA 2018).

Vibration levels are typically expressed in terms of the peak particle velocity (PPV) and root mean square (RMS) amplitude, both in inches per second (in/sec). PPV is most appropriate for evaluating building damage potential. Caltrans estimates that continuous vibration levels of less than 0.08 PPV and single-event vibration levels of less than 0.12 PPV do not result in damage to even the most fragile historic buildings (Caltrans 2013b). The Federal Transit Administration (FTA) has identified a maximum PPV of 0.2 in/sec for fragile buildings and 0.12 in/sec for extremely fragile historic buildings (FTA 2018).

PPV does not account for human response to vibration. The RMS amplitude is used to represent average vibration amplitude, which accounts for the time it takes for the human body to respond to vibration signals. The RMS amplitude is also given in decibel notation, referenced as vibration decibels (VdB), which serves to compress the range of numbers required to describe vibration relative to human response. The rumbling sound caused by the vibration of room surfaces is called groundborne noise. Like airborne noise, groundborne noise is measured in dBA. The sound level accompanying vibration is generally 25 to 40 dBA lower than the vibration velocity level in VdB. Due to its low-frequency components, groundborne noise sounds louder than broadband noise with the same noise level. Typical vibration levels from various sources are shown in Table 4.11-2, Typical Levels of Groundborne Vibration. As shown in this table, the background vibration velocity level in residential areas is usually around 50 VdB, which is below the 65 VdB threshold of human perception (FTA 2018). The same human reaction corresponds to a given vibration velocity level and its resulting noise level; therefore, for simplicity, this analysis refers only to a source's VdB to describe potential human response to groundborne vibration and noise.

Table 4.11-2. Typical Levels of Groundborne Vibration

Vibration Level VdB[1]	in/sec RMS	Typical Sources (50 feet from source)	Human/Structural Response
100	0.01	Blasting from construction projects	Threshold, minor cosmetic damage to fragile buildings
90–100	0.003–0.01	Bulldozers and other heavy tracked construction equipment	Difficulty with tasks such as reading
80–90	0.001–0.003	Commuter rail and rapid transit, upper range	Residential annoyance, infrequent events (e.g., commuter rail)
70–80	0.0003–0.001	Typical commuter rail, bus or truck over bump, typical rapid transit	Residential annoyance, frequent events (e.g., rapid transit)
60–70	0.0001–0.0003	Bus or truck, typical	Limit for vibration-sensitive equipment, approximate threshold for human perception
50	0.00003	Typical background vibration	Not detectable

Source: FTA 2018.

Notes: in/sec = inches per second; RMS = root mean square; VdB = vibration decibel

[1] RMS vibration velocity level in VdB relative to 10–6 in/sec.

The general human response to different groundborne vibration velocity levels is described in Table 4.11-3, Human Response to Different Levels of Groundborne Vibration.

Table 4.11-3. Human Response to Different Levels of Groundborne Vibration

Vibration Velocity Level	Noise Level		Human Reaction
	Low Frequency	Mid Frequency	
65 VdB	25 dBA	40 dBA	Approximate threshold of perception for many people. Mid-frequency sound may disturb sleep.
75 VdB	35 dBA	50 dBA	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is annoying. Mid-frequency noise disturbs sleep and is considered annoying in more quiet areas.
85 VdB	45 dBA	60 dBA	Vibration acceptable only if there are an infrequent number of events per day. Low-frequency noise disturbs sleep and mid-frequency noise can be annoying to daytime NSLUs, such as schools.

Source: FTA 2018.

Note: dBA = A-weighted decibel; NSLU = noise-sensitive land use; VdB = vibration decibel

4.11.1.3 Regulatory Setting

This section describes the federal, state, and local regulatory framework adopted to address noise.

Federal

Federal Aviation Administration Standards (Code of Federal Regulations, Title 14, Part 150)

Enforced by the Federal Aviation Administration (FAA), Code of Federal Regulations, Title 14, Part 150, prescribes the procedures, standards, and methods governing the development,

submission, and review of airport noise exposure maps and airport noise compatibility programs, including the process for evaluating and approving or disapproving those programs. The code also identifies those land uses that are normally compatible with various levels of exposure to noise by individuals. The FAA considers residential land uses to be compatible with exterior noise levels at or less than 65 dBA Ldn.

Federal Transit Administration Standards

Although the FTA standards are intended for federally funded mass transit projects, the impact assessment procedures and criteria included in the FTA Transit Noise and Vibration Impact Assessment Manual (September 2018) are routinely used for projects proposed by local jurisdictions. The manual includes criteria for assessing the impacts of groundborne vibration, presented in Table 4.11-4, Federal Transit Administration Groundborne Vibration Impact Criteria.

Table 4.11-4. Federal Transit Administration Groundborne Vibration Impact Criteria

Land Use Category	Impact Levels (VdB)		
	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]
Category 1: Buildings where vibration would interfere with interior operations	65	65	65
Category 2: Residences and buildings where people normally sleep	72	75	80
Category 3: Institutional land uses with primarily daytime uses	75	78	83

Source: FTA 2018.

Notes: VdB = vibration decibel

Vibration levels are measured in or near the vibration-sensitive use.

1 "Frequent Events" are defined as more than 70 vibration events of the same source per day.

2 "Occasional Events" are defined as between 30 and 70 vibration events of the same source per day.

3 "Infrequent Events" are defined as fewer than 30 vibration events of the same source per day.

State

California Noise Control Act (California Health and Safety Code, Sections 46000– 46080)

California Health and Safety Code, Sections 46000–46080, known as the California Noise Control Act of 1973, find that excessive noise is a serious hazard to the public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. The act declares that the State of California has a responsibility to protect the health and welfare of its citizens through the control, prevention, and abatement of noise. It is the policy of the state to provide an environment for all Californians free from noise that jeopardizes their health or welfare. Section 46050.1 mandates development guidelines for the preparation and content of General Plan Noise Elements.

California Department of Transportation

The California Department of Transportation (Caltrans) has developed several publications on groundborne vibration. The Transportation and Construction Vibration Guidance Manual (Caltrans 2020) provides informational content that supplements previous publications with improved knowledge and information relating to groundborne transportation- and construction-induced vibrations. Although the Transportation and Construction Vibration Guidance Manual is not an official policy, standard, specification, or regulation, it serves as a useful guide for evaluating vibration impacts.

These guidelines recommend that the threshold at which there is a risk of architectural damage is a PPV of 0.25 inches/second (in/sec) for historic buildings, PPV of 0.3 in/sec at older residential structures, and a PPV of 0.5 in/sec at new residential structures and modern commercial/industrial buildings. Additionally, a PPV of 0.4 in/sec is the threshold at which groundborne vibration becomes severe in regard to annoyance (Caltrans 2020).

Regional

March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan

The March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan (March ARB/IPA ALUCP) was prepared for and adopted by the Riverside County Airport Land Use Commission (ALUC). In accordance with provisions of the California State Aeronautics Act (Public Utilities Code Section 21670 et seq.), the Riverside County ALUC has been assigned the lead responsibility for airport land use compatibility planning around each of the public-use and military airports in Riverside County, including the preparation of an ALUCP for each airport.

An ALUC is an agency authorized under state law to assist local agencies in ensuring compatible land uses in the vicinity of airports. Primary areas of concern for ALUCs are noise, safety hazards, and airport operational integrity. ALUCs are not implementing agencies in the manner of local governments, nor do they issue permits for a project such as those required by local governments. However, pursuant to California Public Utilities Code Section 21676, local governments are required to submit all general plan amendments and zone changes that occur in the ALUC planning areas for consistency review by ALUC. If such an amendment or change is deemed inconsistent with the ALUC land use compatibility plan, a local government may override the ALUC decision by a two-thirds vote of its governing body, if it makes specific findings that the proposed action is consistent with the purposes stated in Section 21670(a)(2) of the Public Utilities Code: “to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public’s exposure to excessive noise and safety hazards in areas around public airports to the extent that these areas are not already devoted to incompatible uses.”

Local

City of Perris General Plan

The City of Perris has adopted a Noise Element (adopted 2005, amended 2016) of the City of Perris General Plan to control and abate environmental noise, and to protect the citizens of Perris from excessive exposure to noise. The Noise Element specifies the maximum allowable unmitigated exterior noise levels for new developments impacted by transportation noise sources such as arterial roads, freeways, airports, and railroads. In addition, the Noise Element identifies noise policies and implementation measures designed to protect, create, and maintain an environment free from noise that may jeopardize the health or welfare of sensitive receptors, or degrade quality of life.

The noise standards identified in the Noise Element are guidelines to evaluate the acceptability of the transportation-related noise level impacts. These standards are based on the Office of Planning and Research and are used to assess the long-term traffic noise impacts on land uses. According to the City of Perris General Plan Exhibit N-1 Land Use Compatibility for Community Noise Exposure, noise-sensitive land uses such as single-family residences are normally acceptable with exterior noise levels below 60 dBA CNEL and conditionally acceptable with noise levels below 65 dBA CNEL. Industrial uses, such as the Proposed Project, are considered normally acceptable with exterior noise levels of up to 70 dBA CNEL, and conditionally acceptable with exterior noise levels between 70 to 80 dBA CNEL (City of Perris 2005).

Additionally, Noise Element Policy V.A, which addresses noise levels generated by industrial uses, is addressed under Threshold A of this section. Noise Element Implementation Measure V.A.1 requires that new large-scale industrial facilities located within 160 feet of sensitive land uses identify specific measures necessary to ensure that noise levels to be generated in conjunction with operation of a proposed facility do not exceed 60 dBA CNEL at the property line of the adjoining sensitive land use. The specific goals and policies of the General Plan related to noise that are relevant to the Proposed Project and a discussion of the Proposed Project's consistency is provided in Table 4.10-2, City of Perris General Plan Consistency Analysis, in Section 4.10, Land Use and Planning, of this Draft Environmental Impact Report (EIR).

Perris Municipal Code

Chapter 7.34 of the Perris Municipal Code establishes base ambient noise levels and establishes maximum noise level limits for stationary noise sources. The Perris Municipal Code addresses noise impacts in terms of the maximum noise level (Lmax).

Section 7.34.040 – Sound Implication

No person shall amplify sound using sound amplifying equipment contrary to any of the following:

1. The only amplified sound permitted shall be either music or the human voice, or both.

2. The volume of amplified sound shall not exceed the noise levels set forth in this subsection when measured outdoors at or beyond the property line of the property from which the sound emanates:
    - Maximum noise level 60 dBA from 10:01 p.m. to 7:00 a.m.
    - Maximum noise level 80 dBA from 7:01 a.m. to 10:00 p.m.

Section 7.34.050 – General Prohibition

- It unlawful for any person to willfully make, cause or suffer, or permit to be made or caused, any loud excessive or offensive noises or sounds which unreasonably disturb the peace and quiet of any residential neighborhood or which are physically annoying to persons of ordinary sensitivity or which are so harsh, prolonged or unnatural or unusual in their use, time or place as to occasion physical discomfort to the inhabitants of the city, or any section thereof. The standards for dBA noise level in Section 7.34.040 shall apply to this section. To the extent that the noise created causes the noise level at the property line to exceed the ambient noise level by more than 1.0 decibel, it shall be presumed that the noise being created also is in violation of this section.
- The characteristics and conditions which should be considered in determining whether a violation of the provisions of this section exists should include, but not be limited to, the following:
    - The level of the noise.
    - Whether the nature of the noise is usual or unusual.
    - Whether the origin of the noise is natural or unnatural.
    - The level of the ambient noise.
    - The proximity of the noise to sleeping facilities.
    - The nature and zoning of the area from which the noise emanates and the area where it is received.
    - The time of day or night the noise occurs.
    - The duration of the noise.
    - Whether the noise is recurrent, intermittent, or constant.

Section 7.34.060 – Construction Noise

- Perris Municipal Code Section 7.34.060 identifies the City's construction noise standards and permitted hours of construction activity. Pursuant to Section 7.34.060, it is unlawful for any person between the hours of 7:00 PM of any day and 7:00 AM of the following day, or on a legal holiday, with the exception of Columbus Day and Washington's birthday, or on Sundays to erect, construct, demolish, excavate, alter or repair any building or structure in such a manner as to create disturbing, excessive or offensive noise. Further, Section 7.34.060 states that noise from construction activity shall not exceed 80 dBA Lmax at residential zones of the City.

Section 7.34.070 – Refuse Vehicles and parking lot sweepers

- No person shall operate or permit to be operated a refuse compacting, processing or collection vehicle or parking lot sweeper between the hours of 7:00 PM to 7:00 AM in any residential area unless a permit has been applied for and granted by the city.

Section 7.34.080 – Disturbing, excessive, offensive, declaration of certain acts constituting.

- The following activities, among others, are declared to cause loud, disturbing, excessive or offensive noises in violation of this section and are unlawful, namely:
  - Horns, Signaling Devices, etc. Unnecessary use or operation of horns, signaling devices or other similar devices on automobiles, motorcycles or any other vehicle
  - Leaf blowers
    1. The term "leaf blower" means any portable, hand-held or backpack, engine-powered device with a nozzle that creates a direct able airstream which is capable of and intended for moving leaves and light materials.
    2. No person shall operate a leaf blower in any residential zoned area between the hours of 7:00 P.M. and 8:00 A.M. on weekdays and 5:00 P.M. and 9:00 A.M. on weekends or on legal holidays.
    3. No person may operate any leaf blower at a sound level in excess of 80 decibels measured at a distance of 50 feet or greater from the point of noise origin.
    4. Leaf blowers shall be equipped with functional mufflers and an approved sound limiting device required to ensure that the leaf blower is not capable of generating a sound level exceeding any limit prescribed in this section.

Section 19.51.080 – Noise

- Chapter 19.51 of the Perris Municipal Code establishes noise levels and regulations for land uses within the March ARB/IP Airport Overlay Zone (MAOZ).
  - Airport Related Noise. Noise compatibility standards are intended to prevent the establishment of noise-sensitive land uses in portions of the airport environ that are exposed to significant levels of aircraft noise. Where permitted within the Airport Overlay Zone (AOZ), the following noise-sensitive land uses shall comply with applicable noise exposure criteria:
    3. All new residences, schools, libraries, museums, hotels and motels, hospitals and nursing homes, places of worship, and other noise-sensitive uses must have sound attenuation features incorporated into the structures sufficient to reduce interior noise levels from exterior aviation-related sources to no more than CNEL 40 dB. This requirement is intended to reduce the disruptiveness of loud individual aircraft noise events upon uses

in this zone and represents a higher standard than the CNEL 45 dB standard set by state and local regulations and the Riverside County ALUC policy.

4. Office space must have sound attenuation features sufficient to reduce the exterior aviation-related noise level to no more than CNEL 45 dB. To ensure compliance with these criteria, an acoustical study shall be required to be completed for any development proposed to be situated where the aviation-related noise exposure is more than 20 dB above the interior standard (e.g., within the CNEL 60 dB contour where the interior standard is CNEL 40 dB).
5. Standard building construction is presumed to provide adequate sound attenuation where the difference between the exterior noise exposure and the interior standard is 20 dB or less.

4.11.1.4 Existing Conditions

The following sections describe the environmental setting for the Proposed Project as it relates to noise.

Existing Noise Environment

The Project Site is bordered by Wilson Avenue to the west, vacant land and industrial uses to the north, vacant land, a drainage channel to the east, and Placentia Avenue to the south.

Sensitive receptors are land uses that require serenity or are otherwise adversely affected by noise events or conditions. Schools, libraries, churches, single and multiple-family residential, including transient lodging, motels, and hotel uses make up the majority of these areas. Existing sensitive land uses that may be impacted by noise produced from implementation of the Proposed Project include single-family residences located 50 feet to the south across Placentia Avenue; 495 feet to the east across the drainage channel; 340 feet to the northwest across Wilson Avenue; and 695 feet to the west along Redlands Avenue from the Project Site (Appendix K, Noise Impact Analysis).

Ambient Noise Measurements

Noise surveys were conducted by Ganddini Group Inc. to measure existing noise levels on the Project Site. An American National Standards Institute (ANSI Section SI.4 2014, Class 1) Larson Davis model LxT sound level meter was used to document existing ambient noise levels. In order to document existing ambient noise levels in the Proposed Project area, five 15-minute daytime noise measurements (STNM) were taken between 1:36 PM and 4:23 PM on March 16, 2023. In addition, one long-term 24-hour noise measurement (LTNM) was also taken from March 16, 2023 to March 17, 2023. Noise levels measured at the locations listed are presented below in Table 4.11-5, Short-Term Noise Measurements Summary, and Table 4.11-6, Long-Term Noise Measurements Summary (LTNM1). Figure 4.11-1, Noise Measurement Locations, shows short-term and long-term noise measurement locations in relation to the Project Site.

Ambient noise measurements were taken at the following locations:

- **STNM1:** Noise measurement represents the residential use located at 2865 Redlands Avenue, Perris. The noise measurement was taken just west of the residential use and east of Redlands Avenue.
- **STNM2:** Noise measurement represents the residential used located along Wilson Avenue just south of Placentia Avenue (2770 Wilson Avenue, Perris). The noise measurement was taken just east of the residential use and west of Wilson Avenue.
- **STNM3:** Noise measurement represents the residential used located along the southern side of Placentia Avenue (691 Placentia Avenue, Perris). The noise measurement was taken just north of the residential use and south of Placentia Avenue.
- **STNM4:** Noise measurement represents the residential used located east of the Project Site along Clapper Street (2980 Clapper Street, Perris). The noise measurement was taken just west of the residential uses near an adjacent bike trail.
- **STNM5:** Noise measurement represents the commercial and industrial uses located to the north of the Project Site along Wilson Avenue (3060 Wilson Avenue, Perris). The noise measurement was taken just west of Wilson Avenue near the commercial and industrial uses.
- **LTNM1:** Noise measurement represents the project site. The noise measurement was taken within the northwestern corner of the Project Site.

Table 4.11-5. Short-Term Noise Measurements Summary

Daytime Measurements (dBA)				
Site Location[1]	**Time Started**	**L_{eq}**	**L_{max}**	**L_{min}**
STNM1	1:36 p.m.	71.1	84.2	39.2
STNM2	1:59 p.m.	61.7	79.3	40.0
STNM3	2:30 p.m.	65.4	83.7	37.2
STNM4	3:29 p.m.	60.8	84.4	36.9
STNM5	4:08 p.m.	60.6	74.6	38.3

Source: Appendix K.

Notes: dBA = A-weighted decibel; Leq = average sound level; Lmax = maximum sound level; Lmin = minimum sound level;

[1] See Figure 4.11-1, Noise Monitoring Locations, for short-term noise measurements (STNM) locations.

Table 4.11-6. Long-Term Noise Measurements Summary (LTNM1)

24-Hour Ambient Noise (dBA)				
Hourly Measurements	**Time Started**	**L_{eq}**	**L_{max}**	**L_{min}**
1	6:00 p.m.	54.5	81.6	35.2
2	7:00 p.m.	48.4	68.5	40.1
3	8:00 p.m.	48.5	65.9	42.1
4	9:00 p.m.	45.1	61.6	40.1
5	10:00 p.m.	45.5	57.6	35.7
6	11:00 p.m.	41.5	56.4	33.6
7	12:00 a.m.	45.2	72.1	35.5

8	1:00 a.m.	40.2	59.9	34.0
9	2:00 a.m.	40.4	60.5	33.9
10	3:00 a.m.	41.4	58.5	33.8
11	4:00 a.m.	44.7	57.0	39.6
12	5:00 a.m.	41.8	62.0	34.3
13	6:00 a.m.	42.1	64.6	30.9
14	7:00 a.m.	60.7	78.1	32.5
15	8:00 a.m.	54.8	82.6	34.1
16	9:00 a.m.	49.9	69.2	34.5
17	10:00 a.m.	44.7	63.4	34.1
18	11:00 a.m.	40.9	55.3	33.3
19	12:00 p.m.	51.5	76.1	32.0
20	1:00 p.m.	42.5	58.0	32.4
21	2:00 p.m.	58.0	85.0	32.4
22	3:00 p.m.	42.9	66.5	31.8
23	4:00 p.m.	46.6	67.9	34.1
24	5:00 p.m.	43.9	60.6	33.6
CNEL	53.3			

Source: Appendix K.

Notes: dBA = A-weighted decibel; Leq = average sound level; Lmax = maximum sound level; Lmin = minimum sound level

4.11.2 Thresholds of Significance

According to Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA Guidelines), the Proposed Project would have a significant impact on noise if it would:

- **Threshold NOI-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.
- **Threshold NOI-2:** Generation of excessive groundborne vibration or groundborne noise levels.
- **Threshold NOI-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, expose people residing or working in the project area to excessive noise levels.

4.11.3 Regulatory Requirements

RR NOI-1 The Project will comply with the California Building Code, Title 24, Building Standards Administrative Code, Part 11, CALGreen, Section 5.507.

RR NOI-2 The Project will be operated in accordance with Section 7.34.040, Sound Amplification, of the Perris Municipal Code, which prohibits amplified sound other than music, the human voice, or both; and prohibits amplified sound from exceeding the noise levels of 60 dBA between 10:01 pm to 7:00 am (nighttime) and 80 dBA between 7:01 am to 10:00 pm (daytime) when measured outdoor at or beyond the property line of the property from which the sound emanates.

RR NOI-3 The Project will be operated in accordance with Section 7.34.050, General Prohibition, of the Perris Municipal Code, which prohibits any person to willfully make, cause or suffer, or permit to be made or caused, any loud excessive or offensive noises or sounds which unreasonably disturb the peace and quiet of any residential neighborhood or which are physically annoying to persons of ordinary sensitivity or which are so harsh, prolonged or unnatural or unusual in their use, time or place as to occasion physical discomfort to the inhabitants of the city, or any section thereof; and prohibits sound from exceeding the noise levels of 60 dBA between 10:01 pm to 7:00 am (nighttime) and 80 dBA between 7:01 am to 10:00 pm (daytime) when measured outdoor at or beyond the property line of the property from which the sound emanates.

RR NOI-4 The Project will be constructed in accordance with Section 7.34.060, Sound Amplification, of the Perris Municipal Code, which makes it unlawful to erect, construct, demolish, excavate, alter, or repair any building or structure in such a manner as to create disturbing excessive or offensive noise between the hours of 7:00 pm of any day and 7:00 AM of the following day, or on a legal holiday, with the exception of Columbus Day and Washington's birthday, or on Sundays.

RR NOI-5 The Project will be operated in accordance with Section 7.34.070, Refuse Vehicles and Parking Lot Sweepers, of the Perris Municipal Code which prohibits operation of a refuse compacting, processing or collection vehicle or parking lot sweeper between the hours of 7:00 pm to 7:00 am in any residential area unless a permit has been applied for and granted by the City of Perris.

RR NOI-6 The Proposed Project will include the following Best Management Practices (BMPs) on project plans and in contract specifications to minimize construction noise:

- All equipment, whether fixed or mobile, will be equipped with properly operating and maintained mufflers, consistent with manufacturer standards.
- All stationary construction equipment will be placed so that emitted noise is directed away from the noise sensitive receptors nearest the Project Site.
- As applicable, all equipment shall be shut off and not left to idle when not in use.

- To the degree possible, equipment staging will be located in areas that create the greatest distance between construction-related noise and vibration sources and existing sensitive receptors.
- Jackhammers, pneumatic equipment, and all other portable stationary noise sources will be directed away and shielded from existing residences in the vicinity of the Project Site. Either one-inch plywood or sound blankets can be utilized for this purpose. They should reach up from the ground and block the line of sight between equipment and existing residences. The shielding should be without holes and cracks.

4.11.4 Environmental Impacts

Applicable PVCCSP Standards and Guidelines and Mitigation Measures

The Peris Valley Commerce Center Specific Plan (PVCCSP) includes the following Residential Buffer Development Standards and Guidelines related to noise:

- **50-Foot Setback –** A 50-foot setback is required for commercial and industrial developments immediately abutting existing residential property lines. Other allowed uses and facilities within the 50-foot setback incudes landscape areas, water quality basins and conveyances, vehicle travel aisles, passenger car parking and any feature deemed unobtrusive to the neighboring residential use by the Development Services Department.
- **Hours of Operation –** Depending on the type of use and activities proposed by the industrial, commercial or professional/office development, the Development Services Department may impose restrictions on hours of operation for construction, as well as business operation.
- **Sound Walls –** Sound walls may be required to mitigate potential operational noise impacts from proposed industrial, commercial or professional/office development, as well as be constructed in the first phase of development to help shield residents from construction noise.

The PVCCSP includes Standards and Guidelines relevant to airport noise. These Standards and Guidelines (summarized below) are incorporated as part of the Proposed Project and are assumed in the analysis presented in this section. The chapters/section numbers provided correspond to the PVCCSP chapters/sections. The PVCCSP EIR includes mitigation measures for potential impacts to noise, which are listed below.

Airport Overlay Zone (Chapter 12.0 of PVCCSP)

12.1.3 Compatibility with March ARB/IP ALUCP.

The Perris Valley Commerce Center (PVCC) area is within March ARB/IP safety zones and therefore all development shall comply with the following measures:

- Noise Standard: All building office areas shall be constructed with appropriate sound mitigation measures as determined by an acoustical engineer or architect to ensure appropriate interior sound levels.
- Notice of Airport in the Vicinity: Prior to approval of new development projects, all applicants shall prepare an aerial photograph identifying the location of the March ARB/IP in relationship to the Project Site, and a Notice of Airport in the Vicinity. Because the entire PVCCSP lies within the March ARB Airport Influence Area (AIA), notice must be provided to all potential purchasers or tenants (refer to mitigation measure MM Haz 4 in Section 4.9, Hazards and Hazardous Materials, of this EIR).

The following mitigation measures from the PVCCSP EIR for noise impacts are incorporated as part of the Proposed Project and are assumed in the analysis presented in this subsection.

MM Noise 1 During all project site excavation and grading on-site, the construction contractors shall equip all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers consistent with manufacturer's standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the project site.

MM Noise 2 During construction, stationary construction equipment, stockpiling and vehicle staging areas will be placed a minimum of 446 feet away from the closet sensitive receptor.

MM Noise 3 No combustion-powered equipment, such as pumps or generators, shall be allowed to operate within 446 feet of any occupied residence unless the equipment is surrounded by a noise protection barrier.

MM Noise 4 Construction contractors of implementing development projects shall limit haul truck deliveries to the same hours specified for construction equipment. To the extent feasible, haul routes shall not pass sensitive land uses or residential dwellings.

4.11.4.1 Threshold NOI-1: Increase in Noise Levels

Impact Analysis

The Proposed Project would not result in a substantial temporary or permanent increase in ambient noise levels during construction, long-term site operations, and due to Project-related traffic. Each is discussed below.

Construction Noise

On-Site Equipment

Construction noise is regulated within Section 7.34.060 of the Perris Municipal Code (see Regulatory Setting section of this report). Accordingly, the Proposed Project would result in a significant impact if:

- Project construction occurs outside the hours of 7:00 AM and 7:00 PM Monday through Saturday or anytime on legal holidays, with the exception of Columbus Day and Washington's Birthday, and Sundays; or,
- Project construction noise exceeds 80 dBA L_{max} in residential zones within the City.

Proposed Project construction noise levels at nearby sensitive receptors were calculated using the FTA methodology. Construction noise modeling worksheets for each phase are provided in the Noise Impact Analysis (Appendix L of this EIR). Anticipated noise levels during each construction phase are presented in Table 4.11-7, Construction Noise Levels. Noise measurement locations are shown on Figure 4.11-1 and discussed above in Section 4.11.1.2, Existing Conditions.

Table 4.11-7. Construction Noise Levels

Phase	Receptor Location	Closest Measured Ambient Noise Location	Existing Measured Noise Levels (dBA Lmax)	Construction Noise Levels (dBA Lmax)	Exceeds Daytime 80 dBA Lmax Standard (Y/N)
Grading	Residential to the South (691 Placentia Ave)	STNM3	83.7	64.3	No
	Residential to the East/Northeast (2988 Clapper St)	STNM4	84.4	57.3	No
	Residential to the West (2865 Redlands Ave)	STNM1	84.2	56.6	No
Building Construction	Residential to the South (691 Placentia Ave)	STNM3	83.7	63.3	No
	Residential to the East/Northeast (2988 Clapper St)	STNM4	84.4	56.8	No
	Residential to the West (2865 Redlands Ave)	STNM1	84.2	55.6	No
Paving	Residential to the South (691 Placentia Ave)	STNM3	83.7	59.3	No
	Residential to the East/Northeast (2988 Clapper St)	STNM4	84.4	52.8	No
	Residential to the West (2865 Redlands Ave)	STNM1	84.2	51.6	No
Architectural Coating	Residential to the South (691 Placentia Ave)	STNM3	83.7	57.3	No
	Residential to the East/Northeast (2988 Clapper St)	STNM4	84.4	50.8	No
	Residential to the West (2865 Redlands Ave)	STNM1	84.2	49.6	No

Source: Appendix K.

Notes: dBA = A-weighted decibel; Lmax = maximum sound level; STNM1 = Short-term Noise Measurement, Location 1; STNM3 = Short-term Noise Measurement, Location 3; STNM4 = Short-term Noise Measurement, Location 4

Although not protected by City Ordinance criteria, the equivalent of the average noise level (L_{eq}) associated with simultaneous operation of all equipment associated with each construction phase was modeled at properties that have existing residential uses, including those that are zoned for residential uses and those that are not zoned for residential uses (non-conforming residential land uses), within proximity of the Project Site. Because most all construction equipment is expected to move around the Project Site, combined noise levels were modeled from the center of the Project Site, as is industry standard. Construction noise levels are expected to reach up to reach up to 67.7 dBA L_{eq} at the nearest residential property line to the south at approximately 540 feet from the Project Site, 61.2 dBA L_{eq} at the nearest residential property line to the east/northeast at approximately 1,150 feet from the Project Site, and 60.0 dBA L_{eq} at the nearest residential property line to the west at approximately 1,310 feet of the Project Site. Therefore, as shown in Table 4.11-7, noise levels would not exceed the daytime 80 dBA L_{max} standard, and construction noise impacts would be less than significant.

Off-Site Vehicle Trips

Construction truck trips would occur throughout the Proposed Project's construction period. Given the Project Site's proximity to the I-215 Freeway, approximately 1.6 miles to the west/southwest, it is anticipated that vendor and/or haul truck traffic would take the most direct route to the appropriate freeway ramps.

Placentia Avenue currently handles between approximately 4,008 and 6,048 average daily vehicle trips in the vicinity of the Project Site and Wilson Avenue handles between approximately 2,316 and 3,912 average daily vehicle trips. The greatest number of construction-related vehicle trips per day would be during building construction and paving at up to approximately 338 vehicle trips per day, consisting of 243 worker trips and 94.8 vendor trips (Appendix L). Therefore, vehicle traffic generated during project construction is nominal relative to existing roadway volumes and would not result in the doubling of traffic volume necessary to increase noise levels by 3 dBA. Off-site construction vehicle trip impacts from the Proposed Project would be less than significant.

Operational Noise

On-Site Noise Sources

Stationary noise source standards are established within the City of Perris General Plan Noise Element Implementation Measure V.A.1 and Section 9.02.050 of the Perris Municipal Code (see Regulatory Setting section of this section). Accordingly, the Proposed Project would result in a significant impact if:

- Project-related operational noise levels exceeds the City-established noise standard of 60 dBA CNEL at the property line of adjoining sensitive land uses.

Noise levels at nearby sensitive receptors were determined based on the SoundPLAN acoustical model developed for the Proposed Project. SoundPLAN modeling worksheets are provided in Appendix K to this EIR. Table 4.11-8, Proposed Project Operational Noise Levels (dBA, CNEL), shows the modeled project operational noise levels relative to the City-established standards (Appendix K). The receptor locations are shown on Figure 4.11-2, Project Operational Noise Levels.

Table 4.11-8. Proposed Project Operational Noise Levels

Receptor Location[1]	Existing Measured Noise Levels (dBA, CNEL)[2]	Operational Noise Levels (dBA, CNEL)	Exceeds 60 dBA CNEL Standard (Y/N)
1. Single Family Residential land use	53.3	41	No
2. Single Family Residential land use	53.3	52	No
3. Single Family Residential land use	53.3	50	No
4. Single Family Residential land use	53.3	51	No
5. Commercial Land use	53.3	53	No

Source: Appendix K.

Notes: dBA = A-weighted decibel; CNEL = community noise equivalent level

[1] See Figure 4.11-2, Project Operational Noise Levels (dBA, CNEL).

[2] See Table 4.11-6, Long-Term Noise Measurements Summary (LTNM1) (dBA).

As shown in Table 4.11-8, Proposed Project operation is expected to range between 41 and 53 dBA CNEL at the nearby sensitive receivers as shown on Figure 4.11-2 and would not exceed the City's General Plan land use compatibility criteria of 60 dBA CNEL at residential land uses. The Proposed Project's on-site operational noise impact would be less than significant.

Off-Site Operational Noise Sources

State courts have rejected use of what is effectively a single "absolute noise level" threshold of significance (e.g., exceed 65 dBA CNEL) on the grounds that the use of such a threshold fails to consider the magnitude or severity of increases in noise levels attributable to the Proposed Project in different environments. State courts have also upheld the use of "ambient plus increment" thresholds for assessing project noise impacts as consistent with CEQA, noting however, that the severity of existing noise levels should not be ignored by incorporating a smaller incremental threshold for areas where existing ambient noise levels were already high (Appendix K).

Pursuant to the PVCCSP EIR, Proposed Project roadway noise impacts shall be considered significant if any of the following occur as a direct result of the proposed development.

- When the resulting noise levels at noise-sensitive land uses (e.g., residential, etc.):
  - are less than 60 dBA CNEL and the Proposed Project creates a 5 dBA CNEL or greater project-related level increase; or,
  - exceed 60 dBA CNEL and the Proposed Project creates a 3 dBA CNEL or greater project-related noise level increase.

Traffic Noise

Roadway noise levels were calculated at roadways included in the Placentia Avenue Industrial Traffic Impact Analysis (Appendix L) based on the FHWA Traffic Noise Prediction Model

methodology. During operation, the Proposed Project is expected to generate approximately 1,047 average daily trips with 85 trips during the AM peak-hour and 95 trips during the PM peak-hour. Roadway noise levels were calculated for the following scenarios:

- Existing (without Proposed Project): This scenario refers to existing year traffic noise conditions.
- Existing Plus Proposed Project: This scenario refers to existing year plus Proposed Project traffic noise conditions.

Table 4.11-9, Existing Traffic Noise Levels With and Without Project Implementation, shows the change in existing roadway noise levels with the addition of project-generated operational trips.

Table 4.11-9. Existing Traffic Noise Levels With and Without Project Implementation

Roadway	Segment	Existing Noise Level (dBA CNEL)	Existing + Project (dBA CNEL)	Increase in Noise Level	Exceeds Standards?
Rider Street	West of Redlands Ave	72.8	72.8	+0	No
	East of Redlands Ave	73.7	73.8	+0.2	No
	West of Wilson Ave	73.6	73.8	+0.2	No
	East of Wilson Ave	74.3	74.4	+0.1	No
Placentia Avenue	West of Redlands Ave	68.9	69.5	+0.6	No
	Redlands Ave to Wilson Ave	64.5	65.6	+1.1	No
Redlands Avenue	North of Rider Street	69.9	70.2	+0.3	No
	South of Placentia Ave	71.5	71.6	+0.1	No
Wilson Avenue	South of Rider Street	62.3	64.9	+2.6	No
	North of North Project Dwy	64.6	66.1	+1.5	No
	North Project Dwy to Central Project Dwy	64.6	65.9	+1.3	No
	Central Project Dwy to South Project Dwy	64.6	67.6	+3.0	Yes
	South Project Dwy to Placentia Ave	62.5	66.3	+3.8	Yes
	South of Placentia Ave	63.0	63.6	+0.6	No

Source: Appendix K.
Notes: dBA = A-weighted decibel; CNEL = community noise equivalent level

As shown in Table 4.11-9, modeled existing traffic noise levels range between 62 and 74 dBA CNEL and the modeled Existing Plus Project traffic noise levels range between 64 and 74 dBA CNEL at the right-of-way of each study roadway segment. The segments of Wilson Avenue from the Central Project Driveway to the South Project Driveway and Wilson Avenue from the South Project Driveway to Placentia Avenue have modeled noise levels exceeding 60 dBA CNEL with expected noise level increases of 3 dB or greater. However, there are no existing noise-sensitive uses located along Wilson Avenue from the Central Project Driveway to Placentia Avenue. In

addition, the land adjacent to these roadway segments are designated as Light Industrial in the PVCCSP. All other modeled roadways segments would not exceed the lowest threshold of 3 dB.

Therefore, the addition of Proposed Project trips would not change noise levels in excess of the applicable threshold at any of the study roadway segments. Potential impacts related to traffic noise would be less than significant.

Significance of Impact

Less Than Significant Impact.

4.11.4.2 Threshold NOI-2: Excessive Groundborne Vibration or Noise

Impact Analysis

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures, and soil type. It is expected that groundborne vibration from the Proposed Project's construction activities would cause only intermittent, localized intrusion. Using the vibration source level of construction equipment provided in Table 4.11-10, Construction Equipment Vibration Source Levels, and the construction vibration assessment methodology published by the FTA, it is possible to estimate the Proposed Project vibration building damage impacts.

Table 4.11-10. Construction Equipment Vibration Source Levels

Equipment		PPV at 25 ft, in/sec	Approximate Lv* at 25 ft
Pile Driver (impact)	upper range	1.518	112
	typical	0.644	104
clam shovel drop (slurry wall)		0.202	94
Hydromill (slurry wall)	In soil	0.008	66
	In rock	0.017	75
Vibratory Roller		0.210	94
Hoe Ram		0.089	87
Large Bulldozer		0.089	87
Caisson Drilling		0.089	87
Loaded Trucks		0.076	86
Jackhammer		0.035	79
Small Bulldozer		0.003	58

Source: Federal Transit Administration: Transit Noise and Vibration Impact Assessment Manual, 2018.

Notes:

* RMS velocity in decibels, VdB re 1 micro-in/sec

The City of Perris has not established thresholds of significance concerning groundborne vibration. In the absence of City-established thresholds, groundborne vibration impacts are based on

guidance from the Caltrans Transportation and Construction Vibration Guidance Manual. Accordingly, the Proposed Project would result in a significant impact if:

- Groundborne vibration levels generated by the Proposed Project have the potential to cause architectural damage at nearby buildings by exceeding the following PPV:
  - 0.08 in/sec at extremely fragile historic buildings, ruins, ancient monuments
  - 0.10 in/sec at fragile buildings
  - 0.25 in/sec at historic and some old buildings
  - 0.30 in/sec at older residential structures
  - 0.50 in/sec at new residential structures and modern industrial/commercial buildings.
- Groundborne vibration levels generated by the Proposed Project have the potential to cause severe annoyance to people living or working in nearby buildings by exceeding a PPV of 0.4 in/sec.

Based on the groundborne vibration modeling included in Appendix G of the Noise Impact Analysis, use of a vibratory roller is expected to generate a PPV of 0.033 in/sec and a bulldozer is expected to generate a PPV of 0.014 in/sec at the closest off-site building, which is a residential use located approximately 85 feet south of the Project Site. Other equipment anticipated to be used during Proposed Project construction generate lower PPV. Therefore, groundborne vibration generated by project construction would not exceed the levels necessary to cause architectural damage or severe annoyance to persons living or working in nearby buildings. Potential impacts would be less than significant.

The most substantial sources of groundborne vibration during post-construction project operations would include the movement of passenger vehicles and trucks on paved and generally smooth surfaces. Loaded trucks generally have a PPV of 0.076 at a distance of 25 feet (Caltrans 2020), which is a substantially lower PPV than that of a vibratory roller (0.210 in/sec PPV at 25 feet). Therefore, groundborne vibration levels generated by the Proposed Project's operation would not exceed those modeled for Project construction, and potential impacts would be less than significant in this regard.

Significance of Impact

Less Than Significant Impact.

4.11.4.3 Threshold NOI-3: Aircraft Noise

Impact Analysis

The closest airport to the Project Site is the March ARB/IPA, with airport runways located approximately 3.2 miles to the northwest of the Project Site. Per the March ARB/IPA ALUCP the Project Site is located within Compatibility Zone C1 (Primary Approach/Departure Zone) (Mead

& Hunt 2014). Exhibit N-3 of the Noise Element of the City of Perris General Plan shows that the Project Site is located just outside the airport's 60 dBA CNEL noise contour (City of Perris 2005). In addition, Figure 4-2 of the more recent Final Air Installations Compatible Use Zones (AICUZ) Study for March Air Reserve Base shows that the Project Site is located outside the airport's 60 dBA CNEL noise contour (Air Force Reserve Command 2018). The 2018 AICUZ Study noise contour map is provided on Figure 8 of the Noise Impact Analysis (Appendix K).

Per the 2018 AICUZ Study, the Air Force provides planning contours–noise contours based on reasonable projections of future missions and operations. AICUZ studies using planning contours provide a description of the long-term (5–10 year) aircraft noise environment for projected aircraft operations that is more consistent with the planning horizon used by state, Tribal, regional and local planning bodies.

The Proposed Project is a 578,265-square-foot industrial warehouse building. Neither the Perris Municipal Code nor the March ARB/IPA ALCUP establish airport noise criteria for industrial or warehouse land uses. Furthermore, per the 2018 ALUCP Study, industrial land uses are considered allowed uses within Zone C1 (Mead & Hunt 2014).

The total square footage of the Proposed Project includes approximately 10,000 square feet of associated office use. Section 19.51.080 of the Perris Municipal Code includes a requirement of 45 dBA CNEL for office space. Section 19.51.080 of the Perris Municipal Code further states that standard building construction is presumed to provide adequate sound attenuation where the difference between the exterior noise exposure and the interior noise standard is 20 dB or less. Per the 2018 AICUZ Study, the Project Site is located outside the airport's 60 dBA CNEL noise contour (Air Force Reserve Command). Therefore, with standard building construction, the associated office use would not be anticipated to have airport-related noise levels exceeding 45 dBA CNEL.

The Proposed Project would not expose people residing or working in the Proposed Project area to excessive noise levels associated with airports. Therefore, implementation of the Proposed Project would have a less than significant impact in this regard.

Significance of Impact

Less Than Significant Impact.

4.11.5 Cumulative Impacts

The following sections address various potential cumulative impacts relating to noise that could result from implementation of the Proposed Project.

4.11.5.1 Cumulative Threshold NOI-1: Exceedance of Noise Standards

As discussed under the analysis of Threshold NOI-1, Proposed Project construction-related noise impacts would be less than significant. As it is unlikely that any other cumulative developments would be under construction within proximity to the Proposed Project concurrent with Project construction, cumulatively considerable construction-related noise impacts would be less than significant. Additionally, the analysis of operational-related noise level contributions, which are presented in Table 4.11-8, demonstrates that Project-related operational noise would not result in a cumulative increase in noise levels that exceeds the City's thresholds of significance.

With respect to traffic-related noise impacts, Table 4.11-9 present a comparison of the Existing and the Existing plus Project dBA CNEL noise levels with Project-generated operational trips. Segments that would experience an increase of 3 dB or greater (along Wilson Avenue from Central Project Driveway to the South Project Driveway along Wilson Avenue from South Project Driveway to Placentia Avenue). As discussed above, no noise-sensitive uses currently exist along these segments. Nearby land is designated as Light Industrial in the PVCCSP.

The PVCCSP EIR evaluated cumulative impacts with regard to noise using the geographic context for the analysis of the cumulative noise impacts as the City of Perris. The analysis considered development of the Perris Valley Commerce Center (PVCC) in conjunction with ambient growth within the vicinity of the PVCC. The PVCCSP EIR determined that the impact of construction of the PVCC's implementing development and infrastructure projects would not be cumulatively considerable or significant. The PVCCSP EIR also determined that implementation of the PVCC would result in substantial increases in the ambient noise environment at project buildout and therefore, the potential cumulative project-related noise impacts are considered significant and the contribution of the implementation of the PVCC to the cumulative impact would be considerable.

As the Proposed Project is consistent with the PVCCSP, it would not result in impacts more considerable than was originally identified in the PVCCSP EIR.

Therefore, cumulative off-site traffic-related noise impacts would be less than significant following compliance with existing City plans, such as the PVCCSP.

4.11.5.2 Cumulative Threshold NOI-2: Excessive Groundborne Vibration or Noise

As discussed in Threshold NOI-2, the Proposed Project-related vibration impacts would be less than significant during Project construction. As it is unlikely that other sources of vibration would occur concurrent with Project construction activities, potential impacts would be less than cumulatively considerable.

4.11.5.3 Cumulative Threshold NOI-3: Aircraft Noise

As discussed above in Threshold NOI-3, the Proposed Project would not be exposed to airport-related noise levels in excess of 60 dBA. Offices included in the Proposed Project would not be exposed to noise levels above 45 dBA CNEL following standard building construction. Additionally, there are no components of the Proposed Project that would cause or contribute to increased aircraft activity in the local area. Thus, Proposed Project impacts due to airport-related noise would be less than cumulatively considerable.

4.11.6 Level of Significance Before Mitigation

4.11.6.1 Threshold NOI-1: Exceedance of Noise Standards

The Proposed Project would not generate substantial construction or operational noise impacts in excess of standards established by the City of Perris.

4.11.6.2 Threshold NOI-2: Excessive Groundborne Vibration or Noise

The Proposed Project would not generate excessive groundborne vibration or groundborne noise levels.

4.11.6.3 Threshold NOI-3: Aircraft Noise

The Proposed Project would not expose people residing or working in the Proposed Project area to excessive noise levels associated with airports.

4.11.7 Mitigation Measures

The following PVCCSP EIR mitigation measures have been implemented into the Proposed Project. Implementation of theses measures would limit potential impacts to less-than-significant levels and no project-specific mitigation measures are required.

MM Noise1 During all project site excavation and grading on-site, the construction contractors shall equip all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers consistent with manufacturer's standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the project site.

MM Noise 2 During construction, stationary construction equipment, stockpiling and vehicle staging areas will be placed a minimum of 446 feet away from the closet sensitive receptor.

MM Noise 3 No combustion-powered equipment, such as pumps or generators, shall be allowed to operate within 446 feet of any occupied residence unless the equipment is surrounded by a noise protection barrier.

MM Noise 4 Construction contractors of implementing development projects shall limit haul truck deliveries to the same hours specified for construction equipment. To the extent feasible, haul routes shall not pass sensitive land uses or residential dwellings.

4.11.8 Level of Significance After Mitigation

Not applicable.

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Figure 4.11-1. Noise Measurement Locations

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