3.11 Noise and Vibration

This section describes and evaluates potential noise and vibration impacts that could result from implementation of the Proposed Project. The section contains: (1) a description of the existing noise and vibration environment at, and in the area surrounding, the Project Site; (2) a description of changes under the Adjusted Baseline to establish baseline conditions; (3) a summary of applicable noise laws, regulations, and policies; (4) estimates of future noise and vibration levels at surrounding noise- and vibration-sensitive land uses resulting from construction and operation of the Proposed Project; and (5) identification of the potential for significant impacts and associated mitigation measures, if required.

Comments received in response to the NOP for the EIR regarding noise and vibration can be found in Appendix B. Any applicable issues and concerns regarding potential impacts related to noise and vibration as a result of implementation of the Proposed Project are analyzed within this section.

The analysis included in this section was developed based on ambient noise measurements taken by ESA and presented in Appendix J; Project-specific construction data and assumptions (including construction schedule, phasing, and equipment provided by the applicant team); characteristics of the Proposed Project described in Chapter 2, Project Description, and the transportation analysis presented in Section 3.14, Transportation and Circulation, and Appendix K.

3.11.1 Section Outline

The analysis of noise in Section 3.11 describes the anticipated increases in the on-site and off-site noise and vibration environment as a result of construction and operation of the Proposed Project. This Section Outline provides an overview of the analysis undertaken and described in this section. Please see Chapter S, Summary for a summary of the noise and vibration impacts described in this section.

Noise and Vibration Sensitive Receptors

The focus of the noise analysis is the exposure of certain land uses that the City considers to be more sensitive to noise than others, including residences, schools, hospitals, libraries, and parks. Receptors that are potentially vibration sensitive include buildings that could be damaged; residents, students, the elderly and sick that could be annoyed, and vibration-sensitive equipment that could be disturbed.

Construction Noise Impacts

Study Area: Construction noise results from the operation of heavy-duty equipment and on-road travel of heavy-duty trucks (i.e., haul trucks and vendor trucks). For noise generated by on-site construction equipment, the study area includes analysis of impacts to noise-sensitive receptors within 500 feet of the Project Site. For impacts associated with on-road construction vehicles, the

study area consists of the anticipated haul routes. Vibration dissipates rapidly with distance and impacts are analyzed for vibration-sensitive receptors that are adjacent to the Project Site.

Time Periods Evaluated: In addition to evaluating construction noise impacts during the daytime (7:00 AM to 8:00 PM), this analysis evaluates construction noise during the nighttime hours (8:00 PM to 7:00 AM) to account for construction work days that are proposed to vary from 8 hours to continuous 24 hours, with the significance of impact varying throughout the night due to the fluctuation in ambient conditions.

Scenarios Evaluated: Throughout the course of Proposed Project construction, construction could occur simultaneously on the four Project Site subareas. To ensure that the worst-case impacts have been identified, the construction noise analysis evaluates impacts to noise-sensitive receptors under four scenarios that account for overlap of construction across all four Project Site subareas during the worst case construction days at the Arena Site, the West Parking Garage Site, the East Transportation and Hotel Site, and the Well Relocation Site.

Operational Impacts – Traffic Noise

Study Area: The traffic noise analysis evaluates increases in traffic based on traffic volume data developed as a part of the Transportation and Circulation analysis (see Section 3.14). Traffic noise was evaluated on 113 roadway segments within the approximately 20-square-mile study area considered in the traffic analysis.

Time Periods Evaluated: Traffic noise was analyzed during the Weekday AM Peak Period (7:00–9:00 AM), Weekday PM Peak Period (4:00–6:00 PM), Weekday Pre-Event Period (6:00–7:00 PM), Weekday Post-Event Period (9:30–10:30 PM), Weekend Pre-Event Peak Period (5:00–6:00 PM) and Weekend Post-Event Peak Period (9:30-10:30 PM).

Adjusted Baseline and Cumulative Conditions: Consistent with the Transportation and Circulation analysis, the traffic noise analysis evaluates Proposed Project impacts under both Adjusted Baseline and Cumulative conditions, including concurrent event scenarios. The Adjusted Baseline is the baseline against which the Proposed Project's potential impacts are measured. Additional information regarding the Adjusted Baseline transportation assumptions is provided in **Section 3.0.5** of the Chapter 3 "Introduction to Analysis" and in **Section 3.14.2**. Further discussion of Cumulative condition assumptions is provided in **Section 3.0.6,** and in **Section 3.14.4** following **Table 3.14-43**.

Scenarios Evaluated: The traffic noise analysis evaluated the following Project scenarios.

- Non-Event Day, Ancillary Uses: this scenario includes weekday traffic during the AM and PM peak periods under Adjusted Baseline conditions, and operations of Project ancillary uses (i.e., team practice facility and offices, sports medicine clinic, plaza commercial and community uses, and hotel) on a non-event day.

- Day-Time Corporate/Community Event; this scenario includes weekday traffic during the AM peak period under Adjusted Baseline conditions, operations of Project ancillary uses, and a daytime corporate/community event at the Project Arena with approximately 2,000 attendees.

- Other Sporting Event or Gathering: this scenario includes weekday traffic during the PM peak period under Adjusted Baseline conditions, operations of Project ancillary uses, and a sporting event or gathering at the Project Arena with approximately 7,500 attendees.

- Major Event: this scenario includes weekday pre- and post-event traffic and weekend pre- and post-event peak period traffic. Pre- and post-event traffic assumes 18,000 and 18,500 attendees, respectively. Weekday events are assumed to start at 7:00 PM and weekend events are assumed to start at 6:00 PM

In addition to the Project scenarios listed above, traffic noise was evaluated for the worst case weekday and weekend concurrent event scenarios, as described in Section 3.14, Transportation and Circulation. The concurrent event scenario evaluated on weekdays is the Adjusted Baseline with a Mid-Sized Event at the NFL Stadium and with a concert at The Forum Plus a Major Event at the Proposed Project. The concurrent event condition evaluated on weekends is the Adjusted Baseline with an NFL Game at the NFL Stadium, a concert at The Forum, plus a Major Event at the Proposed Project Arena.

Operational Impacts – Composite On-Site Noise

Study Area: On-site operational noise sources include amplified and crowd noise from arena events, mechanical equipment, vehicle noise (i.e., parking garages and media truck parking), and plaza-related amplified sound and crowd noise. Because the composite noise analysis is focused on noise sources at the Project Site, impacts were evaluated for noise-sensitive uses within approximately 500 feet of the Project Site.

Scenarios Evaluated: On-site activities and associated noise sources would vary based on the type of activity occurring at the Project Site. On-site composite noise was evaluated under the following scenarios:

- Non-Event Day, Ancillary Uses: noise sources include plaza-related noise (patrons of ancillary uses and outdoor dining), pedestrian noise, parking lot and garage activity, and mechanical equipment.

- Day-Time Corporate/Community Event: noise sources include plaza-related noise (patrons of ancillary uses, day-time corporate/community event attendees, and outdoor dining), pedestrian noise, parking lot and garage activity, and mechanical equipment.

- Other Sporting Event or Gathering: noise sources include plaza-related noise (patrons of ancillary uses, other sporting event or gathering attendees, and outdoor dining), pedestrian noise, parking lot and garage activity, and mechanical equipment.

- Major Event Pre-Event: noise sources include plaza-related noise (amplified sound at the outdoor plaza stage, crowd noise from attendees of outdoor performances, patrons of ancillary uses, and outdoor dining, pedestrian noise, parking lot and garage activity, media truck-related noise, and mechanical equipment.

- Major Event During Event: noise sources include plaza-related noise, crowd noise from patrons of ancillary uses and outdoor dining), pedestrian noise, parking lot and garage activity, media truck-related noise, mechanical equipment, and event noise emanating from the arena when the doors open.

- Major Event Post-Event: noise sources include plaza-related noise (amplified sound at the outdoor plaza stage, crowd noise from attendees of outdoor performances, patrons of ancillary uses, and outdoor dining, pedestrian noise, parking lot and garage activity, media truck-related noise, and mechanical equipment.

Organization of Section 3.11: The Noise and Vibration analysis presented in Section 3.11 is organized into the following five (5) subsections:

Section 3.11.1: Describes the environmental setting, including the existing noise and vibration environment.

Section 3.11.2: Describes the Adjusted Baseline Environmental Setting that was developed to evaluate the Proposed Project impacts against the baseline environmental conditions (including land use) anticipated to exist when the Proposed Project would be constructed and opened for operations. Specifically, this section describes the assumptions utilized with respect to reasonably foreseeable development that is anticipated to occur on significant portions of the Hollywood Park Specific Plan area prior to development of the Proposed Project.

Section 3.11.3: Provides a discussion of the relevant federal, State and local regulations pertaining to noise and vibration that are applicable to the Proposed Project.

Section 3.11.4: Discusses the construction and operational noise and vibration impacts of the Proposed Project under Adjusted Baseline and Cumulative conditions, including with concurrent and overlapping events.

3.11.2 Environmental Setting

Background

Noise can be generally defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) which is measured in decibels (dB), with 0 dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain and hearing damage, respectively.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude (sound power). The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to low and extremely high frequencies instead of the frequency mid-range. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). Frequency A-weighting follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements. Some representative noise sources and their corresponding A-weighted noise levels are shown in **Figure 3.11-1**.

Noise Exposure, Noise Level, and Community Noise

Noise *exposure* is a measure of noise over a period of time. Noise *level* is a measure of noise at a given instant in time. *Community noise* varies continuously over a period of time with respect to the contributing sound sources of the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic and atmospheric conditions. What makes community noise continuously variable throughout a day, besides the slowly changing background noise, is the addition of short duration single event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual receptor. These successive additions of sound to the community noise environment vary the community noise level from instant to instant, requiring the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts.

This time-varying characteristic of environmental noise is described using statistical noise descriptors. The most frequently used noise descriptors are summarized below:

Leq: The energy-equivalent sound level is used to describe noise over a specified period of time, typically one hour, in terms of a single numerical value. The Leq is the constant sound level which would contain the same acoustic energy as the varying sound level, during the same time period (i.e., the average noise exposure level for the given time period).

Lmax: The instantaneous maximum noise level for a specified period of time.

Lw: The sound power level, which is the total sound energy radiated by a source. Sound power in decibels is ten times the logarithm of the ratio of the sound power to a sound power reference level of 1 pico Watt.

DNL: Also abbreviated Ldn, it is a 24-hour day and night A-weighted noise exposure level which accounts for the greater sensitivity of most people to nighttime noise by weighting noise levels at night ("penalizing" nighttime noises). Noise between 10:00 PM and 7:00 AM is weighted (penalized) by adding 10 dBA to take into account the greater annoyance of nighttime noises.

CNEL: Similar to DNL, the Community Noise Equivalent Level (CNEL) adds a 5-dBA "penalty" for the evening hours between 7:00 PM and 10:00 PM in addition to a 10-dBA penalty between the hours of 10:00 PM and 7:00 AM

SEL: Single Event Noise Exposure Level is the summation of the sound energy from a variable source over the length of time with the sound level greater than certain sound pressure levels in a single event.

Figure 3.11-1 Decibel Scale and Common Noise Sources

As a general rule, in areas where the noise environment is dominated by traffic, the Leq during the peak-hour is generally within two decibels of the Ldn at that location.[1]

Noise Attenuation

Noise attenuates (lessens) with distance between the source and the receiver. Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate at a rate of 6 dBA with a doubling of distance for hard sites and 7.5 dBA for each doubling of distance for soft sites. Hard sites are those with a reflective surface between the source and the receiver such as paved parking lots or smooth bodies of water. No excess ground attenuation is assumed for hard sites and the changes in noise levels with distance (drop-off rate) is simply the geometric spreading of the noise from the source. Soft sites have an absorptive ground surface such as soft dirt, grass, or scattered bushes and trees. In addition to geometric spreading, an excess ground attenuation value of 1.5 dBA (per doubling distance) is normally assumed for soft sites. Line sources (such as traffic noise from vehicles on the road) attenuate at a rate of 3 dBA for hard sites and 4.5 dBA for soft sites for each doubling of distance.[2]

Noise levels may also be reduced by intervening structures, such as a row of buildings, a solid wall, or a berm located between the receptor and the noise source. According to the US Department of Housing and Urban Development (HUD) *Noise Guidebook,*[3] standard building construction results in an exterior-to-interior noise reduction of 20 dBA with windows closed.

Effects of Noise on People

When a new noise is introduced to an environment, human reaction can be predicted by comparing the new noise to the *ambient* noise level, which is the existing noise level comprised of all sources of noise in a given location. In general, the more a new noise exceeds the ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:[4]

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived by human ear;
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference;
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately doubling in loudness, and can cause adverse response.

These relationships occur in part because of the logarithmic nature of sound and the decibel system. The human ear perceives sound in a non-linear fashion, hence the decibel scale was

1 Federal Highway Administration Office of Environmental Policy, 2016. *Advanced Prediction and Abatement of Highway Traffic Noise*. November 2016. p. 4-20.
2 California Department of Transportation, 2013. *Technical Noise Supplement*. September 2013. p. 5-17.
3 US Department of Housing and Urban Development, 2009. *Noise Guidebook*. March 2009. p. 14.
4 California Department of Transportation, 2013. *Technical Noise Supplement*. September 2013. p. 6-5.

developed. Because the decibel scale is based on logarithms, two noise sources do not combine in a simple additive fashion, rather logarithmically. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA.

Health Effects of Noise

The consequences of exposure of people to excessive noise can include annoyance and disturbance of human activities, as well as effects on human health. The following discussion is provided so that the health implications of noise exposure are fully understood.

Exposure to very high levels of noise can cause permanent hearing impairment. The levels at which noise exposure can lead to hearing loss (140 dB) or pain (120 dB) is a common method of measuring health effects or impacts of noise. The federal Occupational Safety and Health Administration (OSHA) has an established occupational noise exposure program which includes hearing conservation standards for long-term noise exposure. Employers are required to measure workplace noise levels; provide free annual hearing exams, hearing protection, and training; and conduct evaluations of the adequacy of the hearing protectors in use where noise environments exceed 85 dBA for an eight hour daily exposure.

Following the United States Environmental Protection Agency's elimination of its noise investigation and control program in the 1970s, the World Health Organization (WHO) has become a noted source of current knowledge regarding the health effects of noise impacts. In addition to hearing impairment, WHO documents that sleep disturbance is an effect that can affect human health. Although there are no established thresholds with regard to an acceptable level of short-term sleep disturbance, the following information on potential health effects due to sleep disturbance has been provided in order to provide a general correlation of the potential impacts to health that could result from nighttime construction activity. Excessive noise during sleep periods can result in difficulty falling asleep, awakenings, and alterations in sleep stages and depth (e.g., a reduction in proportion of REM-sleep (REM = rapid eye movement)). Exposure to high levels of noise during sleep can also result in increased blood pressure, increased heart rate, increased finger pulse amplitude, vasoconstriction, changes in respiration, cardiac arythmia, and an increase in body movements. Secondary physiological effects of exposure to excessive noise during sleep can occur the following day, including reduced perception of quality sleep, increased fatigue, depressed mood or well-being, and decreased performance of cognitive tasks.[5] WHO Europe reviewed available scientific evidence on the health effects of night noise and published night noise guidelines for Europe in 2009, which compliments their 1999 *Guidelines for Community Noise*. According to WHO, the lowest observed adverse effect level for night noise is an exterior nighttime noise level of 40 dB. At this level, observed effects on sleep include body movements, awakening, self-reported sleep disturbance, and arousals.[6]

Other potential health effects of exposure to excessive noise identified by WHO include decreased performance for complex cognitive tasks, such as reading, attention span, problem

5 World Health Organization, *Guidelines for Community Noise, Chapter 3. Adverse Health Effects of Noise*, 1999. p. 26.
6 World Health Organization, *Night Noise Guidelines for Europe, Executive Summary.* 2009. p. XVII.

solving, and memorization; physiological effects such as hypertension and heart disease (after many years of constant exposure, often by workers, to high noise levels); and hearing impairment (again, generally after long-term occupational exposure, although shorter-term exposure to very high noise levels, for example, exposure several times a year to concert noise at 100 dBA over several hours, can also damage hearing). Finally, while environmental noise is not believed to be a direct cause of mental illness, it can cause annoyance and is known to intensify such symptoms as anxiety, headaches, emotional stress, changes in moods, and the like.[7] WHO reports that, during daytime hours, few people are seriously annoyed by activities with noise levels below 55 dBA.[8]

Vehicle traffic, aircraft noise, and continuous sources of machinery and mechanical noise contribute to ambient noise levels. Short-term noise sources, such as truck backup beepers, the crashing of material being loaded or unloaded, contribute very little to 24-hour noise levels but are capable of causing sleep disturbance and annoyance. The importance of noise to receptors depends on both time and context. For example, long-term high noise levels from large traffic volumes can make conversation at a normal voice level difficult or impossible, while short-term peak noise levels, if they occur at night, can cause sleep disturbance.

Fundamentals of Vibration

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (Vdb) is commonly used to express RMS. The decibel notation acts to compress the range of numbers required to describe vibration.

Effects of Vibration on Structures

As described in the Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment Manual*,[9] groundborne vibration can be a serious concern, causing nearby buildings to shake and rumbling sounds to be heard. Some common sources of groundborne vibration are trains, buses on rough roads, and construction activities such as blasting, sheet pile-driving and operating heavy earth-moving equipment. In contrast to airborne noise, groundborne vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks on smooth roadways to be perceptible, even in locations close to major roads.[10]

The effects of groundborne vibration include movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme

7 World Health Organization, *Guidelines for Community Noise, Chapter 3. Adverse Health Effects of Noise*, 1999. p. 30.
8 World Health Organization, *Guidelines for Community Noise, Chapter 3. Adverse Health Effects of Noise*, 1999. p. 38.
9 Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment Manual*. September 2018. p. 112.
10 Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment Manual*. September 2018. p. 112.

cases, the vibration can cause damage to buildings. Building damage is not a factor for most projects, with the occasional exception of blasting and sheet pile-driving during construction that is adjacent to existing buildings.

Effects of Vibration on People

Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by only a small margin. A vibration level that causes annoyance can be well below the damage threshold for normal buildings. As discussed in FTA's *Transit Noise and Vibration Impact Assessment Manual*, the human response to vibration is complex and the degree of annoyance cannot always be explained by the magnitude of the vibration alone.[11] Other factors include the rattling and rumbling sounds caused by vibration, the time of day, and the visual effects such as the moving of hanging objects.

Vibration Attenuation

Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Factors such as soil and subsurface conditions influence the levels of groundborne vibration with some of the most important factors being the stiffness and internal damping of the soil and the depth to bedrock.[12] Vibration levels are higher in stiff-clay-type soil and when bedrock is 30 feet or less below the surface.[13]

Health Effects of Vibration

According to OSHA, those at risk for vibration-related health effects are workers who conduct physical work activities requiring the use of vibrating powered hand tools (e.g., chain saw, electric drill, chipping hammer, etc.) or equipment (e.g., wood planer, punch press, packaging machine, etc.) and standing or sitting in vibrating environments (e.g., driving a truck over bumpy roads, etc.) or using vibrating equipment that requires whole-body movement (e.g., jackhammers).[14] Off-site vibration-sensitive receptors would not come in physical contact with vibratory construction equipment and would not be at risk for vibration-related health effects.

Groundborne Noise

Groundborne noise specifically refers to the rumbling noise emanating from the motion of building room surfaces due to the vibration of floors and walls; it is perceptible only inside buildings.[15] The relationship between groundborne vibration and groundborne noise depends on the frequency content of the vibration and the acoustical absorption characteristics of the

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11 Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment Manual*. September 2018. p. 118.
12 Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment Manual*. September 2018. p. 116.
13 Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment Manual*. September 2018. p. 117.
14 Occupational Safety and Health Administration. Ergonomics Program Section 1910.918. Publication Date November 23, 1999. Available: [HYPERLINK "https://www.osha.gov/laws-regs/federalregister/1999-11-23"]. Accessed March 25, 2019.
15 Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment Manual*. September 2018. p. 112.

receiving room. For typical buildings, groundborne vibration that causes low frequency noise (i.e., the vibration spectrum peak is less than 30 Hz) results in a groundborne noise level that is approximately 50 decibels lower than the velocity level. For groundborne vibration that causes mid-frequency noise (i.e., the vibration spectrum peak is between 30 and 60 Hz), the groundborne noise level will be approximately 35 decibels lower than the velocity level. For groundborne vibration that causes high-frequency noise (i.e., the vibration spectrum peak is greater than 60 Hz), the groundborne noise level will be approximately 20 decibels lower than the velocity level.[16] Therefore, for typical buildings, the groundborne noise decibel level is lower than the groundborne vibration velocity level at low frequencies.

Summary of Surrounding Land Uses

The entire Project Site is comprised of approximately 28 acres and encompasses four specific locations: the Arena Site; the West Parking Garage Site; the East Transportation and Hotel Site; and the Well Relocation Site. The Project Site is surrounded by a mix of commercial, industrial, office, retail, and residential uses. See Section 3.10, Land Use and Planning, for more detailed descriptions of land uses surrounding the Project Site, as well as corresponding **Figure 3.10-1** and **Figure 3.10-2**.

Arena Site

Adjacent to the Arena Site to the north along West Century Boulevard is an unoccupied structure (formerly the Airport Park View Hotel) and a self-storage facility. To the east along South Doty Avenue is a warehousing and shipping company (S.E.S. International Express) and an industrial use (CDs Cabinets). To the north across West Century Boulevard is the area planned for the Hollywood Park Specific Plan (HPSP). The HPSP area is planned for the location of an NFL Stadium and a mix of commercial, office, retail, residential, mixed use, civic, and recreational development. Residential uses are located adjacent to the Arena Site on the east side of South Prairie Avenue between 102nd and 103rd Streets, and uses across South Prairie Avenue from the Arena Site include automotive body shops, commercial uses, and a religious facility (Being in Power Ministries). Adjacent to the Arena Site to the south is the Inglewood Southside Christian Church, the Inglewood Southside – Training and Research Foundation (an early childhood education facility that provides other family support services), and residential uses.

West Parking Garage Site

To the north of the West Parking Garage Site across West Century Boulevard are commercial uses, a vacant parcel, the Holly Crest Hotel, and Motel 6. Commercial uses are located immediately to the east. A religious facility and single family residential uses are located to the south. A motel (Airport Motel), religious facility, and single family residential uses are located to the west.

16 Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment Manual*. September 2018. p. 146.

Figure 3.11-2 Sensitive Receptors and Noise Monitoring Locations

East Transportation and Hotel Site

The Hollywood Park Casino is located to the north of the East Transportation and Hotel Site, north of and across West Century Boulevard. Adjacent to the East Transportation and Hotel Site to the east is a United Parcel Service (UPS) facility. Adjacent to the East Transportation and Hotel Site to the west is Transworld Aquatic Enterprises, Inc., a pet store manufacturer and distributor of aquarium supplies. To the south of the East Transportation and Hotel Site are multifamily residential uses and commercial uses.

Well Relocation Site

To the north of the Well Relocation Site is the UPS warehousing and shipping company. To the east of the Well Relocation Site are single family residential uses. A vacant lot and multifamily residential uses are located to the south. To the west of the Well Relocation Site is an occupied commercial use.

Noise-Sensitive Receptors

Some land uses are considered more sensitive to noise than others, due to the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically involved. Land uses considered to be noise-sensitive, as identified in the Inglewood General Plan, include residences, schools, hospitals, libraries, and parks. The Inglewood General Plan Noise Element considers residences to be especially sensitive because of the time spent by individuals at home, occurrence of outdoor activities, and the likelihood of sleep disturbance to occur.[17] The Federal Highway Administration (FHWA) considers uses where people normally sleep, such as residences, hotels, and motels, noise-sensitive land uses.[18] See Figure 3.11-2, Sensitive Receptors and Noise Monitoring Locations, for the location of the sensitive receptors that have been evaluated herein. Commercial and industrial uses are not considered noise-sensitive by either the City or FHWA. Therefore, adjacent commercial and industrial uses that are considered vibration-sensitive (as discussed in more detail below), but not noise-sensitive (specifically, R4, R9, R10, R13, R18, and R19) are not listed below. As shown in Figure 3.11-2, the nearest noise-sensitive receptors to the Project Site are:

- R1 – Single family residential uses to the northwest, located across West Century Boulevard and South Prairie Avenue, approximately 310 feet from the Arena Site and West Parking Garage Site.
- R2 – Single family residential uses on the north side of West 101st Street, approximately 60 feet west of the West Parking Garage Site and west of R3.
- R3 – The operational Airport Motel (4054 West Century Boulevard) adjacent to the West Parking Garage Site to the west.

[17] City of Inglewood General Plan Noise Element. Adopted September 1, 1987.
[18] Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment Manual*. September 2018. p. 23.

- R5 – Single family residential uses between West 101st Street and West 102nd Street located adjacent to the West Parking Garage Site to the west.
- R6 – Single family residential uses located approximately 175 feet west of and across South Prairie Avenue from the Arena Site and approximately 50 feet south of and across West 102nd Street from the West Parking Garage Site.
- R7 – Single-story religious facility, Being in Power Ministries, approximately 90 feet west of and across South Prairie Avenue from the Arena Site and approximately 50 feet south of and across West 102nd Street from the West Parking Garage Site.
- R8 – Airport Park View Hotel, located immediately north of the Arena Site. This building is currently non-operational and dilapidated; however, tenant improvement permits have been filed with the City and therefore for conservative purposes, it is assumed that the building will be reused and occupied with sensitive receptors – hotel patrons – at some point in the near future.
- R11 – Multifamily residential building along the east side of South Prairie Avenue between West 102nd Street and West 103rd Street to the west (adjacent to the Arena Site).
- R12 – Single family residential building located along the east side of South Prairie Avenue between West 102nd Street and West 103rd Street to the west (adjacent to the Arena Site).
- R14 – Single family and multifamily residential uses adjacent to the east side of the Well Relocation Site.
- R15 – Inglewood Southside Christian Church and the Inglewood Southside Training and Research Foundation along West 104th Street to the south (adjacent to the Arena Site).
- R16 – Single family and multifamily residential use along West 104th Street to the south (adjacent to the Arena Site).
- R17 – Single family residential uses to the southeast, located approximately 90 feet southeast of the Arena Site and approximately 60 feet south of the Well Relocation Site.
- R20 – Multifamily residential uses located approximately 50 feet to the south of and across West 102nd Street from the East Transportation and Hotel Site.
- R21 – Multifamily residential uses located within the HPSP area, approximately 900 feet north of the Arena Site (Section 3.11.12 below, regarding the Adjusted Baseline Environmental Setting).

Vibration and Groundborne Noise Sensitive Receptors

Receptors that are potentially vibration sensitive include structures of all uses with respect to potential building damage (especially older masonry structures), people who spend a lot of time indoors with respect to human annoyance (especially residents, students, the elderly and sick), and vibration-sensitive equipment (such as hospital analytical equipment and equipment used in computer chip manufacturing). Additional sensitive receptors of groundborne vibration would be historic buildings, which are more susceptible to structural damage from vibration. People who spend a lot of time indoors are also susceptible to groundborne noise resulting from groundborne vibration. See Figure 3.11-2 for the location of vibration-sensitive receptors that have been

evaluated herein. As presented on Figure 3.11-2, the nearest vibration-sensitive receptors (also groundborne noise receptors) to the Project Site include the following:

- R1 – Single family residential uses to the northwest, located across West Century Boulevard and South Prairie Avenue, approximately 310 feet from the Arena Site.
- R2 – Single family residential uses to the west, on the north side of West 101st Street, approximately 60 feet of the West Parking Garage Site.
- R3 – The Airport Motel (4054 West Century Boulevard) adjacent to the West Parking Garage Site to the west.
- R4 – Commercial uses adjacent to the West Parking Garage Site to the east.
- R5 – Single family residential uses between West 101st Street and West 102nd Street located adjacent to the West Parking Garage site to the west.
- R6 – Single family residential uses located approximately 175 feet west of and across South Prairie Avenue from the Arena Site and approximately 50 feet south of and across West 102nd Street from the West Parking Garage Site.
- R7 – Single-story religious facility, Being in Power Ministries, approximately 90 feet of and across South Prairie Avenue from the Arena Site and approximately 50 feet south of and across West 102nd Street from the West Parking Garage Site.
- R8 – Airport Park View Hotel, located immediately north of the Arena Site. This building is currently non-operational and dilapidated; however, tenant improvement permits are filed with the City and therefore for conservative purposes, it is assumed that the building will be reused and occupied with sensitive receptors – hotel patrons – at some point in the near future. Therefore, this use has been considered a sensitive vibration receptor.
- R9 – Self-storage facility adjacent to the Arena Site to the north.
- R10 – Warehousing and shipping structure (S.E.S. International Express) adjacent to the Arena Site to east along South Doty Avenue.
- R11 – Multifamily residential use along the east side of South Prairie Avenue between West 102nd Street and West 103rd Street to the west (adjacent to the Arena Site).
- R12 – Single family residential use located along the east side of South Prairie Avenue between West 102nd Street and West 103rd Street to the west (adjacent to the Arena Site).
- R13 – Industrial structure (CDs Cabinets) adjacent to the Arena Site to the east and adjacent to the Well Relocation Site to the west.
- R14 – Single family and multifamily residential uses to the east adjacent to the Well Relocation Site.
- R15 – The Inglewood Southside Christian Church and the Inglewood Southside Training and Research Foundation along West 104th Street to the south (adjacent to the Arena Site).
- R16 – Single family and multifamily residential use along West 104th Street to the south (adjacent to the Arena Site).

- R17 – Single family residential uses to the southeast, located approximately 90 feet from the Arena Site and approximately 60 feet south of the Well Relocation Site.
- R18 – Transworld Aquatic Enterprises, Inc. adjacent to the East Transportation and Hotel Site to the west.
- R19 –UPS facility adjacent to the East Transportation and Hotel Site to the east.
- R20 – Multifamily residential uses located approximately 50 feet to the south of and across West 102nd Street from the East Transportation and Hotel Site.
- R21 – Multifamily residential uses located within the HPSP area, approximately 900 feet north of the Arena Site.

Existing Noise Setting

The immediate area surrounding the Project Site as described above is highly urbanized with multiple noise sources including, but not limited to, traffic on local and arterial streets, aircraft arrivals to and departures from the Los Angeles International Airport (LAX), and commercial and industrial activity (e.g., truck loading/unloading).

To quantify the existing noise environment, daytime and nighttime measurements were taken at 17 locations. Long-term (LT) continuous 96-hour noise level measurements were taken at 5 locations at various onsite locations to characterize the existing noise environment within the Project Site. Short-term (ST) 15-minute noise level measurements were taken during daytime hours (between the hours of 7:00 AM and 10:00 PM) and during nighttime hours (between the hours of 9:30 PM and 11:30 PM and between the hours of 12:00 AM and 2:00 AM) at 12 locations near noise-sensitive uses. Noise measurement locations are shown in Figure 3.11-2 and described below.

- M1 – Long-term noise measurement that represents the ambient noise levels within the northwest part of the Arena Site, proximate to the Airport Park View Hotel (R8), the multifamily residential use along the east side of South Prairie Avenue (R11), and the single family residential use located along the east side of South Prairie Avenue (R12). Ambient noise levels collected at this location during daytime and nighttime hours were utilized in the construction analysis.
- M2 – Long-term noise measurement adjacent to the Well Relocation Site that represents the ambient noise levels proximate to the adjacent single and multifamily residential uses (R14) to the east along South Doty Avenue and single family residential uses (R17) to the south along West 104th Street. Ambient noise levels collected at this location during daytime and nighttime hours were utilized in the construction analysis.
- M3 – Long-term noise measurement within the southern portion of the Arena Site that represents the ambient noise levels at the adjacent Inglewood Southside Christian Church (R15) and Inglewood Southside – Training and Research Foundation (R15) located along West 104th Street and multifamily residential uses (R16). Ambient noise levels collected at this location during daytime and nighttime hours were utilized in the construction analysis.

- M4 – Long-term noise measurement that represents the ambient noise levels within the East Transportation and Hotel Site and nearby multifamily residential uses (R20). Ambient noise levels collected at this location were utilized for the nighttime construction analysis.

- M5 – Long-term noise measurement that represents the ambient noise levels within the West Parking Garage Site, single family residential uses (R1) to the north of West Century Boulevard along South Prairie Avenue, the single family residential uses (R2), the Airport Motel (R3), the adjacent single family residential uses (R5) to the west, the single family residential uses (R6), and Being in Power Ministries (R7).

- M6 – Short-term noise measurement northwest of the intersection of West Century Boulevard and South Prairie Avenue that represents the ambient noise levels for the single family residential uses (R1) to the north of West Century Boulevard along South Prairie Avenue and future multifamily residential uses located within the HPSP area (R21). Daytime ambient noise levels collected at this location were utilized for the daytime construction and operational impact analysis.

- M7 – Short-term noise measurement along West 103rd Street west of South Prairie Avenue that represents the ambient noise levels for the single family residential uses located along West 103rd Street. Although the southern units of receptor group R6 are located along West 103rd Street, noise measurements at location M13 would provide a more representative ambient noise level nearest to the currently vacant West Parking Garage Site. Ambient noise levels collected at this location were not utilized in the construction or operational noise analysis.

- M8 – Short-term noise measurement along West 104rd Street east of South Prairie Avenue that represents the ambient noise levels for the multifamily residential uses, Inglewood Southside Christian Church (R15), and Inglewood Southside – Training and Research Foundation (R15) located along West 104th Street and multifamily residential uses (R16) and single family residential uses (R17) to the south along West 104th Street. Although the uses at R15 and the southern units of receptor group R16 and R17 are located along West 104th Street, average daytime noise measurements at location M3 were observed to be lower and therefore provide a less noisy baseline noise level from which to determine Project impacts for the north units of receptor group R16. Ambient noise levels collected at this location were not utilized in the construction or operational noise analysis.

- M9 – Short-term noise measurement along West 104th Street west of South Prairie Avenue that represents the ambient noise levels for the single family residential uses located along the north of West 104th Street and Whelan Elementary School. Ambient noise levels collected at this location were not utilized in the construction or operational noise analysis.

- M10 – Short-term noise measurement taken along South Yukon Avenue between West 104th Street and West 105th Street that represents the ambient noise levels for the single family residential uses along the west of South Yukon Avenue and Morningside High School. Ambient noise levels collected at this location were not utilized in the construction or operational noise analysis.

- M11 – Short-term noise measurement taken generally at the center of the Arena Site that represents the ambient noise levels within the Arena Site. Ambient noise levels collected at this location were not utilized in the construction or operational noise analysis.

- M12 – Short-term noise measurement taken along West Century Boulevard west of the West Parking Garage Site that represents the ambient noise levels for the Airport Motel (R3).

Daytime ambient noise levels collected at this location were utilized for the daytime construction and operational impact analysis.

- M13 – Short-term noise measurement taken along West 102nd Street west of the West Parking Garage Site that represents ambient noise levels for the adjacent single family residential uses (R5) to the west, and the single family residential uses (R6). Daytime ambient noise levels collected at this location were utilized for the daytime construction and operational impact analysis.
- M14 – Short-term noise measurement taken along South Prairie Avenue south of West 102nd Street that represents the ambient noise levels for Being in Power Ministries (R7), the multifamily residential use along the east side of South Prairie Avenue (R11), and the single family residential use located along the east side of South Prairie Avenue (R12). Daytime ambient noise levels collected at this location were utilized for the daytime construction and operational impact analysis.
- M15 – Short-term noise measurement taken along West Century Boulevard between South Prairie Avenue and South Doty Avenue and represents the ambient noise levels for the Airport Park View Hotel (R8) in addition to measurement location M1. Daytime ambient noise levels collected at this location were utilized for the daytime construction and operational impact analysis.
- M16 – Short-term noise measurement taken along West 102nd Street that represents the ambient noise levels for the multifamily residential uses (R20) located across West 102nd Street from the East Transportation and Hotel Site. Daytime ambient noise levels collected at this location were utilized for the daytime construction and operational impact analysis.
- M17 – Short-term noise measurement taken along West 104th Street between South Doty Avenue and South Yukon Avenue and represents the ambient noise levels for the residential uses along West 104th Street. Ambient noise levels collected at this location were not utilized in the construction or operational noise analysis.

Results of the ambient noise measurements are presented in **Table 3.11-1**.

TABLE 3.11-1
AMBIENT NOISE MEASUREMENTS

Location	Monitoring Period	Duration	dBA CNEL[a]	Daytime Average[b] dBA Leq	Nighttime Average[c] dBA Leq	9:30 PM–11:30 PM[d] dBA Leq	12:00 AM–2:00 AM[e] dBA Leq
Long-Term Noise Measurements (continuous 96-hour measurements)							
M1	12:00 PM, Thursday, May 10, 2018	24-hr	70.8	65.7	63.6	64.4	61.1
	12:00 PM, Friday, May 11, 2018	24-hr	68.9	64.9	61.2	63.9	60.4
	12:00 PM, Saturday, May 12, 2018	24-hr	69.1	65.5	60.9	65.0	61.0
	12:00 PM, Sunday, May 13, 2018	24-hr	70.1	65.4	62.5	65.8	59.2
	Average		**69.8**	**65.4**	**62.2**	**64.8**	**60.5**

TABLE 3.11-1
AMBIENT NOISE MEASUREMENTS

Location	Monitoring Period	Duration	dBA CNEL[a]	Daytime Average[b] dBA Leq	Nighttime Average[c] dBA Leq	9:30 PM–11:30 PM[d] dBA Leq	12:00 AM–2:00 AM[e] dBA Leq
M2	12:00 PM, Thursday, May 10, 2018	24-hr	68.8	63.8	61.5	63.2	58.4
	12:00 PM, Friday, May 11, 2018	24-hr	66.6	63.7	58.1	63.2	55.5
	12:00 PM, Saturday, May 12, 2018	24-hr	65.9	63.6	56.6	62.9	53.2
	12:00 PM, Sunday, May 13, 2018	24-hr	67.0	64.1	58.3	63.6	54.8
	Average		**67.2**	**63.8**	**59.0**	**63.2**	**55.9**
M3	12:00 PM, Thursday, May 10, 2018	24-hr	69.7	64.7	62.5	64.5	62.4
	12:00 PM, Friday, May 11, 2018	24-hr	67.9	64.3	59.9	64.8	60.2
	12:00 PM, Saturday, May 12, 2018	24-hr	67.5	63.8	59.2	64.4	60.2
	12:00 PM, Sunday, May 13, 2018	24-hr	68.1	64.2	59.9	64.5	61.7
	Average		**68.4**	**64.3**	**60.6**	**64.5**	**61.2**
M4	12:00 PM, Thursday, May 10, 2018	24-hr	68.6	63.6	61.3	63.0	58.7
	12:00 PM, Friday, May 11, 2018	24-hr	66.8	63.5	58.5	63.8	55.5
	12:00 PM, Saturday, May 12, 2018	24-hr	65.9	63.4	56.8	62.7	54.9
	12:00 PM, Sunday, May 13, 2018	24-hr	67.1	63.7	58.8	63.5	55.2
	Average		**67.2**	**63.6**	**60.6**	**64.5**	**61.2**
M5	12:00 PM, Thursday, May 10, 2018	24-hr	69.5	63.8	62.5	63.0	59.4
	12:00 PM, Friday, May 11, 2018	24-hr	67.4	64.0	59.3	63.6	58.2
	12:00 PM, Saturday, May 12, 2018	24-hr	67.1	63.2	58.9	64.1	57.6
	12:00 PM, Sunday, May 13, 2018	24-hr	67.3	63.5	59.3	63.0	56.0
	Average		**67.9**	**63.6**	**60.2**	**63.5**	**57.9**
Short-Term Noise Measurements (15-minute measurements)							
M6	8:52 AM, Thursday, May 10, 2018	15-min	—	71.8	—	—	—
	9:33 PM, Thursday, May 30, 2019	15-min	—	—	—	64.3	—
	12:01 AM, Friday, May 31, 2019	15-min	—	—	—	—	62.3
M7	7:53 AM, Thursday, May 10, 2018	15-min	—	69.1	—	—	—
	10:39 PM, Thursday, May 30, 2019	15-min	—	—	—	66.3	—
	1:11 AM, Friday, May 31, 2019	15-min	—	—	—	—	58.3

TABLE 3.11-1
AMBIENT NOISE MEASUREMENTS

Location	Monitoring Period	Duration	dBA CNEL[a]	Daytime Average[b] dBA Leq	Nighttime Average[c] dBA Leq	9:30 PM–11:30 PM[d] dBA Leq	12:00 AM–2:00 AM[e] dBA Leq
M8	8:12 AM, Thursday, May 10, 2018	15-min	—	69.6	—	—	—
	11:20 PM, Thursday, May 30, 2019	15-min	—	—	—	69.1	—
	1:51 AM, Friday, May 31, 2019	15-min	—	—	—	—	61.8
M9	8:29 AM, Thursday, May 10, 2018	15-min	—	68.7	—	—	—
	10:59 PM, Thursday, May 30, 2019	15-min	—	—	—	69.5	—
	1:30 AM, Friday, May 31, 2019	15-min	—	—	—	—	63.3
M10	11:57 AM, Thursday, May 10, 2018	15-min	—	73.5	—	—	—
	10:57 PM, Thursday, May 30, 2019	15-min	—	—	—	69.1	—
	1:22 AM, Friday, May 31, 2019	15-min	—	—	—	—	58.5
M11	11:35 AM, Thursday, May 10, 2018	15-min	—	65.8	—	—	—
	10:14 PM, Thursday, May 30, 2019	15-min	—	—	—	68.5	—
	12:42 AM, Friday, May 31, 2019	15-min	—	—	—	—	61.3
M12	12:31 PM, Friday, May 31, 2019	15-min	—	71.7	—	—	—
	9:34 PM, Thursday, May 30, 2019	15-min	—	—	—	72	—
	12:04 AM, Friday, May 31, 2019	15-min	—	—	—	—	69
M13	12:55 PM, Friday, May 31, 2019	15-min	—	67.4	—	—	—
	9:54 PM, Thursday, May 30, 2019	15-min	—	—	—	63.4	—
	12:28 AM, Friday, May 31, 2019	15-min	—	—	—	—	55.9
M14	1:20 PM, Friday, May 31, 2019	15-min	—	77.0	—	—	—
	10:18 PM, Thursday, May 30, 2019	15-min	—	—	—	73	—
	12:50 AM, Friday, May 31, 2019	15-min	—	—	—	—	70.3
M15	1:07 PM, Friday, May 31, 2019	15-min	—	73.6	—	—	—
	9:54 PM, Thursday, May 30, 2019	15-min	—	—	—	70.6	—
	12:25 AM, Friday, May 31, 2019	15-min	—	—	—	—	68.6

TABLE 3.11-1
AMBIENT NOISE MEASUREMENTS

Location	Monitoring Period	Duration	dBA CNEL[a]	Daytime Average[b] dBA Leq	Nighttime Average[c] dBA Leq	9:30 PM–11:30 PM[d] dBA Leq	12:00 AM–2:00 AM[e] dBA Leq
M16	12:49 PM, Friday, May 31, 2019	15-min	—	69.5	—	—	—
	10:35 PM, Thursday, May 30, 2019	15-min	—	—	—	65.4	—
	1:01 AM, Friday, May 31, 2019	15-min	—	—	—	—	63.4
M17	12:30 PM, Friday, May 31, 2019	15-min	—	67.4	—	—	—
	11:18 PM, Thursday, May 30, 2019	15-min	—	—	—	69.2	—
	1:42 AM, Friday, May 31, 2019	15-min	—	—	—	—	66.9

NOTE:

[a] CNEL provided for 24-hour measurements only.

[b] Daytime hours are from 7:00 AM to 10:00 PM The 15-hour daytime average (15-hour Leq) was calculated from 24-hour measurements at long-term measurement locations. The 15-minute Leq is listed from short-term measurement data.

[c] Nighttime hours are from 10:00 PM to 7:00 AM The 8-hour nighttime average (8-hour Leq) was calculated for 24-hour measurements at long-term measurement locations.

[d] Data averaged from 24-hour measurements from 9:30 PM to 11:30 PM Short-term measurements were taken between the hours of 9:30 PM and 11:30 PM (15-minute Leq)

[e] Data averaged from 24-hour measurements from 12:00 AM to 2:00 AM Short-term measurements were taken between the hours of 12:00 AM and 2:00 AM (15-minute Leq)

Existing Traffic-Only Noise

Ambient noise levels measured by ESA and summarized above reflect predominant noise sources including those generated by existing traffic on local and arterial streets, aircraft arrivals to and departures from LAX, and commercial and industrial activity. As recognized by the City of Inglewood General Plan Noise Element and reflected in the monitoring results, traffic noise is considered to be the most common source of noise in urban areas.[19] As a result, noise levels (Leq) associated with peak period traffic volumes along individual roadway segments at 50 feet from the roadway centerline have been calculated to establish the existing traffic noise environment along studied roadway segments.

Traffic volume count data for existing conditions is presented in Section 3.14, Transportation and Circulation, and consists of traffic volumes along roadway segments that exist as of the collection of data. This data accounts for existing traffic volumes and trips generated by development that was currently in operation.

Existing roadway noise levels were calculated for the segments for which existing traffic volume data was collected (see Appendix K for calculations). Calculation of roadway noise levels under existing conditions was accomplished using the methodology described below in Section 3.11.4 Transportation and Circulation, and relies on peak hour traffic volume data provided by Fehr &

[19] City of Inglewood General Plan Noise Element. Adopted September 1, 1987.

Peers as presented in Section 3.14 and the posted speed limit. The roadway segments located near and immediately adjacent to the Project Site are considered to be those that are expected to be most directly affected by Project-related traffic. As described in Section 3.11.4 below, the roadway segments that would experience the greatest increase in traffic noise generated by the Proposed Project and where noise-sensitive receptors are located have been included in this analysis. As a result, out of the 153 roadway segments studied in Section 3.14, 113 segments have been selected for analysis. Existing traffic volume counts were not collected for all studied roadway segments. However, in order to identify the segments that have been selected for analysis in this section, all 113 segments are listed in **Table 3.11-2**. For calculated traffic noise levels for all roadway segments, see calculations included in Appendix K.

Existing peak hour traffic noise under the Weekday AM Peak Period (7:00–9:00 AM), Weekday PM Peak Period (4:00–6:00 PM), Weekday Pre-Event Peak Period (6:00–7:00 PM), Weekday Post-Event Peak Period (9:30–10:30 PM), Weekend Pre Event Peak Period (5:00–6:00 PM), and Weekend Post Event Peak Period (9:30 – 10:30 PM) time periods is shown in Table 3.11-2.

TABLE 3.11-2
EXISTING CALCULATED TRAFFIC NOISE LEVELS

Segment	Peak Period Noise Level (dBA Leq)					
	Weekday AM dBA (Leq)	Weekday PM (dBA Leq)	Friday Pre-Event (dBA Leq)	Friday Post-Event (dBA Leq)	Weekend Pre-Event (dBA Leq)	Weekend Post-Event (dBA Leq)
Centinela between La Cienega Blvd and La Brea Ave	N/A	N/A	N/A	N/A	N/A	N/A
Centinela between La Brea Ave and Florence Ave	N/A	N/A	N/A	N/A	N/A	N/A
Florence Ave between La Brea Ave and Hillcrest Blvd	N/A	N/A	N/A	N/A	N/A	N/A
Florence Ave between Hillcrest Blvd and Centinela Ave	N/A	N/A	68.9	66.6	67.9	65.7
Florence Ave between Centinela Ave and Prairie Ave	N/A	N/A	70.6	68.5	70.1	67.6
Florence Ave between Prairie Ave and West Blvd	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Ash Ave/405 NB Off-Ramp and La Brea Ave	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between La Brea Ave and Hillcrest Blvd	N/A	N/A	N/A	N/A	64.9	N/A
Manchester Blvd between Hillcrest Blvd and Spruce Ave	N/A	N/A	69.4	66.8	68.5	65.9
Manchester Blvd between Spruce Ave and Prairie Ave	N/A	N/A	69.6	66.9	68.6	66.0
Manchester Blvd between Kareem Ct and Crenshaw Dr	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Crenshaw Dr and Crenshaw Blvd	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Crenshaw Blvd and Van Ness Ave	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Van Ness Ave and Western Ave	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Western Ave and Normandie Ave	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Normandie Ave and Vermont Ave	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Vermont Ave and Hoover St	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Hoover St and Figueroa St	N/A	N/A	N/A	N/A	N/A	N/A
Pincay Dr between Prairie Ave and Kareem Ct	N/A	N/A	68.4	64.1	66.5	63.2
Pincay Dr between Kareem Ct and Crenshaw Blvd	N/A	N/A	N/A	N/A	N/A	N/A
Arbor Vitae St between La Cienega Blvd and Inglewood Ave	N/A	N/A	65.6	63.2	65.2	62.3
Arbor Vitae St between Inglewood Ave and La Brea Ave	N/A	N/A	65.4	63.2	64.8	62.3
Arbor Vitae St between La Brea Ave and Myrtle Ave	N/A	N/A	63.9	61.3	63.2	60.3
Arbor Vitae St between Myrtle Ave and Prairie Ave	N/A	N/A	63.0	60.5	62.2	59.5
Hardy St between La Brea Ave and Myrtle Ave	N/A	N/A	59.4	56.5	58.3	55.6
Hardy St between Myrtle Ave and Prairie Ave	58.8	58.6	58.7	54.7	57.2	53.8
Century Blvd between Concourse Way and La Cienega Blvd	N/A	N/A	70.2	70.9	70.3	70.0
Century Blvd between 405 on/off Ramp and Felton Ave	70.4	71.1	70.0	68.2	69.6	67.3
Century Blvd between Felton Ave and Inglewood Ave	70.2	71.0	69.7	68.1	69.4	67.2
Century Blvd between Inglewood Ave and Fir Ave/Firmona Ave	70.8	71.0	69.9	67.9	69.3	67.0
Century Blvd between Fir Ave/Firmona Ave and Grevillea Ave	70.6	71.0	70.1	67.8	69.4	66.9
Century Blvd between Hawthorne Blvd/La Brea Blvd and Myrtle Ave	69.4	70.2	69.8	67.1	68.8	66.2
Century Blvd between Myrtle Ave and Freeman Ave	69.4	70.3	69.8	67.1	68.7	66.2
Century Blvd between Freeman Ave and Prairie Ave	69.1	69.8	69.5	66.8	68.5	65.8
Century Blvd between Prairie Ave and Doty Ave	68.8	70.4	70.1	67.7	69.7	66.8
Century Blvd between 11th Ave/Village Ave and Crenshaw Blvd	68.4	70.7	70.4	67.9	70.6	67.0
Century Blvd between Crenshaw Blvd and 5th Ave	67.5	69.2	68.6	66.0	68.4	65.1
Century Blvd between 5th Ave and Van Ness Ave	67.6	68.1	N/A	N/A	N/A	N/A
Century Blvd between Van Ness Ave and Gramercy Pl	N/A	N/A	N/A	N/A	N/A	N/A
Century Blvd between Gramercy Pl and Western Ave	N/A	N/A	N/A	N/A	N/A	N/A
Century Blvd between Western Ave and Normandie Ave	N/A	N/A	N/A	N/A	N/A	N/A

TABLE 3.11-2
EXISTING CALCULATED TRAFFIC NOISE LEVELS

Segment	Peak Period Noise Level (dBA Leq)					
	Weekday AM dBA (Leq)	Weekday PM (dBA Leq)	Friday Pre-Event (dBA Leq)	Friday Post-Event (dBA Leq)	Weekend Pre-Event (dBA Leq)	Weekend Post-Event (dBA Leq)
Century Blvd between Normandie Ave and Vermont Ave	N/A	N/A	N/A	N/A	N/A	N/A
Century Blvd between Vermont Ave and Hoover St	N/A	N/A	N/A	N/A	N/A	N/A
Century Blvd between Hoover St and Figueroa St	N/A	N/A	N/A	N/A	N/A	N/A
Century Blvd between Figueroa St and Grand Ave/110 SB off ramp	N/A	N/A	N/A	N/A	N/A	N/A
104th St between Inglewood Ave and Hawthorne Blvd	N/A	N/A	58.2	54.0	57.0	53.1
104th St between Hawthorne Blvd and Prairie Ave	55.9	57.8	57.4	54.2	56.7	53.3
104th St between Prairie Ave and Doty Ave	57.4	58.6	59.1	55.5	58.0	54.6
104th St between Doty Ave and Yukon Ave	57.7	58.5	58.5	55.0	57.8	54.1
104th St between Yukon Ave and Crenshaw Blvd	61.0	60.5	60.3	56.4	59.5	55.5
Lennox Blvd between La Cienega Blvd and Inglewood Ave	N/A	N/A	N/A	N/A	N/A	N/A
Lennox Blvd between Inglewood Ave and Hawthorne Blvd	N/A	N/A	N/A	N/A	N/A	N/A
Lennox Blvd between Hawthorne Blvd and Freeman Ave	N/A	N/A	N/A	N/A	N/A	N/A
Lennox Blvd between Freeman Ave and Prairie Ave	62.1	62.5	61.5	58.7	60.7	57.8
Imperial Hwy between Prairie Ave and Doty Ave	N/A	N/A	68.4	64.9	67.6	64.0
Imperial Hwy between Doty Ave and Yukon Ave	N/A	N/A	68.2	64.3	67.2	63.3
Imperial Hwy between Yukon Ave and Crenshaw Blvd	N/A	N/A	N/A	N/A	N/A	N/A
120th St between Prairie Ave and 105 on/off ramp	N/A	N/A	N/A	N/A	N/A	N/A
La Cienega Blvd between Stocker St and La Tijera Blvd	N/A	N/A	N/A	N/A	N/A	N/A
La Cienega Blvd between La Tijera Blvd and Centinela Ave	N/A	N/A	N/A	N/A	N/A	N/A
La Cienega Blvd between Centinela Ave and Florence Ave	N/A	N/A	N/A	N/A	N/A	N/A
La Cienega Blvd between Arbor Vitae St and 405 on/off rams (n/o Century)	N/A	N/A	67.5	65.4	66.3	64.5
La Cienega Blvd between 405 on/off rams (n/o Century) and Century Blvd	70.7	69.4	67.8	66.8	66.9	65.9
La Cienega Blvd between 405 on/off ramps (s/o Century) and 104th St	N/A	N/A	66.3	63.6	64.5	62.6
Inglewood Ave between Century Blvd and 104th St	N/A	N/A	64.9	62.2	64.2	61.3
Inglewood Ave between 104th St and Lennox Blvd	N/A	N/A	N/A	N/A	N/A	N/A
La Brea Ave between Stocker St and Slauson Ave	N/A	N/A	N/A	N/A	N/A	N/A
La Brea Ave between Slauson Ave and Centinela Ave	N/A	N/A	N/A	N/A	N/A	N/A
La Brea Ave between Centinela Ave and Florence Ave	N/A	N/A	N/A	N/A	N/A	N/A
La Brea Ave between Florence Ave and Manchester Blvd	N/A	N/A	N/A	N/A	N/A	N/A
La Brea Ave between Manchester Blvd and Hillcrest Blvd	N/A	N/A	N/A	N/A	N/A	N/A
La Brea Ave between La Brea Ave and Arbor Vitae St	N/A	N/A	N/A	N/A	N/A	N/A
Hawthorne Ave between 104th St and Lennox Blvd	N/A	N/A	N/A	N/A	N/A	N/A
Hawthorne Ave between Lennox Blvd and 111th St	N/A	N/A	N/A	N/A	N/A	N/A
Hillcrest Blvd between Florence Ave and Manchester Blvd	N/A	N/A	62.7	58.6	60.7	57.7
Mrytle Ave between Hardy St and Century Blvd	57.3	57.8	58.2	55.6	56.4	54.7
Freeman Ave between Lennox Blvd and Imperial Hwy	61.5	62.1	61.1	59.6	60.5	58.7
Prairie Ave between Florence Ave and Grace Ave	N/A	N/A	66.6	63.7	65.9	62.8
Prairie Ave between Grace Ave and East Carondelet Way	N/A	N/A	66.7	63.8	65.9	62.9
Prairie Ave between East Carondelet Way and E Regent St	N/A	N/A	66.8	63.8	65.9	62.9
Prairie Ave between E Regent St and Manchester Blvd	N/A	N/A	67.3	64.2	66.4	63.3
Prairie Ave between Manchester Blvd and Kelso St/Pincay Dr	68.8	68.7	67.8	65.0	67.3	64.0

TABLE 3.11-2
EXISTING CALCULATED TRAFFIC NOISE LEVELS

Segment	Peak Period Noise Level (dBA Leq)					
	Weekday AM dBA (Leq)	Weekday PM (dBA Leq)	Friday Pre-Event (dBA Leq)	Friday Post-Event (dBA Leq)	Weekend Pre-Event (dBA Leq)	Weekend Post-Event (dBA Leq)
Prairie Ave between Kelso St/Pincay Dr and Buckthorn St	N/A	N/A	68.1	65.2	67.5	64.3
Prairie Ave between Buckthorn St and Arbor Vitae St	N/A	N/A	68.2	65.0	67.5	64.1
Prairie Ave between Arbor Vitae St and Hardy St	68.6	69.1	68.0	65.1	67.5	64.2
Prairie Ave between Hardy St and 97th St	68.8	69.3	68.3	65.3	67.8	64.4
Prairie Ave between 97th St and Century Blvd	68.9	69.3	68.3	65.4	67.8	64.5
Prairie Ave between 102nd St and 104th St	68.7	69.1	68.2	65.5	67.7	64.6
Prairie Ave between 104th St and Lennox Blvd	69.3	69.7	69.0	66.7	68.3	65.7
Prairie Ave between 108th St and 111 St	69.3	69.9	69.2	67.0	68.7	66.1
Prairie Ave between 111 St and 112th St/105 off ramp	69.7	70.0	69.3	67.4	69.1	66.5
Prairie Ave between 112th St/105 off ramp and Imperial Hwy	69.4	69.7	69.2	67.1	68.9	66.2
Prairie Ave between Imperial Hwy and 118th St	N/A	N/A	68.5	65.7	67.7	64.8
Prairie Ave between 118th St and 120th St	N/A	N/A	68.3	65.4	67.4	64.5
Yukon Ave between 102nd St and 104th St	61.9	63.0	62.6	59.1	62.4	58.2
Yukon Ave between 104th St and 108th St	61.6	61.5	61.2	57.6	60.6	56.6
Yukon Ave between 108th St and 111th St	N/A	N/A	60.4	57.0	59.6	56.1
Yukon Ave between 111th St and Imperial Hwy	N/A	N/A	60.0	56.4	58.9	55.4
Crenshaw Blvd between Florence Ave and Manchester Blvd (W)	N/A	N/A	N/A	N/A	N/A	N/A
Crenshaw Blvd between Florence Ave and Manchester Blvd (E)	N/A	N/A	N/A	N/A	N/A	N/A
Crenshaw Blvd between Manchester Blvd and Pincay Dr	N/A	N/A	N/A	N/A	N/A	N/A
Crenshaw Blvd between Pincay Dr and Hardy St	N/A	N/A	N/A	N/A	N/A	N/A
Crenshaw Blvd between Hardy St and Century Blvd	69.3	69.6	69.3	66.9	69.0	66.0
Crenshaw Blvd between Century Blvd and 104th St	69.4	69.7	69.6	67.3	69.1	66.4
Crenshaw Blvd between 104th St and 109th St	N/A	N/A	N/A	N/A	N/A	N/A
Crenshaw Blvd between 109th St and Imperial Hwy	N/A	N/A	N/A	N/A	N/A	N/A
Crenshaw Blvd between Imperial Hwy and 105 off ramp/118th Pl	N/A	N/A	N/A	N/A	N/A	N/A
Van Ness Ave between Manchester Blvd and Hardy St/96th St	N/A	N/A	N/A	N/A	N/A	N/A
Van Ness Ave between Hardy St/96th St and Century Blvd	N/A	N/A	N/A	N/A	N/A	N/A
Van Ness Ave between Century Blvd and 104th St	N/A	N/A	N/A	N/A	N/A	N/A
Western Ave between Manchester Blvd and Century Blvd	N/A	N/A	N/A	N/A	N/A	N/A
Vermont Ave between Manchester Blvd and Century Ave	N/A	N/A	N/A	N/A	N/A	N/A
Hoover St between Manchester Blvd and Century Ave	N/A	N/A	N/A	N/A	N/A	N/A

NOTE:
N/A – Traffic volumes along these segments were not collected as part of the Transportation and Circulation analysis.

SOURCE: ESA, 2019 (APPENDIX J)

Aircraft Noise

The nearest public use airports to the Project Side include LAX and Jack Northrop Field/Hawthorne Municipal Airport (HHR). The Project Site is located approximately two miles east of LAX, along the extended centerlines of Runways 25R and 25L, and approximately 1.4 miles due north of Runway 7-25 at HHR. There are no private airstrips located in the vicinity of the Project Site.

The Project Site is within the planning boundary/airport influence area (AIA) established for LAX in the Los Angeles County Airport Land Use Plan (ALUP) as shown in **Figure 3.11-3** (see further description of the relationship of the Project Site to the ALUP in Section 3.10, Land Use and Planning); it is not within the planning boundary or AIA for HHR. The planning boundary for LAX represents the combined areas around the airport subject to potential noise impacts and safety hazards associated with airport operations. The ALUP provides noise and safety policies governing development of compatible future land uses in areas around LAX. The Project Site is located within the CNEL 65 dBA contour established for LAX in the ALUP, but is not located within the CNEL 65 dBA contour for HHR. As a result of its exposure to noise from LAX, the Project is subject to the noise policies in the ALUP.

The 14 CFR Part 150 noise contours (see Figure 2-4) show that parts of the Project Site located between 102nd Street and Century Boulevard are generally located in areas exposed to CNEL 65 dBA -70 dBA. This includes both the West and East Parking Garage sites, the Plaza area including commercial and community uses, most of the Arena and Practice and Athletic Training Facility, Office, and Sports Medicine Clinic, and the Hotel. Parts of the Project Site south of 102nd Street are generally located in areas exposed to CNEL 70 dBA – 75 dBA. This includes part of the Arena and Practice and Athletic Training Facility, Office, and Sports Medicine Clinic, as well as the South Parking Garage. Although the 14 CFR Part 150 contours shown in Figure 2-4 are more recent than the 65 dBA contour shown in Figure 3.11-3, it has not been formally incorporated into the ALUP by the ALUC, therefore consistency of the Proposed Project in relation to both versions of the contours have been discussed.

Figure 3.11-3 ALUP Noise Contours

Existing Groundborne Vibration Setting

The groundborne vibration level in residential areas is usually 50 VdB or lower, well below the threshold of perception for humans, which is around 65 VdB.[20] Most perceptible indoor vibration is caused by sources within buildings such as operation of mechanical equipment, movement of people or slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If the roadway is smooth, the vibration from traffic is rarely perceptible. Although not sources of groundborne vibration, noise-induced building responses such as rattling of windows and walls from aircraft flyovers contribute to the existing vibration setting. The primary sources of existing groundborne vibration in the area surrounding the Project Site would be from adjacent industrial activities, including truck travel, heavy-duty vehicular travel (bus, refuse trucks, delivery trucks, etc.) on local roadways, and aircraft flyovers. A bus traveling at a distance of 50 feet typically generates groundborne vibration velocity levels of 63 VdB (approximately 0.006 in/sec PPV).[21] Aircraft flyovers could generate vibration levels that would cause human annoyance; however, they would not generate building vibration levels that would cause building damage.[22]

Existing Groundborne Noise Setting

As stated earlier, groundborne noise levels would generally be 20 to 50 decibels lower than the velocity level depending on the frequency level of the source.[23] With a background groundborne vibration level in residential areas of 50 VdB or lower, groundborne noise levels would be approximately 0 to 30 dBA. A bus traveling at a distance of 50 feet would generate groundborne noise levels of approximately 23 to 38 dBA. Typical vibration from construction equipment would fall under the low frequency range with vibratory equipment such as pile drivers falling in the mid frequency range.[24] With a vibration velocity of 108 VdB at five feet from the source, a large bulldozer would generate groundborne noise levels of approximately 58 dBA. The approximate level of human perception of groundborne noise is 25 dBA for low frequency vibration (near 30 Hz) and 40 dBA for mid-frequency vibration (near 60 Hz).[25]

3.11.3 Adjusted Baseline Environmental Setting

Section 3.11, Noise and Vibration, assumes the Adjusted Baseline Environmental Setting as described in Section 3.0, Introduction to the Analysis. Related to noise, the changes associated

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20 Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment Manual*. September 2018. p. 113.
21 Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment Manual*. September 2018. p. 113.
22 National Aeronautics and Space Administration, 1992. *Building Vibrations Induced by Noise from Rotorcraft and Propeller Aircraft Flyovers*. June 1992. p. 10.
23 Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment Manual*. September 2018. p. 146.
24 Roberts, Cedric. "Construction Noise and Vibration Impact on Sensitive Premises." Acoustics 2009, 23-25 November 2009, p. 6.
25 Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment Manual*. September 2018. p. 120.

with the Adjusted Baseline include the operation of an NFL Stadium, performance venue, residential, commercial, and retail uses.

The NFL Stadium is located at the southeastern corner of Pincay Drive and South Prairie Avenue and is designed to provide expandable capacity to accommodate various sporting events, concerts, and activities in addition to NFL games. Although a transparent glass canopy/roof is designed to provide an open-air experience while keeping crowd and event noise contained, the NFL Stadium is not fully enclosed and leakage of event noise from the NFL Stadium, including pre- and post-event activities would contribute to the ambient noise environment, as would the additional traffic generated by the uses on local and arterial streets.

The City of Champions Initiative (Exhibit M, Stadium Alternative Mitigation Measures, in the Initiative) imposed several mitigation measures to limit operational noise from the HPSP development and protect the existing neighborhoods, although it acknowledged that some event noise would be audible outside the boundaries of the property during a limited number of major special events. The key measures to address operational noise that are part of the Adjusted Baseline include:

- **G-7** The operation of the stadium shall comply with the provisions of Article 2 (Noise Regulations) of Chapter 5 of the Inglewood Municipal Code.
- **G-8** The use of vibratory rollers within 150 feet, or impact pile driving within 320 feet, of The Forum property line shall be limited to time periods that do not coincide with events occurring at The Forum.
- **G-9** Prior to the issuance of building permits, the Project applicant shall utilize an acoustical engineer to demonstrate to the City of Inglewood that the 45 dBA interior noise standard has been achieved at residential dwelling units within the Project boundaries, as measured on a typical day, and not with respect to special events at the stadium.
- **G-10** All rooftop mechanical equipment shall be enclosed or screened from view from public streets with appropriate screening walls.
- **G-11** Firework Shows shall be limited to a maximum of 15 events per year, and each event shall not exceed 20 minutes in duration. All such events shall comply with FAA regulations. For purposes of this mitigation measure, Firework Shows shall be defined as a single, coordinated pyrotechnic display continuing for an uninterrupted period of time lasting longer than five minutes and involving pyrotechnic devices that reach more than 100 feet above the Stadium playing field. Separate from the foregoing limit on Firework Shows, the isolated use of pyrotechnic devices during stadium events shall be allowed.
- **G-12** Loading dock and trash/recycling areas for the stadium shall be located in the subterranean level, which shall preclude noise from this source at exterior locations.
- **G-13** The Project's in-house sound system (including the stadium and music for retail areas, if any) shall utilize a state of the art distributed speaker system capable of aiming the sound toward the seating areas, or other intended areas within the Project, to minimize sound spillage to the exterior of the Project.

- **G-14** Building mechanical / electrical equipment shall be designed such that it will not cause an increase in sound levels at any Off-Site residence of 3 dBA or greater above the Base Ambient Noise Level.

Further, the NFL Stadium and performance venue are located and designed to help reduce noise by locating the NFL Stadium away from the northern edge of the property (i.e., south of the stadium location proposed in 1995), and by placing the NFL Stadium playing surface well below existing grade, which reduces line-of-sight noise impacts on adjacent uses.

The City of Champions Initiative modified the City's noise ordinance such that during operation of the NFL Stadium, noise from sporting events and for up to 12 other special events occurring at the NFL Stadium each year (unless a higher number is otherwise permitted by the Permits and Licenses Committee) are exempt from the noise limits provided in Article 2 of the Municipal Code. Noise exceeding code limits from these few major events is not permitted to extend beyond 12:00 AM With the exception of sporting events, up to 12 other special events, and any special events otherwise permitted by the Permits and Licenses Committee, the NFL Stadium must comply with the City of Inglewood noise ordinance.

Charles M. Salter Associates, Inc. prepared an acoustical model for the NFL Stadium which estimated that amplified music and announcements for a professional sporting event at the nearest residential property line (i.e., exterior noise) would be approximately 46 dBA on the west, 50 dBA on the east, and 51 dBA on the north. The model estimated that approximate sound levels from the NFL Stadium at the property line would range from 65 to 67 dBA on the east and west, and from 64 to 69 dBA on the north, depending on the configuration of concert within the NFL Stadium. The acoustical analysis estimates that these levels would drop by 5 to 10 dBA after the first row of houses.[26]

Retail/restaurant uses within the HPSP area will be constructed immediately northeast of the intersection of West Century Boulevard and South Prairie Avenue and include a mix of retail shops, fine dining, specialty grocery store, and outdoor plazas. A walkable promenade will provide outdoor spaces for conversation, dining, and live amplified music, and will contribute to the ambient noise environment. Based on ESA's experience conducting noise measurements for live concerts, it is estimated that live music and amplified sound would result in a noise level of approximately 95 dBA at 100 feet from the source. Conversation within the open spaces and outdoor dining areas would result in noise levels of 76 dBA at 3.3 feet from each person as a result of conversation and cheering.[27]

Trip generation associated with the buildout and operation of the HPSP area has been estimated and traffic volumes in the area surrounding the Project Site have been projected to establish the Adjusted Baseline traffic environment along the roadway segments selected for analysis (see

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[26] Charles M. Salter Associates, Inc., 2015. *Hollywood Park Results of Preliminary Acoustical Modeling.* February 13, 2015

[27] Olsen, W.O., 1998. *"Average Speech Levels and Spectra in Various Speaking/Listening Conditions: A Summary of the Pearson, Bennett, & Fidell (1977) Report".* American Journal of Audiology, 7(1059-0889), October 1998. p. 3.

Section 3.11.4 below for discussion of segments selection). Additionally, trip generation associated with events at the NFL Stadium, The Forum, and concurrent events at both venues has been estimated and traffic volumes projected to establish the combined traffic environment during which one or more events are being held (see Section 3.14.5 for discussion of concurrent events). Based on turning movement volumes provided Section 3.14, Transportation and Circulation, and Appendix K, Adjusted Baseline and event traffic noise have been calculated and included in **Tables 3.11-3 through 3.11-6**.

TABLE 3.11-3
ADJUSTED BASELINE TRAFFIC NOISE LEVELS

Segment	Peak Period Noise Level (dBA Leq)					
	Weekday AM (dBA Leq)	Weekday PM (dBA Leq)	Friday Pre-Event (dBA Leq)	Friday Post-Event (dBA Leq)	Weekend Pre-Event (dBA Leq)	Weekend Post-Event (dBA Leq)
Centinela between La Cienega Blvd and La Brea Ave	N/A	N/A	N/A	N/A	N/A	66.4
Centinela between La Brea Ave and Florence Ave	N/A	N/A	N/A	N/A	N/A	65.9
Florence Ave between La Brea Ave and Hillcrest Blvd	N/A	N/A	N/A	N/A	N/A	64.8
Florence Ave between Hillcrest Blvd and Centinela Ave	N/A	N/A	68.9	66.6	67.9	65.7
Florence Ave between Centinela Ave and Prairie Ave	N/A	N/A	70.6	68.5	70.1	67.7
Florence Ave between Prairie Ave and West Blvd	N/A	N/A	N/A	N/A	N/A	67.6
Manchester Blvd between Ash Ave/405 NB Off-Ramp and La Brea Ave	N/A	N/A	N/A	N/A	N/A	63.0
Manchester Blvd between La Brea Ave and Hillcrest Blvd	N/A	N/A	N/A	N/A	64.9	66.1
Manchester Blvd between Hillcrest Blvd and Spruce Ave	N/A	N/A	69.4	66.8	68.5	66.1
Manchester Blvd between Spruce Ave and Prairie Ave	N/A	N/A	69.6	66.9	68.6	66.2
Manchester Blvd between Kareem Ct and Crenshaw Dr	N/A	N/A	N/A	N/A	N/A	67.1
Manchester Blvd between Crenshaw Dr and Crenshaw Blvd	N/A	N/A	N/A	N/A	N/A	66.7
Manchester Blvd between Crenshaw Blvd and Van Ness Ave	N/A	N/A	N/A	N/A	N/A	67.3
Manchester Blvd between Van Ness Ave and Western Ave	N/A	N/A	N/A	N/A	N/A	67.4
Manchester Blvd between Western Ave and Normandie Ave	N/A	N/A	N/A	N/A	N/A	67.7
Manchester Blvd between Normandie Ave and Vermont Ave	N/A	N/A	N/A	N/A	N/A	67.9
Manchester Blvd between Vermont Ave and Hoover St	N/A	N/A	N/A	N/A	N/A	68.8
Manchester Blvd between Hoover St and Figueroa St	N/A	N/A	N/A	N/A	N/A	69.1
Pincay Dr between Prairie Ave and Kareem Ct	N/A	N/A	68.4	64.1	66.5	63.4
Pincay Dr between Kareem Ct and Crenshaw Blvd	N/A	N/A	N/A	N/A	N/A	63.7
Arbor Vitae St between La Cienega Blvd and Inglewood Ave	N/A	N/A	65.6	63.2	65.2	62.4
Arbor Vitae St between Inglewood Ave and La Brea Ave	N/A	N/A	65.4	63.2	64.8	62.5
Arbor Vitae St between La Brea Ave and Myrtle Ave	N/A	N/A	63.9	61.3	63.2	60.6
Arbor Vitae St between Myrtle Ave and Prairie Ave	N/A	N/A	63.0	60.5	62.2	59.9
Hardy St between La Brea Ave and Myrtle Ave	N/A	N/A	59.4	56.5	58.3	56.2
Hardy St between Myrtle Ave and Prairie Ave	58.8	58.6	58.7	54.7	57.2	54.6
Century Blvd between Concourse Way and La Cienega Blvd	N/A	N/A	70.2	70.9	70.3	70.0

TABLE 3.11-3
ADJUSTED BASELINE TRAFFIC NOISE LEVELS

Segment	Peak Period Noise Level (dBA Leq)					
	Weekday AM (dBA Leq)	Weekday PM (dBA Leq)	Friday Pre-Event (dBA Leq)	Friday Post-Event (dBA Leq)	Weekend Pre-Event (dBA Leq)	Weekend Post-Event (dBA Leq)
Century Blvd between 405 on/off Ramp and Felton Ave	70.4	71.1	70.0	68.2	69.6	67.6
Century Blvd between Felton Ave and Inglewood Ave	70.2	71.0	69.7	68.1	69.4	67.5
Century Blvd between Inglewood Ave and Fir Ave/Firmona Ave	70.8	71.0	69.9	67.9	69.3	67.3
Century Blvd between Fir Ave/Firmona Ave and Grevillea Ave	70.6	71.0	70.1	67.8	69.4	67.2
Century Blvd between Hawthorne Blvd/La Brea Blvd and Myrtle Ave	69.4	70.2	69.8	67.1	68.8	66.7
Century Blvd between Myrtle Ave and Freeman Ave	69.4	70.3	69.8	67.1	68.7	66.7
Century Blvd between Freeman Ave and Prairie Ave	69.1	69.8	69.5	66.8	68.5	66.3
Century Blvd between Prairie Ave and Doty Ave	68.8	70.4	70.1	67.7	69.7	67.2
Century Blvd between 11th Ave/Village Ave and Crenshaw Blvd	68.4	70.7	70.4	67.9	70.6	67.5
Century Blvd between Crenshaw Blvd and 5th Ave	67.5	69.2	68.6	66.0	68.4	65.5
Century Blvd between 5th Ave and Van Ness Ave	67.6	68.1	N/A	N/A	N/A	65.5
Century Blvd between Van Ness Ave and Gramercy Pl	N/A	N/A	N/A	N/A	N/A	65.9
Century Blvd between Gramercy Pl and Western Ave	N/A	N/A	N/A	N/A	N/A	65.9
Century Blvd between Western Ave and Normandie Ave	N/A	N/A	N/A	N/A	N/A	66.1
Century Blvd between Normandie Ave and Vermont Ave	N/A	N/A	N/A	N/A	N/A	66.6
Century Blvd between Vermont Ave and Hoover St	N/A	N/A	N/A	N/A	N/A	67.0
Century Blvd between Hoover St and Figueroa St	N/A	N/A	N/A	N/A	N/A	67.1
Century Blvd between Figueroa St and Grand Ave/110 SB off ramp	N/A	N/A	N/A	N/A	N/A	67.3
104th St between Inglewood Ave and Hawthorne Blvd	N/A	N/A	58.2	54.0	57.0	53.0
104th St between Hawthorne Blvd and Prairie Ave	55.9	57.8	57.4	54.2	56.7	53.2
104th St between Prairie Ave and Doty Ave	57.4	58.6	59.1	55.5	58.0	54.6
104th St between Doty Ave and Yukon Ave	57.7	58.5	58.5	55.0	57.8	54.0
104th St between Yukon Ave and Crenshaw Blvd	61.0	60.5	60.3	56.4	59.5	55.5
Lennox Blvd between La Cienega Blvd and Inglewood Ave	N/A	N/A	N/A	N/A	N/A	57.0
Lennox Blvd between Inglewood Ave and Hawthorne Blvd	N/A	N/A	N/A	N/A	N/A	60.0
Lennox Blvd between Hawthorne Blvd and Freeman Ave	N/A	N/A	N/A	N/A	N/A	58.3
Lennox Blvd between Freeman Ave and Prairie Ave	62.1	62.5	61.5	58.7	60.7	57.8

TABLE 3.11-3
ADJUSTED BASELINE TRAFFIC NOISE LEVELS

Segment	Peak Period Noise Level (dBA Leq)					
	Weekday AM (dBA Leq)	Weekday PM (dBA Leq)	Friday Pre-Event (dBA Leq)	Friday Post-Event (dBA Leq)	Weekend Pre-Event (dBA Leq)	Weekend Post-Event (dBA Leq)
Imperial Hwy between Prairie Ave and Doty Ave	N/A	N/A	68.4	64.9	67.6	64.0
Imperial Hwy between Doty Ave and Yukon Ave	N/A	N/A	68.2	64.3	67.2	63.4
Imperial Hwy between Yukon Ave and Crenshaw Blvd	N/A	N/A	N/A	N/A	N/A	63.2
120th St between Prairie Ave and 105 on/off ramp	N/A	N/A	N/A	N/A	N/A	64.5
La Cienega Blvd between Stocker St and La Tijera Blvd	N/A	N/A	N/A	N/A	N/A	70.2
La Cienega Blvd between La Tijera Blvd and Centinela Ave	N/A	N/A	N/A	N/A	N/A	69.0
La Cienega Blvd between Centinela Ave and Florence Ave	N/A	N/A	N/A	N/A	N/A	67.3
La Cienega Blvd between Arbor Vitae St and 405 on/off rams (n/o Century)	N/A	N/A	67.5	65.4	66.3	64.5
La Cienega Blvd between 405 on/off rams (n/o Century) and Century Blvd	70.7	69.4	67.8	66.8	66.9	65.9
La Cienega Blvd between 405 on/off ramps (s/o Century) and 104th St	N/A	N/A	66.3	63.6	64.5	62.6
Inglewood Ave between Century Blvd and 104th St	N/A	N/A	64.9	62.2	64.2	61.3
Inglewood Ave between 104th St and Lennox Blvd	N/A	N/A	N/A	N/A	N/A	61.1
La Brea Ave between Stocker St and Slauson Ave	N/A	N/A	N/A	N/A	N/A	64.2
La Brea Ave between Slauson Ave and Centinela Ave	N/A	N/A	N/A	N/A	N/A	63.6
La Brea Ave between Centinela Ave and Florence Ave	N/A	N/A	N/A	N/A	N/A	63.0
La Brea Ave between Florence Ave and Manchester Blvd	N/A	N/A	N/A	N/A	N/A	62.9
La Brea Ave between Manchester Blvd and Hillcrest Blvd	N/A	N/A	N/A	N/A	N/A	61.8
La Brea Ave between La Brea Ave and Arbor Vitae St	N/A	N/A	N/A	N/A	N/A	62.5
Hawthorne Ave between 104th St and Lennox Blvd	N/A	N/A	N/A	N/A	N/A	65.2
Hawthorne Ave between Lennox Blvd and 111th St	N/A	N/A	N/A	N/A	N/A	65.8
Hillcrest Blvd between Florence Ave and Manchester Blvd	N/A	N/A	62.7	58.6	60.7	57.6
Mrytle Ave between Hardy St and Century Blvd	57.3	57.8	58.2	55.6	56.4	54.6
Freeman Ave between Lennox Blvd and Imperial Hwy	61.5	62.1	61.1	59.6	60.5	58.8
Prairie Ave between Florence Ave and Grace Ave	N/A	N/A	66.6	63.7	65.9	63.4
Prairie Ave between Grace Ave and East Carondelet Way	N/A	N/A	66.7	63.8	65.9	63.5
Prairie Ave between East Carondelet Way and E Regent St	N/A	N/A	66.8	63.8	65.9	63.5
Prairie Ave between E Regent St and Manchester Blvd	N/A	N/A	67.3	64.2	66.4	63.8

TABLE 3.11-3
ADJUSTED BASELINE TRAFFIC NOISE LEVELS

Segment	Peak Period Noise Level (dBA Leq)					
	Weekday AM (dBA Leq)	Weekday PM (dBA Leq)	Friday Pre-Event (dBA Leq)	Friday Post-Event (dBA Leq)	Weekend Pre-Event (dBA Leq)	Weekend Post-Event (dBA Leq)
Prairie Ave between Manchester Blvd and Kelso St/Pincay Dr	68.8	68.7	67.8	65.0	67.3	64.6
Prairie Ave between Kelso St/Pincay Dr and Buckthorn St	N/A	N/A	68.1	65.2	67.5	64.7
Prairie Ave between Buckthorn St and Arbor Vitae St	N/A	N/A	68.2	65.0	67.5	64.5
Prairie Ave between Arbor Vitae St and Hardy St	68.6	69.1	68.0	65.1	67.5	64.5
Prairie Ave between Hardy St and 97th St	68.8	69.3	68.3	65.3	67.8	64.7
Prairie Ave between 97th St and Century Blvd	68.9	69.3	68.3	65.4	67.8	64.8
Prairie Ave between 102nd St and 104th St	68.7	69.1	68.2	65.5	67.7	64.9
Prairie Ave between 104th St and Lennox Blvd	69.3	69.7	69.0	66.7	68.3	66.0
Prairie Ave between 108th St and 111 St	69.3	69.9	69.2	67.0	68.7	66.3
Prairie Ave between 111 St and 112th St/105 off ramp	69.7	70.0	69.3	67.4	69.1	66.7
Prairie Ave between 112th St/105 off ramp and Imperial Hwy	69.4	69.7	69.2	67.1	68.9	66.3
Prairie Ave between Imperial Hwy and 118th St	N/A	N/A	68.5	65.7	67.7	64.8
Prairie Ave between 118th St and 120th St	N/A	N/A	68.3	65.4	67.4	64.5
Yukon Ave between 102nd St and 104th St	61.9	63.0	62.6	59.1	62.4	58.3
Yukon Ave between 104th St and 108th St	61.6	61.5	61.2	57.6	60.6	56.7
Yukon Ave between 108th St and 111th St	N/A	N/A	60.4	57.0	59.6	56.2
Yukon Ave between 111th St and Imperial Hwy	N/A	N/A	60.0	56.4	58.9	55.6
Crenshaw Blvd between Florence Ave and Manchester Blvd (W)	N/A	N/A	N/A	N/A	N/A	62.0
Crenshaw Blvd between Florence Ave and Manchester Blvd (E)	N/A	N/A	N/A	N/A	N/A	65.0
Crenshaw Blvd between Manchester Blvd and Pincay Dr	N/A	N/A	N/A	N/A	N/A	66.0
Crenshaw Blvd between Pincay Dr and Hardy St	N/A	N/A	N/A	N/A	N/A	66.0
Crenshaw Blvd between Hardy St and Century Blvd	69.3	69.6	69.3	66.9	69.0	66.0
Crenshaw Blvd between Century Blvd and 104th St	69.4	69.7	69.6	67.3	69.1	66.6
Crenshaw Blvd between 104th St and 109th St	N/A	N/A	N/A	N/A	N/A	66.9
Crenshaw Blvd between 109th St and Imperial Hwy	N/A	N/A	N/A	N/A	N/A	66.9
Crenshaw Blvd between Imperial Hwy and 105 off ramp/118th Pl	N/A	N/A	N/A	N/A	N/A	67.5
Van Ness Ave between Manchester Blvd and Hardy St/96th St	N/A	N/A	N/A	N/A	N/A	61.6

TABLE 3.11-3
ADJUSTED BASELINE TRAFFIC NOISE LEVELS

Segment	Peak Period Noise Level (dBA Leq)					
	Weekday AM (dBA Leq)	Weekday PM (dBA Leq)	Friday Pre-Event (dBA Leq)	Friday Post-Event (dBA Leq)	Weekend Pre-Event (dBA Leq)	Weekend Post-Event (dBA Leq)
Van Ness Ave between Hardy St/96th St and Century Blvd	N/A	N/A	N/A	N/A	N/A	61.6
Van Ness Ave between Century Blvd and 104th St	N/A	N/A	N/A	N/A	N/A	62.1
Western Ave between Manchester Blvd and Century Blvd	N/A	N/A	N/A	N/A	N/A	64.2
Vermont Ave between Manchester Blvd and Century Ave	N/A	N/A	N/A	N/A	N/A	64.1
Hoover St between Manchester Blvd and Century Ave	N/A	N/A	N/A	N/A	N/A	58.3

NOTE:
N/A – Traffic along these segments are most affected by event-related traffic and not by daily AM or PM peak hour traffic. Therefore, traffic volumes for these segments were not simulated under the weekday AM or PM peak hours.

SOURCE: ESA, 2019 (APPENDIX J)

TABLE 3.11-4
ADJUSTED BASELINE PLUS NFL GAME TRAFFIC NOISE LEVELS

Segment	Peak Period Noise Level (dBA Leq)			
	Friday Pre-Event (dBA Leq)	Friday Post-Event (dBA Leq)	Weekend Pre-Event (dBA Leq)	Weekend Post-Event (dBA Leq)
Centinela between La Cienega Blvd and La Brea Ave	69.7	67.6	69.5	66.7
Centinela between La Brea Ave and Florence Ave	69.7	66.9	68.6	66.0
Florence Ave between La Brea Ave and Hillcrest Blvd	69.0	65.8	67.0	64.8
Florence Ave between Hillcrest Blvd and Centinela Ave	69.7	66.6	67.9	65.7
Florence Ave between Centinela Ave and Prairie Ave	71.5	69.0	70.5	68.2
Florence Ave between Prairie Ave and West Blvd	71.6	69.5	70.4	68.7
Manchester Blvd between Ash Ave/405 NB Off-Ramp and La Brea Ave	68.6	69.5	67.7	69.3
Manchester Blvd between La Brea Ave and Hillcrest Blvd	70.8	70.7	69.6	70.4
Manchester Blvd between Hillcrest Blvd and Spruce Ave	71.0	70.7	69.7	70.4
Manchester Blvd between Spruce Ave and Prairie Ave	71.1	70.8	69.8	70.4
Manchester Blvd between Kareem Ct and Crenshaw Dr	71.5	69.8	70.0	69.3

TABLE 3.11-4
ADJUSTED BASELINE PLUS NFL GAME TRAFFIC NOISE LEVELS

Segment	Peak Period Noise Level (dBA Leq)			
	Friday Pre-Event (dBA Leq)	Friday Post-Event (dBA Leq)	Weekend Pre-Event (dBA Leq)	Weekend Post-Event (dBA Leq)
Manchester Blvd between Crenshaw Dr and Crenshaw Blvd	70.6	69.5	69.2	69.0
Manchester Blvd between Crenshaw Blvd and Van Ness Ave	71.6	70.5	70.4	69.9
Manchester Blvd between Van Ness Ave and Western Ave	71.6	70.5	70.7	69.9
Manchester Blvd between Western Ave and Normandie Ave	71.7	70.7	70.8	70.1
Manchester Blvd between Normandie Ave and Vermont Ave	71.7	70.6	70.9	70.0
Manchester Blvd between Vermont Ave and Hoover St	71.9	71.2	70.9	70.6
Manchester Blvd between Hoover St and Figueroa St	72.1	71.4	70.9	70.8
Pincay Dr between Prairie Ave and Kareem Ct	71.7	68.6	67.5	68.2
Pincay Dr between Kareem Ct and Crenshaw Blvd	71.7	65.3	68.7	64.4
Arbor Vitae St between La Cienega Blvd and Inglewood Ave	65.9	63.5	65.6	62.6
Arbor Vitae St between Inglewood Ave and La Brea Ave	65.7	63.5	65.3	62.6
Arbor Vitae St between La Brea Ave and Myrtle Ave	64.3	61.7	63.9	60.8
Arbor Vitae St between Myrtle Ave and Prairie Ave	63.6	61.0	63.0	60.1
Hardy St between La Brea Ave and Myrtle Ave	60.3	57.1	59.6	56.2
Hardy St between Myrtle Ave and Prairie Ave	59.8	55.6	58.8	54.6
Century Blvd between Concourse Way and La Cienega Blvd	70.4	70.9	70.5	70.0
Century Blvd between 405 on/off Ramp and Felton Ave	70.7	69.7	70.6	69.0
Century Blvd between Felton Ave and Inglewood Ave	70.5	69.6	70.4	69.0
Century Blvd between Inglewood Ave and Fir Ave/Firmona Ave	70.8	69.7	70.4	69.1
Century Blvd between Fir Ave/Firmona Ave and Grevillea Ave	70.9	69.7	70.4	69.0
Century Blvd between Hawthorne Blvd/La Brea Blvd and Myrtle Ave	71.1	69.7	70.2	69.2
Century Blvd between Myrtle Ave and Freeman Ave	71.1	69.7	70.2	69.2
Century Blvd between Freeman Ave and Prairie Ave	70.9	69.5	70.0	69.0
Century Blvd between Prairie Ave and Doty Ave	72.0	70.7	71.3	70.2
Century Blvd between 11th Ave/Village Ave and Crenshaw Blvd	72.0	70.7	71.9	70.2
Century Blvd between Crenshaw Blvd and 5th Ave	70.2	68.7	69.6	68.2
Century Blvd between 5th Ave and Van Ness Ave	70.2	68.7	69.7	68.2

TABLE 3.11-4
ADJUSTED BASELINE PLUS NFL GAME TRAFFIC NOISE LEVELS

Segment	Peak Period Noise Level (dBA Leq)			
	Friday Pre-Event (dBA Leq)	Friday Post-Event (dBA Leq)	Weekend Pre-Event (dBA Leq)	Weekend Post-Event (dBA Leq)
Century Blvd between Van Ness Ave and Gramercy Pl	70.5	68.8	69.9	68.3
Century Blvd between Gramercy Pl and Western Ave	70.6	68.8	69.9	68.3
Century Blvd between Western Ave and Normandie Ave	70.7	68.8	70.0	68.2
Century Blvd between Normandie Ave and Vermont Ave	71.1	69.2	70.4	68.6
Century Blvd between Vermont Ave and Hoover St	71.1	69.2	70.6	68.5
Century Blvd between Hoover St and Figueroa St	71.1	68.6	70.6	67.8
Century Blvd between Figueroa St and Grand Ave/110 SB off ramp	71.3	68.8	70.6	68.0
104th St between Inglewood Ave and Hawthorne Blvd	58.2	54.0	57.0	53.0
104th St between Hawthorne Blvd and Prairie Ave	57.4	54.2	56.7	53.2
104th St between Prairie Ave and Doty Ave	60.2	57.4	58.1	56.8
104th St between Doty Ave and Yukon Ave	59.8	57.0	57.9	56.4
104th St between Yukon Ave and Crenshaw Blvd	61.2	58.0	59.6	57.3
Lennox Blvd between La Cienega Blvd and Inglewood Ave	61.4	61.1	60.1	60.7
Lennox Blvd between Inglewood Ave and Hawthorne Blvd	63.6	62.8	63.0	62.2
Lennox Blvd between Hawthorne Blvd and Freeman Ave	63.6	61.8	62.2	61.3
Lennox Blvd between Freeman Ave and Prairie Ave	62.8	61.5	61.2	61.0
Imperial Hwy between Prairie Ave and Doty Ave	68.6	65.5	67.8	64.7
Imperial Hwy between Doty Ave and Yukon Ave	68.4	64.9	67.4	64.1
Imperial Hwy between Yukon Ave and Crenshaw Blvd	68.5	64.8	67.4	64.0
120th St between Prairie Ave and 105 on/off ramp	69.0	65.8	67.6	64.9
La Cienega Blvd between Stocker St and La Tijera Blvd	74.0	71.3	73.6	70.5
La Cienega Blvd between La Tijera Blvd and Centinela Ave	72.0	70.3	72.2	69.5
La Cienega Blvd between Centinela Ave and Florence Ave	70.4	68.6	70.2	67.7
La Cienega Blvd between Arbor Vitae St and 405 on/off rams (n/o Century)	67.5	65.6	66.4	64.7
La Cienega Blvd between 405 on/off rams (n/o Century) and Century Blvd	67.9	67.6	67.3	66.8
La Cienega Blvd between 405 on/off ramps (s/o Century) and 104th St	66.3	63.6	64.5	62.6
Inglewood Ave between Century Blvd and 104th St	64.9	62.2	64.2	61.3

TABLE 3.11-4
ADJUSTED BASELINE PLUS NFL GAME TRAFFIC NOISE LEVELS

Segment	Peak Period Noise Level (dBA Leq)			
	Friday Pre-Event (dBA Leq)	Friday Post-Event (dBA Leq)	Weekend Pre-Event (dBA Leq)	Weekend Post-Event (dBA Leq)
Inglewood Ave between 104th St and Lennox Blvd	65.4	62.1	64.5	61.1
La Brea Ave between Stocker St and Slauson Ave	69.1	65.8	67.4	65.0
La Brea Ave between Slauson Ave and Centinela Ave	68.4	65.2	67.8	64.4
La Brea Ave between Centinela Ave and Florence Ave	67.8	64.3	67.0	63.4
La Brea Ave between Florence Ave and Manchester Blvd	67.1	64.2	66.3	63.3
La Brea Ave between Manchester Blvd and Hillcrest Blvd	66.4	63.6	65.4	62.9
La Brea Ave between La Brea Ave and Arbor Vitae St	67.3	64.2	66.3	63.4
Hawthorne Ave between 104th St and Lennox Blvd	69.1	66.7	68.3	66.0
Hawthorne Ave between Lennox Blvd and 111th St	69.8	67.2	68.7	66.4
Hillcrest Blvd between Florence Ave and Manchester Blvd	62.7	58.6	60.7	57.6
Mrytle Ave between Hardy St and Century Blvd	58.2	55.6	56.4	54.6
Freeman Ave between Lennox Blvd and Imperial Hwy	61.8	62.0	61.4	61.4
Prairie Ave between Florence Ave and Grace Ave	69.2	66.4	67.2	65.8
Prairie Ave between Grace Ave and East Carondelet Way	69.3	66.4	67.2	65.9
Prairie Ave between East Carondelet Way and E Regent St	69.3	66.4	67.2	65.9
Prairie Ave between E Regent St and Manchester Blvd	69.6	66.6	67.6	66.1
Prairie Ave between Manchester Blvd and Kelso St/Pincay Dr	70.8	70.0	68.9	69.7
Prairie Ave between Kelso St/Pincay Dr and Buckthorn St	70.0	68.9	68.6	68.4
Prairie Ave between Buckthorn St and Arbor Vitae St	69.7	68.3	68.4	67.9
Prairie Ave between Arbor Vitae St and Hardy St	69.6	67.6	68.2	67.0
Prairie Ave between Hardy St and 97th St	70.6	69.5	68.9	69.2
Prairie Ave between 97th St and Century Blvd	70.8	69.8	69.2	69.4
Prairie Ave between 102nd St and 104th St	70.8	69.7	69.1	69.4
Prairie Ave between 104th St and Lennox Blvd	71.0	70.0	69.6	69.6
Prairie Ave between 108th St and 111 St	70.9	69.8	69.8	69.3
Prairie Ave between 111 St and 112th St/105 off ramp	71.0	70.0	70.0	69.5

TABLE 3.11-4
ADJUSTED BASELINE PLUS NFL GAME TRAFFIC NOISE LEVELS

Segment	Peak Period Noise Level (dBA Leq)			
	Friday Pre-Event (dBA Leq)	Friday Post-Event (dBA Leq)	Weekend Pre-Event (dBA Leq)	Weekend Post-Event (dBA Leq)
Prairie Ave between 112th St/105 off ramp and Imperial Hwy	70.0	69.6	69.7	69.1
Prairie Ave between Imperial Hwy and 118th St	68.6	66.3	67.7	65.5
Prairie Ave between 118th St and 120th St	68.5	66.1	67.4	65.3
Yukon Ave between 102nd St and 104th St	62.8	59.2	62.5	58.3
Yukon Ave between 104th St and 108th St	61.4	57.7	60.9	56.7
Yukon Ave between 108th St and 111th St	60.7	57.2	59.9	56.2
Yukon Ave between 111th St and Imperial Hwy	60.3	56.6	59.3	55.6
Crenshaw Blvd between Florence Ave and Manchester Blvd (W)	67.5	63.0	66.3	62.1
Crenshaw Blvd between Florence Ave and Manchester Blvd (E)	69.2	66.1	68.7	65.3
Crenshaw Blvd between Manchester Blvd and Pincay Dr	71.3	69.0	69.9	68.4
Crenshaw Blvd between Pincay Dr and Hardy St	71.4	70.2	69.8	69.8
Crenshaw Blvd between Hardy St and Century Blvd	70.9	70.2	69.4	69.8
Crenshaw Blvd between Century Blvd and 104th St	71.6	71.1	70.2	70.7
Crenshaw Blvd between 104th St and 109th St	72.0	71.4	70.6	71.0
Crenshaw Blvd between 109th St and Imperial Hwy	72.0	71.4	70.8	71.0
Crenshaw Blvd between Imperial Hwy and 105 off ramp/118th Pl	72.0	71.1	71.1	70.7
Van Ness Ave between Manchester Blvd and Hardy St/96th St	65.6	62.8	65.0	61.9
Van Ness Ave between Hardy St/96th St and Century Blvd	65.6	62.8	64.8	61.9
Van Ness Ave between Century Blvd and 104th St	66.0	63.0	65.2	62.1
Western Ave between Manchester Blvd and Century Blvd	68.2	65.3	67.5	64.5
Vermont Ave between Manchester Blvd and Century Ave	68.3	65.0	67.4	64.1
Hoover St between Manchester Blvd and Century Ave	63.1	59.3	62.5	58.3

SOURCE: ESA, 2019 (Appendix J)

TABLE 3.11-5
ADJUSTED BASELINE PLUS CONCERT AT FORUM TRAFFIC NOISE LEVELS

Segment	Peak Period Noise Level (dBA Leq)			
	Friday Pre-Event (dBA Leq)	Friday Post-Event (dBA Leq)	Weekend Pre-Event (dBA Leq)	Weekend Post-Event (dBA Leq)
Centinela between La Cienega Blvd and La Brea Ave	69.9	68.1	69.6	67.3
Centinela between La Brea Ave and Florence Ave	69.8	66.8	68.8	65.9
Florence Ave between La Brea Ave and Hillcrest Blvd	68.2	65.8	67.0	64.8
Florence Ave between Hillcrest Blvd and Centinela Ave	68.9	66.6	67.9	65.7
Florence Ave between Centinela Ave and Prairie Ave	71.1	69.0	70.6	68.1
Florence Ave between Prairie Ave and West Blvd	71.3	70.2	70.5	69.6
Manchester Blvd between Ash Ave/405 NB Off-Ramp and La Brea Ave	69.0	67.8	67.9	67.4
Manchester Blvd between La Brea Ave and Hillcrest Blvd	71.2	69.5	69.9	69.0
Manchester Blvd between Hillcrest Blvd and Spruce Ave	71.3	69.5	70.1	69.0
Manchester Blvd between Spruce Ave and Prairie Ave	71.7	69.8	70.3	69.4
Manchester Blvd between Kareem Ct and Crenshaw Dr	72.5	71.8	71.1	71.5
Manchester Blvd between Crenshaw Dr and Crenshaw Blvd	71.4	71.6	70.1	71.2
Manchester Blvd between Crenshaw Blvd and Van Ness Ave	72.3	71.8	71.1	71.4
Manchester Blvd between Van Ness Ave and Western Ave	72.2	71.8	71.3	71.5
Manchester Blvd between Western Ave and Normandie Ave	72.3	72.0	71.4	71.6
Manchester Blvd between Normandie Ave and Vermont Ave	72.4	72.1	71.4	71.7
Manchester Blvd between Vermont Ave and Hoover St	72.6	72.5	71.6	72.0
Manchester Blvd between Hoover St and Figueroa St	72.7	72.7	71.6	72.2
Pincay Dr between Prairie Ave and Kareem Ct	67.1	63.7	65.0	62.6
Pincay Dr between Kareem Ct and Crenshaw Blvd	71.3	65.1	69.2	64.3
Arbor Vitae St between La Cienega Blvd and Inglewood Ave	66.7	64.4	66.0	63.7
Arbor Vitae St between Inglewood Ave and La Brea Ave	66.7	64.4	65.8	63.7
Arbor Vitae St between La Brea Ave and Myrtle Ave	66.0	64.5	64.9	64.0
Arbor Vitae St between Myrtle Ave and Prairie Ave	65.7	64.2	64.4	63.8
Hardy St between La Brea Ave and Myrtle Ave	60.3	57.1	59.6	56.2
Hardy St between Myrtle Ave and Prairie Ave	59.8	55.6	58.8	54.6
Century Blvd between Concourse Way and La Cienega Blvd	70.5	71.1	70.5	70.2

TABLE 3.11-5
ADJUSTED BASELINE PLUS CONCERT AT FORUM TRAFFIC NOISE LEVELS

Segment	Peak Period Noise Level (dBA Leq)			
	Friday Pre-Event (dBA Leq)	Friday Post-Event (dBA Leq)	Weekend Pre-Event (dBA Leq)	Weekend Post-Event (dBA Leq)
Century Blvd between 405 on/off Ramp and Felton Ave	71.0	71.0	70.6	70.5
Century Blvd between Felton Ave and Inglewood Ave	70.8	71.0	70.4	70.5
Century Blvd between Inglewood Ave and Fir Ave/Firmona Ave	71.0	70.9	70.3	70.4
Century Blvd between Fir Ave/Firmona Ave and Grevillea Ave	71.1	70.8	70.4	70.3
Century Blvd between Hawthorne Blvd/La Brea Blvd and Myrtle Ave	71.1	70.6	70.2	70.1
Century Blvd between Myrtle Ave and Freeman Ave	71.1	70.6	70.1	70.1
Century Blvd between Freeman Ave and Prairie Ave	70.9	70.4	70.0	70.0
Century Blvd between Prairie Ave and Doty Ave	71.3	70.3	70.9	69.7
Century Blvd between 11th Ave/Village Ave and Crenshaw Blvd	71.7	70.4	71.7	69.9
Century Blvd between Crenshaw Blvd and 5th Ave	70.2	69.2	69.8	68.7
Century Blvd between 5th Ave and Van Ness Ave	70.2	69.2	69.9	68.7
Century Blvd between Van Ness Ave and Gramercy Pl	70.5	69.3	70.0	68.9
Century Blvd between Gramercy Pl and Western Ave	70.6	69.3	70.1	68.8
Century Blvd between Western Ave and Normandie Ave	70.8	69.5	70.2	69.0
Century Blvd between Normandie Ave and Vermont Ave	71.2	69.8	70.6	69.2
Century Blvd between Vermont Ave and Hoover St	71.3	70.0	70.7	69.4
Century Blvd between Hoover St and Figueroa St	71.3	69.6	70.8	69.0
Century Blvd between Figueroa St and Grand Ave/110 SB off ramp	71.5	69.8	70.7	69.2
104th St between Inglewood Ave and Hawthorne Blvd	58.2	54.0	57.0	53.0
104th St between Hawthorne Blvd and Prairie Ave	57.4	54.2	56.7	53.2
104th St between Prairie Ave and Doty Ave	59.1	55.5	58.0	54.6
104th St between Doty Ave and Yukon Ave	58.5	55.0	57.8	54.0
104th St between Yukon Ave and Crenshaw Blvd	60.3	56.4	59.5	55.5
Lennox Blvd between La Cienega Blvd and Inglewood Ave	61.4	58.0	59.4	57.0
Lennox Blvd between Inglewood Ave and Hawthorne Blvd	63.6	60.9	62.6	60.0
Lennox Blvd between Hawthorne Blvd and Freeman Ave	62.6	59.3	61.8	58.3
Lennox Blvd between Freeman Ave and Prairie Ave	61.5	58.7	60.7	57.8

TABLE 3.11-5
ADJUSTED BASELINE PLUS CONCERT AT FORUM TRAFFIC NOISE LEVELS

Segment	Peak Period Noise Level (dBA Leq)			
	Friday Pre-Event (dBA Leq)	Friday Post-Event (dBA Leq)	Weekend Pre-Event (dBA Leq)	Weekend Post-Event (dBA Leq)
Imperial Hwy between Prairie Ave and Doty Ave	68.6	65.2	67.8	64.4
Imperial Hwy between Doty Ave and Yukon Ave	68.4	64.7	67.5	63.8
Imperial Hwy between Yukon Ave and Crenshaw Blvd	68.4	64.5	67.4	63.6
120th St between Prairie Ave and 105 on/off ramp	69.0	65.4	67.7	64.5
La Cienega Blvd between Stocker St and La Tijera Blvd	74.0	71.4	73.6	70.6
La Cienega Blvd between La Tijera Blvd and Centinela Ave	72.1	70.4	72.2	69.6
La Cienega Blvd between Centinela Ave and Florence Ave	70.2	68.2	70.2	67.3
La Cienega Blvd between Arbor Vitae St and 405 on/off rams (n/o Century)	68.2	66.2	66.8	65.5
La Cienega Blvd between 405 on/off rams (n/o Century) and Century Blvd	67.8	67.5	66.9	66.7
La Cienega Blvd between 405 on/off ramps (s/o Century) and 104th St	66.3	63.6	64.5	62.6
Inglewood Ave between Century Blvd and 104th St	64.9	62.2	64.2	61.3
Inglewood Ave between 104th St and Lennox Blvd	65.4	62.1	64.5	61.1
La Brea Ave between Stocker St and Slauson Ave	69.1	65.8	67.5	65.0
La Brea Ave between Slauson Ave and Centinela Ave	68.4	65.2	67.9	64.4
La Brea Ave between Centinela Ave and Florence Ave	68.0	65.1	67.2	64.4
La Brea Ave between Florence Ave and Manchester Blvd	67.3	65.0	66.5	64.4
La Brea Ave between Manchester Blvd and Hillcrest Blvd	66.3	63.7	65.5	63.0
La Brea Ave between La Brea Ave and Arbor Vitae St	67.4	64.8	66.5	64.1
Hawthorne Ave between 104th St and Lennox Blvd	69.0	66.5	68.3	65.6
Hawthorne Ave between Lennox Blvd and 111th St	69.4	67.0	68.7	66.2
Hillcrest Blvd between Florence Ave and Manchester Blvd	62.7	58.6	60.7	57.6
Mrytle Ave between Hardy St and Century Blvd	58.2	55.6	56.4	54.6
Freeman Ave between Lennox Blvd and Imperial Hwy	61.5	63.0	60.9	62.6
Prairie Ave between Florence Ave and Grace Ave	68.2	67.3	67.5	66.9
Prairie Ave between Grace Ave and East Carondelet Way	68.3	67.4	67.5	66.9
Prairie Ave between East Carondelet Way and E Regent St	68.4	67.4	67.5	66.9
Prairie Ave between E Regent St and Manchester Blvd	68.8	67.5	67.9	67.1

TABLE 3.11-5
ADJUSTED BASELINE PLUS CONCERT AT FORUM TRAFFIC NOISE LEVELS

Segment	Peak Period Noise Level (dBA Leq)			
	Friday Pre-Event (dBA Leq)	Friday Post-Event (dBA Leq)	Weekend Pre-Event (dBA Leq)	Weekend Post-Event (dBA Leq)
Prairie Ave between Manchester Blvd and Kelso St/Pincay Dr	71.6	68.4	70.3	68.0
Prairie Ave between Kelso St/Pincay Dr and Buckthorn St	70.9	70.1	69.7	69.7
Prairie Ave between Buckthorn St and Arbor Vitae St	70.9	69.8	69.6	69.5
Prairie Ave between Arbor Vitae St and Hardy St	70.8	70.4	69.6	70.1
Prairie Ave between Hardy St and 97th St	71.0	71.1	69.9	70.8
Prairie Ave between 97th St and Century Blvd	71.0	71.1	69.9	70.9
Prairie Ave between 102nd St and 104th St	70.2	68.5	69.3	68.1
Prairie Ave between 104th St and Lennox Blvd	70.7	69.1	69.7	68.6
Prairie Ave between 108th St and 111 St	70.8	69.3	70.0	68.8
Prairie Ave between 111 St and 112th St/105 off ramp	70.9	69.6	70.3	69.0
Prairie Ave between 112th St/105 off ramp and Imperial Hwy	69.8	69.3	69.5	68.7
Prairie Ave between Imperial Hwy and 118th St	68.7	66.2	67.9	65.4
Prairie Ave between 118th St and 120th St	68.6	65.9	67.6	65.1
Yukon Ave between 102nd St and 104th St	62.8	59.2	62.5	58.3
Yukon Ave between 104th St and 108th St	61.4	57.7	60.9	56.7
Yukon Ave between 108th St and 111th St	60.7	57.2	59.9	56.2
Yukon Ave between 111th St and Imperial Hwy	60.3	56.6	59.3	55.6
Crenshaw Blvd between Florence Ave and Manchester Blvd (W)	67.7	64.5	66.6	63.9
Crenshaw Blvd between Florence Ave and Manchester Blvd (E)	69.4	67.2	68.9	66.5
Crenshaw Blvd between Manchester Blvd and Pincay Dr	71.4	70.8	70.5	70.5
Crenshaw Blvd between Pincay Dr and Hardy St	70.8	70.3	69.9	69.9
Crenshaw Blvd between Hardy St and Century Blvd	70.2	70.3	69.6	69.9
Crenshaw Blvd between Century Blvd and 104th St	70.6	69.4	70.0	68.8
Crenshaw Blvd between 104th St and 109th St	70.9	69.7	70.4	69.1
Crenshaw Blvd between 109th St and Imperial Hwy	70.9	69.6	70.6	69.1
Crenshaw Blvd between Imperial Hwy and 105 off ramp/118th Pl	71.1	70.0	70.9	69.4
Van Ness Ave between Manchester Blvd and Hardy St/96th St	65.5	62.6	64.9	61.6

TABLE 3.11-5
ADJUSTED BASELINE PLUS CONCERT AT FORUM TRAFFIC NOISE LEVELS

Segment	Peak Period Noise Level (dBA Leq)			
	Friday Pre-Event (dBA Leq)	Friday Post-Event (dBA Leq)	Weekend Pre-Event (dBA Leq)	Weekend Post-Event (dBA Leq)
Van Ness Ave between Hardy St/96th St and Century Blvd	65.5	62.5	64.8	61.6
Van Ness Ave between Century Blvd and 104th St	66.0	63.0	65.2	62.1
Western Ave between Manchester Blvd and Century Blvd	68.1	65.1	67.4	64.2
Vermont Ave between Manchester Blvd and Century Ave	68.3	65.0	67.2	64.1
Hoover St between Manchester Blvd and Century Ave	63.1	59.3	62.5	58.3

SOURCE: ESA, 2019 (Appendix J)

TABLE 3.11-6
ADJUSTED BASELINE PLUS NFL GAME AND CONCERT AT FORUM TRAFFIC NOISE LEVELS

Segment	Peak Period Noise Level (dBA Leq)			
	Friday Pre-Event (dBA Leq)	Friday Post-Event (dBA Leq)	Weekend Pre-Event (dBA Leq)	Weekend Post-Event (dBA Leq)
Centinela between La Cienega Blvd and La Brea Ave	69.9	67.8	69.9	66.4
Centinela between La Brea Ave and Florence Ave	69.8	66.9	69.0	65.9
Florence Ave between La Brea Ave and Hillcrest Blvd	69.1	66.3	67.0	64.8
Florence Ave between Hillcrest Blvd and Centinela Ave	69.7	67.1	67.9	65.7
Florence Ave between Centinela Ave and Prairie Ave	71.6	69.5	70.7	67.7
Florence Ave between Prairie Ave and West Blvd	71.8	70.2	70.8	67.6
Manchester Blvd between Ash Ave/405 NB Off-Ramp and La Brea Ave	71.8	71.9	71.7	63.0
Manchester Blvd between La Brea Ave and Hillcrest Blvd	71.4	71.5	71.1	66.1
Manchester Blvd between Hillcrest Blvd and Spruce Ave	71.5	71.5	71.2	66.1
Manchester Blvd between Spruce Ave and Prairie Ave	71.7	71.7	71.3	66.2
Manchester Blvd between Kareem Ct and Crenshaw Dr	72.2	71.2	71.8	67.1
Manchester Blvd between Crenshaw Dr and Crenshaw Blvd	71.3	71.0	70.8	66.7
Manchester Blvd between Crenshaw Blvd and Van Ness Ave	72.2	71.9	71.9	67.3

TABLE 3.11-6
ADJUSTED BASELINE PLUS NFL GAME AND CONCERT AT FORUM TRAFFIC NOISE LEVELS

Segment	Peak Period Noise Level (dBA Leq)			
	Friday Pre-Event (dBA Leq)	Friday Post-Event (dBA Leq)	Weekend Pre-Event (dBA Leq)	Weekend Post-Event (dBA Leq)
Manchester Blvd between Van Ness Ave and Western Ave	72.2	71.9	72.1	67.4
Manchester Blvd between Western Ave and Normandie Ave	72.3	72.0	72.2	67.7
Manchester Blvd between Normandie Ave and Vermont Ave	72.3	72.0	72.2	67.9
Manchester Blvd between Vermont Ave and Hoover St	72.4	72.4	72.3	68.8
Manchester Blvd between Hoover St and Figueroa St	72.6	72.6	72.3	69.1
Pincay Dr between Prairie Ave and Kareem Ct	71.9	69.0	65.8	63.4
Pincay Dr between Kareem Ct and Crenshaw Blvd	72.0	67.4	71.0	63.7
Arbor Vitae St between La Cienega Blvd and Inglewood Ave	67.1	65.7	66.2	62.4
Arbor Vitae St between Inglewood Ave and La Brea Ave	67.1	65.7	65.9	62.5
Arbor Vitae St between La Brea Ave and Myrtle Ave	66.5	65.1	65.4	60.6
Arbor Vitae St between Myrtle Ave and Prairie Ave	66.0	64.8	64.9	59.9
Hardy St between La Brea Ave and Myrtle Ave	60.3	57.1	59.6	56.2
Hardy St between Myrtle Ave and Prairie Ave	59.8	55.6	58.8	54.6
Century Blvd between Concourse Way and La Cienega Blvd	73.3	74.8	70.6	70.0
Century Blvd between 405 on/off Ramp and Felton Ave	71.9	71.2	70.9	67.6
Century Blvd between Felton Ave and Inglewood Ave	71.8	71.2	70.8	67.5
Century Blvd between Inglewood Ave and Fir Ave/Firmona Ave	71.8	70.7	70.7	67.3
Century Blvd between Fir Ave/Firmona Ave and Grevillea Ave	71.9	70.6	70.8	67.2
Century Blvd between Hawthorne Blvd/La Brea Blvd and Myrtle Ave	71.3	70.6	70.7	66.7
Century Blvd between Myrtle Ave and Freeman Ave	71.3	70.6	70.6	66.7
Century Blvd between Freeman Ave and Prairie Ave	71.1	70.5	70.5	66.3
Century Blvd between Prairie Ave and Doty Ave	72.2	71.2	71.7	67.2
Century Blvd between 11th Ave/Village Ave and Crenshaw Blvd	72.2	71.2	72.2	67.5
Century Blvd between Crenshaw Blvd and 5th Ave	70.5	69.4	70.4	65.5
Century Blvd between 5th Ave and Van Ness Ave	70.5	69.4	70.5	65.5
Century Blvd between Van Ness Ave and Gramercy Pl	70.7	69.5	70.6	65.9
Century Blvd between Gramercy Pl and Western Ave	70.8	69.5	70.6	65.9

TABLE 3.11-6
ADJUSTED BASELINE PLUS NFL GAME AND CONCERT AT FORUM TRAFFIC NOISE LEVELS

Segment	Peak Period Noise Level (dBA Leq)			
	Friday Pre-Event (dBA Leq)	Friday Post-Event (dBA Leq)	Weekend Pre-Event (dBA Leq)	Weekend Post-Event (dBA Leq)
Century Blvd between Western Ave and Normandie Ave	71.0	69.5	70.8	66.1
Century Blvd between Normandie Ave and Vermont Ave	71.3	69.8	71.1	66.6
Century Blvd between Vermont Ave and Hoover St	71.2	69.8	71.1	67.0
Century Blvd between Hoover St and Figueroa St	71.2	69.2	71.1	67.1
Century Blvd between Figueroa St and Grand Ave/110 SB off ramp	71.4	69.3	71.1	67.3
104th St between Inglewood Ave and Hawthorne Blvd	58.2	54.0	57.0	53.0
104th St between Hawthorne Blvd and Prairie Ave	57.4	54.2	56.7	53.2
104th St between Prairie Ave and Doty Ave	60.2	57.4	58.1	54.6
104th St between Doty Ave and Yukon Ave	59.8	57.0	57.9	54.0
104th St between Yukon Ave and Crenshaw Blvd	61.2	58.0	59.6	55.5
Lennox Blvd between La Cienega Blvd and Inglewood Ave	61.4	65.2	60.1	57.0
Lennox Blvd between Inglewood Ave and Hawthorne Blvd	63.6	65.9	63.0	60.0
Lennox Blvd between Hawthorne Blvd and Freeman Ave	63.6	61.8	62.2	58.3
Lennox Blvd between Freeman Ave and Prairie Ave	62.8	61.5	61.2	57.8
Imperial Hwy between Prairie Ave and Doty Ave	68.9	66.2	67.9	64.0
Imperial Hwy between Doty Ave and Yukon Ave	68.7	65.8	67.5	63.4
Imperial Hwy between Yukon Ave and Crenshaw Blvd	68.7	65.7	67.5	63.2
120th St between Prairie Ave and 105 on/off ramp	69.0	65.8	67.7	64.5
La Cienega Blvd between Stocker St and La Tijera Blvd	74.2	71.9	73.7	70.2
La Cienega Blvd between La Tijera Blvd and Centinela Ave	72.4	71.1	72.4	69.0
La Cienega Blvd between Centinela Ave and Florence Ave	70.7	69.5	70.2	67.3
La Cienega Blvd between Arbor Vitae St and 405 on/off rams (n/o Century)	68.5	67.4	67.2	64.5
La Cienega Blvd between 405 on/off rams (n/o Century) and Century Blvd	69.4	68.7	67.3	65.9
La Cienega Blvd between 405 on/off ramps (s/o Century) and 104th St	68.5	70.5	64.5	62.6
Inglewood Ave between Century Blvd and 104th St	65.7	64.4	64.2	61.3
Inglewood Ave between 104th St and Lennox Blvd	66.1	64.4	64.5	61.1
La Brea Ave between Stocker St and Slauson Ave	69.2	66.1	67.6	64.2

TABLE 3.11-6
ADJUSTED BASELINE PLUS NFL GAME AND CONCERT AT FORUM TRAFFIC NOISE LEVELS

Segment	Peak Period Noise Level (dBA Leq)			
	Friday Pre-Event (dBA Leq)	Friday Post-Event (dBA Leq)	Weekend Pre-Event (dBA Leq)	Weekend Post-Event (dBA Leq)
La Brea Ave between Slauson Ave and Centinela Ave	68.5	65.6	67.9	63.6
La Brea Ave between Centinela Ave and Florence Ave	68.0	64.9	67.3	63.0
La Brea Ave between Florence Ave and Manchester Blvd	67.9	64.6	66.7	62.9
La Brea Ave between Manchester Blvd and Hillcrest Blvd	67.0	64.8	65.8	61.8
La Brea Ave between La Brea Ave and Arbor Vitae St	68.0	65.6	66.6	62.5
Hawthorne Ave between 104th St and Lennox Blvd	70.1	67.3	68.5	65.2
Hawthorne Ave between Lennox Blvd and 111th St	70.7	69.5	68.9	65.8
Hillcrest Blvd between Florence Ave and Manchester Blvd	62.7	58.6	60.7	57.6
Mrytle Ave between Hardy St and Century Blvd	58.2	55.6	56.4	54.6
Freeman Ave between Lennox Blvd and Imperial Hwy	61.9	63.1	61.4	58.8
Prairie Ave between Florence Ave and Grace Ave	69.5	67.2	68.0	63.4
Prairie Ave between Grace Ave and East Carondelet Way	69.6	67.2	68.0	63.5
Prairie Ave between East Carondelet Way and E Regent St	69.6	67.2	68.0	63.5
Prairie Ave between E Regent St and Manchester Blvd	69.9	67.4	68.3	63.8
Prairie Ave between Manchester Blvd and Kelso St/Pincay Dr	72.1	70.6	71.3	64.6
Prairie Ave between Kelso St/Pincay Dr and Buckthorn St	71.0	70.9	70.5	64.7
Prairie Ave between Buckthorn St and Arbor Vitae St	70.8	70.5	70.3	64.5
Prairie Ave between Arbor Vitae St and Hardy St	70.4	70.0	70.2	64.5
Prairie Ave between Hardy St and 97th St	71.3	71.2	70.7	64.7
Prairie Ave between 97th St and Century Blvd	71.4	71.4	70.9	64.8
Prairie Ave between 102nd St and 104th St	71.2	70.4	70.2	64.9
Prairie Ave between 104th St and Lennox Blvd	71.4	70.7	70.6	66.0
Prairie Ave between 108th St and 111 St	71.3	70.4	70.7	66.3
Prairie Ave between 111 St and 112th St/105 off ramp	71.4	70.6	71.0	66.7
Prairie Ave between 112th St/105 off ramp and Imperial Hwy	70.1	70.2	70.0	66.3
Prairie Ave between Imperial Hwy and 118th St	68.7	66.5	68.0	64.8
Prairie Ave between 118th St and 120th St	68.6	66.3	67.6	64.5

TABLE 3.11-6
ADJUSTED BASELINE PLUS NFL GAME AND CONCERT AT FORUM TRAFFIC NOISE LEVELS

Segment	Peak Period Noise Level (dBA Leq)			
	Friday Pre-Event (dBA Leq)	Friday Post-Event (dBA Leq)	Weekend Pre-Event (dBA Leq)	Weekend Post-Event (dBA Leq)
Yukon Ave between 102nd St and 104th St	62.8	59.2	62.5	58.3
Yukon Ave between 104th St and 108th St	61.4	57.7	60.9	56.7
Yukon Ave between 108th St and 111th St	60.7	57.2	59.9	56.2
Yukon Ave between 111th St and Imperial Hwy	60.3	56.6	59.3	55.6
Crenshaw Blvd between Florence Ave and Manchester Blvd (W)	67.6	63.5	67.0	62.0
Crenshaw Blvd between Florence Ave and Manchester Blvd (E)	69.3	66.3	69.3	65.0
Crenshaw Blvd between Manchester Blvd and Pincay Dr	71.6	69.6	71.3	66.0
Crenshaw Blvd between Pincay Dr and Hardy St	71.6	70.5	70.6	66.0
Crenshaw Blvd between Hardy St and Century Blvd	71.1	70.5	70.2	66.0
Crenshaw Blvd between Century Blvd and 104th St	71.8	71.3	70.7	66.6
Crenshaw Blvd between 104th St and 109th St	72.2	71.7	71.0	66.9
Crenshaw Blvd between 109th St and Imperial Hwy	72.2	71.7	71.2	66.9
Crenshaw Blvd between Imperial Hwy and 105 off ramp/118th Pl	72.1	71.4	71.5	67.5
Van Ness Ave between Manchester Blvd and Hardy St/96th St	65.6	62.8	65.0	61.6
Van Ness Ave between Hardy St/96th St and Century Blvd	65.6	62.8	64.8	61.6
Van Ness Ave between Century Blvd and 104th St	66.0	63.0	65.2	62.1
Western Ave between Manchester Blvd and Century Blvd	68.2	65.3	67.5	64.2
Vermont Ave between Manchester Blvd and Century Ave	68.3	65.0	67.4	64.1
Hoover St between Manchester Blvd and Century Ave	63.1	59.3	62.5	58.3

SOURCE: ESA, 2019 (Appendix J)

3.11.4 Regulatory Setting

Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies. Local regulation of noise involves implementation of general plan policies and noise ordinance standards. Local general plans identify general principles intended to guide and influence development plans; local noise ordinances establish standards and procedures for addressing specific noise sources and activities. Noise issues relevant to the Proposed Project are addressed in Title 24 of the California Code of Regulations, City of Inglewood General Plan policies and the City of Inglewood noise ordinance standards.

Federal

In 1972, the Noise Control Act (42 United States Code Section 4901 et seq.) was passed by congress to promote limited noise environments in support of public health and welfare. It also established the US Environmental Protection Agency (US EPA) Office of Noise Abatement and Control to coordinate federal noise control activities. US EPA established guidelines for noise levels that would be considered safe for community exposure without the risk of adverse health or welfare effects. **Table 3.11-7**, Summary of Noise Levels Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, presents important noise exposure levels highlighted by the guidelines.

In a 1974 study, US EPA found that to prevent hearing loss over the lifetime of exposure, the yearly average Leq should not exceed 70 dBA. To prevent interference and annoyance, the US EPA found that the Ldn should not exceed 55 dBA outdoors or 45 dBA indoors.[28] In 1982, noise control was largely passed to state and local governments.

Federal regulations establish noise limits for medium and heavy trucks (more than 4.8 tons, gross vehicle weight rating) under 40 Code of Federal Regulations (CFR), Part 205, Subpart B. The federal truck pass-by noise standard is 80 dBA at 50 feet (approximately 15 meters) from the vehicle pathway centerline under specified test procedures. These requirements are implemented through regulatory controls on truck manufacturers. There are no comparable federal standards for vibration, which tend to be specific to the roadway surface, the vehicle load, and other factors.

TABLE 3.11-7
SUMMARY OF NOISE LEVELS REQUISITE TO PROTECT PUBLIC HEALTH AND WELFARE WITH AN ADEQUATE MARGIN OF SAFETY

Effect	Level Needed to Avoid Effect	Area
Hearing loss	< 70 dBA[a] (Leq, 24 hour)	All areas.
Outdoor activity interference and annoyance	< 55 dBA (Ldn)	Outdoor residential areas and farms as well as other outdoor areas where people spend varying amounts of time and places where quiet is a basis for use.

[28] US Environmental Protection Agency, 1974. *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety.* March 1974. p. 34.

Effect	Level Needed to Avoid Effect	Area
Outdoor activity interference and annoyance	< 55 dBA (Leq, 24 hour)	Outdoor areas where people spend limited amounts of time, such as school yards, playgrounds, etc.
Indoor activity interference and annoyance	< 45 dBA (Ldn)	Indoor residential areas.
Indoor activity interference and annoyance	< 45 dBA (Leq, 24 hour)	Other indoor areas with human activities, such as schools, etc.

NOTE:
a Yearly average equivalent sound levels in decibels; the exposure period that results in hearing loss at the identified level is 40 years.

SOURCE: US Environmental Protection Agency, 1974. *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*. March 1974. p. 4.

Federal Transit Administration

The Federal Transit Administration (FTA) has published guidance for assessing noise and vibration impacts from rail sources.[29] Additionally, this guidance provides methodologies for assessing the potential noise impacts from construction. The FTA's Transit Noise and Vibration Impact Assessment is specifically developed for determining significant noise and vibration impacts for transit projects involving rail or bus facilities, although commonly applied to non-rail and non-bus transit projects, and includes noise impact criteria.

Federal Aviation Administration

CFR Part 150, Airport Noise Compatibility Planning, sets forth the methodology and procedures to be followed when preparing aircraft noise exposure maps and developing airport /airport environs land use compatibility programs. CFR Part 150 studies typically consist of two primary components: (1) the Noise Exposure Map (NEM) report, which contains detailed information regarding existing and 5-year future airport/aircraft noise exposure patterns, and (2) the Noise Compatibility Program (NCP), which includes descriptions and an evaluation of noise abatement and noise mitigation options/programs applicable to an airport.[30]

State

The State of California establishes noise limits for vehicles licensed to operate on public roads. For heavy trucks, the state pass-by standard is consistent with the federal limit of 80 dBA. The State pass-by standard for light trucks and passenger cars (less than 4.8 tons, gross vehicle rating) is also 80 dBA at 50 feet (approximately 15 meters) from the centerline. These standards are implemented through controls on vehicle manufacturers and by legal sanction of vehicle operators by state and local law enforcement officials.

The state also has established noise insulation standards for new multifamily residential units, hotels, and motels that would be subject to relatively high levels of transportation-related noise.

29 Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment Manual*. September 2018.
30 City of Los Angeles, Los Angeles World Airports, 2015. Noise Management LAX, LAX Part 150 Noise Exposure Map Update. August 2015.

These requirements are collectively known as the California Noise Insulation Standards (Title 24, California Code of Regulations). The noise insulation standards set forth an interior standard of DNL 45 dBA in any habitable room. They require an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to noise levels greater than DNL 60 dBA. Title 24 standards are typically enforced by local jurisdictions through the building permit application process.

Regional

Los Angeles County Airport Land Use Plan

The Project Site is located approximately 1.5 miles east of LAX and approximately 1.5 miles to the north of the HHR. Pursuant to Division 9, Part 1, Chapter 4, Article 3.5, Sections 21670–21679.5 of the California Public Utilities Code, each county in California in which there is an airport served by a scheduled airline and each county with an airport operated for the benefit of the general public, with certain exceptions, is required to establish an airport land use commission (ALUC). Each ALUC must develop a plan for promoting and ensuring compatibility between each airport in the county and surrounding land uses. In Los Angeles County, the Los Angeles County Regional Planning Commission also acts as the ALUC. ALUC's purpose is to coordinate planning for the area around public airports to protect the public health, safety and welfare from land uses that do not minimize the public's exposure to excessive noise and safety hazards. This is achieved through review of proposed development surrounding airports and through policy and guidance provided in the Los Angeles County ALUP, which was adopted on December 19, 1991.[31]

In formulating the Los Angeles County ALUP, the ALUC establishes provisions to ensure safe airport operations, through the delineation of Runway Protections Zones (RPZs) and height restriction boundaries, and to reduce excessive noise exposure to sensitive uses through noise insulation or land reuse. The extent of the planning boundary designated for the airports in the Los Angeles County ALUP is determined by CNEL noise contours. The Los Angeles County ALUP employs a land use compatibility table to identify the level of compatibility for particular land uses within the planning area boundaries/ AIAs for the County's airports based on community noise exposure level. The ALUP Land Use Compatibility Chart is depicted in Section 3.10, Land Use and Planning (Figure 3.10-3). Per the CFR Part 150 Land Use Compatibility Guidelines, residential uses are identified as non-compatible land uses for parcels exposed to 65 dBA CNEL or higher.[32] Commercial land uses are identified as compatible with 65 and 70 dBA CNEL noise levels. The CFR Part 150 Land Use Compatibility Guidelines categorizes hotel uses as a transient lodging form of residential. According to the LAX *Noise Control and Land Use Compatibility Study*, a noise level of up to 70 dBA CNEL is normally

[31] Los Angeles County Airport Land Use Commission, 1991. Los Angeles County Airport Land Use Plan, prepared by the Department of Regional Planning, adopted December 19, 1991.
[32] Federal Aviation Administration, Land Use Compatibility and Airports. p.V-10.

acceptable for transient lodging uses (e.g., hotel) and up to 65 dBA CNEL is normally acceptable for sports arenas and residential uses.[33]

The Project Site is partially located within the Planning Boundary/Airport Influence Area for the LAX Airport as designated within the Los Angeles County ALUP. As depicted in Figure 2-4 in Chapter 2, Project Description, the Project Site falls within the Airport Influence Area and Airport Compatibility Zone for LAX for the southern LAX runway. As shown, the majority of the Project Site is within the 65 dBA CNEL noise contour. The Project Site is not located within the designated Airport Influence Area for the Hawthorne Municipal Airport. Additional discussion of the Los Angeles County ALUP, including consistency with policies related to safety, are addressed in Section 3.8, Hazards and Hazardous Materials. The following policies related to noise from the Los Angeles County ALUP are applicable to the Proposed Project:

ALUP Policies Related to Noise:

> ***Policy N-1:*** Use the CNEL method for measuring noise impacts near airports in determining suitability for various types of land uses.
>
> ***Policy N-2:*** Require sound insulation to insure a maximum interior 45 dBA CNEL in new residential, educational, and health-related uses in areas subject to exterior noise levels of 65 dBA CNEL or greater.
>
> ***Policy N-3:*** Utilize the Table Listing Land Use Compatibility for Airport Noise Environments in evaluation projects within the planning boundaries.
>
> ***Policy N-4:*** Encourage local agencies to adopt procedures to ensure that prospective property owners in aircraft noise exposure areas above a current or anticipated 60 dBA CNEL are informed of these noise levels and of any land use restrictions associated with high noise exposure.

Consistency with ALUP policies related to noise is addressed in the discussion under Impact 3.11-3, below.

Local

City of Inglewood General Plan

The City of Inglewood General Plan Noise Element, adopted September 1, 1987, is "a comprehensive program for including noise control in the planning process," and "is a tool for local planners to use in achieving and maintaining compatible land use with environmental noise levels."[34]. According to the General Plan, noise-sensitive uses include residential dwellings, schools, churches, and hospitals. **Table 3.11-8** presents the Noise/Land Use Compatibility Matrix from the General Plan Noise Element, adopted in 1987. Noise levels of up to 70 dBA CNEL for single- and multifamily residential use and 65 dBA CNEL for schools, churches, and hospitals are considered "Normally Compatible."

---

[33] Los Angeles County Airport Land Use Commission, 1983. Noise Control and Land Use Compatibility Study Phase Two Report. January 1983. p. 5-52.

[34] City of Inglewood, Noise Element of the General Plan, 1987, p. 2.

TABLE 3.11-8
GENERAL PLAN NOISE ELEMENT NOISE/LAND USE COMPATIBILITY MATRIX

Land Use Categories		Community Noise Equivalent Level (CNEL)						
Categories	**Uses**	**<55**	**60**	**65**	**70**	**75**	**80>**	
RESIDENTIAL	Single Family, Duplex, Multiple Family	A	A	B	B	C	D	D
RESIDENTIAL	Mobile Home	A	A	B	C	C	D	D
COMMERCIAL Regional, District	Hotel, Motel, Transient Lodging	A	A	B	B	C	C	D
COMMERCIAL Regional, Village District, Special	Commercial Retail, Bank, Restaurant, Movie Theatre	A	A	A	A	B	B	C
COMMERCIAL INDUSTRIAL INSTITUTIONAL	Office Building, Research and Development, Professional Offices, City Office Building	A	A	A	B	B	C	D
COMMERCIAL Recreation	Amphitheatre, Concert Hall	B	B	C	C	D	D	D
INSTITUTIONAL Civic Center	Auditorium, Meeting Hall							
COMMERCIAL Recreation	Children's Amusement Park, Miniature Golf Course, Go-cart Track, Equestrian Center, Sports Club	A	A	A	B	B	D	D
COMMERCIAL General, Special INDUSTRIAL, INSTITUTIONAL	Automobile Service Station, Auto Dealership, Manufacturing, Warehousing, Wholesale, Utilities	A	A	A	A	B	B	B
INSTITUTIONAL General	Hospital, Church, Library Schools Classroom	A	A	B	C	C	D	D
OPEN SPACE	Parks	A	A	A	B	C	D	D
OPEN SPACE	Golf Course, Cemeteries, Nature Centers, Wildlife Reserves, Wildlife Habitat	A	A	A	A	B	C	C
AGRICULTURE	Agriculture	A	A	A	A	A	A	A

NOTES:
* Construction of new residential uses will not be allowed in the 65 dBA CNEL for airport noise.

INTERPRETATION:

ZONE A Clearly Compatible	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.
ZONE B Normally Compatible	New construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.
ZONE C Normally Incompatible	New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.
ZONE D Clearly Incompatible	New construction or development should generally not be undertaken.

SOURCE: City of Inglewood, 1987. Noise Element of the General Plan. Exhibit 6. Adopted September 1, 1987 per Resolution No. 87-61.

The following goals and policies from the City of Inglewood General Plan Noise Element are applicable to the Proposed Project:

Goal 1: Provide for the reduction of noise where the noise environment represents a threat to public health and welfare. In those areas where the environment represents a threat to the public health and welfare, it is the objective of the City to reduce environmental hazards to levels consistent with the protection of the public health and welfare.

Goal 3: Protect and maintain those areas having acceptable noise environments. In those areas where a quality environment now exists, it is the objective of the City to prevent degradation of that environment.

Goal 4: Provide sufficient information concerning the community noise levels so that noise can be objectively considered in land use planning decisions. Noise and land use incompatibilities can be avoided for new developments when noise is properly considered in the planning and design of the project. It is the objective of the City to prevent future land use and noise conflicts through the planning process.

***Policy 4.2*:** Incorporate noise considerations into land use planning decisions.

- Ensure acceptable noise levels near schools, hospitals, convalescent homes, and other noise sensitive areas.
- Encourage acoustical design in new construction.

***Policy 4.3*:** Develop measures to control non-transportation noise impacts.

- Evaluate noise generated by construction activities.

***Policy 4.4*:** Reduce noise conflicts at the source.

- Actively support the FAR Part 150 Noise Compatibility Program as described in the "Noise Control and Land Use Compatibility Study, Los Angeles International Airport," (March 1984).

***Policy 4.5*:** Reduce noise conflicts at the receiver.

***Policy 4.6*:** Protect those who live and work in the City from dangerous on-the-job noise exposure.

Consistency with the policies of the City's General Plan Noise Element are addressed in the discussion of Impacts 3.11-1 and 3.11-3, below.

City of Inglewood Municipal Code

The City of Inglewood Municipal Code, Chapter 5 (Offenses, Miscellaneous), Article 2 (Noise Regulations) , establishes "criteria and standards for the regulation of noise levels within the community."[35] Rather than being adopted to assist the City in guiding land use decisions, like the Noise Element of the General Plan, the City's Noise Regulations are intended to protect "the comfort, repose, health, or peace of residents in the area," and define noise levels that are considered public nuisances and are subject to abatement through the City's exercise of its police

[35] City of Inglewood Municipal Code, Chapter 5, Article 2, Section 5-24.

powers.[36]Relevant sections of the City's Noise Regulations are presented below for informational purposes.

Section 5-27 establishes base ambient noise levels within respective times and zones. Where actual noise measurements exceed base ambient noise levels as designated by Section 5-27, the measured noise level shall be employed as the base ambient noise level.[37]

Sections 5-29, 5-30, and 5-31 establish the City's authority to regulate noise that "disturbs the peace or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person residing in the area," and identifies maximum lawful noise levels and maximum duration periods that may be generated on residential and non-residential properties.

Section 5-39 of the Code prohibits the operation of any machinery, equipment, device, pump, fan, compressor, air—conditioning apparatus, or similar mechanical devise that would cause the noise level at any property line to exceed the ambient noise level by 5 dBA.

Section 5-41 of the Code prohibits construction or repair work and the operation of any pile driver, pneumatic hammer, derrick, excavation or earth moving equipment, or other construction equipment within a residential zone or within a 500-foot radius of a residential zone between the hours of 8:00 PM and 7:00 AM unless a permit is obtained from the Permits and Licenses Committee of the City.

Section 5-43 of the Code prohibits the operation of any motor driven vehicle due to the nature of the operation of the vehicle, condition of the vehicle, or modification made to the vehicle, that would generate noise so that a reasonable person is caused discomfort or annoyance.

Section 5-51 of the Code states that the commercial (for the purpose of advertising any business, goods, or services and/or for the purpose of advertising or attracting the attention of the public to or soliciting patronage for any performance, entertainment, exhibition or event) and noncommercial (other than "commercial purpose" including, but not limited to philanthropic, charitable, political, and patriotic purposes) use of sound amplifying equipment shall be subject to the following regulations:

a. The only sounds permitted shall be either music or human speech, or both.

b. The operation of sound amplifying equipment shall only occur between the hours of 8 AM and 10 PM each day. No operation of sound amplifying equipment for commercial purposes shall be permitted on Sundays or legal holidays.

c. No sound emanating from sound amplifying equipment shall exceed 15 dB(A) above the ambient noise base level as measured at any property line.

d. Notwithstanding the provisions of subsection (c) of this section, sound amplifying equipment shall not be operated within 200 feet of churches, schools and hospitals.

[36] City of Inglewood Municipal Code, Chapter 5, Article 2, Section 5-49.
[37] City of Inglewood Municipal Code, Chapter 5, Article 2, Section 5-27.

e. In any event, the volume of sound shall be so controlled that it will not be unreasonably loud, raucous, jarring, disturbing, or a nuisance to persons of normal sensitiveness within the area of audibility.

The City's Noise Regulations guide the exercise of the City's police power in protecting the public health and welfare. The regulations contrast to the policies of the Noise Element of the General Plan, which guide land use decision making in the City. As described further in the analysis below, construction and operation of the Proposed Project could be inconsistent with some of the existing City Noise Regulations. The applicant has proposed revisions to Chapter 5, Article 2, and Chapter 12 of the Municipal Code. If approved, the Proposed Project would not be inconsistent with the City Noise Regulations.

3.11.5 Analysis, Impacts and Mitigation

Significance Criteria

The City has not adopted thresholds of significance for analysis of impacts from noise and vibration. The following threshold of significance is consistent with CEQA Guidelines Appendix G. A significant impact would occur if the Proposed Project would:

1. Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
2. Generate excessive groundborne vibration or groundborne noise levels; or
3. For a project located within the vicinity of a private air strip 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 region surrounding the Project Site to excessive noise levels.

This analysis uses a threshold of significance for construction and operational noise that is adapted from CEQA Guidelines Appendix G. That threshold states that a significant impact would occur if the Proposed Project would 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.

In considering further how to quantitatively define this threshold for construction noise, the City is mindful that although construction noise is temporary and only occurs at any location during a period or phase of construction, the City of Inglewood Municipal Code section 5-41 prohibits construction or repair work and the operation of any pile driver, pneumatic hammer, derrick, excavation or earth moving equipment, or other construction equipment within a residential zone or within a 500-foot radius of a residential zone between the hours of 8:00 PM and 7:00 AM unless a permit is obtained from the Permits and Licenses Committee of the City. This prohibition of nighttime construction in or near residential zones, without first obtaining a permit authorizing such nighttime construction, implies that the City does not regulate construction noise during daytime hours (7:00 AM to 8:00 PM).

Because the Proposed Project would include nighttime construction on a periodic basis throughout the project construction period, for this EIR the City has elected to identify a threshold of significance to apply to the proposed nighttime construction work. Further, because of the unique size, scale, planned construction schedule, and proximity of the Proposed Project to noise sensitive uses, for this EIR the City has elected to apply a threshold of significance for daytime construction noise, which could occur on a fluctuating and intermittent basis over a period of approximately 40 months.

For the reasons described above, the City has decided that in this EIR it will define "a substantial temporary or permanent increase in ambient noise levels" by utilizing the following additional thresholds. These thresholds are adapted from, but not identical to, the City of Los Angeles CEQA Thresholds Guide:[38]

- Construction activities between the hours of 7:00 AM and 8:00 PM that would exceed existing ambient exterior noise levels by 5 dBA or more at a noise sensitive use; or
- Construction activities between the hours of 8:00 PM and 7:00 AM that would exceed the existing ambient exterior noise level by 5 dBA or more at a noise sensitive use.

These thresholds are similar to those in the City of LA CEQA Thresholds Guide but have been adapted to reflect the City of Inglewood's Municipal Code noise control sections.

As stated above, the use of these thresholds in this Draft EIR responds to the unique circumstances of the Proposed Project and the Project Site. By utilizing these quantitative thresholds in this Draft EIR, the City is not making a decision whether to use these thresholds in CEQA documents on other proposed projects in the future. The City would, however, retain its authority as CEQA lead agency to utilize these or other thresholds, including relying exclusively on the provisions of Municipal Code section 5-41, for the consideration of construction noise, as appropriate to the circumstances of other projects in the future.

For operational impacts, the City recognizes that such impacts occur on the long-term, and, as a result, the City has determined that in this case the significance threshold should be more conservative. An increase in noise level of 3 dBA is generally regarded as an increase in noise that is barely perceivable.[39] For this reason, increases of less than 3 dBA would have no physical effect on the environment, and are not considered significant. The City of Los Angeles CEQA Thresholds Guide provides guidance specifically applicable to the evaluation of operational noise sources. Under this guidance, an increase of 3 dBA is the most stringent of the City of LA thresholds.[40] Therefore, for the purposes of this EIR, an increase in traffic noise of 3 dBA Leq

[38] City of Los Angeles, L.A. CEQA Thresholds Guide, Your Resource for Preparing CEQA Analyses in Los Angeles, 2006, p. I.1-3.
[39] California Department of Transportation, 2013. *Technical Noise Supplement*. September 2013. p. 6-5.
[40] City of Los Angeles, 2006. *L.A. CEQA Thresholds Guide*. 2006. p. I.2-3.

and an increase in composite operational noise of 3 dBA Leq over existing ambient noise levels at a noise-sensitive use is considered a significant impact.[41]

As described above, the City has adopted Noise Regulations that prohibit noise in excess of specified levels, depending on base ambient noise levels, the nature of the use where noise levels are measured, and the duration period of such noise. The Noise Regulations may prohibit any increase in ambient noise levels under specified circumstances. The City has not previously relied on the Noise Regulations to serve as significance thresholds for operational noise. The City has determined that the Noise Regulations should not serve as operational noise thresholds for the Proposed Project. The reason for this determination is that an increase in ambient noise would be imperceptible, or at most barely perceptible, where that increase is less than 3 dBA. Such an increase in ambient noise levels would not have a significant effect on the physical environment. The City has instead determined that the threshold should be set at a level that is actually perceivable. The City has therefore adapted its threshold from the City of LA thresholds, as described above.

Methodology and Assumptions

Construction Noise

On-Site Sources of Construction Noise

Construction noise impacts were assessed based on a comparative analysis of the noise levels resulting from operation of specified construction equipment and the noise levels of existing conditions at noise-sensitive off-site land uses. Noise impacts from on-site construction were evaluated by determining the noise levels generated by the different types of construction activity anticipated, calculating the construction-related noise level generated by the mix of equipment assumed for all construction activities at nearby noise-sensitive receptor locations, and comparing these construction-related noise levels to existing ambient noise levels (i.e., noise levels without construction noise) at those receptors.

The Computer Aided Noise Abatement (CadnaA) noise propagation program (Version 2019) was used to estimate the propagation of noise from Project construction. CadnaA is a Windows-based software program that predicts and assesses noise levels in the vicinity of noise sources based on International Organization for Standardization 9613-2 algorithms for noise propagation calculations. The calculations account for classical sound wave divergence plus attenuation factors resulting from air absorption, basic ground effects, and barrier/shielding.

Figure 3.11-2 identifies the location of noise-sensitive receptors. For purposes of providing a range of construction noise levels experienced by various noise-sensitive receptors within each receptor group, the model evaluated multiple receiver points (along the property lines and near buildings at noise-sensitive uses at ground and upper levels) within each receptor group. For

[41] California Department of Transportation, 2013. *Technical Noise Supplement*. September 2013. p. 6-5.

construction noise levels calculated at each of the receiver points and the location of each receiver point, see Appendix J.

Over the course of the construction schedule, the length of workdays would vary in range from 8 hours to continuous 24 hours, with the level of activity fluctuating throughout any given day. During the building construction phase of the Arena Structure, a majority of the construction days would be 16-hour workdays, though some days could also require 24-hour workdays (e.g., during foundation concrete pours which must be completed continuously, or during nighttime delivery of large project materials that would disrupt daytime traffic conditions). During the drilling and casing installation phase at the Well Relocation Site, it is anticipated that approximately 21 24-hour workdays would be required. Activities such as construction of the Arena Structure and the drilling of the new groundwater well would extend beyond the City of Inglewood's allowable hours of 7:00 AM and 8:00 PM on Mondays through Fridays and on Saturdays and would require the approval of a permit from the City's Permits and Licenses Committee pursuant to Section 5-41 of the Municipal Code.

The estimated type, number, and duration of use of construction equipment was provided by the project applicant team and was utilized for the analysis (see Section 3.2, Air Quality, for discussion of construction assumptions). Construction noise levels for the Proposed Project were estimated using the FHWA Roadway Construction Noise Model (RCNM) reference noise levels, shown in **Table 3.11-9**, Construction Equipment Reference Noise Levels. The reference noise levels shown in Table 3.11-9 are the Lmax at 50 feet from the noise source.

During each construction phase, there would be a different mix of equipment. As such, average construction activity noise levels at and near the Project Site would fluctuate depending on the particular type, number, and duration of use of the various pieces of construction equipment. Combined noise levels (Leq) from equipment required for each construction phase were calculated based on the reference noise levels listed in Table 3.11-9. The Leq was calculated assuming that not all pieces of construction equipment would be operated at full power by taking into account usage factors listed in Table 3.11-9.

TABLE 3.11-9
CONSTRUCTION EQUIPMENT REFERENCE NOISE LEVELS

Construction Equipment	Estimated Usage Factor	Noise Level at 50 Feet (dBA, Lmax)
Air Compressor	40%	80
Backhoe	40%	80
Cement and Mortar Mixers	40%	85
Compactor	20%	80
Concrete/Industrial Saw	20%	90
Cranes	16%	85
Crushing/Proc. Equipment	20%	87
Dumpers/Tenders	40%	76
Excavator	40%	85
Forklift	50%	85
Graders	40%	85
Haul Trucks	40%	76
Jackhammer	20%	85
Loader	40%	80
Paver	50%	85
Pumps	100%	82
Roller	20%	85
Rough Terrain Forklift	50%	85
Rubber Tired Loader	40%	80
Scrapers	40%	85
Skid Steer Loaders	40%	80

SOURCE: Federal Highway Administration (FHWA), *FHWA Roadway Construction Noise Model User's Guide*, January 2006.

The calculated combined noise levels (Leq) from the worst-case mix of equipment on each Project Site location were modeled as area sources. The worst-case Leq was assumed to occur within multiple areas of the Project Site in order to calculate the worst-case noise level reaching all modeled receiver points. The modeling takes into consideration the overlap of construction phases as specified in the resource-loaded schedule provided by the applicant (see Table 2-5). The overlap scenario with the worst-case construction noise at each of the project site locations was modeled, combined with construction activity that would occur at the other three project site locations during the same time period (total of 4 overlap scenarios, one worst-case condition for each Project Site location). The maximum worst-case overall construction noise level at each receptor has been reported herein.

Nighttime construction noise was calculated based on the location of equipment operation and construction activity within the Arena Site and the Well Relocation Site, which are portions of the Project Site on which nighttime construction is proposed. Nighttime construction is not proposed

for the West Parking Garage Site or the East Transportation and Hotel Site. To account for the fluctuation in ambient levels that could occur throughout the night, nighttime construction noise levels (Leq) were calculated and compared against a threshold of 5 dBA above the hourly Leq of observed/measured ambient noise levels during nighttime hours. In order to accurately determine the impact of nighttime construction on an hourly basis, ambient noise levels from the nearest representative long term noise measurement location have been adjusted for each receptor, as needed, based on proximity of the roadway and to the actual measurement location.

The potential health consequences of noise impacts associated with construction-related noise impacts on sensitive receptors, including sleep disturbance, potential hearing loss, and pain, have also been considered. The levels at which noise exposure could lead to potential hearing loss or pain is a common method of measuring health effects or impacts of noise. Noise levels of 120 dB and 140 dB correspond to the threshold of pain and hearing damage for short term exposure.[42]

With respect to potential sleep disturbance, there are several factors that contribute to an individual's response to noise exposure. Long-term exposure to noise leading to sleep disturbance can potentially result in health effects as described above, under Environmental Setting. Although nighttime Project construction would not result in long-term exposure to elevated nighttime noise levels, for purposes of correlating nighttime construction activity with the potential for noise-related health effects, the potential for sleep disturbance has been estimated. When construction work days extend into nighttime hours, the Single Event Noise Exposure Level (SEL) is the appropriate measure of the potential for impacts. Based on FHWA Sound Level Descriptor (FHWA-HEP-17-053) the SEL is generally 5 to 10 dB higher than the Leq. Using the calculated Leq for nighttime construction activity at the receiver building façade, the SEL can be estimated with a 10 dB factor added to the Leq level, for a worst case scenario of estimating the corresponding SEL level.

According to the Acoustical Society of America, receivers that would experience an indoor SEL of 50 dBA or lower would have an awakening probability of zero.[43] As noted above, the SEL is assumed to be 10 dB higher than the nighttime construction Leq. Based on the assumption standard building construction in warm climate area such as southern California offers an exterior-to-interior attenuation rate of 12 dB, it is assumed that indoor SEL would be 12 dB lower than exterior construction noise levels. Based on the assumption that an indoor SEL of 50 dBA and lower would not result in awakenings, CadnaA was utilized to identify the area within which there is potential for awakening due to construction activity. The area surrounding the Project Site that would experience an indoor SEL of greater than 50 dBA (exterior construction noise level of greater than 52-dBA Leq) was identified.

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42 Kinsler, Lawrence E., Frey, A.R., Coppens, A.B., and Sanders, J.V., 1982. *Fundamentals of Acoustics*, Third Edition. 1982

43 Acoustical Society of America, 2018. *Rationale for Withdrawing ANSI/ASA S12.9-2008/Part 6*. Annex 3. July 22, 2018

There are several factors to consider with regard to potential sleep disturbance such as each individual's sensitivity of nighttime noise exposure, an individual's age, and the number of noise events. Non-acoustic factors such as temperature, humidity, and sleep disorders could also affect the quality of an individual's sleep.[44] According to WHO, an individual's ability to adapt to a new noise or new sleeping environment is rapid and awakenings are a relatively rare occurrence.[45] Due to the high variability of each individual's sensitivity to nighttime noise, uncertain factors related to nighttime construction activity such as number of peak noise level occurrences, and lack of an established or adopted threshold designating acceptable occurrences of awakenings, the estimated percent awakenings presented in this analysis is for informational purposes only, and is not intended to be an actual estimate of sleep disturbance that would be caused by nighttime Project construction, or a prediction of any related health effects.

Off-Site Sources of Construction Noise (Construction-related Traffic)

Noise impacts to noise-sensitive uses along routes that would carry Project-related construction traffic have been evaluated using a spreadsheet model developed based on the methodologies provided in the FHWA Traffic Noise Model (TNM) Technical Manual. This method considers Project-specific data such as truck trips (delivery and export) and construction worker trips, and allows for the definition of roadway configurations, barrier information (if any), and the location of noise-sensitive receptors. Construction traffic is assumed to utilize designated haul route(s). Trips using the I-110 are assumed to travel to and from the Project Site via Manchester Avenue and South Prairie Avenue. Trips using the I-405 are assumed to travel to and from the Project Site via Manchester Boulevard and South Prairie Avenue or West Century Boulevard. Trips using the I-105 are assumed to travel to and from the Project Site via South Prairie Avenue.

Average daily traffic (ADT) volumes were calculated based on the assumption that weekday (non-event) peak hour volumes would account for ten percent of average daily volumes. Adjusted baseline weekday (non-event AM and PM) traffic volumes along the haul route were averaged and then multiplied by ten to estimate average daily volumes. Traffic attributable to construction of the Proposed Project was calculated and compared to the calculated Adjusted Baseline average daily traffic volumes. According to FHWA, traffic noise levels increase by 3 dBA where traffic volumes double (100 percent increase). Therefore, where Project construction traffic along a haul route results in the doubling of ADT, a significant impact would occur.

Operational Noise

As described above, residences and places where people normally sleep are considered sensitive uses.[46,47] Commercial and industrial uses are not considered noise-sensitive by the City.

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44 Basner, M., & McGuire, S. (2018). WHO Environmental Noise Guidelines for the European Region: A Systematic Review on Environmental Noise and Effects on Sleep. *International Journal of Environmental Research and Public Health,* 15(519).

45 World Health Organization, *Night Noise Guidelines for Europe, Executive Summary.* 2009. p. 55.

46 City of Inglewood General Plan Noise Element. Adopted September 1, 1987.

47 Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment Manual.* September 2018. p. 23.

Off-Site Operational Traffic Noise

Similar to the method used to evaluate impacts from construction traffic noise, noise impacts from operational off-site and on-road traffic has been evaluated using a spreadsheet model developed based on the methodologies provided in the FHWA TNM Technical Manual. The model is based on operational trip generation and turning movements presented in Section 3.14, Transportation and Circulation. Traffic analysis time periods include Weekday AM Peak Period (7:00–9:00 AM), Weekday PM Peak Period (4:00–6:00 PM), Weekday Pre-Event Period (6:00–7:00 PM), Weekday Post-Event Period (9:30–10:30 PM), Weekend Pre-Event Peak Period (5:00–6:00 PM) and Weekend Post-Event Peak Period (9:30-10:30 PM). Trip generation conditions for the four Project-related event conditions analyzed in Section 3.14, Transportation and Circulation, are summarized below.

- The Non-Event Day, Ancillary Uses condition includes weekday traffic during the AM and PM peak period under existing conditions, operations of HPSP Adjusted Baseline land uses that do not involve an event at the NFL Stadium, and operations of non-event related Project uses or ancillary uses (i.e., team practice facility and offices, sports medicine clinic, plaza commercial and community uses, and hotel) on a non-event day.
- The Day-Time Corporate/Community Event condition includes weekday traffic during the AM peak period under existing conditions, operations of Adjusted Baseline HPSP land uses that do not involve an event at the NFL Stadium, Project ancillary uses, and a day-time corporate/community event at the Project Site with approximately 2,000 persons in attendance.
- The Other Sporting Event or Gathering condition includes weekday traffic during the PM peak period under existing conditions, operations of Adjusted Baseline HPSP land uses that do not involve an event at the NFL Stadium, operations of Project ancillary uses, and a sporting event or gathering at the Project Site with approximately 7,500 persons in attendance.
- The Major Event condition includes weekday pre- and post-event traffic and weekend pre- and post-event peak period traffic. Pre- and post-event traffic assumes 18,000 persons and 18,500 persons, respectively.[48] Weekday events are assumed to start at 7:00 PM and weekend events are assumed to start at 6:00 PM

The traffic noise analysis utilizes projected traffic volumes generated as part of the analysis of Transportation and Circulation in Section 3.14 (see Appendix K). These volumes were used to determine Project-related operational traffic noise impacts for Plus Project event conditions by evaluating the increase in Project-related traffic under all four Project-related event conditions over Adjusted Baseline conditions.

Traffic noise was calculated for all 153 roadway segments analyzed in Section 3.14 (see Appendix K). The roadways that would not experience a 3.0 dBA Leq increase in traffic noise under at least one of the analyzed conditions and/or do not have sensitive receptors (as described

[48] For analysis purposes, the Transportation and Circulation analysis (see Section 3.14) assumes that Project Major Events consist of a 18,000-person NBA Game for pre-event peak period analysis, and a 18,500-person concert for post-event peak period to capture the maximum (worst-case) number of trips during each respective peak period.

above) adjacent to the roadway were screened out for inclusion in the analysis. As a result, out of the 153 roadway segments for which traffic noise was calculated, noise levels for 113 roadway segments where sensitive receptors are located and perceivable increases in traffic noise are anticipated have been included in this section (see **Figure 3.11-4**). For calculated traffic noise levels for all roadway segments, see calculations included in Appendix K.

Figure 3.11-4 Studied Roadway Segments

Concurrent Event Traffic Noise

Trip generation conditions based on potential concurrent events at The Forum, the NFL Stadium, and/or the Proposed Project with consideration of ambient growth in traffic and full project development were evaluated (see Appendix K). The worst-case concurrent event scenario for weekdays was determined to be the Adjusted Baseline with a Mid-Sized Event at the NFL Stadium and with a concert at The Forum Plus a Major Event at the Proposed Project. The worst-case concurrent event scenario for weekends was determined to be the Adjusted Baseline with an NFL Game at the Stadium, a concert at The Forum, plus a Major Event at the Proposed Project.

Roadway noise under these worst case weekday and weekend concurrent event days was calculated and compared to Adjusted Baseline plus concurrent event conditions without the Proposed Project to determine the overall change in the traffic noise environment and the contribution of the Proposed Project to this change. **Table 3.11-10** summarizes the studied event scenarios. Traffic noise was calculated for all roadway segments (153 segments) and impacts were assessed for the 113 roadway segments that met the criteria for inclusion in this analysis, as described above. Calculation spreadsheets are included in Appendix J of this EIR.

TABLE 3.11-10
TRAFFIC NOISE ANALYSIS SCENARIOS

	Weekday				Weekend	
Condition[1]	**AM Peak Period (7–9 PM)**	**PM Peak Period (4–6 PM)**	**Pre-Event Peak Period (6–7 PM)**	**Post-Event Peak Period (9:30–10:30 PM)**	**Pre-Event Peak Period (5–6 PM)**	**Post-Event Peak Period (9:30–10:30 PM)**
Existing						
No Event at NFL Stadium or The Forum	X	X	X	X	X	X
Adjusted Baseline						
No Project Conditions						
No Project (No Event at NFL Stadium or The Forum)	X	X	X	X	X	X
No Project with NFL game (70,000 persons)					X	X
No Project with Concert at The Forum (17,500 persons)			X	X	X	X
No Project with Mid-Sized Event (25,000 persons) at NFL Stadium and with Concert at The Forum (17,500 persons)			X	X		
No Project with NFL Game (70,000 persons) and with Concert at The Forum (17,500)					X	X
Plus Project-Only Conditions						
Plus IBEC (Non-Event Day/Ancillary Uses)	X	X				
Plus IBEC (Day-Time Corporate/ Community Event w/ 2,000 persons)	X					

TABLE 3.11-10
TRAFFIC NOISE ANALYSIS SCENARIOS

Condition[1]	Weekday				Weekend	
	AM Peak Period (7–9 PM)	PM Peak Period (4–6 PM)	Pre-Event Peak Period (6–7 PM)	Post-Event Peak Period (9:30–10:30 PM)	Pre-Event Peak Period (5–6 PM)	Post-Event Peak Period (9:30–10:30 PM)
Plus IBEC (Other Sporting Event or Gathering w/ 7,500 persons)		X				
Plus IBEC Major Event (18,500 persons)			X	X	X	X
Concurrent Event Conditions						
With Mid-Sized Event (25,000 persons) at NFL Stadium and with Concert at The Forum (17,500 persons) Plus IBEC Major Event			X	X		
With NFL Game (70,000 persons) and with Concert at The Forum (17,500) Plus IBEC Major Event					X	X

NOTES:
Event Conditions consistent with those studied in Section 3.14, Transportation and Circulation.

SOURCE: Fehr & Peers, 2019 (Appendix K)

Health Effects

The potential health consequences of noise impacts on sensitive receptors associated with Project-related traffic noise impacts was considered based on whether any significant increases in traffic noise (3 dBA or more) would expose noise-sensitive receptors to traffic noise levels greater than 85 dBA. As discussed above, long-term exposure to high levels of noise (85 dBA) can cause permanent hearing impairment.[49]

Operational Noise Sources

Non-vehicular sources of noise are called stationary point-sources and include outdoor activities (such as amplified sound and crowd noise), stationary mechanical equipment (such as generators or heating, ventilation, and air conditioner (HVAC) systems), loading area truck activity, and parking lot/structure activity. Potential noise impacts from stationary point-sources were evaluated by identifying the types of sources included in the Proposed Project and the noise levels generated by these sources, calculating the future hourly Leq noise level from each noise source at receptor property lines, and comparing the calculated future noise levels to existing observed/measured ambient noise levels with a significance threshold of a 3 dBA increase over ambient conditions at the receptor property line.[50]

[49] United States Department of Labor, Occupational Safety and Health Administration. Occupational Safety and Health Standards Part 1910, Standard 1910.95.
[50] California Department of Transportation, 2013. *Technical Noise Supplement*. September 2013. p. 6-5.

Existing ambient noise levels (see Table 3.11-1) were measured between the hours of 9:30 PM and 11:30 PM to capture the existing noise environment during the time period that a major event would conclude (typically 10:00 to 10:30 PM). Observed/measured noise levels do not account for any increases in ambient noise contributed by development within the HPSP (Adjusted Baseline). The Adjusted Baseline noise environment is expected to be somewhat louder than existing conditions. Therefore, comparing Proposed Project impacts against a lower ambient noise level provides a conservative analysis because the change in noise level would be greater. On-site noise sources as well as pedestrian activity along West Century Boulevard and South Prairie Avenue have been incorporated into the model to obtain a combined, or composite operational noise level under six Project conditions: Project Non-Event Day, Project Daytime Corporate/Community Event, Project Other Sporting Event or Gathering, Project Major Event Weekday Pre Event, Project Major Event During Event, and Project Major Event Post Event.

The CadnaA noise propagation program was used to calculate noise from a variety of sources within the plaza (including amplified sound, crowd and pedestrians, arena sound leakage, etc.), mechanical equipment, parking noise, and media truck parking, accounting for reductions in noise levels provided by Proposed Project buildings (barrier-insertion loss) and proposed permanent noise barriers. It has been assumed that the Proposed Project hotel would not host outdoor events or include any outdoor amplified noise sources. Therefore, noise sources from the hotel, other than mechanical equipment and parking, were not accounted for in the analysis.

The CadnaA program is a Windows-based software program that assesses and predicts noise levels in the vicinity of noise sources based on International Organization for Standardization 9613-2 algorithms for noise propagation calculations. The calculations account for classical sound wave divergence plus attenuation factors resulting from air absorption, basic ground effects, and barriers/shielding. Assumptions associated with stationary noise sources are summarized below and noise sources associated with each of the six modeled Project Conditions is shown in **Table 3.11-11**. For further detail on model assumptions, see the Proposed LA Clippers Arena Noise Contours memorandum included in Appendix J of this Draft EIR.

TABLE 3.11-11
OPERATIONAL NOISE SOURCES

	Non-Event Day	Daytime Corporate/ Community Event	Other Sporting Event or Gathering	Pre-Event	During Event	Post-Event
Amplified Sound in Plaza				X		X
Plaza Crowd Noise	X	X	X	X	X	X
Plaza Rooftop Restaurant	X	X	X	X	X	X
Arena Noise					X	
Pedestrian Noise	X	X	X	X		X
Parking Lot and Parking Garage Activity	X	X	X	X		X
Media Truck/Broadcast Access and Parking				X		X
Stationary Mechanical Equipment	X	X	X	X	X	X

NOTE:
X – Noise source included in modeling.

SOURCE: ESA, 2019 (Appendix J)

Amplified Sound in the Plaza

The Proposed Project includes an outdoor plaza within the Arena Site with an approximate area of 80,000 square feet (sf) including landscaped areas and an outdoor community gathering space. The plaza would connect the surrounding sidewalks to the Arena Structure and would include approximately 48,000 sf of retail/restaurant uses, up to 15,000 sf of uses that would accommodate community and youth-oriented educational programing, and an outdoor event stage. The back of the stage would be completely enclosed with a sound shell extending up to 30 feet in height. The outdoor stage would have amplified sound and could be used for musical and other performances, LA Clippers-related events, or community events under the Project Major Event, Pre-Event, and Post-Event conditions.

The analysis accounted for five speaker locations extending from the top of the sound shell at 30 feet. Noise contours from amplified sound (music through speakers) has been calculated at multiple receiver points within each of the noise-sensitive receptors listed above and shown in Figure 3.11-2. Based on noise measurement data for live concerts, an aggregated reference noise level of 92 dBA at 100 feet from the front edge of the stage has been assumed and modeled.[51]

Plaza Crowd Noise

The plaza is anticipated to be utilized seven days per week with pedestrians associated with the commercial and community uses, as well as other activities independent of events hosted within the proposed Arena; under event conditions the plaza would facilitate pedestrian movement to and from the proposed Arena before, during, and after the event.

[51] City of Santa Clara, 2009. *49ers Santa Clara Stadium Project Environmental Impact Report – Volume I*, July 2009.

During the Project Major Event Pre Event and Post Event conditions, it has been assumed that live performances would be held at the outdoor stage. Crowd noise during a live performance has been calculated based on a reference noise level for "shouting" of 89 dBA for one-third of the attendees shouting at the same time, noise level for "loud" of 76 dBA for one-third of the attendees, and noise level for "raised" of 65 dBA for one-third of the attendees at 3.3 feet from the source.[52] An approximate area of 40,000 sf within the plaza would have direct views of the stage. Therefore, based on the occupancy load factor of 15 sf per person, 2,666 people have been assumed for analytical purposes.[53]

During the Project Major Event During Event condition, it has been assumed that the majority of people at the Project Site would be attending the event that is occurring within the proposed Arena. Based on a plaza area of 80,000 sf, a conservative maximum occupancy of 5,334 people (15 sf per person) has been assumed. The occupant load of the plaza during an event is assumed to be 25 percent of the maximum 5,334, approximately 1,334 people. Crowd noise during a major event has been calculated based on a reference noise level for "raised" voice of 65 dBA at 3.3 feet from the source.[54]

During an Other Sporting Event or Gathering and Day-Time Corporate/Community Event, it is assumed that the majority of the people at the Project Site would be attending the event that is occurring within the proposed Arena. Under Non Event day conditions, there would not be an event otherwise drawing people to the plaza. Therefore, the occupancy of the plaza for an Other Sporting Event or Gathering, Day-Time Corporate/Community Event, and Non-Event day is assumed to be 25 percent of the maximum 5,334, approximately 1,334 people.

Plaza Rooftop Restaurant

Approximately 15,000 sf of rooftop restaurant space would be provided in the plaza and contribute to Project operational noise under all three Project analysis conditions. A portion of the 15,000 sf would consist of kitchen, storage, and office space. However, it has been conservatively assumed that the rooftop restaurant space would be located along West Century Boulevard and the total 15,000 sf area would include capacity for up to 1,000 people. Crowd noise under major event, Other Sporting Event or Gathering, Day-Time Corporate/Community Event, and Non-Event conditions has been calculated based on a reference noise level for "normal" speech of 58 dBA at 3.3 feet from the source.[55]

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52 Olsen, W. O., 1998. *"Average Speech Levels and Spectra in Various Speaking/Listening Conditions: A Summary of the Pearson, Bennett, & Fidell (1977) Report"*. American Journal of Audiology, vol. 7, no. 1059-0889, October 1998. p. 3.

53 California Building Code Table 1004.1.2, Maximum Floor Area Allowances per Occupancy

54 Olsen, W. O., 1998. *"Average Speech Levels and Spectra in Various Speaking/Listening Conditions: A Summary of the Pearson, Bennett, & Fidell (1977) Report"*. American Journal of Audiology, vol. 7, no. 1059-0889, October 1998. p. 3.

55 Olsen, W. O., 1998. *"Average Speech Levels and Spectra in Various Speaking/Listening Conditions: A Summary of the Pearson, Bennett, & Fidell (1977) Report"*. American Journal of Audiology, vol. 7, no. 1059-0889, October 1998. p. 3.

Arena Noise

The exterior of the Arena Structure would be comprised of a range of textures and materials, including metal and glass, with integrated solar panels in the most exposed locations. The analysis of the Project Major Event During Event condition considers the potential for the Arena entrance doors to be open, with noise from a sold-out crowd cheering and from amplified sound inside the arena potentially being audible at nearby noise-sensitive receptors. For this analysis, the model assumes that a sold-out crowd of 18,000 people would be cheering with ten amplified speakers in use within the Arena, and that the noise level of 89.8 dBA Leq for "shouting" and 84.6 dBA Leq from amplified speakers would emanate from the Arena Structure entrance.

Pedestrian Noise

Under Project Major Event Pre Event, Major Event Post Event, Other Sporting Event or Gathering, Day-Time Corporate/Community Event, and Non-Event day conditions, it is anticipated that pedestrians would walk across the pedestrian bridge from the West Parking Garage to the Arena Site. According to Table 3.14-28 (see Section 3.14, Transportation and Circulation), the pedestrian bridge would provide comfortable walking area for 50 people at a given time. Pedestrians are also expected to walk along West Century Boulevard and the north-side sidewalk on West 102nd Street between the Arena Site and the East Transportation and Hotel Site. During Major Event Pre Event and Major Event Post Event conditions, it is anticipated that pedestrians would walk along West Century Boulevard and Prairie Avenue. For an Other Sporting Event or Gathering, it is anticipated that pedestrians would walk along West Century Boulevard between the Arena Site and the East Transportation and Hotel Site. The average number of pedestrians that sidewalk facilities along Century Boulevard and Prairie Avenue could accommodate, in accordance with Table 3.14-38 (see Section 3.14, Transportation and Circulation) has been utilized. Pedestrian noise has been calculated based on a reference noise level for "raised" speech of 65 dBA at 3.3 feet from the source.[56]

Stationary Mechanical Equipment

The Proposed Project would include operation of mechanical equipment for the Proposed Project, such as HVAC systems, fans, emergency generators, and related equipment, at the Arena Site, West Parking Garage Site, and the East Transportation and Hotel Site. Reference noise levels of 98 dBA Lw (sound power level at the source), 81.5 dBA Lw, and 103.2 dBA Lw were used for HVAC units, electrical transformers, and emergency generators, respectively, based on the CadnaA source library. For the Arena Site, mechanical equipment would be located on the ground level to the southeast of the Arena Structure. Emergency generators would not be tested during events and are not anticipated to be operational unless there is a power outage. Therefore, noise from emergency generators have been accounted for during a non-event day. Mechanical equipment for the proposed West Parking Garage, East Parking Garage, and Hotel are assumed to be located at the center of the rooftop.

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56 Olsen, W.O., 1998. "*Average Speech Levels and Spectra in Various Speaking/Listening Conditions: A Summary of the Pearson, Bennett, & Fidell (1977) Report*". American Journal of Audiology, vol. 7, no. 1059-0889, October 1998. p. 3.

Service and Delivery Access and Loading

Small service and delivery vehicles providing services or materials for retail and food service venues would enter the Project Site via a site access road accessed from West Century Boulevard, approximately 350 feet east of South Prairie Avenue, and immediately west of the existing Airport Park View Hotel parcel.

Large delivery vehicles such as semi-trucks, trash collection trucks, and large food service trucks would access the Arena Site from a new, gated service ramp from West Century Boulevard, approximately 200 feet west of South Doty Avenue, between two existing commercial buildings. This service ramp would slope downward, providing access to a loading and staging area, at the below-grade event level of the Arena Structure. The Arena Structure would include six loading docks to provide loading and unloading of materials and supplies at the event level.

Due to loading activities being located below grade and fully enclosed within the Arena Structure, loading area noise associated with truck movements/idling and loading/unloading operations would not result in increases in ambient noise levels. Additionally, it is anticipated that such vehicles would not access the Project Site during event conditions in order to avoid any conflicts in circulation and access. Therefore, noise associated with deliveries has not been analyzed for purposes of a composite Project noise analysis which considers worst-case event conditions. However, vehicle trips generated by the Proposed Project have been accounted for in the traffic analysis (see Section 3.14) and therefore are accounted for in the traffic noise analysis.

Parking Lot and Parking Garage Activity

The Proposed Project would include parking structures and surface lots. The South Parking Garage with 650 spaces immediately south of the Arena Structure would be located on the Arena Site. The West Parking Garage would include approximately 3,110 parking spaces, west of the Arena Site on South Prairie Avenue between West Century Boulevard and West 102nd Street.

The East Transportation and Hotel Site, located approximately 1,300 feet east of the Arena Structure between West Century Boulevard and West 102nd Street, would include a three story parking garage with the first floor serving as a transportation hub. The ground-level Transportation Hub would include on the first floor of the parking garage a staging area for private or charter buses and a drop-off and pick-up area for Transportation Network Company (TNC) vehicles and taxis serving the Arena Site; south of the garage, also on the ground level, would be a surface lot that would provide staging for TNC vehicles and taxis. The second and third floors of the garage would provide 365 parking spaces for patrons of the Arena Site.

For the purposes of composite noise analysis, a series of conservative assumptions were made regarding the use of the parking garages during relevant peak hours. For a Non-Event Day, it is assumed that the South Parking Garage would be parked to capacity and that about two-thirds of the West Parking Garage would be parked. For a Day-Time Corporate/Community Event condition, it is assumed that the South and West Parking Garages would be parked to capacity.

For an Other Sporting Event or Gathering Event and for a Major Event, it is assumed that the South, West, and East Parking Garages would each be parked to capacity.

Sources of noise associated with parking facilities typically include vehicle engines and accelerating, doors slamming, car alarms, and people talking. Noise levels at Proposed Project parking garages and surface lot would fluctuate throughout the day depending on the amount of vehicle and human activity. Noise levels would generally be the highest when the largest number of people would enter and exit the parking facility. Parking related noise levels were estimated using the methodology recommended by the FTA for the general assessment of stationary transit noise sources.[57]

Media Truck/Broadcast Access and Parking

Media/broadcast trucks can be a feature of NBA basketball games or other major events, and require parking in areas that provide clear access to the southern sky for satellite link-ups. Media and associated truck parking would be provided on a designated media parking area located on the east side of the Arena Structure. Certain media trucks that do not require clear sky access would be accommodated in parking areas located at the below-grade event level, accessed via the service ramp from West Century Boulevard. Media trucks would access the Arena Site media truck surface parking area from the internal roadway accessed from West Century Boulevard.

Truck movements/idling and loading/unloading of media equipment would generate noise levels within the designated media parking area. In order to observe and document noise levels associated with loading and unloading activities, a survey was conducted by ESA at a loading dock that included loading/unloading activity (specifically the idling of semi-trucks and back-up alarm beeps) from one loading dock would generate noise levels of approximately 70.5 dBA Leq at a reference distance of 50 feet from the noisiest portion of the truck (i.e., to the side behind the cab and in line with the engine and exhaust stacks).[58] This observed noise level is conservative since media trucks are typically smaller than semi-trucks, and was assumed for each media truck that would park in this area. The Proposed Project would include capacity for 12 media trucks in the designated surface parking lot. Therefore, 12 media trucks were included in the model with each truck generating 70.5 dBA Leq at a distances of 50 feet. It was assumed that media truck activity would occur under Project Major Event Pre-Event and Project Major Event Post-Event conditions.

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57 Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment Manual*. September 2018. p. 47.

58 The loading dock facility noise measurements were conducted at a loading dock facility at a Wal-Mart store using the Larson-Davis 820 Precision Integrated Sound Level Meter ("SLM") in May 2003. The Larson-Davis 820 SLM is a Type 1 standard instrument as defined in the American National Standard Institute S1.4. All instruments were calibrated and operated according to the applicable manufacturer specification. The microphone was placed at a height of approximately 5 feet above the local grade.

Vibration

The evaluation of potential building damage impacts related to construction vibration levels is based on published data in the FTA's *Transit Noise and Vibration Impact Assessment Manual*.[59] The vibration damage criteria adopted by the FTA and applied in this analysis are shown in **Table 3.11-12**. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration and is often used in monitoring of vibration because it is related to the stresses experienced by structures. The building damage threshold is 0.3 in/sec PPV for engineered concrete and masonry buildings.[60]

TABLE 3.11-12
CONSTRUCTION VIBRATION DAMAGE CRITERIA

Building Category	PPV (in/sec)
I. Reinforced-concrete, steel or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

SOURCE: Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment*, September 2018, p. 186.

The FTA has also adopted standards associated with human annoyance for groundborne vibration impacts for the following three land-use categories: Category 1, High Sensitivity; Category 2, Residential; and Category 3, Institutional. FTA defines:

> Category 1 as buildings where vibration would interfere with operations within the building, including vibration-sensitive research and manufacturing facilities, hospitals with vibration-sensitive equipment, and university research operations. Vibration-sensitive equipment includes, but is not limited to, electron microscopes, high-resolution lithographic equipment, and normal optical microscopes;
>
> Category 2 refers to all residential land uses and any buildings where people sleep, such as hotels and hospitals; and
>
> Category 3 refers to institutional land uses such as schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment, but still have the potential for activity interference.

The vibration thresholds associated with human annoyance for these three land-use categories are shown in **Table 3.11-13**. No vibration thresholds have been adopted or recommended by the FTA for commercial and office uses. For purposes of this analysis, the human annoyance threshold is 72 VdB for residences and buildings where people normally sleep and 75 VdB for commercial uses, industrial uses, and churches with primarily daytime use.

[59] Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment Manual*. September 2018.
[60] Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment Manual*. September 2018. p. 186.

TABLE 3.11-13
GROUNDBORNE VIBRATION IMPACT CRITERIA FOR GENERAL ASSESSMENT

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

NOTES:
[a] "Frequent Events" is defined as more than 70 vibration events of the same source per day.
[b] "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.
[c] "Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day.
[d] This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes.

SOURCE: Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment*, September 2018, p. 126.

On-Site Sources of Construction Vibration

Sources of on-site construction vibration include heavy-duty construction equipment such as bulldozers, drill rigs, and loaded trucks (i.e., haul trucks). Groundborne vibration levels resulting from construction activities at the Project Site were estimated using data and equations published by the FTA as described above. Potential vibration levels resulting from Project construction are identified for land uses that are sensitive to vibration, including existing nearby residences and hotels, accounting for the distance of the structure from construction activities. The PPV vibration velocities for several types of construction equipment that can generate perceptible vibration levels are identified in **Table 3.11-14**, *Vibration Source Levels for Construction Equipment*. Based on the information presented in Table 3.11-14, vibration velocities could range from 0.003 to 0.089 in/sec PPV at 25 feet from the source of activity.

TABLE 3.11-14
VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

	Approximate PPV (in/sec)					
Equipment	**12 Feet**	**20 Feet**	**25 Feet**	**50 Feet**	**75 Feet**	**100 feet**
Vibratory Roller	0.631	0.293	0.210	0.074	0.040	0.026
Large Bulldozer	0.268	0.124	0.089	0.031	0.017	0.011
Caisson Drilling/Drill Rig	0.268	0.124	0.089	0.031	0.017	0.011
Loaded Trucks	0.229	0.106	0.076	0.027	0.015	0.010
Jackhammer	0.105	0.049	0.035	0.012	0.007	0.004
Small Bulldozer	0.009	0.004	0.003	0.001	0.0006	0.000

SOURCE: Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment*, September 2018, p. 184.; ESA, 2017.

Off-Site Sources of Construction Vibration

Sources of off-site construction vibration include heavy-duty trucks delivering construction supplies and materials, concrete trucks, and haul trucks. As described above, it is unusual for

vibration from sources such as trucks on roadways to be perceptible, even in locations close to major roads.[61] Nonetheless, groundborne vibration resulting from heavy-duty construction truck travel along area roadways has been estimated and impacts determined based on FTA guidance described above.

Operational Vibration

Operational sources of vibration include heavy-duty vehicle travel along area roadways. According to the FTA's *Transit Noise and Vibration Impact Assessment Manual*, it is unusual for vibration from vehicular sources (including buses and trucks) operating on smooth road or surface to be perceptible, even in locations close to major roads.[62] As such, no sources of "excessive" groundborne vibration or noise levels are anticipated during operations of the Proposed Project.

Groundborne Noise

According to the FTA, airborne noise levels would be higher than groundborne noise levels.[63] Unless indoor receptors have substantial sound insulation (e.g., recording studio) and would be exposed to vibration velocities great enough to cause substantial levels of groundborne noise, groundborne noise does not need to be assessed. There are no substantially insulated indoor receptors located within the area surrounding the Project Site. Therefore, the effects of airborne noise would still be higher than groundborne noise levels. In addition, groundborne noise generated by a large bulldozer within five feet of a receptor building would reach an approximate level of 58 dBA, which is not greater than the airborne noise levels generated by construction equipment. Impacts related to groundborne noise are therefore not discussed further.

Sound Barriers

Temporary and permanent sound barriers would be constructed on the Project Site (see Figure 2-19). The temporary sound barriers would be placed during the initial phase of any construction activities on portions of the Project Site, and would only be present during the construction of the Proposed Project. The proposed permanent barriers would remain in place during the operational life of the Proposed Project.

Arena Site

A proposed 15-foot high permanent sound barrier would be constructed along the southern boundary of the Arena Site, with a temporary, additional 7-foot high sound barrier "topper" placed along the length of this permanent wall for the duration of construction activities on the Arena Site. Proposed permanent 12-foot high sound barriers would be constructed along the shared boundaries of the Arena Site and the residences located at 10204 South Prairie Avenue

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61 Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment Manual*. September 2018. p. 112.

62 Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment Manual*. September 2018. p. 112.

63 Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment Manual*. September 2018. p. 124.

and 10226 South Prairie Avenue prior to the start of any major construction activities on the Arena Site.

Two temporary 12-foot high sound barriers are proposed along the western boundary of the Arena Site to be constructed along South Prairie Avenue between the residences located at 10204 South Prairie Avenue and 10226 South Prairie Avenue and from the northern boundary of 10204 South Prairie Avenue to approximately mid-block between West 101st Street and West 102nd Street.

A temporary 16-foot high sound barrier is proposed along the shared boundary of the Arena site and the Airport Park View Hotel, which would be replaced with a permanent 12-foot high sound wall after the conclusion of major construction activities on the Arena Site. Similarly, the temporary 12-foot high sound barrier proposed at the northeast corner of the Arena Site and West 102nd Street during construction would be replaced with a permanent 8-foot high sound wall at the conclusion of major construction activities. A temporary 12-foot high sound barrier is also proposed at the southeast corner of the Arena Site and West 102nd Street between the southern sidewalk of 102nd Street and the northern facade of the industrial use located adjacent to the Arena Site to the east, south of West 102nd Street.

West Parking Garage Site

A proposed temporary 12-foot high sound barrier would be placed along the western and southern boundaries of the West Parking Garage Site to remain in place during any construction activities occurring on this portion of the Project Site.

East Transportation and Hotel Site

A proposed temporary 8-foot high sound barrier would be placed along the southern boundary of the East Transportation and Hotel Site during construction activities on this portion of the Project Site. Portions of this temporary sound barrier would extend along the southerly east and west boundaries of the site.

Well Relocation Site

A temporary sound barrier ranging between 15-feet and 26-feet is proposed along the length of the south and east boundaries of the Well Relocation Site and along a portion of the west boundary of the site, which would be removed after completion of construction activities on the Well Relocation Site.

Impacts and Mitigation Measures

Impact 3.11-1: Construction of the Proposed Project would result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Proposed Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (Significant and Unavoidable)

On-Site Construction Activity and Related Noise

The Proposed Project includes the installation of permanent and temporary sound barriers as the first phase of construction and prior to the initiation of intensive construction activities. Therefore, the unmitigated construction noise levels presented herein incorporate noise level reductions provided by the proposed sound barriers.

Daytime Construction Noise

Average daytime construction noise levels (Leq) were calculated for overlapping construction across all four Project Site locations during the worst case construction day at each of the four Project Site locations: the Arena Site; the West Parking Garage Site; the Well Relocation Site; and the East Transportation and Hotel Site. As described above under Methodology and Assumptions, the model calculates noise levels at multiple receiver points within each receptor group. As a result, impacts within each receptor group may vary depending on the distance of each receiver point within the specific receptor group and the location of shielding (i.e., Project noise barriers and/or existing structures). **Figure 3.11-5** shows the maximum impact at modeled receiver points within each receptor group across all four worst-case overlap conditions.

As shown, there are some cases where the nearest receivers are significantly impacted by Proposed Project construction while noise impacts at other receivers within the same receiver group, typically located at a greater distance from the Project Site and/or situated behind existing structures, would be less than significant. **Table 3.11-15** shows the worst-case construction noise level at each noise-sensitive receptor as well as the ambient daytime noise levels. Daytime construction noise levels from worst-case construction activity would exceed the threshold of 5 dBA over ambient noise levels (Leq) at some residences west of the West Parking Garage, at the Airport Park View Hotel site north of the Arena Site, at sensitive receptors south of the Arena Site, along 104th Street, and sensitive receptors to the east of the Well Relocation Site.

More specifically, worst-case construction noise would exceed ambient noise levels by a maximum of 5.6 dBA Leq at the second floor of one residence within R5 (homes between 101st and 102nd Street, west of the West Parking Garage). At the Airport Park View Hotel the exceedances would be by 15.4 dBA Leq at the ground floor, 19.0 dBA Leq at the second floor, and 19.6 dBA Leq at the third floor. At the ground floor of homes east of the Well Relocation Site (R14) construction noise levels would exceed ambient by 11.9 dBA Leq. South of the Arena site, construction noise levels would be 15.1 dBA Leq over ambient at the ground floor and 6.8 dBA Leq over ambient at the second floor of Inglewood Southside Christian Church and TRF Preschool (R15), and at the ground and second floor of houses and apartments on 104th Street, south of the Arena Site (R16) construction noise would exceed ambient by 14.7 dBA Leq at the

ground floor, and 10.3 dBA Leq at the second floors. At the residences located to the south of the Well Relocation Site (R17), construction noise would exceed ambient by 9.5 dBA Leq.

As demonstrated with the analysis of specific sensitive receptor groups discussed above, because daytime construction noise levels from worst-case construction activity would exceed the threshold of 5 dBA over ambient noise levels (Leq) at some residences west of the West Parking Garage, at the Airport Park View Hotel site north of the Arena Site, at receptors east of the Well Relocation Site, and at sensitive receptors south of the Arena Site along 104th Street, the impacts would be **potentially significant**.

Figure 3.11-5 Worst-Case Daytime Construction Impacts

TABLE 3.11-15
ESTIMATE OF UNMITIGATED MAXIMUM DAYTIME CONSTRUCTION NOISE LEVELS (LEQ) AT EXISTING OFF-SITE SENSITIVE-RECEPTOR LOCATIONS

Receptor [a, b, c]	Ambient (dBA Leq)	Worst-Case Construction Noise Level (dBA Leq)	Over Ambient (dBA Leq)	Exceeds Threshold?
R1 Floor 1	71.8	73.9	2.1	No
R1 Floor 2	71.8	74.8	3.0	No
R2 Floor 1	63.6	66.3	2.7	No
R3 Floor 1	71.7	75.0	3.3	No
R5 Floor 1	63.6	66.4	2.8	No
R5 Floor 2	67.4	73.0	5.6	**Yes**
R6 Floor 1	67.4	69.3	1.9	No
R6 Floor 2	67.4	71.0	3.6	No
R7 Floor 1	72.0	69.1	0.0	No
R8 Floor 1	65.4	80.8	15.4	**Yes**
R8 Floor 2	65.4	84.4	19.0	**Yes**
R8 Floor 3	65.4	85.0	19.6	**Yes**
R11 Floor 1	74.0	77.3	3.3	No
R12 Floor 1	74.0	75.3	1.3	No
R14 Floor 1	63.8	75.7	11.9	**Yes**
R14 Floor 2	63.8	64.4	0.6	No
R15 Floor 1	64.3	71.1	6.8	**Yes**
R15 Floor 2	64.3	71.1	6.8	**Yes**
R16 Floor 1	64.3	79.0	14.7	**Yes**
R16 Floor 2	64.3	74.6	10.3	**Yes**
R17 Floor 1	64.3	73.8	9.5	**Yes**
R20 Floor 1	69.5	69.1	0.0	No
R20 Floor 2	69.5	65.8	0.0	No
R21 Floor 1	64.8	56.5	0.0	No
R21 Floor 2	64.8	59.5	0.0	No
R21 Floor 3	64.8	60.0	0.0	No

NOTES:
[a] A range of ambient noise levels have been estimated based on the observed/measured noise levels collected from measurement locations and distance of various receivers within each Receptor Group (shown in Figure 3.11-2).
[b] A range of construction noise levels have been calculated based on the location of various receivers within each Receptor Group.
[c] The receiver point within each Receptor Group with the highest construction noise level over ambient conditions is shown.
SOURCE: ESA, 2019

Nighttime Construction Noise

Hourly average nighttime construction noise levels (Leq) were calculated for nighttime construction activity at the Arena Site and the Well Relocation Site and compared to hourly ambient levels which decrease incrementally through the night before starting to rise in the early morning. No nighttime construction is proposed at the West Parking Garage Site or the East Transportation Hub and Hotel Site.

The model accounts for multiple receiver points within each receptor group. As a result, impacts within each receptor group may vary depending on the distance of each receiver point within the specific receptor group and the location of shielding (i.e., Project noise barriers and/or existing structures). **Figure 3.11-6** shows receiver points that would be impacted by worst-case nighttime construction at any point during the nighttime hours (8:00 PM – 7:00 AM). There are some cases where the nearest receivers are significantly impacted by Proposed Project construction while the impact other receivers, typically located at greater distances from the Project Site and/or situated behind existing structures, would be less than significant. **Table 3.11-16** shows the maximum hourly nighttime construction noise levels (Leq) as well as hourly ambient noise levels. As shown, impacts vary throughout the nighttime hours as ambient conditions naturally fluctuate.

Nighttime construction activity at the Arena Site would exceed the threshold of 5 dBA over ambient Leq levels during at least one nighttime hour at residences to the north, west, and south of the Arena Site, the Airport Park View Hotel to the north of the Arena Site, Being in Power Ministries to the west of the Arena Site, Inglewood Southside Christian Church and TRF Preschool to the south of the Arena Site, and residences east of the Well Relocation Site. More specifically, worst-case construction noise would exceed ambient noise levels during at least one nighttime hour by 5.4 dBA Leq at the first floor of receptor R1 (homes north of West Century Boulevard, west of South Prairie Avenue), by 7.1 dBA Leq at the second floor of receptor R1, by 7.4 dBA Leq at the second floor of receptor R6 (homes between West 102nd Street and West 103rd Street), by 6.8 dBA Leq at R7 (Being In Power Ministries west of South Prairie Avenue, west of the Arena Site), by 11.2 dBA Leq at the second floor of R8 (Airport Park View Hotel), by 15.0 dBA Leq at the third floor of R8, by 14.2 dBA Leq at the ground floor of receptor R14 (homes east of the Well Relocation Site), by 9.4 dBA Leq at the second floor of R15 (Inglewood Southside Christian Church and TRF Preschool), and by 11.3 dBA Leq at the second floor of R16 (houses and apartments on 104th Street, south of the Arena Site). Nighttime construction activity at the Well Relocation Site would not result in noise levels greater than 5 dBA over ambient Leq conditions.

As demonstrated with the analysis of specific receptor groups discussed above, because nighttime noise from worst-case nighttime construction activity would exceed the threshold of 5 dBA over ambient levels (Leq) at some residences to the north, west, and south of the Arena Site, the Airport Park View Hotel, Being in Power Ministries to the west of the Arena Site, Inglewood Southside Christian Church and TRF Preschool to the south of the Arena Site, and at residences to the east of the Well Relocation Site, the impacts would be **potentially significant.**

Figure 3.11-6 Worst-Case Nighttime Construction Impacts

TABLE 3.11-16
ESTIMATE OF UNMITIGATED NIGHTTIME CONSTRUCTION NOISE LEVELS (LEQ) AT EXISTING OFF-SITE SENSITIVE-RECEPTOR LOCATIONS

		Arena Site				Well Relocation Site			
Receptor	Hour	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?
R1 Ground	8 - 9 PM	63.9	60.3	0.0	No	63.9	31.1	0.0	No
	9 - 10 PM	64.5	60.3	0.0	No	64.5	31.1	0.0	No
	10 - 11 PM	63.3	60.3	0.0	No	63.3	31.1	0.0	No
	11 PM - 12 AM	63.0	60.3	0.0	No	63.0	31.1	0.0	No
	12 - 1 AM	59.6	60.3	0.7	No	59.6	31.1	0.0	No
	1 - 2 AM	55.3	60.3	5.0	**Yes**	55.3	31.1	0.0	No
	2 - 3 AM	54.9	60.3	5.4	**Yes**	54.9	31.1	0.0	No
	3 - 4 AM	56.1	60.3	4.2	No	56.1	31.1	0.0	No
	4 - 5 AM	58.4	60.3	1.9	No	58.4	31.1	0.0	No
	5 - 6 AM	58.9	60.6	1.7	No	58.9	31.1	0.0	No
	6 - 7 AM	58.9	60.6	1.7	No	58.9	31.1	0.0	No
R1 Floor 2	8 - 9 PM	63.9	62.0	0.0	No	63.9	33.3	0.0	No
	9 - 10 PM	64.5	62.0	0.0	No	64.5	33.3	0.0	No
	10 - 11 PM	63.3	62.0	0.0	No	63.3	33.3	0.0	No
	11 PM - 12 AM	63.0	62.0	0.0	No	63.0	33.3	0.0	No
	12 - 1 AM	59.6	62.0	2.4	No	59.6	33.3	0.0	No
	1 - 2 AM	55.3	62.0	6.7	**Yes**	55.3	33.3	0.0	No
	2 - 3 AM	54.9	62.0	7.1	**Yes**	54.9	33.3	0.0	No
	3 - 4 AM	56.1	62.0	5.9	**Yes**	56.1	33.3	0.0	No
	4 - 5 AM	58.4	62.0	3.6	No	58.4	33.3	0.0	No
	5 - 6 AM	58.9	62.3	3.4	No	58.9	33.3	0.0	No
	6 - 7 AM	62.9	62.3	0.0	No	62.9	33.3	0.0	No
R2	8 - 9 PM	63.9	51.0	0.0	No	63.9	27.9	0.0	No
	9 - 10 PM	64.5	51.0	0.0	No	64.5	27.9	0.0	No
	10 - 11 PM	63.3	51.0	0.0	No	63.3	27.9	0.0	No
	11 PM - 12 AM	63.0	51.0	0.0	No	63.0	27.9	0.0	No

TABLE 3.11-16
ESTIMATE OF UNMITIGATED NIGHTTIME CONSTRUCTION NOISE LEVELS (LEQ) AT EXISTING OFF-SITE SENSITIVE-RECEPTOR LOCATIONS

		Arena Site				Well Relocation Site			
Receptor	Hour	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?
R3	12 - 1 AM	59.6	51.0	0.0	No	59.6	27.9	0.0	No
	1 - 2 AM	55.3	51.0	0.0	No	55.3	27.9	0.0	No
	2 - 3 AM	54.9	51.0	0.0	No	54.9	27.9	0.0	No
	3 - 4 AM	56.1	51.0	0.0	No	56.1	27.9	0.0	No
	4 - 5 AM	58.4	51.0	0.0	No	58.4	27.9	0.0	No
	5 - 6 AM	58.9	51.4	0.0	No	58.9	27.9	0.0	No
	6 - 7 AM	62.9	51.4	0.0	No	62.9	27.9	0.0	No
	8 - 9 PM	63.9	50.5	0.0	No	63.9	26.2	0.0	No
	9 - 10 PM	64.5	50.5	0.0	No	64.5	26.2	0.0	No
	10 - 11 PM	63.3	50.5	0.0	No	63.3	26.2	0.0	No
	11 PM - 12 AM	63.0	50.5	0.0	No	63.0	26.2	0.0	No
R5 Ground	12 - 1 AM	59.6	50.5	0.0	No	59.6	26.2	0.0	No
	1 - 2 AM	55.3	50.5	0.0	No	55.3	26.2	0.0	No
	2 - 3 AM	54.9	50.5	0.0	No	54.9	26.2	0.0	No
	3 - 4 AM	56.1	50.5	0.0	No	56.1	26.2	0.0	No
	4 - 5 AM	58.4	50.5	0.0	No	58.4	26.2	0.0	No
	5 - 6 AM	58.9	50.8	0.0	No	58.9	26.2	0.0	No
	6 - 7 AM	62.9	50.8	0.0	No	62.9	26.2	0.0	No
	8 - 9 PM	63.9	53.5	0.0	No	63.9	29.1	0.0	No
	9 - 10 PM	64.5	53.5	0.0	No	64.5	29.1	0.0	No
	10 - 11 PM	63.3	53.5	0.0	No	63.3	29.1	0.0	No
	11 PM - 12 AM	63.0	53.5	0.0	No	63.0	29.1	0.0	No
	12 - 1 AM	59.6	53.5	0.0	No	59.6	29.1	0.0	No
	1 - 2 AM	55.3	53.5	0.0	No	55.3	29.1	0.0	No
	2 - 3 AM	54.9	53.5	0.0	No	54.9	29.1	0.0	No
	3 - 4 AM	56.1	53.5	0.0	No	56.1	29.1	0.0	No

TABLE 3.11-16
ESTIMATE OF UNMITIGATED NIGHTTIME CONSTRUCTION NOISE LEVELS (LEQ) AT EXISTING OFF-SITE SENSITIVE-RECEPTOR LOCATIONS

		Arena Site				Well Relocation Site			
Receptor	Hour	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?
R5 Floor 2	4 - 5 AM	58.4	53.5	0.0	No	58.4	29.1	0.0	No
	5 - 6 AM	58.9	54.2	0.0	No	58.9	29.1	0.0	No
	6 - 7 AM	62.9	54.2	0.0	No	62.9	29.1	0.0	No
	8 - 9 PM	63.9	56.0	0.0	No	64.9	34.4	0.0	No
	9 - 10 PM	64.5	56.0	0.0	No	64.6	34.4	0.0	No
	10 - 11 PM	63.3	56.0	0.0	No	63.3	32.9	0.0	No
	11 PM - 12 AM	63.0	56.0	0.0	No	63.7	32.9	0.0	No
	12 - 1 AM	59.6	56.0	0.0	No	59.6	32.9	0.0	No
	1 - 2 AM	55.3	56.0	0.7	No	55.3	32.9	0.0	No
	2 - 3 AM	52.1	53.3	1.2	No	52.1	34.4	0.0	No
	3 - 4 AM	56.1	56.0	0.0	No	53.9	34.4	0.0	No
	4 - 5 AM	58.4	56.0	0.0	No	55.8	34.4	0.0	No
	5 - 6 AM	58.9	56.7	0.0	No	58.4	34.4	0.0	No
	6 - 7 AM	57.8	54.0	0.0	No	57.8	34.4	0.0	No
R6 Ground	8 - 9 PM	63.9	59.5	0.0	No	63.9	30.3	0.0	No
	9 - 10 PM	64.5	59.5	0.0	No	64.5	30.3	0.0	No
	10 - 11 PM	63.3	59.5	0.0	No	63.3	30.3	0.0	No
	11 PM - 12 AM	63.0	59.5	0.0	No	63.0	30.3	0.0	No
	12 - 1 AM	59.6	59.5	0.0	No	59.6	30.3	0.0	No
	1 - 2 AM	55.3	59.5	4.2	No	55.3	30.3	0.0	No
	2 - 3 AM	54.9	59.5	4.6	No	54.9	30.3	0.0	No
	3 - 4 AM	56.1	59.5	3.4	No	56.1	30.3	0.0	No
	4 - 5 AM	58.4	59.5	1.1	No	58.4	30.3	0.0	No
	5 - 6 AM	58.9	59.9	1.0	No	58.9	30.3	0.0	No
	6 - 7 AM	62.9	59.9	0.0	No	62.9	30.3	0.0	No
R6 Floor 2	8 - 9 PM	63.9	62.3	0.0	No	63.9	34.1	0.0	No

TABLE 3.11-16
ESTIMATE OF UNMITIGATED NIGHTTIME CONSTRUCTION NOISE LEVELS (LEQ) AT EXISTING OFF-SITE SENSITIVE-RECEPTOR LOCATIONS

		Arena Site				Well Relocation Site			
Receptor	Hour	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?
R7	9 - 10 PM	64.5	62.3	0.0	No	64.5	34.1	0.0	No
	10 - 11 PM	63.3	62.3	0.0	No	63.3	34.1	0.0	No
	11 PM - 12 AM	63.0	62.3	0.0	No	63.0	34.1	0.0	No
	12 - 1 AM	59.6	62.3	2.7	No	59.6	34.1	0.0	No
	1 - 2 AM	55.3	62.3	7.0	**Yes**	55.3	34.1	0.0	No
	2 - 3 AM	54.9	62.3	7.4	**Yes**	54.9	34.1	0.0	No
	3 - 4 AM	56.1	62.3	6.2	**Yes**	56.1	34.1	0.0	No
	4 - 5 AM	58.4	62.3	3.9	No	58.4	34.1	0.0	No
	5 - 6 AM	58.9	62.7	3.8	No	58.9	34.1	0.0	No
	6 - 7 AM	62.9	62.7	0.0	No	62.9	34.1	0.0	No
	8 - 9 PM	63.9	61.7	0.0	No	63.9	31.9	0.0	No
	9 - 10 PM	64.5	61.7	0.0	No	64.5	31.9	0.0	No
	10 - 11 PM	63.3	61.7	0.0	No	63.3	31.9	0.0	No
	11 PM - 12 AM	63.0	61.7	0.0	No	63.0	31.9	0.0	No
	12 - 1 AM	59.6	61.7	2.1	No	59.6	31.9	0.0	No
	1 - 2 AM	55.3	61.7	6.4	**Yes**	55.3	31.9	0.0	No
	2 - 3 AM	54.9	61.7	6.8	**Yes**	54.9	31.9	0.0	No
	3 - 4 AM	56.1	61.7	5.6	**Yes**	56.1	31.9	0.0	No
	4 - 5 AM	58.4	61.7	3.3	No	58.4	31.9	0.0	No
	5 - 6 AM	58.9	62.1	3.2	No	58.9	31.9	0.0	No
	6 - 7 AM	62.9	62.1	0.0	No	62.9	31.9	0.0	No
R8 Ground	8 - 9 PM	65.6	60.2	0.0	No	65.6	36.7	0.0	No
	9 - 10 PM	65.6	60.2	0.0	No	65.6	36.7	0.0	No
	10 - 11 PM	64.9	60.2	0.0	No	64.9	36.7	0.0	No
	11 PM - 12 AM	64.3	60.2	0.0	No	64.3	36.7	0.0	No
	12 - 1 AM	61.6	60.2	0.0	No	61.6	36.7	0.0	No

TABLE 3.11-16
ESTIMATE OF UNMITIGATED NIGHTTIME CONSTRUCTION NOISE LEVELS (LEQ) AT EXISTING OFF-SITE SENSITIVE-RECEPTOR LOCATIONS

		Arena Site				Well Relocation Site			
Receptor	Hour	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?
R8 Floor 2	1 - 2 AM	59.1	60.2	1.1	No	59.1	36.7	0.0	No
	2 - 3 AM	58.5	60.2	1.7	No	58.5	36.7	0.0	No
	3 - 4 AM	58.4	60.2	1.8	No	58.4	36.7	0.0	No
	4 - 5 AM	60.1	60.2	0.1	No	60.1	36.7	0.0	No
	5 - 6 AM	61.4	60.7	0.0	No	61.4	36.7	0.0	No
	6 - 7 AM	64.9	60.7	0.0	No	64.9	36.7	0.0	No
	8 - 9 PM	65.6	69.6	4.0	No	65.6	47.5	0.0	No
	9 - 10 PM	65.6	69.6	4.0	No	65.6	47.5	0.0	No
	10 - 11 PM	64.9	69.6	4.7	No	64.9	47.5	0.0	No
	11 PM - 12 AM	64.3	69.6	5.3	**Yes**	64.3	47.5	0.0	No
	12 - 1 AM	61.6	69.6	8.0	**Yes**	61.6	47.5	0.0	No
R8 Floor 3	1 - 2 AM	59.1	69.6	10.5	**Yes**	59.1	47.5	0.0	No
	2 - 3 AM	58.5	69.6	11.1	**Yes**	58.5	47.5	0.0	No
	3 - 4 AM	58.4	69.6	11.2	**Yes**	58.4	47.5	0.0	No
	4 - 5 AM	60.1	69.6	9.5	**Yes**	60.1	47.5	0.0	No
	5 - 6 AM	61.4	70.0	8.6	**Yes**	61.4	47.5	0.0	No
	6 - 7 AM	64.9	70.0	5.1	**Yes**	64.9	47.5	0.0	No
	8 - 9 PM	65.6	73.4	7.8	**Yes**	65.6	49.1	0.0	No
	9 - 10 PM	65.6	73.4	7.8	**Yes**	65.6	49.1	0.0	No
	10 - 11 PM	64.9	73.4	8.5	**Yes**	64.9	49.1	0.0	No
	11 PM - 12 AM	64.3	73.4	9.1	**Yes**	64.3	49.1	0.0	No
	12 - 1 AM	61.6	73.4	11.8	**Yes**	61.6	49.1	0.0	No
	1 - 2 AM	59.1	73.4	14.3	**Yes**	59.1	49.1	0.0	No
	2 - 3 AM	58.5	73.4	14.9	**Yes**	58.5	49.1	0.0	No
	3 - 4 AM	58.4	73.4	15.0	**Yes**	58.4	49.1	0.0	No
	4 - 5 AM	60.1	73.4	13.3	**Yes**	60.1	49.1	0.0	No

TABLE 3.11-16
ESTIMATE OF UNMITIGATED NIGHTTIME CONSTRUCTION NOISE LEVELS (LEQ) AT EXISTING OFF-SITE SENSITIVE-RECEPTOR LOCATIONS

		Arena Site				Well Relocation Site			
Receptor	Hour	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?
R11	5 - 6 AM	61.4	74.0	12.6	**Yes**	61.4	49.1	0.0	No
	6 - 7 AM	64.9	74.0	9.1	**Yes**	64.9	49.1	0.0	No
	8 - 9 PM	65.6	59.2	0.0	No	65.6	30.6	0.0	No
	9 - 10 PM	65.6	59.2	0.0	No	65.6	30.6	0.0	No
	10 - 11 PM	64.9	59.2	0.0	No	64.9	30.6	0.0	No
	11 PM - 12 AM	64.3	59.2	0.0	No	64.3	30.6	0.0	No
	12 - 1 AM	61.6	59.2	0.0	No	61.6	30.6	0.0	No
	1 - 2 AM	59.1	59.2	0.1	No	59.1	30.6	0.0	No
	2 - 3 AM	58.5	59.2	0.7	No	58.5	30.6	0.0	No
	3 - 4 AM	58.4	59.2	0.8	No	58.4	30.6	0.0	No
	4 - 5 AM	60.1	59.2	0.0	No	60.1	30.6	0.0	No
R12	5 - 6 AM	61.4	60.1	0.0	No	61.4	30.6	0.0	No
	6 - 7 AM	64.9	60.1	0.0	No	64.9	30.6	0.0	No
	8 - 9 PM	65.6	60.6	0.0	No	65.6	30.8	0.0	No
	9 - 10 PM	65.6	60.6	0.0	No	65.6	30.8	0.0	No
	10 - 11 PM	64.9	60.6	0.0	No	64.9	30.8	0.0	No
	11 PM - 12 AM	64.3	60.6	0.0	No	64.3	30.8	0.0	No
	12 - 1 AM	61.6	60.6	0.0	No	61.6	30.8	0.0	No
	1 - 2 AM	59.1	60.6	1.5	No	59.1	30.8	0.0	No
	2 - 3 AM	58.5	60.6	2.1	No	58.5	30.8	0.0	No
	3 - 4 AM	58.4	60.6	2.2	No	58.4	30.8	0.0	No
	4 - 5 AM	60.1	60.6	0.5	No	60.1	30.8	0.0	No
R14 Ground	5 - 6 AM	61.4	60.9	0.0	No	61.4	30.8	0.0	No
	6 - 7 AM	64.9	60.9	0.0	No	64.9	30.8	0.0	No
	8 - 9 PM	63.9	65.0	1.1	No	63.9	55.5	0.0	No
	9 - 10 PM	64.6	65.0	0.4	No	64.6	55.5	0.0	No

TABLE 3.11-16
ESTIMATE OF UNMITIGATED NIGHTTIME CONSTRUCTION NOISE LEVELS (LEQ) AT EXISTING OFF-SITE SENSITIVE-RECEPTOR LOCATIONS

		Arena Site				Well Relocation Site			
Receptor	Hour	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?
R14 Floor 2	10 - 11 PM	63.1	65.0	1.9	No	63.1	55.5	0.0	No
	11 PM - 12 AM	61.9	65.0	3.1	No	61.9	55.5	0.0	No
	12 - 1 AM	58.2	65.0	6.8	**Yes**	58.2	55.5	0.0	No
	1 - 2 AM	50.8	65.0	14.2	**Yes**	50.8	55.5	4.7	No
	2 - 3 AM	52.9	65.0	12.1	**Yes**	52.9	55.5	2.6	No
	3 - 4 AM	54.8	65.0	10.2	**Yes**	54.8	55.5	0.7	No
	4 - 5 AM	58.1	65.0	6.9	**Yes**	58.1	55.5	0.0	No
	5 - 6 AM	57.1	65.3	8.2	**Yes**	57.1	55.5	0.0	No
	6 - 7 AM	60.7	65.3	4.6	No	60.7	55.5	0.0	No
	8 - 9 PM	63.9	53.8	0.0	No	63.9	53.1	0.0	No
	9 - 10 PM	64.6	53.8	0.0	No	64.6	53.1	0.0	No
	10 - 11 PM	63.1	53.8	0.0	No	63.1	53.1	0.0	No
	11 PM - 12 AM	61.9	53.8	0.0	No	61.9	53.1	0.0	No
	12 - 1 AM	58.2	53.8	0.0	No	58.2	53.1	0.0	No
	1 - 2 AM	50.8	53.8	3.0	No	50.8	53.1	2.3	No
	2 - 3 AM	52.9	53.8	0.9	No	52.9	53.1	0.2	No
	3 - 4 AM	54.8	53.8	0.0	No	54.8	53.1	0.0	No
	4 - 5 AM	58.1	53.8	0.0	No	58.1	53.1	0.0	No
	5 - 6 AM	57.1	54.0	0.0	No	57.1	53.1	0.0	No
	6 - 7 AM	60.7	54.0	0.0	No	60.7	53.1	0.0	No
R15 ground	8 - 9 PM	65.6	61.7	0.0	No	64.9	34.3	0.0	No
	9 - 10 PM	65.6	61.7	0.0	No	64.6	34.3	0.0	No
	10 - 11 PM	64.9	61.7	0.0	No	65.0	34.3	0.0	No
	11 PM - 12 AM	64.3	61.7	0.0	No	63.7	34.3	0.0	No
	12 - 1 AM	61.6	61.7	0.1	No	61.6	33.8	0.0	No
	1 - 2 AM	59.1	61.7	2.6	No	59.1	34.3	0.0	No

TABLE 3.11-16
ESTIMATE OF UNMITIGATED NIGHTTIME CONSTRUCTION NOISE LEVELS (LEQ) AT EXISTING OFF-SITE SENSITIVE-RECEPTOR LOCATIONS

		Arena Site				Well Relocation Site			
Receptor	Hour	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?
R15 Floor 2	2 - 3 AM	52.1	56.8	4.7	No	52.1	34.3	0.0	No
	3 - 4 AM	58.4	61.7	3.3	No	53.9	34.3	0.0	No
	4 - 5 AM	60.1	61.7	1.6	No	55.8	34.3	0.0	No
	5 - 6 AM	61.4	62.0	0.6	No	58.4	34.3	0.0	No
	6 - 7 AM	57.8	57.1	0.0	No	57.8	34.3	0.0	No
	8 - 9 PM	64.9	61.5	0.0	No	64.9	34.7	0.0	No
	9 - 10 PM	64.6	61.5	0.0	No	64.6	34.7	0.0	No
	10 - 11 PM	65.0	61.5	0.0	No	65.0	34.7	0.0	No
	11 PM - 12 AM	63.7	61.5	0.0	No	63.7	34.7	0.0	No
	12 - 1 AM	62.7	61.5	0.0	No	62.7	34.7	0.0	No
	1 - 2 AM	59.1	61.5	2.4	No	59.1	34.7	0.0	No
	2 - 3 AM	52.1	61.5	9.4	**Yes**	52.1	34.7	0.0	No
	3 - 4 AM	53.9	61.5	7.6	**Yes**	53.9	34.7	0.0	No
	4 - 5 AM	55.8	61.5	5.7	**Yes**	55.8	34.7	0.0	No
R16 Ground	5 - 6 AM	58.4	61.8	3.4	No	58.4	34.7	0.0	No
	6 - 7 AM	57.8	61.8	4.0	No	57.8	34.7	0.0	No
	8 - 9 PM	64.9	54.9	0.0	No	63.9	44.7	0.0	No
	9 - 10 PM	64.6	54.9	0.0	No	64.6	44.7	0.0	No
	10 - 11 PM	63.1	53.5	0.0	No	63.1	44.7	0.0	No
	11 PM - 12 AM	61.9	53.5	0.0	No	61.9	44.7	0.0	No
	12 - 1 AM	58.2	53.5	0.0	No	58.2	44.7	0.0	No
	1 - 2 AM	50.8	53.5	2.7	No	50.8	44.7	0.0	No
	2 - 3 AM	52.1	54.9	2.8	No	52.9	44.7	0.0	No
	3 - 4 AM	53.9	54.9	1.0	No	54.8	44.7	0.0	No
	4 - 5 AM	55.8	54.9	0.0	No	58.1	44.7	0.0	No
	5 - 6 AM	57.1	54.5	0.0	No	57.1	44.7	0.0	No

TABLE 3.11-16
ESTIMATE OF UNMITIGATED NIGHTTIME CONSTRUCTION NOISE LEVELS (LEQ) AT EXISTING OFF-SITE SENSITIVE-RECEPTOR LOCATIONS

		Arena Site				Well Relocation Site			
Receptor	Hour	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?
R16 Floor 2	6 - 7 AM	57.8	55.3	0.0	No	57.8	42.4	0.0	No
	8 - 9 PM	64.9	63.4	0.0	No	64.9	47.2	0.0	No
	9 - 10 PM	64.6	63.4	0.0	No	64.6	47.2	0.0	No
	10 - 11 PM	65.0	63.4	0.0	No	65.0	47.2	0.0	No
	11 PM - 12 AM	63.7	63.4	0.0	No	63.7	47.2	0.0	No
	12 - 1 AM	62.7	63.4	0.7	No	62.7	47.2	0.0	No
	1 - 2 AM	55.3	60.3	5.0	**Yes**	59.1	36.9	0.0	No
	2 - 3 AM	52.1	63.4	11.3	**Yes**	52.1	47.2	0.0	No
	3 - 4 AM	53.9	63.4	9.5	**Yes**	53.9	47.2	0.0	No
	4 - 5 AM	55.8	63.4	7.6	**Yes**	55.8	47.2	0.0	No
	5 - 6 AM	58.4	63.9	5.5	**Yes**	58.4	47.2	0.0	No
R17	6 - 7 AM	57.8	63.9	6.1	**Yes**	57.8	47.2	0.0	No
	8 - 9 PM	63.9	53.5	0.0	No	63.9	55.3	0.0	No
	9 - 10 PM	64.6	53.5	0.0	No	64.6	55.2	0.0	No
	10 - 11 PM	63.1	53.5	0.0	No	63.1	55.2	0.0	No
	11 PM - 12 AM	61.9	53.5	0.0	No	61.9	55.2	0.0	No
	12 - 1 AM	58.2	53.5	0.0	No	58.2	55.2	0.0	No
	1 - 2 AM	50.8	53.5	2.7	No	50.8	55.2	4.4	No
	2 - 3 AM	52.9	53.5	0.6	No	52.9	55.2	2.3	No
	3 - 4 AM	54.8	53.5	0.0	No	54.8	55.2	0.4	No
	4 - 5 AM	58.1	53.5	0.0	No	58.1	55.2	0.0	No
	5 - 6 AM	57.1	54.5	0.0	No	57.1	55.2	0.0	No
R20 Ground	6 - 7 AM	60.7	54.5	0.0	No	60.7	55.2	0.0	No
	8 - 9 PM	63.9	55.4	0.0	No	63.9	41.9	0.0	No
	9 - 10 PM	64.4	55.4	0.0	No	64.4	41.9	0.0	No
	10 - 11 PM	63.3	55.4	0.0	No	63.3	41.9	0.0	No

TABLE 3.11-16
ESTIMATE OF UNMITIGATED NIGHTTIME CONSTRUCTION NOISE LEVELS (LEQ) AT EXISTING OFF-SITE SENSITIVE-RECEPTOR LOCATIONS

		Arena Site				Well Relocation Site			
Receptor	Hour	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?
R20 Floor 2	11 PM - 12 AM	61.7	55.4	0.0	No	61.7	41.9	0.0	No
	12 - 1 AM	58.3	55.4	0.0	No	58.3	41.9	0.0	No
	1 - 2 AM	52.9	55.4	2.5	No	52.9	41.9	0.0	No
	2 - 3 AM	53.7	55.4	1.7	No	53.7	41.9	0.0	No
	3 - 4 AM	55.5	55.4	0.0	No	55.5	41.9	0.0	No
	4 - 5 AM	58.1	55.4	0.0	No	58.1	41.9	0.0	No
	5 - 6 AM	57.4	56.1	0.0	No	57.4	41.9	0.0	No
	6 - 7 AM	60.6	56.1	0.0	No	60.6	41.9	0.0	No
	8 - 9 PM	63.9	52.8	0.0	No	63.9	40.7	0.0	No
	9 - 10 PM	64.4	52.8	0.0	No	64.4	40.7	0.0	No
	10 - 11 PM	63.3	52.8	0.0	No	63.3	40.7	0.0	No
	11 PM - 12 AM	61.7	52.8	0.0	No	61.7	40.7	0.0	No
	12 - 1 AM	58.3	52.8	0.0	No	58.3	40.7	0.0	No
	1 - 2 AM	52.9	52.8	0.0	No	52.9	40.7	0.0	No
	2 - 3 AM	53.7	52.8	0.0	No	53.7	40.7	0.0	No
	3 - 4 AM	55.5	52.8	0.0	No	55.5	40.7	0.0	No
	4 - 5 AM	58.1	52.8	0.0	No	58.1	40.7	0.0	No
	5 - 6 AM	57.4	53.4	0.0	No	57.4	40.7	0.0	No
	6 - 7 AM	60.6	53.4	0.0	No	60.6	40.7	0.0	No
R21 Ground	8 - 9 PM	63.9	49.3	0.0	No	63.9	39.3	0.0	No
	9 - 10 PM	64.5	49.3	0.0	No	64.5	39.3	0.0	No
	10 - 11 PM	63.3	49.3	0.0	No	63.3	39.3	0.0	No
	11 PM - 12 AM	63.0	49.3	0.0	No	63.0	39.3	0.0	No
	12 - 1 AM	59.6	49.3	0.0	No	59.6	39.3	0.0	No
	1 - 2 AM	55.3	49.3	0.0	No	55.3	39.3	0.0	No
	2 - 3 AM	54.9	49.3	0.0	No	54.9	39.3	0.0	No

TABLE 3.11-16
ESTIMATE OF UNMITIGATED NIGHTTIME CONSTRUCTION NOISE LEVELS (LEQ) AT EXISTING OFF-SITE SENSITIVE-RECEPTOR LOCATIONS

		Arena Site				Well Relocation Site			
Receptor	Hour	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?
R21 Floor 2	3 - 4 AM	56.1	49.3	0.0	No	56.1	39.3	0.0	No
	4 - 5 AM	58.4	49.3	0.0	No	58.4	39.3	0.0	No
	5 - 6 AM	58.9	49.7	0.0	No	58.9	39.3	0.0	No
	6 - 7 AM	62.9	49.7	0.0	No	62.9	39.3	0.0	No
	8 - 9 PM	63.9	51.2	0.0	No	63.9	39.4	0.0	No
	9 - 10 PM	64.5	51.2	0.0	No	64.5	39.4	0.0	No
	10 - 11 PM	63.3	51.2	0.0	No	63.3	39.4	0.0	No
	11 PM - 12 AM	63.0	51.2	0.0	No	63.0	39.4	0.0	No
	12 - 1 AM	59.6	51.2	0.0	No	59.6	39.4	0.0	No
	1 - 2 AM	55.3	51.2	0.0	No	55.3	39.4	0.0	No
	2 - 3 AM	54.9	51.2	0.0	No	54.9	39.4	0.0	No
	3 - 4 AM	56.1	51.2	0.0	No	56.1	39.4	0.0	No
	4 - 5 AM	58.4	51.2	0.0	No	58.4	39.4	0.0	No
	5 - 6 AM	58.9	51.2	0.0	No	58.9	39.4	0.0	No
	6 - 7 AM	62.9	51.2	0.0	No	62.9	39.4	0.0	No
R21 Floor 3	8 - 9 PM	63.9	52.1	0.0	No	63.9	41.5	0.0	No
	9 - 10 PM	64.5	52.1	0.0	No	64.5	41.5	0.0	No
	10 - 11 PM	63.3	52.1	0.0	No	63.3	41.5	0.0	No
	11 PM - 12 AM	63.0	52.1	0.0	No	63.0	41.5	0.0	No
	12 - 1 AM	59.6	52.1	0.0	No	59.6	41.5	0.0	No
	1 - 2 AM	55.3	52.1	0.0	No	55.3	41.5	0.0	No
	2 - 3 AM	54.9	52.1	0.0	No	54.9	41.5	0.0	No
	3 - 4 AM	56.1	52.1	0.0	No	56.1	41.5	0.0	No
	4 - 5 AM	58.4	52.1	0.0	No	58.4	41.5	0.0	No
	5 - 6 AM	58.9	52.1	0.0	No	58.9	41.5	0.0	No
	6 - 7 AM	62.9	52.1	0.0	No	62.9	41.5	0.0	No

TABLE 3.11-16
ESTIMATE OF UNMITIGATED NIGHTTIME CONSTRUCTION NOISE LEVELS (LEQ) AT EXISTING OFF-SITE SENSITIVE-RECEPTOR LOCATIONS

		Arena Site				Well Relocation Site			
Receptor	Hour	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?	Ambient (dBA Leq)	Worst-Case Construction Noise (dBA Leq)	Construction Over Ambient (dBA Leq)	Significant?

NOTES:

a A range of ambient noise levels have been estimated based on the observed/measured noise levels collected from measurement locations and distance of various receivers within each Receptor Group (shown in Figure 3.11-2). The ambient noise level reported for each receptor group is the ambient level for the receiver point within that receptor group that would experience the greatest exceedance over ambient conditions during the specified hour.

b A range of construction noise levels have been calculated based on the location of various receivers within each Receptor Group. The construction noise level for the receiver point with the greatest construction noise level over ambient is reported for each receptor group during the specified hour.

c The maximum increase over ambient shown is the maximum for each Receptor Group.

See Appendix J for calculations for each receiver within each Receptor Group.

SOURCE: ESA, 2019

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Off-Site Construction Activity and Related Noise

Construction truck trips would occur during the Project construction period and would be associated with hauling material and excavated soil from the Project Site and delivering building materials, supplies, and concrete to the Project Site. Construction haul trucks would travel a designated haul route. Trips using the I-110 are assumed to travel to and from the Project Site via Manchester Avenue and South Prairie Avenue. Trips using the I-405 are assumed to travel to and from the Project Site via Manchester Boulevard and Prairie Avenue or West Century Boulevard. Trips using the I-105 are assumed to travel to and from the Project Site via South Prairie Avenue. The construction phase with the greatest number of daily trucks is grading/excavation of the West Parking Garage Site with 760 daily one-way truck trips (380 round trips).

According to the construction schedule, grading/excavation of the West Parking Garage Site could overlap with Arena Site demolition and site preparation, site preparation and drainage/ utilities/trenching of the West Parking Garage Site, site preparation of the East Transportation and Hotel Site, and Well Relocation Site demolition and sound wall installation. During the maximum overlap day, there is the potential for 1,104 one-way truck trips (552 trucks). The sound power from one heavy-duty truck is greater than the sound power from one passenger vehicle (i.e., car). According to Caltrans, the noise levels from one heavy-duty truck at a speed of 35 miles per hour is equivalent to 19 passenger vehicles traveling at a speed of 35 miles per hour traveling at a speed of 35 miles per hour. Applying this multiplier to the estimated 1,104 one-way Project construction trips, Project construction would generate a sound power equivalency of 20,976 passenger vehicles.[64] According to FHWA, assuming all other factors remain the same, it takes a doubling of traffic volumes (100 percent increase) in order to increase traffic noise levels by 3 dBA.[65]

Table 3.11-17 summarizes the range of calculated daily traffic volumes for each roadway based on turning movement data collected as a part of the traffic analysis (see Section 3.14). Traffic volume data was provided for multiple segments along each roadway, resulting in multiple different daily volumes. Table 3.11-17 shows the volumes for the segments with the lowest observed ADT and the highest observed ADT along West Century Boulevard, Manchester Boulevard, and South Prairie Avenue. As indicated, the lowest existing volumes along West Century Boulevard, Manchester Boulevard, and South Prairie Avenue are 10,000 trips, 12,565 trips, and 13,505 trips, respectively.

Although it is unlikely that all Project-related construction trucks would travel along the same haul route, due to the uncertainty of the route trucks would take it has been assumed that all construction trucks could potentially travel along the same route. The additional sound power of 1,104 daily heavy duty construction trucks (as described above, equivalent to the sound power of 20,976 passenger vehicles) along any of these roadways would not result in the sound equivalent of doubling of daily traffic and, thus, would not result in a 3 dBA increase in traffic noise levels

64 California Department of Transportation, 2013. Technical Noise Supplement. September 2013. p. 3-19.
65 Federal Highway Administration, FHWA Highway Traffic Noise Prediction Model, December 1978, [HYPERLINK "https://ia801807.us.archive.org/3/items/fhwahighwaytraff00barr/fhwahighwaytraff00barr.pdf"].

when compared to the highest ADT along West Century Boulevard or South Prairie Avenue. However, heavy duty construction truck trips could result in a greater than 3 dBA increase in traffic noise along Manchester Boulevard under both the lowest and highest ADT assumptions and under the minimum ADT assumptions for West Century Boulevard and South Prairie Avenue. Therefore, noise impacts from off-site construction traffic would be **potentially significant**.

TABLE 3.11-17
HAUL ROUTE ADJUSTED BASELINE AVERAGE DAILY TRAFFIC VOLUMES

Roadway	Lowest ADT	Highest ADT
Manchester Boulevard	12,565	14,395
West Century Boulevard	10,000	30,955
South Prairie Avenue	13,505	34,150

NOTE:
Adjusted Baseline ADT was calculated based on the assumption that the average of Adjusted Baseline Weekday AM and PM peak hour volumes would make up 10 percent of daily volumes. Lowest ADT values are from the segment with the lowest ADT, and Highest ADT values are from the segment with the highest ADT.

SOURCE: Fehr & Peers, 2019; ESA, 2019

General Plan Consistency

Noise generated by construction of the Proposed Project would not be inconsistent with the goals and policies of the General Plan Noise Element. Goal 1 of the General Plan Noise Element calls for the reduction of noise where the noise environment represents a threat to public health and welfare. While the generation of construction noise would exceed ambient noise levels the noise would occur over a temporary period and would not result in the type of long term exposure that is known to result in hearing loss. For these reasons, construction noise would not represent a threat to public health or welfare.

Goal 3 of the General Plan Noise Element calls for the protection and maintenance of acceptable noise environments. The Proposed Project would generate temporary construction noise that would potentially increase ambient noise levels in the area, but these temporary increases would not represent a long-term change to the noise environment around the Project Site, and thus would not be inconsistent with Goal 3.

Consistent with Goal 4 and Policy 4.3, this Draft EIR includes substantial information and analysis of noise from Project construction, allowing for the consideration of noise effects in decision making regarding the Proposed Project. Consistent with Policy 4.4, the Proposed Project has integrated several features to reduce noise from Project construction, including the construction of temporary noise walls during construction, the use of an auger drilled pile system rather than the use of driven piles for foundation support.

For these reasons, construction of the Proposed Project would not be inconsistent with the goals and policies of the General Plan Noise Element that were adopted for the purposes of avoiding or mitigating environmental effects.

Potential Health Effects of Construction Noise Impacts

Short-term noise levels constituting the threshold of pain and hearing damage are 120 dB and 140 dB, respectively.[66] Table 3.11-15 shows average daytime construction noise levels and Table 3.11-16 shows the maximum nighttime construction noise levels at each of the studied receptors. As shown, average daytime and maximum nighttime construction noise levels would not reach the point at which pain or hearing damage would occur. Therefore, Project construction would not result in adverse health effects related to pain and hearing loss.

With respect to potential nighttime awakenings due to construction noise, the area surrounding the Project Site where there is the potential for sleep disturbance during nighttime construction has been identified. According to the Acoustical Society of America, receivers that would experience an indoor SEL of 50 dBA or lower would have an awakening probability of zero.[67] The area surrounding the Project Site that would experience an indoor SEL of greater than 50 dBA (exterior construction noise level of greater than 52 dBA Leq) was identified and shown in **Figure 3.11-7**. This does not take into account the existing indoor SEL currently experienced due to aircraft flyovers from LAX and or other existing noise sources in the area such as traffic and industrial operations.

Due to the high variability of each individual's sensitivity to nighttime noise, uncertain factors related to nighttime construction activity such as number of peak noise level occurrences, and lack of an established or adopted threshold designating acceptable occurrences of awakenings, the estimated area for awakenings presented in this analysis represents the City's best effort to disclose the potential sleep disturbance effects of nighttime construction, but do not represent predictions of sleep awakenings for any specific location or population.

As discussed above under Environmental Setting, there are no established thresholds with regard to an acceptable level of short-term sleep disturbance. While exposure to high levels of noise during sleep can result in physiological responses, it is not possible to predict such effects in any particular population.

66 Kinsler, Lawrence E., Frey, A.R., Coppens, A.B., and Sanders, J.V., 1982. *Fundamentals of Acoustics*, Third Edition.
67 Acoustical Society of America, 2018. *Rationale for Withdrawing ANSI/ASA S12.9-2008/Part 6*. Annex 3. July 22, 2018.

Figure 3.11-7 Potential Sleep Disturbance Area – Worst-Case Nighttime Construction

Conclusion

As described above, noise generated by daytime and nighttime construction activity during the three-year construction period would exceed applicable adapted thresholds at noise sensitive receptors adjacent to and near the Project Site, and, thus, these impacts would be **significant**.

Mitigation Measure 3.11-1

Prior to the issuance of any building permit for each phase of project development, the project applicant shall develop a Construction Noise Reduction Plan to minimize daytime and nighttime construction noise at nearby noise sensitive receptors. The plan shall be developed in coordination with an acoustical consultant and the project construction contractor, and shall submit the Plan to the City Chief Building Official for approval. The Plan shall include the following elements:

- *Buffer distances and types of equipment selected to minimize noise impacts. .*
- *Haul routes subject to preapproval by the City.*
- *Construction contractors shall utilize equipment and trucks equipped with the best available noise control techniques, such as improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible.*
- *Impact tools (i.e., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust and external jackets shall be used where feasible to lower noise levels. Quieter procedures shall be used, such as drills rather than impact equipment, whenever feasible.*
- *Stationary noise sources (e.g., generators) shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or other measures to the extent feasible. Pole power shall be utilized at the earliest feasible point in time, and to the maximum extent feasible in lieu of generators. If stationary construction equipment such as diesel- or gasoline-powered generators, must be operated continuously, such equipment must be located at least 100 feet from sensitive land uses (e.g., residences, schools, childcare centers, hospitals, parks, or similar uses), whenever possible.*
- *Use of "quiet" pile driving technology (such as auger displacement installation), where feasible in consideration of geotechnical and structural requirements and conditions.*
- *Designate a Community Affairs Liaison and conspicuously post this person's number around the project site, in adjacent public spaces, and in construction notifications. The Community Affairs Liaison shall be responsible for responding to any local complaints about construction activities. This Community Affairs Liaison shall receive all public complaints about construction noise disturbances and be responsible for determining the cause of the complaint and implementation of feasible measures to be taken to alleviate the problem. The Community Affairs Liaison shall coordinate with a designated construction*

contractor representative for the purpose of investigating the noise disturbance and undertaking all feasible measures to protect public health and safety.

- *Adjacent noise-sensitive residents and commercial uses (i.e., educational, religious, transient lodging) within 500 feet of demolition and pile driving activity shall be notified of the construction schedule, as well as the name and contact information of the project Community Affairs Liaison.*

Significance after Mitigation: Significant on-site construction noise levels would occur during daytime and nighttime construction, and off-site construction truck traffic would result in significant increases in traffic noise. Mitigation Measure 3.11-1 would reduce impacts by requiring a Construction Noise Reduction Plan.

Due to the lack of specificity of the construction plan at this point in time, the effectiveness of the noise-reduction techniques identified the mitigation measure, and the uncertainty of haul route designation and distribution of trucks, it is not practicable to calculate a numeric reduction in mitigated noise levels. The Proposed Project includes the installation of temporary and permanent sound walls, the most effective measure to reduce construction noise impacts, prior to commencement of heavy construction activity and reductions provided have been accounted for in the analysis. Restrictions on equipment usage such as the number of equipment pieces that could operate simultaneously within the same area of the site and restrictions on the number of heavy-duty construction trucks that can travel along the same roadways could potentially reduce impacts at noise-sensitive receptors.

However, restrictions on on-site equipment usage are not considered feasible because such restrictions could result in extension of the construction schedule that would expose noise-sensitive receptors to longer durations of construction activity, and could interfere with achievement of Project Applicant Objective 1a. Therefore, these impacts would be **significant and unavoidable**.

Impact 3.11-2: Operation of the Proposed Project would result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Proposed Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (Significant and Unavoidable)

Traffic Noise

Traffic noise impacts associated with the Proposed Project have been evaluated under Non-Event Day (Ancillary Uses), Day-Time Corporate/Community Event, Other Sporting Event or Gathering, and Major Event conditions for relevant weekday and weekend scenarios. Additionally, concurrent events at the Proposed Project Arena, NFL Stadium, and The Forum were evaluated for the relevant weekday and weekend scenarios. As summarized below (and in Table 3.11-3), Project-related traffic noise has been calculated and compared against Adjusted Baseline traffic noise levels under the following specific conditions: the weekday AM and PM peak hours for a Non-Event Day, the AM peak hour for a Day-Time Corporate/Community Event, the PM peak hour for an Other Sporting Event or Gathering, the weekday pre-event and post-event peak period and weekend pre-event peak period for a Major Event. In order to exceed the significance threshold of a 3 dBA increase over ambient conditions, traffic volumes on any affected roadway segment would need to double (increase by 100%). Based on traffic volumes

under Adjusted Baseline AM and PM peak hour conditions, it is not anticipated that significant impacts would occur under Non-Event Day, Day-Time Corporate/Community Event, or Other Sporting Event or Gathering conditions. Pre-event traffic volumes on weekdays and weekends are not anticipated to result in significant impacts because background traffic volumes in the Project area would remain similar to PM peak hour volumes. Under post-event conditions, background traffic volumes and corresponding ambient traffic noise levels would be lower and it is anticipated that Major Event post-event traffic volumes would result in significant increases in traffic noise on weekdays and weekends. These impacts during post-event conditions are **significant.**

In order to demonstrate the magnitude of traffic noise increase, analysis was undertaken for all scenarios for which traffic information is available from the analysis presented in Section 3.14, Transportation and Circulation. For Major Events, that analysis considers weekday pre- and post-event scenarios, and a weekend pre-event scenario. The weekend post-event scenario was not studied in Section 3.14 for traffic-related impacts because, based on preliminary traffic counts undertaken for this Draft EIR, ambient traffic volumes during the weekend post-event time period would be lower than the weekday post event period, resulting in lower intersection levels of service. The traffic levels during the post-event period (9:30 PM – 10:30 PM) on Saturday are approximately seven percent lower than the worst-case weekday, and on Sunday are approximately 19 percent lower than the worst-case weekday. Lower traffic volumes would result in lower ambient traffic noise, and when Project-related traffic is added to this background condition, could thus result in a more noticeable Project-related increase in traffic noise.

In order to estimate traffic noise impacts under the weekend post-event scenario, adjusted baseline weekday post-event traffic volumes were scaled to approximate weekend post-event traffic volumes based on a 19 percent lower volume as observed by traffic counts. Project-associated trips were then added to the scaled adjusted baseline volumes and traffic noise under the plus Project scenarios have been compared against the scaled adjusted baseline volumes. Based on the analysis presented below, there are 22 segments with significant traffic noise increases during weekday post-event conditions. The significance of traffic noise would be similar to or greater on weekend post-event conditions, with an estimated 28 segments with significant traffic noise increases.

Project Traffic Noise Analysis

Non-Event Day

Impacts of the Proposed Project under the Non-Event Day condition are shown in **Table 3.11-18**. As indicated, the change in traffic noise along studied roadway segments would range from a decrease of 0.1 dBA Leq (where traffic is anticipated to decrease) up to an increase of 0.3 dBA Leq. These changes would not exceed the 3 dBA Leq increase significance threshold during the weekday AM or PM peak hour. Therefore, impacts of the Proposed Project related to traffic generated noise on non-event days would be **less than significant**.

TABLE 3.11-18
ADJUSTED BASELINE PLUS PROJECT NON-EVENT DAY

	Weekday AM Peak Period				Weekday PM Peak Period			
Segment	**Adjusted Baseline (dBA Leq)**	**Adjusted Baseline Plus Project (dBA Leq)**	**Increase over Adjusted Baseline (dBA Leq)**	**Exceeds Threshold?**	**Adjusted Baseline (dBA Leq)**	**Adjusted Baseline Plus Project (dBA Leq)**	**Increase over Adjusted Baseline (dBA Leq)**	**Exceeds Threshold?**
Centinela between La Cienega Blvd and La Brea Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Centinela between La Brea Ave and Florence Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Florence Ave between La Brea Ave and Hillcrest Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Florence Ave between Hillcrest Blvd and Centinela Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Florence Ave between Centinela Ave and Prairie Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Florence Ave between Prairie Ave and West Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Ash Ave/405 NB Off-Ramp and La Brea Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between La Brea Ave and Hillcrest Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Hillcrest Blvd and Spruce Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Spruce Ave and Prairie Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Kareem Ct and Crenshaw Dr	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Crenshaw Dr and Crenshaw Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Crenshaw Blvd and Van Ness Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Van Ness Ave and Western Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Western Ave and Normandie Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Normandie Ave and Vermont Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Vermont Ave and Hoover St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Hoover St and Figueroa St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pincay Dr between Prairie Ave and Kareem Ct	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pincay Dr between Kareem Ct and Crenshaw Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arbor Vitae St between La Cienega Blvd and Inglewood Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arbor Vitae St between Inglewood Ave and La Brea Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arbor Vitae St between La Brea Ave and Myrtle Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arbor Vitae St between Myrtle Ave and Prairie Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hardy St between La Brea Ave and Myrtle Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hardy St between Myrtle Ave and Prairie Ave	59.7	59.7	0.0	No	59.7	59.7	0.0	No
Century Blvd between Concourse Way and La Cienega Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Century Blvd between 405 on/off Ramp and Felton Ave	70.8	70.9	0.1	No	71.6	71.6	0.1	No
Century Blvd between Felton Ave and Inglewood Ave	70.7	70.7	0.1	No	71.4	71.5	0.1	No
Century Blvd between Inglewood Ave and Fir Ave/Firmona Ave	71.2	71.3	0.1	No	71.5	71.6	0.1	No
Century Blvd between Fir Ave/Firmona Ave and Grevillea Ave	71.0	71.1	0.1	No	71.5	71.6	0.1	No
Century Blvd between Hawthorne Blvd/La Brea Blvd and Myrtle Ave	70.1	70.3	0.2	No	70.9	71.1	0.2	No
Century Blvd between Myrtle Ave and Freeman Ave	70.1	70.3	0.2	No	70.9	71.2	0.2	No
Century Blvd between Freeman Ave and Prairie Ave	69.9	70.1	0.2	No	70.6	70.8	0.3	No
Century Blvd between Prairie Ave and Doty Ave	69.6	69.8	0.2	No	71.1	71.2	0.1	No
Century Blvd between 11th Ave/Village Ave and Crenshaw Blvd	69.5	69.6	0.1	No	71.5	71.6	0.1	No
Century Blvd between Crenshaw Blvd and 5th Ave	68.3	68.4	0.1	No	69.8	69.9	0.1	No
Century Blvd between 5th Ave and Van Ness Ave	68.4	68.5	0.1	No	69.0	69.1	0.1	No
Century Blvd between Van Ness Ave and Gramercy Pl	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Century Blvd between Gramercy Pl and Western Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Century Blvd between Western Ave and Normandie Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

TABLE 3.11-18
ADJUSTED BASELINE PLUS PROJECT NON-EVENT DAY

Segment	Weekday AM Peak Period				Weekday PM Peak Period			
	Adjusted Baseline (dBA Leq)	Adjusted Baseline Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?	Adjusted Baseline (dBA Leq)	Adjusted Baseline Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Century Blvd between Normandie Ave and Vermont Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Century Blvd between Vermont Ave and Hoover St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Century Blvd between Hoover St and Figueroa St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Century Blvd between Figueroa St and Grand Ave/110 SB off ramp	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
104th St between Inglewood Ave and Hawthorne Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
104th St between Hawthorne Blvd and Prairie Ave	55.9	56.0	0.1	No	57.8	57.9	0.0	No
104th St between Prairie Ave and Doty Ave	57.4	57.6	0.1	No	58.6	58.8	0.3	No
104th St between Doty Ave and Yukon Ave	57.7	57.8	0.1	No	58.5	58.6	0.1	No
104th St between Yukon Ave and Crenshaw Blvd	61.0	61.0	0.0	No	60.5	60.6	0.1	No
Lennox Blvd between La Cienega Blvd and Inglewood Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lennox Blvd between Inglewood Ave and Hawthorne Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lennox Blvd between Hawthorne Blvd and Freeman Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lennox Blvd between Freeman Ave and Prairie Ave	62.1	62.1	0.0	No	62.5	62.5	0.0	No
Imperial Hwy between Prairie Ave and Doty Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Imperial Hwy between Doty Ave and Yukon Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Imperial Hwy between Yukon Ave and Crenshaw Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
120th St between Prairie Ave and 105 on/off ramp	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
La Cienega Blvd between Stocker St and La Tijera Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
La Cienega Blvd between La Tijera Blvd and Centinela Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
La Cienega Blvd between Centinela Ave and Florence Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
La Cienega Blvd between Arbor Vitae St and 405 on/off rams (n/o Century)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
La Cienega Blvd between 405 on/off rams (n/o Century) and Century Blvd	70.7	70.7	0.0	No	69.4	69.4	0.0	No
La Cienega Blvd between 405 on/off ramps (s/o Century) and 104th St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Inglewood Ave between Century Blvd and 104th St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Inglewood Ave between 104th St and Lennox Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
La Brea Ave between Stocker St and Slauson Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
La Brea Ave between Slauson Ave and Centinela Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
La Brea Ave between Centinela Ave and Florence Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
La Brea Ave between Florence Ave and Manchester Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
La Brea Ave between Manchester Blvd and Hillcrest Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
La Brea Ave between La Brea Ave and Arbor Vitae St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hawthorne Ave between 104th St and Lennox Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hawthorne Ave between Lennox Blvd and 111th St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hillcrest Blvd between Florence Ave and Manchester Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mrytle Ave between Hardy St and Century Blvd	57.3	57.3	0.1	No	57.8	57.9	0.1	No
Freeman Ave between Lennox Blvd and Imperial Hwy	61.7	61.7	0.0	No	62.3	62.4	0.1	No
Prairie Ave between Florence Ave and Grace Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Prairie Ave between Grace Ave and East Carondelet Way	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Prairie Ave between East Carondelet Way and E Regent St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Prairie Ave between E Regent St and Manchester Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Prairie Ave between Manchester Blvd and Kelso St/Pincay Dr	69.4	69.5	0.1	No	69.4	69.5	0.1	No

TABLE 3.11-18
ADJUSTED BASELINE PLUS PROJECT NON-EVENT DAY

Segment	Weekday AM Peak Period				Weekday PM Peak Period			
	Adjusted Baseline (dBA Leq)	Adjusted Baseline Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?	Adjusted Baseline (dBA Leq)	Adjusted Baseline Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Prairie Ave between Kelso St/Pincay Dr and Buckthorn St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Prairie Ave between Buckthorn St and Arbor Vitae St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Prairie Ave between Arbor Vitae St and Hardy St	69.0	69.1	0.1	No	69.5	69.6	0.1	No
Prairie Ave between Hardy St and 97th St	69.2	69.3	0.1	No	69.8	69.9	0.1	No
Prairie Ave between 97th St and Century Blvd	69.3	69.3	0.1	No	69.8	69.9	0.1	No
Prairie Ave between 102nd St and 104th St	69.1	69.4	0.2	No	69.6	69.9	0.3	No
Prairie Ave between 104th St and Lennox Blvd	69.7	69.8	0.1	No	70.1	70.2	0.2	No
Prairie Ave between 108th St and 111 St	69.7	69.8	0.1	No	70.3	70.5	0.1	No
Prairie Ave between 111 St and 112th St/105 off ramp	70.0	70.1	0.1	No	70.4	70.5	0.1	No
Prairie Ave between 112th St/105 off ramp and Imperial Hwy	69.6	69.7	0.1	No	69.9	70.1	0.1	No
Prairie Ave between Imperial Hwy and 118th St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Prairie Ave between 118th St and 120th St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Yukon Ave between 102nd St and 104th St	62.1	61.9	-0.1	No	63.1	63.0	-0.1	No
Yukon Ave between 104th St and 108th St	61.8	61.8	0.0	No	61.8	61.8	0.0	No
Yukon Ave between 108th St and 111th St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Yukon Ave between 111th St and Imperial Hwy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crenshaw Blvd between Florence Ave and Manchester Blvd (W)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crenshaw Blvd between Florence Ave and Manchester Blvd (E)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crenshaw Blvd between Manchester Blvd and Pincay Dr	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crenshaw Blvd between Pincay Dr and Hardy St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crenshaw Blvd between Hardy St and Century Blvd	69.3	69.4	0.0	No	69.6	69.6	0.0	No
Crenshaw Blvd between Century Blvd and 104th St	69.8	69.8	0.0	No	70.1	70.1	0.0	No
Crenshaw Blvd between 104th St and 109th St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crenshaw Blvd between 109th St and Imperial Hwy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crenshaw Blvd between Imperial Hwy and 105 off ramp/118th Pl	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Van Ness Ave between Manchester Blvd and Hardy St/96th St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Van Ness Ave between Hardy St/96th St and Century Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Van Ness Ave between Century Blvd and 104th St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Western Ave between Manchester Blvd and Century Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vermont Ave between Manchester Blvd and Century Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hoover St between Manchester Blvd and Century Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

NOTES:
N/A Traffic along these segments are most affected by event-related traffic and not by daily AM or PM peak hour traffic. Therefore, traffic volumes for these segments were not simulated under the weekday AM or PM peak hours.

SOURCE: ESA, 2019 (Appendix J)

Day-Time Corporate/Community Event

Impacts in the weekday AM peak hour under the Day-Time Corporate/Community Event condition are shown in **Table 3.11-19**. As indicated, the change in traffic noise along studied roadway segments would range from a decrease of 0.1 dBA Leq (where traffic is anticipated to decrease) up to an increase of 1.3 dBA Leq. These changes would not exceed the 3 dBA Leq increase significance threshold during the weekday AM peak hour. Therefore, impacts of the Proposed Project during Day-Time Corporate/Community Events would be **less than significant**.

TABLE 3.11-19
ADJUSTED BASELINE PLUS PROJECT DAY-TIME CORPORATE/COMMUNITY EVENT

Segment	Weekday AM Peak Period			
	Adjusted Baseline (dBA Leq)	Adjusted Baseline Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Centinela between La Cienega Blvd and La Brea Ave	N/A	N/A	N/A	N/A
Centinela between La Brea Ave and Florence Ave	N/A	N/A	N/A	N/A
Florence Ave between La Brea Ave and Hillcrest Blvd	N/A	N/A	N/A	N/A
Florence Ave between Hillcrest Blvd and Centinela Ave	N/A	N/A	N/A	N/A
Florence Ave between Centinela Ave and Prairie Ave	N/A	N/A	N/A	N/A
Florence Ave between Prairie Ave and West Blvd	N/A	N/A	N/A	N/A
Manchester Blvd between Ash Ave/405 NB Off-Ramp and La Brea Ave	N/A	N/A	N/A	N/A
Manchester Blvd between La Brea Ave and Hillcrest Blvd	N/A	N/A	N/A	N/A
Manchester Blvd between Hillcrest Blvd and Spruce Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Spruce Ave and Prairie Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Kareem Ct and Crenshaw Dr	N/A	N/A	N/A	N/A
Manchester Blvd between Crenshaw Dr and Crenshaw Blvd	N/A	N/A	N/A	N/A
Manchester Blvd between Crenshaw Blvd and Van Ness Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Van Ness Ave and Western Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Western Ave and Normandie Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Normandie Ave and Vermont Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Vermont Ave and Hoover St	N/A	N/A	N/A	N/A
Manchester Blvd between Hoover St and Figueroa St	N/A	N/A	N/A	N/A
Pincay Dr between Prairie Ave and Kareem Ct	N/A	N/A	N/A	N/A
Pincay Dr between Kareem Ct and Crenshaw Blvd	N/A	N/A	N/A	N/A
Arbor Vitae St between La Cienega Blvd and Inglewood Ave	N/A	N/A	N/A	N/A
Arbor Vitae St between Inglewood Ave and La Brea Ave	N/A	N/A	N/A	N/A
Arbor Vitae St between La Brea Ave and Myrtle Ave	N/A	N/A	N/A	N/A
Arbor Vitae St between Myrtle Ave and Prairie Ave	N/A	N/A	N/A	N/A
Hardy St between La Brea Ave and Myrtle Ave	N/A	N/A	N/A	N/A
Hardy St between Myrtle Ave and Prairie Ave	59.7	59.7	0.0	No

TABLE 3.11-19
ADJUSTED BASELINE PLUS PROJECT DAY-TIME CORPORATE/COMMUNITY EVENT

Segment	Weekday AM Peak Period			
	Adjusted Baseline (dBA Leq)	Adjusted Baseline Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Century Blvd between Concourse Way and La Cienega Blvd	N/A	N/A	N/A	N/A
Century Blvd between 405 on/off Ramp and Felton Ave	70.8	71.3	0.5	No
Century Blvd between Felton Ave and Inglewood Ave	70.7	71.2	0.5	No
Century Blvd between Inglewood Ave and Fir Ave/Firmona Ave	71.2	71.7	0.5	No
Century Blvd between Fir Ave/Firmona Ave and Grevillea Ave	71.0	71.5	0.5	No
Century Blvd between Hawthorne Blvd/La Brea Blvd and Myrtle Ave	70.1	71.1	1.0	No
Century Blvd between Myrtle Ave and Freeman Ave	70.1	71.1	1.0	No
Century Blvd between Freeman Ave and Prairie Ave	69.9	70.9	1.0	No
Century Blvd between Prairie Ave and Doty Ave	69.6	70.1	0.5	No
Century Blvd between 11th Ave/Village Ave and Crenshaw Blvd	69.5	70.0	0.5	No
Century Blvd between Crenshaw Blvd and 5th Ave	68.3	68.6	0.3	No
Century Blvd between 5th Ave and Van Ness Ave	68.4	68.7	0.3	No
Century Blvd between Van Ness Ave and Gramercy Pl	N/A	N/A	N/A	N/A
Century Blvd between Gramercy Pl and Western Ave	N/A	N/A	N/A	N/A
Century Blvd between Western Ave and Normandie Ave	N/A	N/A	N/A	N/A
Century Blvd between Normandie Ave and Vermont Ave	N/A	N/A	N/A	N/A
Century Blvd between Vermont Ave and Hoover St	N/A	N/A	N/A	N/A
Century Blvd between Hoover St and Figueroa St	N/A	N/A	N/A	N/A
Century Blvd between Figueroa St and Grand Ave/110 SB off ramp	N/A	N/A	N/A	N/A
104th St between Inglewood Ave and Hawthorne Blvd	N/A	N/A	N/A	N/A
104th St between Hawthorne Blvd and Prairie Ave	55.9	56.4	0.5	No
104th St between Prairie Ave and Doty Ave	57.4	58.7	1.3	No
104th St between Doty Ave and Yukon Ave	57.7	58.9	1.2	No
104th St between Yukon Ave and Crenshaw Blvd	61.0	61.6	0.6	No
Lennox Blvd between La Cienega Blvd and Inglewood Ave	N/A	N/A	N/A	N/A
Lennox Blvd between Inglewood Ave and Hawthorne Blvd	N/A	N/A	N/A	N/A
Lennox Blvd between Hawthorne Blvd and Freeman Ave	N/A	N/A	N/A	N/A

TABLE 3.11-19
ADJUSTED BASELINE PLUS PROJECT DAY-TIME CORPORATE/COMMUNITY EVENT

Segment	Weekday AM Peak Period			
	Adjusted Baseline (dBA Leq)	Adjusted Baseline Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Lennox Blvd between Freeman Ave and Prairie Ave	62.1	62.7	0.6	No
Imperial Hwy between Prairie Ave and Doty Ave	N/A	N/A	N/A	N/A
Imperial Hwy between Doty Ave and Yukon Ave	N/A	N/A	N/A	N/A
Imperial Hwy between Yukon Ave and Crenshaw Blvd	N/A	N/A	N/A	N/A
120th St between Prairie Ave and 105 on/off ramp	N/A	N/A	N/A	N/A
La Cienega Blvd between Stocker St and La Tijera Blvd	N/A	N/A	N/A	N/A
La Cienega Blvd between La Tijera Blvd and Centinela Ave	N/A	N/A	N/A	N/A
La Cienega Blvd between Centinela Ave and Florence Ave	N/A	N/A	N/A	N/A
La Cienega Blvd between Arbor Vitae St and 405 on/off rams (n/o Century)	N/A	N/A	N/A	N/A
La Cienega Blvd between 405 on/off rams (n/o Century) and Century Blvd	70.7	70.9	0.3	No
La Cienega Blvd between 405 on/off ramps (s/o Century) and 104th St	N/A	N/A	N/A	N/A
Inglewood Ave between Century Blvd and 104th St	N/A	N/A	N/A	N/A
Inglewood Ave between 104th St and Lennox Blvd	N/A	N/A	N/A	N/A
La Brea Ave between Stocker St and Slauson Ave	N/A	N/A	N/A	N/A
La Brea Ave between Slauson Ave and Centinela Ave	N/A	N/A	N/A	N/A
La Brea Ave between Centinela Ave and Florence Ave	N/A	N/A	N/A	N/A
La Brea Ave between Florence Ave and Manchester Blvd	N/A	N/A	N/A	N/A
La Brea Ave between Manchester Blvd and Hillcrest Blvd	N/A	N/A	N/A	N/A
La Brea Ave between La Brea Ave and Arbor Vitae St	N/A	N/A	N/A	N/A
Hawthorne Ave between 104th St and Lennox Blvd	N/A	N/A	N/A	N/A
Hawthorne Ave between Lennox Blvd and 111th St	N/A	N/A	N/A	N/A
Hillcrest Blvd between Florence Ave and Manchester Blvd	N/A	N/A	N/A	N/A
Mrytle Ave between Hardy St and Century Blvd	57.3	57.3	0.0	No
Freeman Ave between Lennox Blvd and Imperial Hwy	61.7	61.7	0.0	No
Prairie Ave between Florence Ave and Grace Ave	N/A	N/A	N/A	N/A
Prairie Ave between Grace Ave and East Carondelet Way	N/A	N/A	N/A	N/A
Prairie Ave between East Carondelet Way and E Regent St	N/A	N/A	N/A	N/A

TABLE 3.11-19
ADJUSTED BASELINE PLUS PROJECT DAY-TIME CORPORATE/COMMUNITY EVENT

Segment	Weekday AM Peak Period			
	Adjusted Baseline (dBA Leq)	Adjusted Baseline Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Prairie Ave between E Regent St and Manchester Blvd	N/A	N/A	N/A	N/A
Prairie Ave between Manchester Blvd and Kelso St/Pincay Dr	69.4	69.8	0.3	No
Prairie Ave between Kelso St/Pincay Dr and Buckthorn St	N/A	N/A	N/A	N/A
Prairie Ave between Buckthorn St and Arbor Vitae St	N/A	N/A	N/A	N/A
Prairie Ave between Arbor Vitae St and Hardy St	69.0	69.4	0.4	No
Prairie Ave between Hardy St and 97th St	69.2	69.6	0.4	No
Prairie Ave between 97th St and Century Blvd	69.3	69.6	0.4	No
Prairie Ave between 102nd St and 104th St	69.1	70.1	0.9	No
Prairie Ave between 104th St and Lennox Blvd	69.7	70.3	0.6	No
Prairie Ave between 108th St and 111 St	69.7	69.9	0.2	No
Prairie Ave between 111 St and 112th St/105 off ramp	70.0	70.2	0.2	No
Prairie Ave between 112th St/105 off ramp and Imperial Hwy	69.6	69.7	0.1	No
Prairie Ave between Imperial Hwy and 118th St	N/A	N/A	N/A	N/A
Prairie Ave between 118th St and 120th St	N/A	N/A	N/A	N/A
Yukon Ave between 102nd St and 104th St	62.1	62.0	-0.1	No
Yukon Ave between 104th St and 108th St	61.8	61.8	0.0	No
Yukon Ave between 108th St and 111th St	N/A	N/A	N/A	N/A
Yukon Ave between 111th St and Imperial Hwy	N/A	N/A	N/A	N/A
Crenshaw Blvd between Florence Ave and Manchester Blvd (W)	N/A	N/A	N/A	N/A
Crenshaw Blvd between Florence Ave and Manchester Blvd (E)	N/A	N/A	N/A	N/A
Crenshaw Blvd between Manchester Blvd and Pincay Dr	N/A	N/A	N/A	N/A
Crenshaw Blvd between Pincay Dr and Hardy St	N/A	N/A	N/A	N/A
Crenshaw Blvd between Hardy St and Century Blvd	69.3	69.4	0.1	No
Crenshaw Blvd between Century Blvd and 104th St	69.8	70.0	0.3	No
Crenshaw Blvd between 104th St and 109th St	N/A	N/A	N/A	N/A
Crenshaw Blvd between 109th St and Imperial Hwy	N/A	N/A	N/A	N/A

TABLE 3.11-19
ADJUSTED BASELINE PLUS PROJECT DAY-TIME CORPORATE/COMMUNITY EVENT

Segment	Weekday AM Peak Period			
	Adjusted Baseline (dBA Leq)	Adjusted Baseline Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Crenshaw Blvd between Imperial Hwy and 105 off ramp/118th Pl	N/A	N/A	N/A	N/A
Van Ness Ave between Manchester Blvd and Hardy St/96th St	N/A	N/A	N/A	N/A
Van Ness Ave between Hardy St/96th St and Century Blvd	N/A	N/A	N/A	N/A
Van Ness Ave between Century Blvd and 104th St	N/A	N/A	N/A	N/A
Western Ave between Manchester Blvd and Century Blvd	N/A	N/A	N/A	N/A
Vermont Ave between Manchester Blvd and Century Ave	N/A	N/A	N/A	N/A
Hoover St between Manchester Blvd and Century Ave	N/A	N/A	N/A	N/A

NOTES:
N/A Traffic along these segments are most affected by event-related traffic and not by the daily AM peak hour traffic. Therefore, traffic volumes for these segments were not simulated under the weekday AM peak hour.

Source: ESA, 2019 (Appendix J)

Other Sporting Event or Gathering

Impacts in the weekday PM peak hour under the Other Sporting Event or Gathering condition are shown in **Table 3.11-20**. As indicated, the increases in traffic noise along studied roadway segments would range from 0.1 dBA Leq up to 2.0 dBA Leq and therefore would not exceed the 3 dBA Leq increase significance threshold during the weekday PM peak hour. Therefore, impacts of the Proposed Project related to traffic generated noise during Other Sporting Event or Gathering conditions would be **less than significant**.

TABLE 3.11-20
ADJUSTED BASELINE PLUS PROJECT OTHER SPORTING EVENT OR GATHERING

Segment	Weekday PM Peak Period			
	Adjusted Baseline (dBA Leq)	Adjusted Baseline Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Centinela between La Cienega Blvd and La Brea Ave	N/A	N/A	N/A	N/A
Centinela between La Brea Ave and Florence Ave	N/A	N/A	N/A	N/A
Florence Ave between La Brea Ave and Hillcrest Blvd	N/A	N/A	N/A	N/A
Florence Ave between Hillcrest Blvd and Centinela Ave	N/A	N/A	N/A	N/A
Florence Ave between Centinela Ave and Prairie Ave	N/A	N/A	N/A	N/A
Florence Ave between Prairie Ave and West Blvd	N/A	N/A	N/A	N/A
Manchester Blvd between Ash Ave/405 NB Off-Ramp and La Brea Ave	N/A	N/A	N/A	N/A
Manchester Blvd between La Brea Ave and Hillcrest Blvd	N/A	N/A	N/A	N/A
Manchester Blvd between Hillcrest Blvd and Spruce Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Spruce Ave and Prairie Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Kareem Ct and Crenshaw Dr	N/A	N/A	N/A	N/A
Manchester Blvd between Crenshaw Dr and Crenshaw Blvd	N/A	N/A	N/A	N/A
Manchester Blvd between Crenshaw Blvd and Van Ness Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Van Ness Ave and Western Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Western Ave and Normandie Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Normandie Ave and Vermont Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Vermont Ave and Hoover St	N/A	N/A	N/A	N/A
Manchester Blvd between Hoover St and Figueroa St	N/A	N/A	N/A	N/A
Pincay Dr between Prairie Ave and Kareem Ct	N/A	N/A	N/A	N/A
Pincay Dr between Kareem Ct and Crenshaw Blvd	N/A	N/A	N/A	N/A
Arbor Vitae St between La Cienega Blvd and Inglewood Ave	N/A	N/A	N/A	N/A
Arbor Vitae St between Inglewood Ave and La Brea Ave	N/A	N/A	N/A	N/A
Arbor Vitae St between La Brea Ave and Myrtle Ave	N/A	N/A	N/A	N/A
Arbor Vitae St between Myrtle Ave and Prairie Ave	N/A	N/A	N/A	N/A
Hardy St between La Brea Ave and Myrtle Ave	N/A	N/A	N/A	N/A
Hardy St between Myrtle Ave and Prairie Ave	59.7	59.9	0.2	No
Century Blvd between Concourse Way and La Cienega Blvd	N/A	N/A	N/A	N/A
Century Blvd between 405 on/off Ramp and Felton Ave	71.6	72.1	0.6	No

TABLE 3.11-20
ADJUSTED BASELINE PLUS PROJECT OTHER SPORTING EVENT OR GATHERING

Segment	Weekday PM Peak Period			
	Adjusted Baseline (dBA Leq)	Adjusted Baseline Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Century Blvd between Felton Ave and Inglewood Ave	71.4	72.0	0.6	No
Century Blvd between Inglewood Ave and Fir Ave/Firmona Ave	71.5	72.1	0.6	No
Century Blvd between Fir Ave/Firmona Ave and Grevillea Ave	71.5	72.1	0.6	No
Century Blvd between Hawthorne Blvd/La Brea Blvd and Myrtle Ave	70.9	72.6	1.7	No
Century Blvd between Myrtle Ave and Freeman Ave	70.9	72.6	1.7	No
Century Blvd between Freeman Ave and Prairie Ave	70.6	71.2	0.6	No
Century Blvd between Prairie Ave and Doty Ave	71.1	71.8	0.7	No
Century Blvd between 11th Ave/Village Ave and Crenshaw Blvd	71.5	72.0	0.5	No
Century Blvd between Crenshaw Blvd and 5th Ave	69.8	70.3	0.5	No
Century Blvd between 5th Ave and Van Ness Ave	69.0	69.6	0.6	No
Century Blvd between Van Ness Ave and Gramercy Pl	N/A	N/A	N/A	N/A
Century Blvd between Gramercy Pl and Western Ave	N/A	N/A	N/A	N/A
Century Blvd between Western Ave and Normandie Ave	N/A	N/A	N/A	N/A
Century Blvd between Normandie Ave and Vermont Ave	N/A	N/A	N/A	N/A
Century Blvd between Vermont Ave and Hoover St	N/A	N/A	N/A	N/A
Century Blvd between Hoover St and Figueroa St	N/A	N/A	N/A	N/A
Century Blvd between Figueroa St and Grand Ave/110 SB off ramp	N/A	N/A	N/A	N/A
104th St between Inglewood Ave and Hawthorne Blvd	N/A	N/A	N/A	N/A
104th St between Hawthorne Blvd and Prairie Ave	57.8	58.2	0.4	No
104th St between Prairie Ave and Doty Ave	58.6	60.4	1.8	No
104th St between Doty Ave and Yukon Ave	58.5	60.4	1.9	No
104th St between Yukon Ave and Crenshaw Blvd	60.5	62.0	1.5	No
Lennox Blvd between La Cienega Blvd and Inglewood Ave	N/A	N/A	N/A	N/A
Lennox Blvd between Inglewood Ave and Hawthorne Blvd	N/A	N/A	N/A	N/A
Lennox Blvd between Hawthorne Blvd and Freeman Ave	N/A	N/A	N/A	N/A
Lennox Blvd between Freeman Ave and Prairie Ave	62.5	63.1	0.6	No
Imperial Hwy between Prairie Ave and Doty Ave	N/A	N/A	N/A	N/A
Imperial Hwy between Doty Ave and Yukon Ave	N/A	N/A	N/A	N/A

TABLE 3.11-20
ADJUSTED BASELINE PLUS PROJECT OTHER SPORTING EVENT OR GATHERING

Segment	Weekday PM Peak Period			
	Adjusted Baseline (dBA Leq)	Adjusted Baseline Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Imperial Hwy between Yukon Ave and Crenshaw Blvd	N/A	N/A	N/A	N/A
120th St between Prairie Ave and 105 on/off ramp	N/A	N/A	N/A	N/A
La Cienega Blvd between Stocker St and La Tijera Blvd	N/A	N/A	N/A	N/A
La Cienega Blvd between La Tijera Blvd and Centinela Ave	N/A	N/A	N/A	N/A
La Cienega Blvd between Centinela Ave and Florence Ave	N/A	N/A	N/A	N/A
La Cienega Blvd between Arbor Vitae St and 405 on/off rams (n/o Century)	N/A	N/A	N/A	N/A
La Cienega Blvd between 405 on/off rams (n/o Century) and Century Blvd	69.4	69.5	0.1	No
La Cienega Blvd between 405 on/off ramps (s/o Century) and 104th St	N/A	N/A	N/A	N/A
Inglewood Ave between Century Blvd and 104th St	N/A	N/A	N/A	N/A
Inglewood Ave between 104th St and Lennox Blvd	N/A	N/A	N/A	N/A
La Brea Ave between Stocker St and Slauson Ave	N/A	N/A	N/A	N/A
La Brea Ave between Slauson Ave and Centinela Ave	N/A	N/A	N/A	N/A
La Brea Ave between Centinela Ave and Florence Ave	N/A	N/A	N/A	N/A
La Brea Ave between Florence Ave and Manchester Blvd	N/A	N/A	N/A	N/A
La Brea Ave between Manchester Blvd and Hillcrest Blvd	N/A	N/A	N/A	N/A
La Brea Ave between La Brea Ave and Arbor Vitae St	N/A	N/A	N/A	N/A
Hawthorne Ave between 104th St and Lennox Blvd	N/A	N/A	N/A	N/A
Hawthorne Ave between Lennox Blvd and 111th St	N/A	N/A	N/A	N/A
Hillcrest Blvd between Florence Ave and Manchester Blvd	N/A	N/A	N/A	N/A
Mrytle Ave between Hardy St and Century Blvd	57.8	58.2	0.4	No
Freeman Ave between Lennox Blvd and Imperial Hwy	62.3	64.0	1.6	No
Prairie Ave between Florence Ave and Grace Ave	N/A	N/A	N/A	N/A
Prairie Ave between Grace Ave and East Carondelet Way	N/A	N/A	N/A	N/A
Prairie Ave between East Carondelet Way and E Regent St	N/A	N/A	N/A	N/A
Prairie Ave between E Regent St and Manchester Blvd	N/A	N/A	N/A	N/A
Prairie Ave between Manchester Blvd and Kelso St/Pincay Dr	69.4	69.6	0.2	No
Prairie Ave between Kelso St/Pincay Dr and Buckthorn St	N/A	N/A	N/A	N/A
Prairie Ave between Buckthorn St and Arbor Vitae St	N/A	N/A	N/A	N/A

TABLE 3.11-20
ADJUSTED BASELINE PLUS PROJECT OTHER SPORTING EVENT OR GATHERING

Segment	Weekday PM Peak Period			
	Adjusted Baseline (dBA Leq)	Adjusted Baseline Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Prairie Ave between Arbor Vitae St and Hardy St	69.5	69.7	0.2	No
Prairie Ave between Hardy St and 97th St	69.8	70.0	0.2	No
Prairie Ave between 97th St and Century Blvd	69.8	70.0	0.2	No
Prairie Ave between 102nd St and 104th St	69.6	71.6	2.0	No
Prairie Ave between 104th St and Lennox Blvd	70.1	71.6	1.6	No
Prairie Ave between 108th St and 111 St	70.3	71.6	1.2	No
Prairie Ave between 111 St and 112th St/105 off ramp	70.4	71.6	1.2	No
Prairie Ave between 112th St/105 off ramp and Imperial Hwy	69.9	71.2	1.2	No
Prairie Ave between Imperial Hwy and 118th St	N/A	N/A	N/A	N/A
Prairie Ave between 118th St and 120th St	N/A	N/A	N/A	N/A
Yukon Ave between 102nd St and 104th St	63.1	64.1	1.0	No
Yukon Ave between 104th St and 108th St	61.8	62.4	0.6	No
Yukon Ave between 108th St and 111th St	N/A	N/A	N/A	N/A
Yukon Ave between 111th St and Imperial Hwy	N/A	N/A	N/A	N/A
Crenshaw Blvd between Florence Ave and Manchester Blvd (W)	N/A	N/A	N/A	N/A
Crenshaw Blvd between Florence Ave and Manchester Blvd (E)	N/A	N/A	N/A	N/A
Crenshaw Blvd between Manchester Blvd and Pincay Dr	N/A	N/A	N/A	N/A
Crenshaw Blvd between Pincay Dr and Hardy St	N/A	N/A	N/A	N/A
Crenshaw Blvd between Hardy St and Century Blvd	69.6	70.0	0.4	No
Crenshaw Blvd between Century Blvd and 104th St	70.1	70.7	0.6	No
Crenshaw Blvd between 104th St and 109th St	N/A	N/A	N/A	N/A
Crenshaw Blvd between 109th St and Imperial Hwy	N/A	N/A	N/A	N/A
Crenshaw Blvd between Imperial Hwy and 105 off ramp/118th Pl	N/A	N/A	N/A	N/A
Van Ness Ave between Manchester Blvd and Hardy St/96th St	N/A	N/A	N/A	N/A
Van Ness Ave between Hardy St/96th St and Century Blvd	N/A	N/A	N/A	N/A
Van Ness Ave between Century Blvd and 104th St	N/A	N/A	N/A	N/A
Western Ave between Manchester Blvd and Century Blvd	N/A	N/A	N/A	N/A
Vermont Ave between Manchester Blvd and Century Ave	N/A	N/A	N/A	N/A

TABLE 3.11-20
ADJUSTED BASELINE PLUS PROJECT OTHER SPORTING EVENT OR GATHERING

Segment	Weekday PM Peak Period			
	Adjusted Baseline (dBA Leq)	Adjusted Baseline Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Hoover St between Manchester Blvd and Century Ave	N/A	N/A	N/A	N/A

NOTES:
N/A – Traffic along these segments are most affected by event-related traffic and not by the daily PM peak hour traffic. Therefore, traffic volumes for these segments were not simulated under the weekday PM peak hours.

SOURCE: ESA, 2019 (Appendix J)

Major Event

Impacts under the Major Event condition are shown in **Table 3.11-21**. As indicated, during the weekday Pre Event Peak Period, the increases in traffic noise along studied roadway segments would range from a low of 0.0 dBA Leq up to an increase of 2.1 dBA Leq. These increases would not exceed the 3 dBA Leq increase significance threshold. Therefore, impacts of the Proposed Project during Major Event Weekday Pre Event conditions would be **less than significant**.

During the Major Event Weekday Post Event Peak Period, increases in traffic noise along studied roadway segments would range from a low of 0.0 dBA Leq up to an increase of 4.6 dBA Leq. Under this condition, 22 roadway segments (see **Figure 3.11-8)** would experience increases in traffic noise of 3.0 dBA Leq or greater and, thus, would result in **potentially significant** impacts.

During the Major Event Weekend Pre Event Peak Period, increases in traffic noise along studied roadway segments would range from a low of 0.0 dBA Leq up to an increase of 2.3 dBA Leq. These increases would not exceed the 3 dBA Leq significance threshold. Therefore, impacts of the Proposed Project during Major Event Weekend Pre Event conditions would be **less than significant**.

During the Major Event Weekend Post Event Peak Period, increases in traffic noise along studied roadway segments would range from a low of 0.0 dBA Leq up to an increase of 5.3 dBA Leq. Under this condition, 28 roadway segments (see Figure **3.11-9)** would experience increases in traffic noise of 3.0 dBA Leq or greater and, thus, would result in **potentially significant** impacts.

TABLE 3.11-21
ADJUSTED BASELINE PLUS PROJECT MAJOR EVENT

	Weekday Pre Event Peak Period				Weekday Post Event Peak Period				Weekend Pre Event				Weekend Post Event			
Segment	Adjusted Baseline (dBA Leq)	Adjusted Baseline Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?	Adjusted Baseline (dBA Leq)	Adjusted Baseline Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?	Adjusted Baseline (dBA Leq)	Adjusted Baseline Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?	Adjusted Baseline (dBA Leq)	Adjusted Baseline Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Centinela between La Cienega Blvd and La Brea Ave	69.6	69.8	0.1	No	67.3	67.6	0.3	No	69.5	69.6	0.1	No	66.4	66.8	0.4	No
Centinela between La Brea Ave and Florence Ave	69.5	69.6	0.1	No	66.8	67.1	0.3	No	68.6	68.6	0.1	No	65.9	66.2	0.3	No
Florence Ave between La Brea Ave and Hillcrest Blvd	68.2	68.3	0.1	No	65.8	66.0	0.2	No	67.0	67.2	0.1	No	64.8	65.1	0.3	No
Florence Ave between Hillcrest Blvd and Centinela Ave	68.9	69.0	0.1	No	66.6	66.8	0.1	No	67.9	68.0	0.1	No	65.7	65.9	0.2	No
Florence Ave between Centinela Ave and Prairie Ave	70.9	71.0	0.1	No	68.7	68.9	0.3	No	70.5	70.6	0.1	No	67.7	68.1	0.3	No
Florence Ave between Prairie Ave and West Blvd	71.0	71.2	0.3	No	68.6	69.2	0.6	No	70.3	70.6	0.3	No	67.6	68.4	0.8	No
Manchester Blvd between Ash Ave/405 NB Off-Ramp and La Brea Ave	66.5	67.7	1.2	No	64.0	67.1	3.1	**Yes**	66.2	67.5	1.3	No	63.0	66.6	3.6	**Yes**
Manchester Blvd between La Brea Ave and Hillcrest Blvd	69.7	70.1	0.4	No	67.0	68.6	1.6	No	68.9	69.4	0.5	No	66.1	68.0	1.9	No
Manchester Blvd between Hillcrest Blvd and Spruce Ave	69.8	70.2	0.4	No	67.0	68.7	1.7	No	69.0	69.6	0.5	No	66.1	68.1	2.0	No
Manchester Blvd between Spruce Ave and Prairie Ave	69.9	70.4	0.4	No	67.1	68.8	1.7	No	69.1	69.6	0.5	No	66.2	68.2	2.0	No
Manchester Blvd between Kareem Ct and Crenshaw Dr	71.0	71.6	0.6	No	68.1	69.1	1.1	No	70.0	70.7	0.7	No	67.1	68.4	1.3	No
Manchester Blvd between Crenshaw Dr and Crenshaw Blvd	69.9	70.6	0.7	No	67.6	68.7	1.2	No	69.2	70.0	0.8	No	66.7	68.1	1.4	No
Manchester Blvd between Crenshaw Blvd and Van Ness Ave	71.0	71.7	0.7	No	68.3	70.0	1.7	No	70.1	71.0	0.8	No	67.3	69.4	2.0	No
Manchester Blvd between Van Ness Ave and Western Ave	70.9	71.6	0.7	No	68.3	70.0	1.7	No	70.4	71.2	0.8	No	67.4	69.4	2.0	No
Manchester Blvd between Western Ave and Normandie Ave	71.0	71.6	0.6	No	68.6	70.2	1.6	No	70.6	71.3	0.7	No	67.7	69.6	1.9	No
Manchester Blvd between Normandie Ave and Vermont Ave	71.2	71.7	0.6	No	68.8	70.3	1.5	No	70.6	71.3	0.6	No	67.9	69.6	1.7	No
Manchester Blvd between Vermont Ave and Hoover St	71.3	71.9	0.6	No	69.8	71.0	1.2	No	70.8	71.4	0.6	No	68.8	70.3	1.5	No
Manchester Blvd between Hoover St and Figueroa St	71.6	72.1	0.5	No	70.0	71.2	1.1	No	70.8	71.4	0.6	No	69.1	70.5	1.4	No
Pincay Dr between Prairie Ave and Kareem Ct	68.7	69.3	0.6	No	64.3	64.8	0.4	No	67.0	67.8	0.8	No	63.4	63.9	0.5	No
Pincay Dr between Kareem Ct and Crenshaw Blvd	69.4	70.2	0.8	No	64.7	64.6	0.0	No	68.1	69.2	1.0	No	63.7	63.7	0.0	No
Arbor Vitae St between La Cienega Blvd and Inglewood Ave	65.9	66.3	0.4	No	63.4	64.8	1.4	No	65.5	66.0	0.4	No	62.4	64.1	1.7	No
Arbor Vitae St between Inglewood Ave and La Brea Ave	65.7	66.1	0.4	No	63.4	64.6	1.2	No	65.2	65.7	0.5	No	62.5	63.9	1.5	No
Arbor Vitae St between La Brea Ave and Myrtle Ave	64.3	65.7	1.4	No	61.6	64.6	3.0	**Yes**	63.8	65.3	1.5	No	60.6	64.1	3.5	**Yes**
Arbor Vitae St between Myrtle Ave and Prairie Ave	63.6	65.2	1.6	No	60.8	64.2	3.4	**Yes**	62.9	64.7	1.8	No	59.9	63.8	4.0	**Yes**
Hardy St between La Brea Ave and Myrtle Ave	60.3	60.6	0.3	No	57.1	58.7	1.5	No	59.6	59.9	0.3	No	56.2	58.0	1.9	No
Hardy St between Myrtle Ave and Prairie Ave	59.8	60.0	0.3	No	55.6	56.6	1.0	No	58.8	59.1	0.4	No	54.6	55.9	1.3	No
Century Blvd between Concourse Way and La Cienega Blvd	70.4	70.6	0.2	No	70.9	71.2	0.3	No	70.5	70.7	0.2	No	70.0	70.3	0.4	No
Century Blvd between 405 on/off Ramp and Felton Ave	70.5	72.0	1.4	No	68.5	71.3	2.8	No	70.3	71.8	1.5	No	67.6	70.8	3.2	**Yes**
Century Blvd between Felton Ave and Inglewood Ave	70.3	71.8	1.5	No	68.4	71.3	2.8	No	70.1	71.7	1.6	No	67.5	70.8	3.3	**Yes**
Century Blvd between Inglewood Ave and Fir Ave/Firmona Ave	70.5	71.9	1.4	No	68.2	71.3	3.1	**Yes**	70.1	71.6	1.6	No	67.3	70.9	3.6	**Yes**
Century Blvd between Fir Ave/Firmona Ave and Grevillea Ave	70.6	72.0	1.4	No	68.1	71.3	3.2	**Yes**	70.1	71.7	1.5	No	67.2	70.9	3.7	**Yes**
Century Blvd between Hawthorne Blvd/La Brea Blvd and Myrtle Ave	70.6	72.6	2.0	No	67.6	72.2	4.6	**Yes**	69.9	72.2	2.3	No	66.7	71.9	5.2	**Yes**

Century Blvd between Myrtle Ave and Freeman Ave	70.6	72.6	2.0	No	67.6	72.2	4.6	**Yes**	69.8	72.1	2.3	No	66.7	71.9	5.3	**Yes**
Century Blvd between Freeman Ave and Prairie Ave	70.3	72.4	2.0	No	67.3	70.8	3.6	**Yes**	69.6	72.0	2.3	No	66.3	70.5	4.1	**Yes**
Century Blvd between Prairie Ave and Doty Ave	70.8	72.1	1.3	No	68.2	71.4	3.2	**Yes**	70.6	72.0	1.4	No	67.2	70.9	3.7	**Yes**
Century Blvd between 11th Ave/Village Ave and Crenshaw Blvd	71.3	72.7	1.4	No	68.4	71.2	2.8	No	71.5	72.8	1.3	No	67.5	70.8	3.3	**Yes**
Century Blvd between Crenshaw Blvd and 5th Ave	69.3	70.7	1.4	No	66.5	70.0	3.5	**Yes**	69.3	70.7	1.3	No	65.5	69.6	4.1	**Yes**
Century Blvd between 5th Ave and Van Ness Ave	69.3	70.7	1.4	No	66.5	70.0	3.5	**Yes**	69.4	70.8	1.3	No	65.5	69.6	4.1	**Yes**
Century Blvd between Van Ness Ave and Gramercy Pl	69.7	70.9	1.2	No	66.8	69.8	3.0	**Yes**	69.6	70.8	1.2	No	65.9	69.4	3.5	**Yes**
Century Blvd between Gramercy Pl and Western Ave	69.8	71.0	1.2	No	66.8	69.8	3.0	**Yes**	69.6	70.8	1.2	No	65.9	69.4	3.5	**Yes**
Century Blvd between Western Ave and Normandie Ave	70.1	71.1	1.0	No	67.1	69.7	2.7	No	69.8	70.9	1.1	No	66.1	69.3	3.1	**Yes**
Century Blvd between Normandie Ave and Vermont Ave	70.5	71.4	1.0	No	67.6	70.0	2.5	No	70.2	71.2	1.0	No	66.6	69.5	2.9	No
Century Blvd between Vermont Ave and Hoover St	70.9	71.5	0.6	No	67.9	70.0	2.1	No	70.4	71.1	0.7	No	67.0	69.5	2.5	No
Century Blvd between Hoover St and Figueroa St	70.9	71.5	0.6	No	68.0	69.8	1.8	No	70.5	71.2	0.7	No	67.1	69.2	2.1	No
Century Blvd between Figueroa St and Grand Ave/110 SB off ramp	71.1	71.7	0.6	No	68.2	69.9	1.7	No	70.5	71.2	0.7	No	67.3	69.3	2.0	No
104th St between Inglewood Ave and Hawthorne Blvd	58.2	59.0	0.8	No	54.0	55.1	1.1	No	57.0	58.1	1.1	No	53.0	54.3	1.4	No
104th St between Hawthorne Blvd and Prairie Ave	57.4	59.1	1.7	No	54.2	57.4	3.2	**Yes**	56.7	58.5	1.8	No	53.2	57.0	3.8	**Yes**
104th St between Prairie Ave and Doty Ave	59.1	60.7	1.7	No	55.5	59.0	3.4	**Yes**	58.0	59.9	2.0	No	54.6	58.6	4.0	**Yes**
104th St between Doty Ave and Yukon Ave	58.5	60.7	2.1	No	55.0	59.0	4.0	**Yes**	57.8	60.1	2.3	No	54.0	58.6	4.6	**Yes**
104th St between Yukon Ave and Crenshaw Blvd	60.3	62.0	1.7	No	56.4	60.1	3.7	**Yes**	59.5	61.5	2.0	No	55.5	59.7	4.2	**Yes**
Lennox Blvd between La Cienega Blvd and Inglewood Ave	61.4	61.6	0.2	No	58.0	59.0	1.1	No	59.4	59.7	0.3	No	57.0	58.3	1.3	No
Lennox Blvd between Inglewood Ave and Hawthorne Blvd	63.6	63.7	0.1	No	60.9	61.5	0.6	No	62.6	62.8	0.2	No	60.0	60.7	0.7	No
Lennox Blvd between Hawthorne Blvd and Freeman Ave	62.6	63.1	0.5	No	59.3	60.7	1.4	No	61.8	62.4	0.6	No	58.3	60.0	1.7	No
Lennox Blvd between Freeman Ave and Prairie Ave	61.5	62.2	0.6	No	58.7	60.3	1.6	No	60.7	61.4	0.7	No	57.8	59.7	1.9	No
Imperial Hwy between Prairie Ave and Doty Ave	68.5	68.7	0.3	No	65.0	65.8	0.8	No	67.7	68.0	0.3	No	64.0	65.0	1.0	No
Imperial Hwy between Doty Ave and Yukon Ave	68.3	68.6	0.3	No	64.4	65.3	0.9	No	67.4	67.7	0.3	No	63.4	64.5	1.1	No
Imperial Hwy between Yukon Ave and Crenshaw Blvd	68.3	68.7	0.4	No	64.2	65.6	1.5	No	67.3	67.8	0.4	No	63.2	65.0	1.8	No
120th St between Prairie Ave and 105 on/off ramp	68.9	69.2	0.3	No	65.4	65.8	0.4	No	67.6	67.9	0.4	No	64.5	65.0	0.5	No
La Cienega Blvd between Stocker St and La Tijera Blvd	73.9	74.0	0.1	No	71.1	71.2	0.2	No	73.6	73.7	0.1	No	70.2	70.3	0.2	No
La Cienega Blvd between La Tijera Blvd and Centinela Ave	71.9	72.0	0.1	No	70.0	70.2	0.2	No	72.2	72.3	0.1	No	69.0	69.3	0.2	No
La Cienega Blvd between Centinela Ave and Florence Ave	70.2	70.3	0.1	No	68.2	68.3	0.1	No	70.2	70.3	0.1	No	67.3	67.4	0.1	No
La Cienega Blvd between Arbor Vitae St and 405 on/off rams (n/o Century)	67.5	67.9	0.4	No	65.4	66.3	0.9	No	66.3	66.8	0.5	No	64.5	65.5	1.1	No
La Cienega Blvd between 405 on/off rams (n/o Century) and Century Blvd	67.8	68.6	0.7	No	66.8	68.1	1.3	No	66.9	67.8	0.9	No	65.9	67.4	1.6	No
La Cienega Blvd between 405 on/off ramps (s/o Century) and 104th St	66.3	66.4	0.1	No	63.6	64.0	0.4	No	64.5	64.6	0.1	No	62.6	63.1	0.5	No
Inglewood Ave between Century Blvd and 104th St	64.9	65.3	0.4	No	62.2	62.7	0.4	No	64.2	64.7	0.5	No	61.3	61.8	0.5	No
Inglewood Ave between 104th St and Lennox Blvd	65.4	65.4	0.0	No	62.1	62.2	0.1	No	64.5	64.6	0.0	No	61.1	61.3	0.2	No
La Brea Ave between Stocker St and Slauson Ave	69.0	69.0	0.0	No	65.2	65.5	0.3	No	67.3	67.4	0.1	No	64.2	64.6	0.4	No
La Brea Ave between Slauson Ave and Centinela Ave	68.2	68.2	0.0	No	64.5	64.9	0.4	No	67.7	67.8	0.1	No	63.6	64.0	0.4	No
La Brea Ave between Centinela Ave and Florence Ave	67.7	67.9	0.1	No	63.9	64.9	1.0	No	67.0	67.1	0.2	No	63.0	64.2	1.2	No

La Brea Ave between Florence Ave and Manchester Blvd	67.0	67.2	0.2	No	63.8	64.8	1.0	No	66.3	66.5	0.2	No	62.9	64.1	1.2	No
La Brea Ave between Manchester Blvd and Hillcrest Blvd	66.1	66.7	0.6	No	62.7	65.1	2.4	No	65.3	66.1	0.7	No	61.8	64.6	2.8	No
La Brea Ave between La Brea Ave and Arbor Vitae St	67.1	67.6	0.5	No	63.4	65.8	2.4	No	66.2	66.8	0.6	No	62.5	65.3	2.8	No
Hawthorne Ave between 104th St and Lennox Blvd	68.9	69.7	0.9	No	66.1	68.1	2.0	No	68.2	69.2	1.0	No	65.2	67.5	2.3	No
Hawthorne Ave between Lennox Blvd and 111th St	69.3	70.2	0.9	No	66.7	68.6	1.9	No	68.6	69.7	1.0	No	65.8	68.0	2.2	No
Hillcrest Blvd between Florence Ave and Manchester Blvd	62.7	62.9	0.2	No	58.6	59.8	1.2	No	60.7	61.0	0.3	No	57.6	59.1	1.5	No
Mrytle Ave between Hardy St and Century Blvd	58.2	58.3	0.1	No	55.6	56.9	1.3	No	56.4	56.6	0.2	No	54.6	56.2	1.5	No
Freeman Ave between Lennox Blvd and Imperial Hwy	61.4	61.4	0.0	No	59.8	62.4	2.6	No	60.9	60.9	0.0	No	58.8	61.9	3.1	**Yes**
Prairie Ave between Florence Ave and Grace Ave	67.5	68.0	0.6	No	64.3	65.9	1.6	No	67.0	67.6	0.6	No	63.4	65.3	1.9	No
Prairie Ave between Grace Ave and East Carondelet Way	67.6	68.2	0.5	No	64.4	66.0	1.6	No	67.0	67.6	0.6	No	63.5	65.3	1.9	No
Prairie Ave between East Carondelet Way and E Regent St	67.6	68.2	0.5	No	64.4	66.0	1.6	No	67.1	67.7	0.6	No	63.5	65.4	1.9	No
Prairie Ave between E Regent St and Manchester Blvd	68.1	68.6	0.5	No	64.7	66.2	1.5	No	67.5	68.1	0.6	No	63.8	65.6	1.8	No
Prairie Ave between Manchester Blvd and Kelso St/Pincay Dr	68.7	69.8	1.1	No	65.5	67.7	2.2	No	68.3	69.5	1.2	No	64.6	67.2	2.6	No
Prairie Ave between Kelso St/Pincay Dr and Buckthorn St	68.8	70.1	1.2	No	65.7	67.8	2.2	No	68.4	69.7	1.3	No	64.7	67.3	2.5	No
Prairie Ave between Buckthorn St and Arbor Vitae St	68.7	69.9	1.1	No	65.4	67.1	1.7	No	68.2	69.5	1.3	No	64.5	66.5	2.1	No
Prairie Ave between Arbor Vitae St and Hardy St	68.5	69.9	1.4	No	65.4	67.7	2.3	No	68.1	69.6	1.5	No	64.5	67.2	2.7	No
Prairie Ave between Hardy St and 97th St	68.8	70.5	1.7	No	65.6	68.7	3.0	**Yes**	68.5	70.3	1.8	No	64.7	68.2	3.5	**Yes**
Prairie Ave between 97th St and Century Blvd	68.9	70.5	1.7	No	65.8	68.7	3.0	**Yes**	68.5	70.3	1.8	No	64.8	68.3	3.4	**Yes**
Prairie Ave between 102nd St and 104th St	68.8	70.8	2.0	No	65.9	69.7	3.8	**Yes**	68.4	70.5	2.1	No	64.9	69.3	4.4	**Yes**
Prairie Ave between 104th St and Lennox Blvd	69.5	70.9	1.4	No	66.9	69.6	2.7	No	69.0	70.5	1.5	No	66.0	69.1	3.1	**Yes**
Prairie Ave between 108th St and 111 St	69.7	70.7	1.1	No	67.2	69.5	2.3	No	69.3	70.4	1.1	No	66.3	69.0	2.7	No
Prairie Ave between 111 St and 112th St/105 off ramp	69.7	70.8	1.0	No	67.6	69.7	2.0	No	69.6	70.6	1.0	No	66.7	69.1	2.4	No
Prairie Ave between 112th St/105 off ramp and Imperial Hwy	69.5	69.8	0.3	No	67.3	69.4	2.1	No	69.3	69.6	0.3	No	66.3	68.8	2.5	No
Prairie Ave between Imperial Hwy and 118th St	68.5	68.7	0.2	No	65.7	66.3	0.6	No	67.7	68.0	0.3	No	64.8	65.5	0.7	No
Prairie Ave between 118th St and 120th St	68.3	68.5	0.2	No	65.4	66.1	0.6	No	67.4	67.7	0.3	No	64.5	65.3	0.8	No
Yukon Ave between 102nd St and 104th St	62.8	64.6	1.8	No	59.2	62.7	3.5	**Yes**	62.5	64.2	1.7	No	58.3	62.3	4.0	**Yes**
Yukon Ave between 104th St and 108th St	61.4	62.3	0.9	No	57.7	60.9	3.2	**Yes**	60.9	61.9	1.0	No	56.7	60.5	3.7	**Yes**
Yukon Ave between 108th St and 111th St	60.7	61.4	0.7	No	57.2	59.8	2.5	No	59.9	60.8	0.8	No	56.2	59.2	2.9	No
Yukon Ave between 111th St and Imperial Hwy	60.3	60.8	0.5	No	56.6	59.1	2.5	No	59.3	59.9	0.6	No	55.6	58.5	2.9	No
Crenshaw Blvd between Florence Ave and Manchester Blvd (W)	67.4	67.6	0.2	No	62.9	63.0	0.1	No	66.3	66.5	0.2	No	62.0	62.1	0.1	No
Crenshaw Blvd between Florence Ave and Manchester Blvd (E)	69.1	69.3	0.1	No	65.9	66.4	0.5	No	68.7	68.8	0.2	No	65.0	65.6	0.6	No
Crenshaw Blvd between Manchester Blvd and Pincay Dr	70.3	70.6	0.3	No	66.9	68.3	1.4	No	69.7	70.0	0.3	No	66.0	67.7	1.7	No
Crenshaw Blvd between Pincay Dr and Hardy St	70.0	70.5	0.5	No	66.9	68.4	1.5	No	69.4	70.0	0.6	No	66.0	67.8	1.8	No
Crenshaw Blvd between Hardy St and Century Blvd	69.3	69.9	0.6	No	66.9	68.4	1.5	No	69.0	69.6	0.6	No	66.0	67.8	1.8	No
Crenshaw Blvd between Century Blvd and 104th St	70.0	71.1	1.1	No	67.5	69.4	1.9	No	69.7	70.8	1.1	No	66.6	68.8	2.3	No
Crenshaw Blvd between 104th St and 109th St	70.3	71.7	1.4	No	67.9	69.5	1.7	No	70.0	71.5	1.5	No	66.9	68.9	2.0	No
Crenshaw Blvd between 109th St and Imperial Hwy	70.3	71.8	1.5	No	67.9	69.9	2.1	No	70.3	71.8	1.5	No	66.9	69.4	2.5	No
Crenshaw Blvd between Imperial Hwy and 105 off ramp/118th Pl	70.6	72.0	1.4	No	68.4	70.3	1.9	No	70.6	72.0	1.4	No	67.5	69.8	2.3	No
Van Ness Ave between Manchester Blvd and Hardy St/96th St	65.5	65.6	0.1	No	62.6	63.3	0.7	No	64.9	65.0	0.1	No	61.6	62.5	0.9	No
Van Ness Ave between Hardy St/96th St and Century Blvd	65.5	65.6	0.1	No	62.5	63.3	0.7	No	64.8	64.9	0.1	No	61.6	62.5	0.9	No
Van Ness Ave between Century Blvd and 104th St	66.0	66.1	0.0	No	63.0	63.4	0.4	No	65.2	65.2	0.0	No	62.1	62.6	0.5	No
Western Ave between Manchester Blvd and Century Blvd	68.1	68.2	0.1	No	65.1	65.4	0.4	No	67.4	67.5	0.1	No	64.2	64.6	0.4	No

Vermont Ave between Manchester Blvd and Century Ave	68.3	68.3	0.0	No	65.0	65.0	0.0	No	67.2	67.2	0.0	No	64.1	64.1	0.0	No
Hoover St between Manchester Blvd and Century Ave	63.1	63.1	0.0	No	59.3	59.3	0.0	No	62.5	62.5	0.0	No	58.3	58.3	0.0	No

SOURCE: ESA, 2019 (Appendix J)

Figure 3.11-8 Significant Traffic Noise Impact Locations – Adjusted Baseline Plus Project Major Event (Weekday Post Event)

Figure 3.11-9 Significant Traffic Noise Impact Locations – Scaled Adjusted Baseline Plus Project Major Event (Weekend Post Event)

Summary

Traffic noise increases resulting from the Proposed Project under Non-Event Day AM and PM peak period, and Day-Time Event, Other Sporting Event or Gathering, Major Event Weekday Pre Event, and Major Event Weekend Pre Event peak conditions would not result in increases in traffic noise exceeding perceptible levels along roadway segments where sensitive uses are present. Therefore, impacts under these conditions would be less than significant. Under the Major Event Weekday Post Event condition, traffic noise increases caused by the Proposed Project would increase by 3.0 dBA Leq or greater and would exceed the established significance threshold on 22 roadway segments where sensitive uses are present. Under the Major Event Weekend Post Event condition, traffic noise increases caused by the Proposed Project are anticipated to be 3.0 dBA Leq or greater on 28 roadway segments where sensitive uses are present. Therefore, impacts of the Proposed Project under Major Event Weekday and Weekend Post Event conditions would be **potentially significant**.

Traffic Noise Analysis - Concurrent Events

Stadium Mid-Sized Event Plus Forum Plus Project

Impacts of the Proposed Project under the Stadium Mid-Sized Event Plus Forum Plus Project condition are shown in **Table 3.11-22**. As indicated, during the Weekday Pre Event Peak Period the Proposed Project would cause increases in traffic noise along studied roadway segments ranging from 0.0 dBA Leq up to 2.2 dBA Leq. These increases would not exceed the 3 dBA Leq increase significance threshold. Therefore, impacts of the Proposed Project during Major Event Weekday Pre Event conditions would be **less than significant**.

During the Post Event Peak Period, the Proposed Project would cause increases in traffic noise along studied roadway segments that would range from 0.0 dBA Leq up to 4.3 dBA Leq. Under this condition, five (5) roadway segments (see **Figure 3.11-10**) would experience increases in traffic noise of 3.0 dBA Leq or greater and would exceed the significance threshold, resulting in **potentially significant** impacts.

TABLE 3.11-22
ADJUSTED BASELINE PLUS STADIUM MID-SIZED EVENT PLUS FORUM PLUS PROJECT

Segment	Weekday Pre Event Peak Period				Weekday Post Event Peak Period			
	Adjusted Baseline Plus Stadium Plus Forum (dBA Leq)	Adjusted Baseline Plus Stadium Plus Forum Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?	Adjusted Baseline Plus Stadium Plus Forum (dBA Leq)	Adjusted Baseline Plus Stadium Plus Forum Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Centinela between La Cienega Blvd and La Brea Ave	69.9	70.0	0.1	No	67.8	68.1	0.3	No
Centinela between La Brea Ave and Florence Ave	69.8	69.9	0.1	No	66.9	66.9	0.0	No
Florence Ave between La Brea Ave and Hillcrest Blvd	69.1	69.1	0.1	No	66.3	66.5	0.2	No
Florence Ave between Hillcrest Blvd and Centinela Ave	69.7	69.7	0.0	No	67.1	67.2	0.1	No
Florence Ave between Centinela Ave and Prairie Ave	71.6	71.7	0.1	No	69.5	69.6	0.1	No
Florence Ave between Prairie Ave and West Blvd	71.8	72.0	0.2	No	70.2	70.5	0.3	No
Manchester Blvd between Ash Ave/405 NB Off-Ramp and La Brea Ave	71.8	72.0	0.2	No	71.9	72.2	0.3	No
Manchester Blvd between La Brea Ave and Hillcrest Blvd	71.4	71.6	0.2	No	71.5	71.8	0.2	No
Manchester Blvd between Hillcrest Blvd and Spruce Ave	71.5	71.8	0.3	No	71.5	71.8	0.3	No
Manchester Blvd between Spruce Ave and Prairie Ave	71.7	72.1	0.4	No	71.7	72.0	0.3	No
Manchester Blvd between Kareem Ct and Crenshaw Dr	72.2	72.5	0.3	No	71.2	71.6	0.3	No
Manchester Blvd between Crenshaw Dr and Crenshaw Blvd	71.3	71.7	0.4	No	71.0	71.3	0.4	No
Manchester Blvd between Crenshaw Blvd and Van Ness Ave	72.2	72.6	0.4	No	71.9	72.4	0.5	No
Manchester Blvd between Van Ness Ave and Western Ave	72.2	72.6	0.4	No	71.9	72.4	0.5	No
Manchester Blvd between Western Ave and Normandie Ave	72.3	72.6	0.3	No	72.0	72.5	0.5	No
Manchester Blvd between Normandie Ave and Vermont Ave	72.3	72.6	0.3	No	72.0	72.5	0.5	No
Manchester Blvd between Vermont Ave and Hoover St	72.4	72.8	0.3	No	72.4	72.9	0.5	No
Manchester Blvd between Hoover St and Figueroa St	72.6	72.9	0.3	No	72.6	73.0	0.4	No
Pincay Dr between Prairie Ave and Kareem Ct	71.9	72.2	0.3	No	69.0	69.1	0.1	No
Pincay Dr between Kareem Ct and Crenshaw Blvd	72.0	72.0	0.0	No	67.4	67.4	0.0	No
Arbor Vitae St between La Cienega Blvd and Inglewood Ave	67.1	67.4	0.4	No	65.7	66.3	0.6	No
Arbor Vitae St between Inglewood Ave and La Brea Ave	67.1	67.4	0.4	No	65.7	66.2	0.5	No
Arbor Vitae St between La Brea Ave and Myrtle Ave	66.5	66.8	0.3	No	65.1	65.7	0.6	No
Arbor Vitae St between Myrtle Ave and Prairie Ave	66.0	66.4	0.3	No	64.8	65.4	0.6	No
Hardy St between La Brea Ave and Myrtle Ave	60.3	60.7	0.3	No	57.1	58.4	1.3	No
Hardy St between Myrtle Ave and Prairie Ave	59.8	60.1	0.3	No	55.6	56.4	0.8	No
Century Blvd between Concourse Way and La Cienega Blvd	73.3	73.8	0.5	No	74.8	75.8	1.0	No
Century Blvd between 405 on/off Ramp and Felton Ave	71.9	73.0	1.0	No	71.2	72.8	1.6	No
Century Blvd between Felton Ave and Inglewood Ave	71.8	72.9	1.1	No	71.2	72.7	1.6	No
Century Blvd between Inglewood Ave and Fir Ave/Firmona Ave	71.8	72.8	1.0	No	70.7	72.2	1.6	No
Century Blvd between Fir Ave/Firmona Ave and Grevillea Ave	71.9	72.9	1.0	No	70.6	72.2	1.6	No
Century Blvd between Hawthorne Blvd/La Brea Blvd and Myrtle Ave	71.3	72.7	1.4	No	70.6	72.8	2.2	No
Century Blvd between Myrtle Ave and Freeman Ave	71.3	72.8	1.5	No	70.6	72.9	2.2	No
Century Blvd between Freeman Ave and Prairie Ave	71.1	72.6	1.4	No	70.5	71.6	1.1	No
Century Blvd between Prairie Ave and Doty Ave	72.2	73.2	1.0	No	71.2	72.7	1.5	No
Century Blvd between 11th Ave/Village Ave and Crenshaw Blvd	72.2	73.2	1.0	No	71.2	72.5	1.2	No
Century Blvd between Crenshaw Blvd and 5th Ave	70.5	71.4	0.9	No	69.4	71.0	1.6	No
Century Blvd between 5th Ave and Van Ness Ave	70.5	71.4	0.9	No	69.4	71.0	1.6	No
Century Blvd between Van Ness Ave and Gramercy Pl	70.7	71.6	0.8	No	69.5	70.9	1.3	No

TABLE 3.11-22
ADJUSTED BASELINE PLUS STADIUM MID-SIZED EVENT PLUS FORUM PLUS PROJECT

Segment	Weekday Pre Event Peak Period				Weekday Post Event Peak Period			
	Adjusted Baseline Plus Stadium Plus Forum (dBA Leq)	Adjusted Baseline Plus Stadium Plus Forum Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?	Adjusted Baseline Plus Stadium Plus Forum (dBA Leq)	Adjusted Baseline Plus Stadium Plus Forum Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Century Blvd between Gramercy Pl and Western Ave	70.8	71.6	0.8	No	69.5	70.9	1.3	No
Century Blvd between Western Ave and Normandie Ave	71.0	71.7	0.7	No	69.5	70.7	1.2	No
Century Blvd between Normandie Ave and Vermont Ave	71.3	72.0	0.7	No	69.8	70.9	1.1	No
Century Blvd between Vermont Ave and Hoover St	71.2	71.8	0.6	No	69.8	70.8	1.1	No
Century Blvd between Hoover St and Figueroa St	71.2	71.8	0.6	No	69.2	70.3	1.1	No
Century Blvd between Figueroa St and Grand Ave/110 SB off ramp	71.4	72.0	0.6	No	69.3	70.4	1.1	No
104th St between Inglewood Ave and Hawthorne Blvd	58.2	59.4	1.3	No	54.0	55.0	1.0	No
104th St between Hawthorne Blvd and Prairie Ave	57.4	59.4	2.0	No	54.2	58.5	4.3	**Yes**
104th St between Prairie Ave and Doty Ave	60.2	62.0	1.8	No	57.4	60.5	3.1	**Yes**
104th St between Doty Ave and Yukon Ave	59.8	62.0	2.2	No	57.0	60.7	3.7	**Yes**
104th St between Yukon Ave and Crenshaw Blvd	61.2	62.9	1.8	No	58.0	61.0	3.1	**Yes**
Lennox Blvd between La Cienega Blvd and Inglewood Ave	61.4	61.9	0.5	No	65.2	66.0	0.8	No
Lennox Blvd between Inglewood Ave and Hawthorne Blvd	63.6	63.9	0.3	No	65.9	66.6	0.7	No
Lennox Blvd between Hawthorne Blvd and Freeman Ave	63.6	64.0	0.4	No	61.8	62.6	0.8	No
Lennox Blvd between Freeman Ave and Prairie Ave	62.8	63.4	0.6	No	61.5	62.5	1.0	No
Imperial Hwy between Prairie Ave and Doty Ave	68.9	69.2	0.3	No	66.2	67.3	1.0	No
Imperial Hwy between Doty Ave and Yukon Ave	68.7	69.0	0.4	No	65.8	66.9	1.1	No
Imperial Hwy between Yukon Ave and Crenshaw Blvd	68.7	69.1	0.4	No	65.7	67.1	1.4	No
120th St between Prairie Ave and 105 on/off ramp	69.0	69.3	0.3	No	65.8	66.1	0.3	No
La Cienega Blvd between Stocker St and La Tijera Blvd	74.2	74.3	0.1	No	71.9	72.4	0.4	No
La Cienega Blvd between La Tijera Blvd and Centinela Ave	72.4	72.5	0.1	No	71.1	71.6	0.5	No
La Cienega Blvd between Centinela Ave and Florence Ave	70.7	70.9	0.1	No	69.5	70.1	0.6	No
La Cienega Blvd between Arbor Vitae St and 405 on/off rams (n/o Century)	68.5	68.9	0.4	No	67.4	68.3	0.9	No
La Cienega Blvd between 405 on/off rams (n/o Century) and Century Blvd	69.4	70.0	0.6	No	68.7	69.6	0.8	No
La Cienega Blvd between 405 on/off ramps (s/o Century) and 104th St	68.5	68.9	0.4	No	70.5	71.5	1.0	No
Inglewood Ave between Century Blvd and 104th St	65.7	66.1	0.4	No	64.4	65.7	1.2	No
Inglewood Ave between 104th St and Lennox Blvd	66.1	66.3	0.2	No	64.4	65.5	1.1	No
La Brea Ave between Stocker St and Slauson Ave	69.2	69.3	0.1	No	66.1	66.4	0.2	No
La Brea Ave between Slauson Ave and Centinela Ave	68.5	68.6	0.1	No	65.6	65.9	0.3	No
La Brea Ave between Centinela Ave and Florence Ave	68.0	68.1	0.1	No	64.9	65.5	0.6	No
La Brea Ave between Florence Ave and Manchester Blvd	67.9	68.1	0.2	No	64.6	65.2	0.6	No
La Brea Ave between Manchester Blvd and Hillcrest Blvd	67.0	67.2	0.2	No	64.8	66.4	1.6	No
La Brea Ave between La Brea Ave and Arbor Vitae St	68.0	68.3	0.3	No	65.6	67.2	1.5	No
Hawthorne Ave between 104th St and Lennox Blvd	70.1	70.9	0.7	No	67.3	68.7	1.4	No
Hawthorne Ave between Lennox Blvd and 111th St	70.7	71.4	0.7	No	69.5	70.7	1.2	No
Hillcrest Blvd between Florence Ave and Manchester Blvd	62.7	62.9	0.2	No	58.6	59.6	1.0	No
Mrytle Ave between Hardy St and Century Blvd	58.2	58.4	0.3	No	55.6	56.8	1.3	No
Freeman Ave between Lennox Blvd and Imperial Hwy	61.9	62.0	0.0	No	63.1	64.6	1.5	No
Prairie Ave between Florence Ave and Grace Ave	69.5	69.7	0.2	No	67.2	67.7	0.5	No

TABLE 3.11-22
ADJUSTED BASELINE PLUS STADIUM MID-SIZED EVENT PLUS FORUM PLUS PROJECT

Segment	Weekday Pre Event Peak Period				Weekday Post Event Peak Period			
	Adjusted Baseline Plus Stadium Plus Forum (dBA Leq)	Adjusted Baseline Plus Stadium Plus Forum Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?	Adjusted Baseline Plus Stadium Plus Forum (dBA Leq)	Adjusted Baseline Plus Stadium Plus Forum Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Prairie Ave between Grace Ave and East Carondelet Way	69.6	69.8	0.2	No	67.2	67.7	0.5	No
Prairie Ave between East Carondelet Way and E Regent St	69.6	69.8	0.2	No	67.2	67.7	0.5	No
Prairie Ave between E Regent St and Manchester Blvd	69.9	70.2	0.3	No	67.4	67.9	0.5	No
Prairie Ave between Manchester Blvd and Kelso St/Pincay Dr	72.1	72.4	0.3	No	70.6	71.0	0.4	No
Prairie Ave between Kelso St/Pincay Dr and Buckthorn St	71.0	71.6	0.6	No	70.9	71.3	0.5	No
Prairie Ave between Buckthorn St and Arbor Vitae St	70.8	71.4	0.6	No	70.5	71.0	0.5	No
Prairie Ave between Arbor Vitae St and Hardy St	70.4	71.2	0.8	No	70.0	70.7	0.7	No
Prairie Ave between Hardy St and 97th St	71.3	71.9	0.6	No	71.2	71.7	0.5	No
Prairie Ave between 97th St and Century Blvd	71.4	72.0	0.5	No	71.4	71.9	0.5	No
Prairie Ave between 102nd St and 104th St	71.2	72.4	1.2	No	70.4	72.3	1.9	No
Prairie Ave between 104th St and Lennox Blvd	71.4	72.3	0.9	No	70.7	72.1	1.4	No
Prairie Ave between 108th St and 111 St	71.3	72.0	0.7	No	70.4	71.8	1.3	No
Prairie Ave between 111 St and 112th St/105 off ramp	71.4	72.0	0.6	No	70.6	71.9	1.2	No
Prairie Ave between 112th St/105 off ramp and Imperial Hwy	70.1	70.4	0.3	No	70.2	71.5	1.3	No
Prairie Ave between Imperial Hwy and 118th St	68.7	68.9	0.2	No	66.5	67.0	0.5	No
Prairie Ave between 118th St and 120th St	68.6	68.8	0.2	No	66.3	66.8	0.5	No
Yukon Ave between 102nd St and 104th St	62.8	64.2	1.4	No	59.2	62.3	3.1	**Yes**
Yukon Ave between 104th St and 108th St	61.4	62.1	0.7	No	57.7	60.4	2.7	No
Yukon Ave between 108th St and 111th St	60.7	61.3	0.6	No	57.2	59.4	2.2	No
Yukon Ave between 111th St and Imperial Hwy	60.3	60.7	0.4	No	56.6	58.7	2.1	No
Crenshaw Blvd between Florence Ave and Manchester Blvd (W)	67.6	67.8	0.3	No	63.5	63.6	0.1	No
Crenshaw Blvd between Florence Ave and Manchester Blvd (E)	69.3	69.5	0.2	No	66.3	66.9	0.6	No
Crenshaw Blvd between Manchester Blvd and Pincay Dr	71.6	71.8	0.2	No	69.6	70.2	0.7	No
Crenshaw Blvd between Pincay Dr and Hardy St	71.6	71.8	0.2	No	70.5	71.1	0.6	No
Crenshaw Blvd between Hardy St and Century Blvd	71.1	71.3	0.2	No	70.5	71.1	0.6	No
Crenshaw Blvd between Century Blvd and 104th St	71.8	72.5	0.7	No	71.3	72.2	0.8	No
Crenshaw Blvd between 104th St and 109th St	72.2	73.2	1.0	No	71.7	72.3	0.6	No
Crenshaw Blvd between 109th St and Imperial Hwy	72.2	73.2	1.1	No	71.7	72.5	0.8	No
Crenshaw Blvd between Imperial Hwy and 105 off ramp/118th Pl	72.1	73.1	1.0	No	71.4	72.2	0.9	No
Van Ness Ave between Manchester Blvd and Hardy St/96th St	65.6	65.6	0.1	No	62.8	63.3	0.5	No
Van Ness Ave between Hardy St/96th St and Century Blvd	65.6	65.6	0.1	No	62.8	63.3	0.5	No
Van Ness Ave between Century Blvd and 104th St	66.0	66.1	0.0	No	63.0	63.5	0.5	No
Western Ave between Manchester Blvd and Century Blvd	68.2	68.2	0.0	No	65.3	65.5	0.2	No
Vermont Ave between Manchester Blvd and Century Ave	68.3	68.3	0.0	No	65.0	65.0	0.0	No
Hoover St between Manchester Blvd and Century Ave	63.1	63.1	0.0	No	59.3	59.3	0.0	No

SOURCE: ESA, 2019 (Appendix J)

Figure 3.11-10 Significant Traffic Noise Impact Locations - Adjusted Baseline Plus NFL Stadium Mid-Sized Event Plus Forum Plus Project (Weekday Post Event)

NFL Game Plus Concert at Forum Plus Project

Impacts of the Proposed Project under the NFL Game Plus Concert at Forum Plus Project condition are shown in **Table 3.11-23**. As indicated, during the weekend Pre Event Peak Period the increase in traffic noise along studied roadway segments would range from 0.0 dBA Leq up to 2.4 dBA Leq. These increases would not exceed the 3 dBA Leq increase significance threshold. Therefore, impacts of the Proposed Project during Major Event Weekend Pre Event conditions would be **less than significant**.

As indicated in Table 3.11-23, during the weekend Post Event Peak Period the Proposed Project is anticipated to cause increases in traffic noise along studied roadway segments that would range from 0.0 dBA Leq to 4.9 dBA Leq. Under this condition, six (6) roadway segments (see **Figure 3.11-11)** would experience increases in traffic noise of 3.0 dBA Leq or greater and would exceed the significance threshold, resulting in **potentially significant** impacts.

TABLE 3.11-23
ADJUSTED BASELINE PLUS NFL GAME PLUS CONCERT AT FORUM PLUS PROJECT

Segment	Weekend Pre Event Peak Period				Weekend Post Event Peak Period			
	Adjusted Baseline Plus Stadium Plus Forum (dBA Leq)	Adjusted Baseline Plus Stadium Plus Forum Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?	Adjusted Baseline Plus Stadium Plus Forum (dBA Leq)	Adjusted Baseline Plus Stadium Plus Forum Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Centinela between La Cienega Blvd and La Brea Ave	69.9	69.9	0.1	No	67.0	67.3	0.3	No
Centinela between La Brea Ave and Florence Ave	69.0	69.1	0.1	No	66.0	66.0	0.0	No
Florence Ave between La Brea Ave and Hillcrest Blvd	67.0	67.2	0.2	No	65.5	65.8	0.2	No
Florence Ave between Hillcrest Blvd and Centinela Ave	67.9	68.0	0.1	No	66.3	66.4	0.1	No
Florence Ave between Centinela Ave and Prairie Ave	70.7	70.9	0.2	No	68.7	68.8	0.1	No
Florence Ave between Prairie Ave and West Blvd	70.8	71.0	0.2	No	69.5	69.9	0.3	No
Manchester Blvd between Ash Ave/405 NB Off-Ramp and La Brea Ave	71.7	72.0	0.3	No	71.7	72.1	0.3	No
Manchester Blvd between La Brea Ave and Hillcrest Blvd	71.1	71.3	0.2	No	71.2	71.5	0.3	No
Manchester Blvd between Hillcrest Blvd and Spruce Ave	71.2	71.4	0.3	No	71.2	71.5	0.3	No
Manchester Blvd between Spruce Ave and Prairie Ave	71.3	71.6	0.3	No	71.4	71.8	0.3	No
Manchester Blvd between Kareem Ct and Crenshaw Dr	71.8	72.0	0.3	No	70.8	71.2	0.4	No
Manchester Blvd between Crenshaw Dr and Crenshaw Blvd	70.8	71.1	0.3	No	70.6	71.0	0.4	No
Manchester Blvd between Crenshaw Blvd and Van Ness Ave	71.9	72.4	0.5	No	71.5	72.0	0.6	No
Manchester Blvd between Van Ness Ave and Western Ave	72.1	72.6	0.5	No	71.5	72.1	0.6	No
Manchester Blvd between Western Ave and Normandie Ave	72.2	72.7	0.4	No	71.6	72.2	0.5	No
Manchester Blvd between Normandie Ave and Vermont Ave	72.2	72.7	0.4	No	71.5	72.1	0.6	No
Manchester Blvd between Vermont Ave and Hoover St	72.3	72.7	0.4	No	71.9	72.4	0.5	No
Manchester Blvd between Hoover St and Figueroa St	72.3	72.7	0.4	No	72.1	72.6	0.5	No
Pincay Dr between Prairie Ave and Kareem Ct	65.8	65.9	0.0	No	68.6	68.8	0.1	No
Pincay Dr between Kareem Ct and Crenshaw Blvd	71.0	71.5	0.5	No	66.9	66.9	0.0	No
Arbor Vitae St between La Cienega Blvd and Inglewood Ave	66.2	66.4	0.2	No	65.2	65.8	0.6	No
Arbor Vitae St between Inglewood Ave and La Brea Ave	65.9	66.1	0.2	No	65.2	65.7	0.5	No
Arbor Vitae St between La Brea Ave and Myrtle Ave	65.4	66.1	0.8	No	64.7	65.4	0.7	No
Arbor Vitae St between Myrtle Ave and Prairie Ave	64.9	65.7	0.8	No	64.4	65.1	0.7	No
Hardy St between La Brea Ave and Myrtle Ave	59.6	60.1	0.5	No	56.2	57.7	1.5	No
Hardy St between Myrtle Ave and Prairie Ave	58.8	59.0	0.3	No	54.6	55.7	1.0	No
Century Blvd between Concourse Way and La Cienega Blvd	70.6	70.7	0.2	No	74.5	75.5	1.0	No
Century Blvd between 405 on/off Ramp and Felton Ave	70.9	72.0	1.1	No	70.7	72.4	1.7	No
Century Blvd between Felton Ave and Inglewood Ave	70.8	71.9	1.1	No	70.7	72.4	1.7	No
Century Blvd between Inglewood Ave and Fir Ave/Firmona Ave	70.7	71.9	1.2	No	70.2	71.9	1.7	No
Century Blvd between Fir Ave/Firmona Ave and Grevillea Ave	70.8	72.0	1.2	No	70.1	71.8	1.7	No
Century Blvd between Hawthorne Blvd/La Brea Blvd and Myrtle Ave	70.7	72.1	1.4	No	70.2	72.6	2.4	No
Century Blvd between Myrtle Ave and Freeman Ave	70.6	72.1	1.5	No	70.2	72.6	2.4	No
Century Blvd between Freeman Ave and Prairie Ave	70.5	72.0	1.5	No	70.1	71.2	1.2	No
Century Blvd between Prairie Ave and Doty Ave	71.7	72.9	1.3	No	70.8	72.4	1.7	No
Century Blvd between 11th Ave/Village Ave and Crenshaw Blvd	72.2	73.3	1.1	No	70.8	72.1	1.4	No
Century Blvd between Crenshaw Blvd and 5th Ave	70.4	71.7	1.3	No	69.0	70.7	1.7	No
Century Blvd between 5th Ave and Van Ness Ave	70.5	71.8	1.3	No	69.0	70.7	1.7	No
Century Blvd between Van Ness Ave and Gramercy Pl	70.6	71.8	1.1	No	69.1	70.5	1.4	No
Century Blvd between Gramercy Pl and Western Ave	70.6	71.8	1.1	No	69.1	70.5	1.4	No

TABLE 3.11-23
ADJUSTED BASELINE PLUS NFL GAME PLUS CONCERT AT FORUM PLUS PROJECT

	Weekend Pre Event Peak Period				Weekend Post Event Peak Period			
Segment	**Adjusted Baseline Plus Stadium Plus Forum (dBA Leq)**	**Adjusted Baseline Plus Stadium Plus Forum Plus Project (dBA Leq)**	**Increase over Adjusted Baseline (dBA Leq)**	**Exceeds Threshold?**	**Adjusted Baseline Plus Stadium Plus Forum (dBA Leq)**	**Adjusted Baseline Plus Stadium Plus Forum Plus Project (dBA Leq)**	**Increase over Adjusted Baseline (dBA Leq)**	**Exceeds Threshold?**
Century Blvd between Western Ave and Normandie Ave	70.8	71.8	1.0	No	69.1	70.3	1.3	No
Century Blvd between Normandie Ave and Vermont Ave	71.1	72.1	1.0	No	69.3	70.5	1.2	No
Century Blvd between Vermont Ave and Hoover St	71.1	71.9	0.8	No	69.2	70.4	1.2	No
Century Blvd between Hoover St and Figueroa St	71.1	71.8	0.8	No	68.5	69.7	1.3	No
Century Blvd between Figueroa St and Grand Ave/110 SB off ramp	71.1	71.8	0.7	No	68.6	69.8	1.2	No
104th St between Inglewood Ave and Hawthorne Blvd	57.0	57.4	0.4	No	53.0	54.1	1.2	No
104th St between Hawthorne Blvd and Prairie Ave	56.7	58.7	2.0	No	53.2	58.1	4.9	**Yes**
104th St between Prairie Ave and Doty Ave	58.1	60.1	2.0	No	56.8	60.2	3.4	**Yes**
104th St between Doty Ave and Yukon Ave	57.9	60.3	2.4	No	56.4	60.4	4.0	**Yes**
104th St between Yukon Ave and Crenshaw Blvd	59.6	61.4	1.9	No	57.3	60.7	3.4	**Yes**
Lennox Blvd between La Cienega Blvd and Inglewood Ave	60.1	60.5	0.4	No	65.0	65.9	0.8	No
Lennox Blvd between Inglewood Ave and Hawthorne Blvd	63.0	63.2	0.2	No	65.7	66.4	0.7	No
Lennox Blvd between Hawthorne Blvd and Freeman Ave	62.2	62.9	0.7	No	61.3	62.2	0.9	No
Lennox Blvd between Freeman Ave and Prairie Ave	61.2	62.1	0.8	No	61.0	62.1	1.1	No
Imperial Hwy between Prairie Ave and Doty Ave	67.9	68.0	0.1	No	65.6	66.7	1.2	No
Imperial Hwy between Doty Ave and Yukon Ave	67.5	67.7	0.2	No	65.1	66.4	1.3	No
Imperial Hwy between Yukon Ave and Crenshaw Blvd	67.5	67.8	0.3	No	65.0	66.6	1.6	No
120th St between Prairie Ave and 105 on/off ramp	67.7	67.9	0.2	No	64.9	65.3	0.4	No
La Cienega Blvd between Stocker St and La Tijera Blvd	73.7	73.8	0.1	No	71.2	71.7	0.5	No
La Cienega Blvd between La Tijera Blvd and Centinela Ave	72.4	72.4	0.1	No	70.4	71.0	0.6	No
La Cienega Blvd between Centinela Ave and Florence Ave	70.2	70.3	0.1	No	68.8	69.5	0.7	No
La Cienega Blvd between Arbor Vitae St and 405 on/off rams (n/o Century)	67.2	67.3	0.1	No	66.9	67.9	1.0	No
La Cienega Blvd between 405 on/off rams (n/o Century) and Century Blvd	67.3	67.5	0.3	No	68.2	69.1	0.9	No
La Cienega Blvd between 405 on/off ramps (s/o Century) and 104th St	64.5	64.5	0.0	No	70.3	71.3	1.0	No
Inglewood Ave between Century Blvd and 104th St	64.2	64.4	0.2	No	63.9	65.3	1.4	No
Inglewood Ave between 104th St and Lennox Blvd	64.5	64.6	0.0	No	63.8	65.1	1.3	No
La Brea Ave between Stocker St and Slauson Ave	67.6	67.7	0.1	No	65.4	65.7	0.3	No
La Brea Ave between Slauson Ave and Centinela Ave	67.9	68.0	0.1	No	64.9	65.2	0.3	No
La Brea Ave between Centinela Ave and Florence Ave	67.3	67.5	0.2	No	64.1	64.8	0.7	No
La Brea Ave between Florence Ave and Manchester Blvd	66.7	66.9	0.2	No	63.8	64.6	0.8	No
La Brea Ave between Manchester Blvd and Hillcrest Blvd	65.8	66.3	0.5	No	64.2	66.0	1.7	No
La Brea Ave between La Brea Ave and Arbor Vitae St	66.6	67.0	0.4	No	65.1	66.8	1.7	No
Hawthorne Ave between 104th St and Lennox Blvd	68.5	69.1	0.6	No	66.7	68.2	1.6	No
Hawthorne Ave between Lennox Blvd and 111th St	68.9	69.5	0.7	No	69.0	70.4	1.4	No
Hillcrest Blvd between Florence Ave and Manchester Blvd	60.7	61.0	0.3	No	57.6	58.9	1.3	No
Mrytle Ave between Hardy St and Century Blvd	56.4	57.1	0.6	No	54.6	56.1	1.5	No
Freeman Ave between Lennox Blvd and Imperial Hwy	61.4	61.4	0.0	No	62.7	64.3	1.6	No
Prairie Ave between Florence Ave and Grace Ave	68.0	68.5	0.5	No	66.7	67.3	0.6	No
Prairie Ave between Grace Ave and East Carondelet Way	68.0	68.5	0.5	No	66.8	67.3	0.6	No
Prairie Ave between East Carondelet Way and E Regent St	68.0	68.5	0.5	No	66.8	67.3	0.6	No
Prairie Ave between E Regent St and Manchester Blvd	68.3	68.9	0.5	No	66.9	67.5	0.6	No
Prairie Ave between Manchester Blvd and Kelso St/Pincay Dr	71.3	71.9	0.6	No	70.3	70.8	0.5	No

TABLE 3.11-23
ADJUSTED BASELINE PLUS NFL GAME PLUS CONCERT AT FORUM PLUS PROJECT

Segment	Weekend Pre Event Peak Period				Weekend Post Event Peak Period			
	Adjusted Baseline Plus Stadium Plus Forum (dBA Leq)	Adjusted Baseline Plus Stadium Plus Forum Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?	Adjusted Baseline Plus Stadium Plus Forum (dBA Leq)	Adjusted Baseline Plus Stadium Plus Forum Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Prairie Ave between Kelso St/Pincay Dr and Buckthorn St	70.5	71.2	0.7	No	70.6	71.1	0.5	No
Prairie Ave between Buckthorn St and Arbor Vitae St	70.3	71.0	0.7	No	70.3	70.8	0.5	No
Prairie Ave between Arbor Vitae St and Hardy St	70.2	71.0	0.8	No	69.6	70.4	0.8	No
Prairie Ave between Hardy St and 97th St	70.7	71.7	1.1	No	70.9	71.5	0.6	No
Prairie Ave between 97th St and Century Blvd	70.9	71.9	1.0	No	71.1	71.7	0.6	No
Prairie Ave between 102nd St and 104th St	70.2	71.5	1.3	No	70.1	72.1	2.0	No
Prairie Ave between 104th St and Lennox Blvd	70.6	71.4	0.8	No	70.3	71.8	1.5	No
Prairie Ave between 108th St and 111 St	70.7	71.3	0.6	No	70.0	71.5	1.5	No
Prairie Ave between 111 St and 112th St/105 off ramp	71.0	71.5	0.6	No	70.2	71.6	1.4	No
Prairie Ave between 112th St/105 off ramp and Imperial Hwy	70.0	70.2	0.2	No	69.8	71.2	1.4	No
Prairie Ave between Imperial Hwy and 118th St	68.0	68.2	0.2	No	65.7	66.3	0.6	No
Prairie Ave between 118th St and 120th St	67.6	67.9	0.2	No	65.5	66.1	0.6	No
Yukon Ave between 102nd St and 104th St	62.5	63.9	1.3	No	58.3	61.9	3.7	**Yes**
Yukon Ave between 104th St and 108th St	60.9	62.0	1.1	No	56.7	59.9	3.1	**Yes**
Yukon Ave between 108th St and 111th St	59.9	60.8	0.8	No	56.2	58.8	2.6	No
Yukon Ave between 111th St and Imperial Hwy	59.3	60.1	0.8	No	55.6	58.1	2.5	No
Crenshaw Blvd between Florence Ave and Manchester Blvd (W)	67.0	67.2	0.2	No	62.7	62.8	0.1	No
Crenshaw Blvd between Florence Ave and Manchester Blvd (E)	69.3	69.5	0.1	No	65.4	66.2	0.8	No
Crenshaw Blvd between Manchester Blvd and Pincay Dr	71.3	71.6	0.3	No	69.1	69.8	0.8	No
Crenshaw Blvd between Pincay Dr and Hardy St	70.6	70.9	0.4	No	70.1	70.7	0.6	No
Crenshaw Blvd between Hardy St and Century Blvd	70.2	70.7	0.4	No	70.1	70.7	0.6	No
Crenshaw Blvd between Century Blvd and 104th St	70.7	71.2	0.5	No	71.0	71.9	0.9	No
Crenshaw Blvd between 104th St and 109th St	71.0	71.8	0.8	No	71.3	72.0	0.7	No
Crenshaw Blvd between 109th St and Imperial Hwy	71.2	72.0	0.8	No	71.3	72.2	0.9	No
Crenshaw Blvd between Imperial Hwy and 105 off ramp/118th Pl	71.5	72.3	0.8	No	70.9	71.9	0.9	No
Van Ness Ave between Manchester Blvd and Hardy St/96th St	65.0	65.2	0.3	No	61.9	62.5	0.6	No
Van Ness Ave between Hardy St/96th St and Century Blvd	64.8	65.1	0.3	No	61.9	62.5	0.6	No
Van Ness Ave between Century Blvd and 104th St	65.2	65.3	0.2	No	62.1	62.6	0.6	No
Western Ave between Manchester Blvd and Century Blvd	67.5	67.6	0.1	No	64.5	64.7	0.2	No
Vermont Ave between Manchester Blvd and Century Ave	67.4	67.4	0.0	No	64.1	64.1	0.0	No
Hoover St between Manchester Blvd and Century Ave	62.5	62.5	0.0	No	58.3	58.3	0.0	No

SOURCE: ESA, 2019 (Appendix J)

Figure 3.11-11 Significant Traffic Noise Impact Locations – Scaled Adjusted Baseline Plus NFL Stadium Mid-Sized Event Plus Forum Plus Project (Weekend Post Event)

Potential Health Effects of Roadside Noise Impacts

Traffic noise impacts would increase noise levels along roadways and noise levels of 56 to 72.8 dBA are predicted. While up to 28 roadway segments where noise-sensitive receptors are located are predicted to experience an increase of more than 3 dBA as discussed above, exposure to these levels of traffic noise would not rise to the level that would result in permanent hearing loss.[68] Thus, significant traffic noise increases of the Proposed Project would not be expected to result in adverse health impacts.

With respect to sleep disturbance, impacts related to Project-related traffic noise would occur during Major Event Post-Event conditions (9:30 PM – 10:30 PM) on weekdays and weekends. post-Major Event peak hour traffic, which could generate significant noise levels late into the evening hours up to 15-25 times a year, could disturb sleep during nighttime hours. However, after post-event traffic leaves the Project area, affected roadway segments would no longer be exposed to elevated traffic noise due to Project major events. For the discussion regarding the health effects of sleep disturbance see Section 3.11.1.

On-Site Operational Noise Sources

As discussed above, non-vehicular on-site sources of noise include outdoor activities (such as amplified sound and crowd noise), stationary mechanical equipment, loading area activity, parking lot/structure activity, and media truck/broadcast access activity. The composite operational noise levels, including off-site vehicular noise sources, on-site noise sources, and off-site pedestrian activity, generated as a result of the Proposed Project during Non-Event, Daytime Corporate/Community Event, and Other Sporting Event or Gathering conditions at each of the sensitive receptor property lines are shown in **Table 3.11-24**. Based on Table 2-3, increases in ambient noise related to Other Sporting Events or Gatherings with attendance up to 7,500 persons would occur approximately 35 days per year, and increases in ambient noise related to Corporate/Community Events with an attendance of a maximum 2,000 persons approximately 100 days per year.

The model accounts for multiple receiver points within each receptor group, and noise impacts within each receptor group may vary depending on the distance of each receiver point within the specific receptor group and the location of shielding (i.e., Project noise barriers and/or existing structures). The ambient noise level and Proposed Project composite operational noise level for the receiver point anticipated to experience the highest increase in ambient conditions is reported in Table 3.1-24. As indicated, under the Project Non Event, Daytime Corporate/Community Event, and Other Sporting Event or Gathering conditions, composite operational noise would not result in significant impacts at any of the receptor property lines (see **Figures 3.11-12, 3.11-13, and 3.11-14**). Operational impacts on non-Major Event days would be **less than significant.**

[68] United States Department of Labor, Occupational Safety and Health Administration. Occupational Safety and Health Standards Part 1910, Standard 1910.95.

TABLE 3.11-24
COMPOSITE PROJECT OPERATIONAL NOISE

	Non-Event Day					Daytime Corporate/Community Event					Other Sporting Event or Gathering				
Receptor [a]	Ambient (dBA Leq)[b]	Composite Project Operations (dBA Leq)	Ambient + Project (dBA Leq)	Increase over Ambient (dBA Leq)[c]	Significant?	Ambient (dBA Leq)[b]	Composite Project Operations (dBA Leq)	Ambient + Project (dBA Leq)	Increase over Ambient (dBA Leq)[c]	Significant?	Ambient (dBA Leq)[b]	Composite Project Operations (dBA Leq)	Ambient + Project (dBA Leq)	Increase over Ambient (dBA Leq)[c]	Significant?
R1 Floor 1	71.8	49.8	71.8	0.0	No	71.8	52.8	71.9	0.1	No	71.8	50.5	71.8	0.0	No
R1 Floor 2	71.8	51.3	71.8	0.0	No	71.8	39.5	71.8	0.0	No	71.8	53.1	71.9	0.1	No
	63.6	45.0	63.7	0.1	No	63.6	48..1	63.7	0.1	No	63.6	49.0	63.7	0.1	No
R3	63.6	49.4	63.8	0.2	No	63.6	52.5	63.9	0.3	No	63.6	53.4	64.0	0.4	No
R5 Floor 1	63.6	49.6	63.8	0.2	No	63.6	52.6	63.9	0.3	No	63.6	53.6	64.0	0.0	No
R5 Floor 2	67.4	44.0	67.4	0.0	No	67.4	47.1	67.4	0.0	No	67.4	48.1	67.5	0.1	No
R6 Floor 1	67.4	50.1	67.5	0.1	No	67.4	52.6	67.5	0.1	No	67.4	53.5	67.6	0.2	No
R6 Floor 2	67.4	49.9	67.5	0.1	No	67.4	51.1	67.5	0.1	No	67.4	52.2	67.5	0.1	No
R7	77.0	57.0	77.0	0.0	No	77.0	59.1	77.1	0.1	No	77.0	60.9	77.1	0.1	No
R8 Floor 1	73.6	49.2	73.6	0.0	No	73.6	51.7	73.6	0.0	No	73.6	56.2	73.7	0.1	No
R8 Floor 2	70.6	56.0	70.7	0.1	No	70.6	56.0	70.7	0.1	No	70.6	56.3	70.8	0.2	No
R8 Floor 3	65.4	51.7	65.6	0.2	No	65.4	51.9	65.6	0.2	No	65.4	52.0	65.6	0.2	No
R11	74.0	44.4	74.0	0.0	No	74.0	46.8	74.0	0.0	No	74.0	49.5	74.0	0.0	No
R12	74.0	38.4	74.0	0.0	No	74.0	41.8	74.0	0.0	No	74.0	45.2	74.0	0.0	No
R14 Floor 1	63.8	55.2	64.4	0.6	No	63.8	45.7	63.9	0.1	No	63.8	49.4	64.0	0.2	No
R14 Floor 2	63.8	42.1	63.8	0.0	No	63.8	39.8	63.8	0.0	No	63.8	40.5	63.8	0.0	No
R15 Floor 1	74.0	41.1	74.0	0.0	No	74.0	41.3	74.0	0.0	No	74.0	43.0	74.0	0.0	No
R15 Floor 2	64.3	41.7	64.3	0.0	No	64.3	42.6	64.3	0.0	No	64.3	44.5	64.3	0.0	No
R16 Floor 1	64.3	48.0	64.4	0.1	No	64.3	44.3	64.3	0.0	No	64.3	44.6	64.3	0.0	No
R16 Floor 2	64.3	49.8	64.5	0.2	No	64.3	53.8	64.7	0.4	No	64.3	54.0	64.7	0.4	No
R17	64.3	48.0	64.4	0.1	No	64.3	44.3	64.3	0.0	No	64.3	44.6	64.3	0.0	No
R20 Floor 1	69.5	53.4	69.6	0.1	No	69.5	53.4	69.6	0.1	No	69.5	53.3	69.6	0.1	No
R20 Floor 2	69.5	48.8	69.5	0.0	No	69.5	48.1	69.5	0.0	No	69.5	48.3	69.5	0.0	No
R21 Floor 1	71.8	42.1	71.8	0.0	No	71.8	47.0	71.8	0.0	No	71.8	46.1	71.8	0.0	No
R21 Floor 2	71.8	43.0	71.8	0.0	No	71.8	47.8	71.8	0.0	No	71.8	47.1	71.8	0.0	No
R21 Floor 3	71.8	43.0	71.8	0.0	No	71.8	47.4	71.8	0.0	No	71.8	46.8	71.8	0.0	No

NOTES:

[a] Operational noise levels have been calculated at multiple receivers within each Receptor Group (shown in Figure 3.11-2). The ambient noise level and operational noise level for the receiver point with the greatest increase in ambient noise caused by Project operations has been reported in this table. For operational noise levels at all calculated receiver points, see Appendix J.

[b] Ambient noise based on average daily Leq (see Table 3.11-1)

[c] An increase of 3 dBA or greater would be considered significant.

SOURCE: ESA, 2019

Figure 3.11-12 Operational Noise Contours - Non-Event Day

Figure 3.11-13 Operational Noise Contours - Project Daytime Corporate/Community Event

Figure 3.11-14 Operational Noise Contours - Project Other Sporting Event or Gathering

Table 3.11-25 shows the composite operational noise levels at each of the sensitive receptor property lines during Major Event Pre Event, Major Event During Event, and Major Event Post Event conditions, each of which is discussed below. The modeled results described below were conducted for weekday conditions because overall background noise conditions would result in the highest sound levels. Nevertheless, the impacts described below are indicative of the impacts that would be experienced before, during, and after Major Events on weekends as well, when background noise levels would be expected to be lower but project noise generation could still be significant.

As described above under Methodology and Assumptions, the model accounts for multiple receiver points within each receptor group. As a result, impacts within each receptor group may vary depending on the distance of each receiver point within the specific receptor group and the location of shielding (i.e., Project noise barriers and/or existing structures). Specially, ground floor receivers may be shielded from Project operational noise when noise barriers and existing structures are present. However, upper floors may not be offered these same shielding effects based on the height of noise barriers and/or the height of surrounding structures.

Major Event Pre Event

Under the Major Event Pre Event condition, which could include an outdoor amplified event at the Plaza stage, significant increases in ambient noise levels due to Project pre-event operations are expected to occur at noise sensitive receptors the northwest and southwest of the Arena Site. As an example, significant increases in ambient noise (3 dBA increase) would occur at the upper floors of receptors R6 (homes located between West 102nd Street and West 103rd Street south of the West Parking Garage Site), and R8 (the Airport Park View Hotel located adjacent to the Arena Site to the north).

The ambient noise level and Project composite operational noise level for the receiver point anticipated to experience the highest increase in ambient conditions has been reported in Table 3.1-25.[69] Maximum increases of up to 5.2 dBA Leq are anticipated at the floor 2 of R6, 3.7 dBA Leq at floor 2 of R8, and 7.7 dBA Leq at floor 3 of R8 (see **Figure 3.11-15**). The greatest contributors to composite noise at these locations are amplified sound and crowd noise from a post-event performance in the plaza. Therefore, impacts under the Major Event Pre-Event condition would be **potentially significant.**

Major Event During Event

As indicated in Table 3.11-24, composite operational noise sources at the Proposed Project would not result in significant increases in ambient noise at sensitive receptor property lines (see **Figure 3.11-16)** under the Major Event During Event conditions.

Major Event Post Event

[69] Note that there are occurrences where ambient levels shown in Table 3.11-25 may not be consistent with ambient levels shown elsewhere in this section for the same receptor group. In order to analyze the worst-case noise impacts of different Project noise sources, there are some situations where there is variation in the location of the reported ambient noise level within the receptor group. This results in the reporting of a different receiver point within the same receptor group because that specific receptor would experience the greatest increase in ambient noise from a particular noise source.

Based on similar facilities in California, up to 15-25 times a year an outdoor amplified event at the Plaza stage could occur after a Major Event. In such conditions, significant increases in ambient noise levels due to Proposed Project post-event operations would be expected at sensitive receptors to the northwest and southwest of the Arena Site. As an example, significant increases in ambient noise (+3 dBA increase) would occur at receptors R1 (homes located north of West Century Boulevard and west of South Prairie Avenue), R6 (homes located between West 102nd Street and West 103rd Street south of the West Parking Garage Site), R7 (Being in Power Ministries, located west of South Prairie Avenue, west of the Arena Site), R8 (the Airport Park View Hotel located adjacent to the Arena Site to the north), and R21 (future residential uses within the HPSP area).

The ambient noise level and Project composite operational noise level for the receiver points anticipated to experience the highest increase in ambient conditions are reported in Table 3.1-25.[70] Maximum increases of up to 7.9 dBA Leq are anticipated at floor 1 of R1, 10.2 dBA Leq at floor 2 of R1, 8.3 dBA Leq at floor 2 of R6, 3.4 dBA Leq at R7, 3.5 dBA Leq at floor 2 of R8, 7.4 dBA Leq at floor 3 of R8, and 3.7 dBA Leq at floor 3 of R21 (see **Figure 3.11-17**). The greatest contributors to composite noise at these locations are amplified sound and crowd noise from a post-event performance in the plaza.

As described above, during Major Event Pre-Event and Post-Event weekday and weekend conditions, composite noise levels would exceed significance thresholds at sensitive receptors northwest and southwest of the Project Site (see **Figure 3.11-18**). As shown, there are some cases where the nearest receivers would be significantly impacted by Proposed Project operations while other receivers, typically located at greater distances from the Project Site and/or situated behind existing structures, would not. Therefore, impacts under the Major Event Pre- and Post-Event condition on weekday and weekend evenings would be **potentially significant.**

[70] Note that there are occurrences where ambient levels shown in Table 3.11-25 may not be consistent with ambient levels shown elsewhere in this section for the same receptor group. In order to analyze the worst-case noise impacts of different Project noise sources, there are some situations where there is variation in the location of the reported ambient noise level within the receptor group. This results in the reporting of a different receiver point within the same receptor group because that specific receptor would experience the greatest increase in ambient noise from a particular noise source.

TABLE 3.11-25
COMPOSITE PROJECT OPERATIONAL NOISE – MAJOR EVENT

	Major Event Pre-Event					Major Event During Event					Major Event Post-Event				
Receptor [a]	Ambient (dBA Leq)[b]	Composite Project Operations (dBA Leq)	Ambient + Project (dBA Leq)	Increase over Ambient (dBA Leq)[c]	Significant?	Ambient (dBA Leq)[b]	Composite Project Operations (dBA Leq)	Ambient + Project (dBA Leq)	Increase over Ambient (dBA Leq)[c]	Significant?	Ambient (dBA Leq)[b]	Composite Project Operations (dBA Leq)	Ambient + Project (dBA Leq)	Increase over Ambient (dBA Leq)[c]	Significant?
R1 Floor 1	71.8	71.6	74.7	2.9	No	71.8	62.0	72.2	0.0	No	64.3	71.4	72.2	7.9	**Yes**
R1 Floor 2	71.8	59.3	72.0	02	No	71.8	61.3	72.2	0.0	No	64.3	74.1	74.5	10.2	**Yes**
R2	63.6	51.3	63.8	0.2	No	63.6	40.5	63.6	0.0	No	61.0	49.0	61.3	0.3	No
R3	71.7	63.1	72.3	0.6	No	71.7	60.5	72.0	0.3	No	69.0	61.8	69.8	0.8	No
R5 Floor 1	63.6	54.2	64.1	0.5	No	63.6	43.3	63.6	0.0	No	63.5	54.0	64.0	0.5	No
R5 Floor 2	67.4	50.8	67.5	0.1	No	67.4	43.5	67.4	0.0	No	63.4	50.5	63.6	0.2	No
R6 Floor 1	72.0	65.4	72.9	0.9	No	72.0	54.2	72.1	0.1	No	65.0	63.6	67.4	2.4	No
R6 Floor 2	67.4	71.0	72.6	5.2	**Yes**	67.4	53.1	67.6	0.2	No	63.4	71.0	71.7	8.3	**Yes**
R7	77.0	72.9	78.7	1.7	No	77.0	63.0	77.2	0.2	No	73.0	73.8	76,4	3.4	**Yes**
R8 Floor 1	65.4	60.3	66.6	1.2	No	73.6	60.5	73.8	0.2	No	65.8	60.3	66.9	1.1	No
R8 Floor 2	65.4	66.7	69.1	3.7	**Yes**	70.6	57.1	70.8	0.2	No	65.8	66.7	69.3	3.5	**Yes**
R8 Floor 3	65.4	72.3	73.1	7.7	**Yes**	65.4	53.3	65.7	0.3	No	65.8	72.3	73.2	7.4	**Yes**
R11	74.0	59.1	74.1	0.1	No	74.0	51.8	74.0	0.0	No	70.0	58.9	70.3	0.3	No
R12	74.0	52.0	74.0	0.0	No	74.0	47.5	74.0	0.0	No	70.0	51.5	70.1	0.1	No
R14 Floor 1	63.8	58.4	64.9	1.1	No	63.8	49.5	64.0	0.2	No	63.2	58.3	64.4	1.2	No
R14 Floor 2	63.8	54.4	64.3	0.5	No	63.8	41.2	63.8	0.0	No	63.2	54.4	63.7	0.5	No
R15 Floor 1	64.3	48.7	64.4	0.1	No	74.0	40.8	74.0	0.0	No	70.0	52.6	70.1	0.1	No
R15 Floor 2	64.3	51.0	64.5	0.2	No	64.3	44.3	64.3	0.0	No	64.5	50.7	64.7	0.2	No
R16 Floor 1	64.3	48.1	64.4	0.1	No	64.3	44.2	64.3	0.0	No	64.5	49.1	64.6	0.1	No
R16 Floor 2	64.3	56.1	64.9	0.6	No	64.3	53.4	64.6	0.3	No	64.5	56.1	65.1	0.6	No
R17	64.3	48.1	64.4	0.1	No	64.3	44.2	64.3	0.0	No	64.5	48.0	64.6	0.1	No
R20 Floor 1	69.5	54.8	69.6	0.1	No	69.5	40.5	69.5	0.0	No	65.4	54.8	65.8	0.4	No
R20 Floor 2	69.5	49.6	69.5	0.0	No	69.5	41.1	69.5	0.0	No	65.4	49.5	65.5	0.1	No
R21 Floor 1	64.8	54.1	65.2	0.4	No	71.8	57.9	72.0	0.2	No	57.3	52.9	58.6	1.3	No
R21 Floor 2	64.8	56.4	65.4	0.6	No	64.8	53.9	65.1	0.3	No	57.3	55.3	59.4	2.1	No
R21 Floor 3	64.8	59.1	65.8	1.0	No	64.8	53.9	65.1	0.3	No	57.3	58.6	61.0	3.7	**Yes**

NOTES:

[a] Operational noise levels have been calculated at multiple receivers within each Receptor Group (shown in Figure 3.11-2). The ambient noise level and operational noise level for the receiver point with the greatest increase in ambient noise caused by Project operations has been reported in this table. For Receptor Groups where the maximum increase in ambient levels would be significant, the noise levels for the receiver point with the lowest increase in ambient levels has been included in this table. For operational noise levels at all calculated receiver points, see Appendix J.

[b] Ambient noise based on average daily Leq for Pre-Event and During Event conditions and based on the 10:00 PM hour for Post-Event conditions (see Table 3.11-1)

[c] An increase of 3 dBA or greater would be considered significant.

SOURCE: ESA, 2019

Figure 3.11-15 Operational Noise Contours - Project Major Event Pre Event

Figure 3.11-16 Composite Operational Noise Impacts - Project Major Event During Event

Figure 3.11-17 Operational Noise Contours - Project Major Event Post Event

Figure 3.11-18 Composite Operational Noise Impacts – Major Event

General Plan Consistency

Noise generated by operation of the Proposed Project would not be inconsistent with the goals and policies of the General Plan Noise Element. Goal 1 of the General Plan Noise Element calls for the reduction of noise where the noise environment represents a threat to public health and welfare, and Goal 3 calls for the protection and maintenance of acceptable noise environments. While the generation of noise from project operations would exceed the ambient noise levels, because the noise would occur over a temporary period of a few hours at a time on a limited number of times per year, and because the resulting noise levels would be well below the short- or long-term thresholds related to hearing damage, it would not represent the kind of permanent change to the noise environment that would make the noise environment unacceptable or create a threat to public health or welfare.

Goal 4 of the General Plan calls for consideration of noise and land use incompatibilities in the planning and design of projects. Consistent with Goal 4 and Policies 4.2 and 4.3, this Draft EIR includes substantial information and analysis of noise from project construction, allowing for the consideration of noise effects in decision making regarding the Proposed Project. For the most part, the sensitive receptors near the project site are residences and religious uses. There is an educational use, a Head Start preschool, immediately south of the Arena Site. The significant operational impacts affecting the school site would not represent inconsistencies with Policy 4.2 because (1) the impact would be a result of traffic noise on 104th Street during a post-event period when the school is not in operation (typically approximately 10:00-10:30 PM), and (2) the impacts would be generated due to an incremental increase in traffic noise at the site, but resultant noise levels at the site would remain under 60 dBA which is considered "clearly acceptable" in the General Plan Noise/Land Use Compatibility Matrix (see Table 3.11-8).

Thus, while the Proposed Project would generate permanent intermittent traffic and operational noise that would potentially increase ambient noise levels in the area before, during, and after certain events, operation of the Proposed Project would not result in inconsistencies with the goals and policies of the General Plan Noise Element.

Potential Health Effects of On-Site Operational Noise

Short-term noise levels constituting the threshold of pain and hearing damage are 120 dB and 140 dB, respectively.[71] Table 3.11-24 and Table 3.11-25 show composite operational noise levels at each of the studied receptors. As shown, composite noise levels would not reach the point at which pain or hearing damage would occur. Therefore, Project operations would not result in adverse health effects related to pain and hearing loss. Proposed uses at the Arena Site include uses that would operate under business hours and during events. With respect to sleep disturbance, Proposed Project operations, which could generate significant noise levels late into the evening hours up to 15-25 times a year, could disturb sleep during nighttime hours. For the discussion regarding the health effects of sleep disturbance see Section 3.11.1. The hotel use would not include any outdoor noise-generating activities that could occur throughout the

[71] Kinsler, Lawrence E., Frey, A.R., Coppens, A.B., and Sanders, J.V., 1982. *Fundamentals of Acoustics*, Third Edition. 1982

nighttime hours. Constant sources of nighttime noise would include mechanical equipment such as HVAC systems.

Mitigation Measure 3.11-2(a)

The project applicant shall prepare a Noise Reduction Plan for Major event pre- and post-event conditions that results in composite noise levels from amplified sound and mechanical equipment of no more than 3 dBA over ambient conditions at any noise-sensitive receptor. The level of noise reduction shall be documented by a qualified noise consultant and submitted to the City. The Noise Reduction Plan shall be submitted to and approved by the City prior to the first Major Event at the Arena. Noise reduction strategies could include, but are not limited, the following.

- *Equip noise generating mechanical equipment, including emergency generators, transformers, and HVAC units with sound enclosures.*
- *Locate noise generating mechanical equipment at the furthest distance from sensitive receptors as feasible.*
- *Design the outdoor stage and sound amplification system (placement and/or number of speakers, and maximum volume) so as to limit noise levels near noise-sensitive receptors.*
- *Utilize sound-absorbing materials on the exterior of Plaza buildings.*
- *Enclose the rooftop restaurant space with a material that would serve as a noise barrier such as glass.*

Mitigation Measure 3.11-2(b)

Implement Mitigation Measure 3.14-2(b)

Significance after Mitigation: Implementation of Mitigation Measure 3.11-2(a) would reduce Proposed Project composite noise levels. Due to distance attenuation and the effectiveness of screening materials such as steel, enclosing mechanical equipment and placing it as far away from receptors as possible would lower the contribution of mechanical equipment from composite levels. Design of the outdoor stage and sound amplification system to limit amplified sound levels leaving the Project Site would reduce composite noise levels at affected receptors. However, the feasibility and effectiveness of noise reduction strategies such as installation of screening and design of the amplified sound system would need to be evaluated in conjunction with Proposed Project design. Due to the uncertainty with feasibility and effectiveness of noise reduction strategies, composite noise impacts on weekday and weekend evenings would be considered **significant and unavoidable.**

Significant increases in traffic noise would occur under the Project Major Event Weekday Post Event and the Mid-Size Event at NFL Stadium plus concert at The Forum plus Project Weekday Post Event conditions. Mitigation that could reduce impacts from on-road traffic along impacted segments includes the construction of sound walls along the roadway segments adjacent to noise-sensitive receptors. However, the Proposed Project does not have control over the public right-of-way or noise-sensitive receptors that could allow installation of sound walls. Therefore, installation of sound walls would not be feasible. Mitigation Measure 3.14-2(b) would require the implementation of a

comprehensive Transportation Demand Management (TDM) program that would reduce Project-related traffic. A reduction in Project-related traffic would result in reductions in traffic noise. The extent to which this measure would reduce trips along impacted segments is uncertain. Therefore, impacts would be **significant and unavoidable.**

Impact 3.11-3: Construction of the Proposed Project would generate excessive groundborne vibration levels. (Significant and Unavoidable)

On-Site Construction Equipment

Although no high-impact activities, such as pile-driving or blasting, would be used, construction activities at the Project Site have the potential to generate groundborne vibration through the operation of heavy equipment (i.e., dozer, drill rigs, and loaded trucks such as haul trucks, etc.). Based on FTA reference vibration levels presented in Table 3.11-13, potential vibration velocities experienced at vibration-sensitive receptors have been calculated and summarized in **Tables 3.11-26** through **3.11-30**. Vibration impacts that would occur as a result of construction on different parts of the Project Site are described further below.

Arena Site

As indicated in **Table 3.11-26**, the use of a vibratory roller at the Project Site boundary nearest each vibration-sensitive receptor could generate vibration velocities of up to 2.348 in/sec PPV (115.4 VdB) at the self-storage facility adjacent to the Arena Site to the north (R9), the warehousing and shipping structure adjacent to the Arena Site to the east (R10), multifamily residential use adjacent to the Arena Site to the west (R11), and the industrial structure adjacent to the Arena Site to the east (R13), velocities of up to 0.830 in/sec PPV (106.3 VdB) at the multiple family residential uses adjacent to the Arena Site to the south (R16), and velocities of up to 0.452 in/sec PPV (101.1 VdB) at the single family residential use adjacent to the Arena Site to the east (R12) (see **Figure 3.11-19**), exceeding the structural damage threshold of 0.3 in/sec PPV. These velocities would be generated when the use of vibratory rollers would occur five feet or closer, 10 feet or closer, and 15 feet or closer, respectively, to a vibration-sensitive receptor. Vibration velocities from on-site construction equipment would not exceed the structural damage threshold for any of the other receptors.

TABLE 3.11-26
GROUNDBORNE CONSTRUCTION VIBRATION LEVELS – ARENA SITE

		Structural Damage			Human Annoyance		
Receptor	**Construction Equipment**	**Estimated PPV in/sec**	**Threshold (PPV in/sec)**	**Exceeds Threshold?**	**Estimated VdB**	**Threshold (VdB)**	**Exceeds Threshold?**
R1	Vibratory Roller	0.005	0.3	No	61.6	72	No
	Large Bulldozer or Bore/Drill Rig	0.002	0.3	No	54.1	72	No
	Loaded Trucks	0.002	0.3	No	52.8	72	No
	Small Bulldozer	0.000	0.3	No	24.7	72	No
R2	Vibratory Roller	0.001	0.3	No	51.4	72	No
	Large Bulldozer or Bore/Drill Rig	0.001	0.3	No	43.9	72	No
	Loaded Trucks	0.001	0.3	No	42.5	72	No
	Small Bulldozer	0.000	0.3	No	14.5	72	No
R3	Vibratory Roller	0.002	0.3	No	53.3	72	No
	Large Bulldozer or Bore/Drill Rig	0.001	0.3	No	45.9	72	No
	Loaded Trucks	0.001	0.3	No	44.5	72	No
	Small Bulldozer	0.000	0.3	No	16.4	72	No
R4	Vibratory Roller	0.028	0.3	No	77.0	75	**Yes**
	Large Bulldozer or Bore/Drill Rig	0.012	0.3	No	69.6	75	No
	Loaded Trucks	0.010	0.3	No	68.2	75	No
	Small Bulldozer	0.000	0.3	No	40.1	75	No
R5	Vibratory Roller	0.002	0.3	No	53.3	72	No
	Large Bulldozer or Bore/Drill Rig	0.001	0.3	No	45.9	72	No
	Loaded Trucks	0.001	0.3	No	44.5	72	No
	Small Bulldozer	0.000	0.3	No	16.4	72	No
R6	Vibratory Roller	0.008	0.3	No	66.4	72	No
	Large Bulldozer or Bore/Drill Rig	0.004	0.3	No	58.9	72	No
	Loaded Trucks	0.003	0.3	No	57.5	72	No
	Small Bulldozer	0.000	0.3	No	29.5	72	No
R7	Vibratory Roller	0.024	0.3	No	75.7	72	**Yes**

TABLE 3.11-26
GROUNDBORNE CONSTRUCTION VIBRATION LEVELS – ARENA SITE

		Structural Damage			Human Annoyance		
Receptor	**Construction Equipment**	**Estimated PPV in/sec**	**Threshold (PPV in/sec)**	**Exceeds Threshold?**	**Estimated VdB**	**Threshold (VdB)**	**Exceeds Threshold?**
	Large Bulldozer or Bore/Drill Rig	0.010	0.3	No	68.2	75	No
	Loaded Trucks	0.009	0.3	No	66.9	75	No
	Small Bulldozer	0.000	0.3	No	38.8	75	No
R8	Vibratory Roller	0.074	0.3	No	85.4	72	**Yes**
	Large Bulldozer or Bore/Drill Rig	0.031	0.3	No	77.9	72	**Yes**
	Loaded Trucks	0.027	0.3	No	76.5	72	**Yes**
	Small Bulldozer	0.001	0.3	No	48.5	72	No
R9	Vibratory Roller	2.348	0.3	**Yes**	115.4	N/A	No
	Large Bulldozer or Bore/Drill Rig	0.995	0.3	**Yes**	107.9	N/A	No
	Loaded Trucks	0.850	0.3	**Yes**	106.5	N/A	No
	Small Bulldozer	0.034	0.3	No	78.5	N/A	No
R10	Vibratory Roller	2.348	0.3	**Yes**	115.4	75	**Yes**
	Large Bulldozer or Bore/Drill Rig	0.995	0.3	**Yes**	107.9	75	**Yes**
	Loaded Trucks	0.850	0.3	**Yes**	106.5	75	**Yes**
	Small Bulldozer	0.034	0.3	No	78.5	75	**Yes**
R11	Vibratory Roller	2.348	0.3	**Yes**	115.4	72	**Yes**
	Large Bulldozer or Bore/Drill Rig	0.995	0.3	**Yes**	107.9	72	**Yes**
	Loaded Trucks	0.850	0.3	**Yes**	106.5	72	**Yes**
	Small Bulldozer	0.034	0.3	No	78.5	72	**Yes**
R12	Vibratory Roller	0.452	0.3	**Yes**	101.1	72	**Yes**
	Large Bulldozer or Bore/Drill Rig	0.191	0.3	No	93.6	72	**Yes**
	Loaded Trucks	0.164	0.3	No	92.2	72	**Yes**
	Small Bulldozer	0.006	0.3	No	64.2	72	No
R13	Vibratory Roller	2.348	0.3	**Yes**	115.4	75	**Yes**
	Large Bulldozer or Bore/Drill Rig	0.995	0.3	**Yes**	107.9	75	**Yes**

TABLE 3.11-26
GROUNDBORNE CONSTRUCTION VIBRATION LEVELS – ARENA SITE

Receptor	Construction Equipment	Structural Damage			Human Annoyance		
		Estimated PPV in/sec	Threshold (PPV in/sec)	Exceeds Threshold?	Estimated VdB	Threshold (VdB)	Exceeds Threshold?
	Loaded Trucks	0.850	0.3	**Yes**	106.5	75	**Yes**
	Small Bulldozer	0.034	0.3	No	78.5	75	**Yes**
R14	Vibratory Roller	0.009	0.3	No	67.3	72	No
	Large Bulldozer or Bore/Drill Rig	0.004	0.3	No	59.9	72	No
	Loaded Trucks	0.003	0.3	No	58.5	72	No
	Small Bulldozer	0.000	0.3	No	30.4	72	No
R15	Vibratory Roller	0.018	0.3	No	72.9	75	No
	Large Bulldozer or Bore/Drill Rig	0.008	0.3	No	65.5	75	No
	Loaded Trucks	0.006	0.3	No	64.1	75	No
	Small Bulldozer	0.000	0.3	No	36.0	75	No
R16	Vibratory Roller	0.830	0.3	**Yes**	106.3	72	**Yes**
	Large Bulldozer or Bore/Drill Rig	0.352	0.3	**Yes**	98.9	72	**Yes**
	Loaded Trucks	0.300	0.3	**Yes**	97.5	72	**Yes**
	Small Bulldozer	0.012	0.3	No	69.4	72	No
R17	Vibratory Roller	0.028	0.3	No	77.0	72	**Yes**
	Large Bulldozer or Bore/Drill Rig	0.012	0.3	No	69.6	72	No
	Loaded Trucks	0.010	0.3	No	68.2	72	No
	Small Bulldozer	0.000	0.3	No	40.1	72	No
R18	Vibratory Roller	0.003	0.3	No	56.7	75	No
	Large Bulldozer or Bore/Drill Rig	0.001	0.3	No	49.3	75	No
	Loaded Trucks	0.001	0.3	No	47.9	75	No
	Small Bulldozer	0.000	0.3	No	19.8	75	No
R19	Vibratory Roller	0.001	0.3	No	45.7	75	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	38.2	75	No
	Loaded Trucks	0.000	0.3	No	36.9	75	No

TABLE 3.11-26
GROUNDBORNE CONSTRUCTION VIBRATION LEVELS – ARENA SITE

Receptor	Construction Equipment	Structural Damage			Human Annoyance		
		Estimated PPV in/sec	Threshold (PPV in/sec)	Exceeds Threshold?	Estimated VdB	Threshold (VdB)	Exceeds Threshold?
R20	Small Bulldozer	0.000	0.3	No	8.8	75	No
	Vibratory Roller	0.001	0.3	No	48.8	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	41.4	72	No
	Loaded Trucks	0.000	0.3	No	40.0	72	No
	Small Bulldozer	0.000	0.3	No	11.9	72	No
R21	Vibratory Roller	0.001	0.3	No	45.6	75	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	38.1	75	No
	Loaded Trucks	0.000	0.3	No	36.8	75	No
	Small Bulldozer	0.000	0.3	No	8.7	75	No

NOTES:
N/A – Receptor not vibration-sensitive with respect to human annoyance.

Source: ESA, 2019; FTA, Transit Noise and Vibration Impact Assessment Manual, 2018

Figure 3.11-19 Significant Construction Vibration Impacts

With respect to human annoyance, the use of vibratory rollers along the Project Site property line would generate vibration velocities in excess of applicable thresholds (72 VdB at residences and 75 VdB at commercial uses, industrial uses, and churches) at commercial uses adjacent to the West Parking Garage Site to the west (R4), Being in Power Ministries to the south of the West Parking Garage Site (R7), the Airport Park View Hotel adjacent to the Arena Site to the north (R8), the warehousing and shipping structure adjacent to the Arena Site to the east (R10), multifamily residential use adjacent to the Arena Site to the west (R11), single family residential use adjacent to the Arena Site to the east (R12), the industrial structure adjacent to the Arena Site to the east (R13), the multiple family residential uses adjacent to the Arena Site to the south (R16), and single family residential uses to the south of the Well Relocation Site (R17) (see Figure 3.11-19). Vibration velocities would not exceed applicable thresholds for any of the other receptors. Therefore, construction activity at the Arena Site would result in the generation of groundborne vibration in excess of applicable thresholds and impacts would be **potentially significant**.

West Parking Garage Site

As indicated in Table 3.11-27, the use of a vibratory roller at the Project Site boundary nearest each vibration-sensitive receptor could generate vibration velocities of up to 2.348 in/sec PPV (115.4 VdB) at the Airport Motel adjacent to the West Parking Garage Site to the west (R3), commercial uses adjacent to the West Parking Garage Site to the east (R4), and single family residential uses adjacent to the West Parking Garage Site to the west (R5) (see Figure 3.11-19), exceeding the structural damage threshold of 0.3 in/sec PPV. These velocities would be generated when the use of vibratory rollers would occur at five feet or closer from a vibration-sensitive receptor. Vibration velocities from on-site construction equipment would not exceed the structural damage threshold for any of the other receptors.

With respect to human annoyance, the use of large bulldozers and bore/drill rigs along the Project property line would generate vibration velocities in excess of applicable thresholds (72 VdB at residences and 75 VdB at commercial uses, industrial uses, and churches) at single family residential uses to the west of the West Parking Garage Site (R2), the Airport Motel adjacent to the West Parking Garage Site to the west (R3), commercial uses adjacent to the West Parking Garage Site to the west (R4), single family residential uses adjacent to the West Parking Garage Site to the west (R5), single family residential uses to the sough of the West Parking Garage Site (R6), and Being in Power Ministries to the south of the West Parking Garage Site (R7) (see Figure 3.11-19). Vibration velocities would not exceed applicable thresholds for any of the other receptors. Therefore, construction activity at the West Parking Garage Site would result in the generation of groundborne vibration in excess of applicable thresholds and impacts would be **potentially significant**.

TABLE 3.11-27
GROUNDBORNE CONSTRUCTION VIBRATION LEVELS – WEST PARKING GARAGE SITE

		Structural Damage			Human Annoyance		
Receptor	**Construction Equipment**	**Estimated PPV in/sec**	**Threshold (PPV in/sec)**	**Exceeds Threshold?**	**Estimated VdB**	**Threshold (VdB)**	**Exceeds Threshold?**
R1	Vibratory Roller	0.005	0.3	No	62.7	72	No
	Large Bulldozer or Bore/Drill Rig	0.002	0.3	No	55.2	72	No
	Loaded Trucks	0.002	0.3	No	53.9	72	No
	Small Bulldozer	0.000	0.3	No	25.8	72	No
R2	Vibratory Roller	0.045	0.3	No	81.0	72	**Yes**
	Large Bulldozer or Bore/Drill Rig	0.019	0.3	No	73.5	72	**Yes**
	Loaded Trucks	0.016	0.3	No	72.2	72	**Yes**
	Small Bulldozer	0.001	0.3	No	44.1	72	No
R3	Vibratory Roller	2.348	0.3	**Yes**	115.4	72	**Yes**
	Large Bulldozer or Bore/Drill Rig	0.995	0.3	**Yes**	107.9	72	**Yes**
	Loaded Trucks	0.850	0.3	**Yes**	106.5	72	**Yes**
	Small Bulldozer	0.034	0.3	No	78.5	72	**Yes**
R4	Vibratory Roller	2.348	0.3	**Yes**	115.4	75	**Yes**
	Large Bulldozer or Bore/Drill Rig	0.995	0.3	**Yes**	107.9	75	**Yes**
	Loaded Trucks	0.850	0.3	**Yes**	106.5	75	**Yes**
	Small Bulldozer	0.034	0.3	No	78.5	75	**Yes**
R5	Vibratory Roller	2.348	0.3	**Yes**	115.4	72	**Yes**
	Large Bulldozer or Bore/Drill Rig	0.995	0.3	**Yes**	107.9	72	**Yes**
	Loaded Trucks	0.850	0.3	**Yes**	106.5	72	**Yes**
	Small Bulldozer	0.034	0.3	No	78.5	72	**Yes**
R6	Vibratory Roller	0.074	0.3	No	85.4	72	**Yes**
	Large Bulldozer or Bore/Drill Rig	0.031	0.3	No	77.9	72	**Yes**
	Loaded Trucks	0.027	0.3	No	76.5	72	**Yes**

TABLE 3.11-27
GROUNDBORNE CONSTRUCTION VIBRATION LEVELS – WEST PARKING GARAGE SITE

		Structural Damage			Human Annoyance		
Receptor	**Construction Equipment**	**Estimated PPV in/sec**	**Threshold (PPV in/sec)**	**Exceeds Threshold?**	**Estimated VdB**	**Threshold (VdB)**	**Exceeds Threshold?**
	Small Bulldozer	0.001	0.3	No	48.5	72	No
R7	Vibratory Roller	0.074	0.3	No	85.4	72	**Yes**
	Large Bulldozer or Bore/Drill Rig	0.031	0.3	No	77.9	75	**Yes**
	Loaded Trucks	0.027	0.3	No	76.5	75	**Yes**
	Small Bulldozer	0.001	0.3	No	48.5	75	No
R8	Vibratory Roller	0.002	0.3	No	55.4	72	No
	Large Bulldozer or Bore/Drill Rig	0.001	0.3	No	47.9	72	No
	Loaded Trucks	0.001	0.3	No	46.5	72	No
	Small Bulldozer	0.000	0.3	No	18.5	72	No
R9	Vibratory Roller	0.001	0.3	No	49.6	N/A	No
	Large Bulldozer or Bore/Drill Rig	0.001	0.3	No	42.1	N/A	No
	Loaded Trucks	0.000	0.3	No	40.8	N/A	No
	Small Bulldozer	0.000	0.3	No	12.7	N/A	No
R10	Vibratory Roller	0.001	0.3	No	45.3	75	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	37.9	75	No
	Loaded Trucks	0.000	0.3	No	36.5	75	No
	Small Bulldozer	0.000	0.3	No	8.4	75	No
R11	Vibratory Roller	0.014	0.3	No	71.1	72	No
	Large Bulldozer or Bore/Drill Rig	0.006	0.3	No	63.6	72	No
	Loaded Trucks	0.005	0.3	No	62.2	72	No
	Small Bulldozer	0.000	0.3	No	34.2	72	No
R12	Vibratory Roller	0.004	0.3	No	60.4	72	No
	Large Bulldozer or Bore/Drill Rig	0.002	0.3	No	52.9	72	No

TABLE 3.11-27
GROUNDBORNE CONSTRUCTION VIBRATION LEVELS – WEST PARKING GARAGE SITE

Receptor	Construction Equipment	Structural Damage			Human Annoyance		
		Estimated PPV in/sec	Threshold (PPV in/sec)	Exceeds Threshold?	Estimated VdB	Threshold (VdB)	Exceeds Threshold?
	Loaded Trucks	0.002	0.3	No	51.6	72	No
	Small Bulldozer	0.000	0.3	No	23.5	72	No
R13	Vibratory Roller	0.001	0.3	No	46.6	75	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	39.1	75	No
	Loaded Trucks	0.000	0.3	No	37.8	75	No
	Small Bulldozer	0.000	0.3	No	9.7	75	No
R14	Vibratory Roller	0.001	0.3	No	44.2	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	36.7	72	No
	Loaded Trucks	0.000	0.3	No	35.4	72	No
	Small Bulldozer	0.000	0.3	No	7.3	72	No
R15	Vibratory Roller	0.002	0.3	No	53.8	75	No
	Large Bulldozer or Bore/Drill Rig	0.001	0.3	No	46.3	75	No
	Loaded Trucks	0.001	0.3	No	45.0	75	No
	Small Bulldozer	0.000	0.3	No	16.9	75	No
R16	Vibratory Roller	0.002	0.3	No	52.8	72	No
	Large Bulldozer or Bore/Drill Rig	0.001	0.3	No	45.3	72	No
	Loaded Trucks	0.001	0.3	No	44.0	72	No
	Small Bulldozer	0.000	0.3	No	15.9	72	No
R17	Vibratory Roller	0.001	0.3	No	42.0	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	34.5	72	No
	Loaded Trucks	0.000	0.3	No	33.1	72	No
	Small Bulldozer	0.000	0.3	No	5.1	72	No
R18	Vibratory Roller	0.000	0.3	No	40.8	75	No

TABLE 3.11-27
GROUNDBORNE CONSTRUCTION VIBRATION LEVELS – WEST PARKING GARAGE SITE

Receptor	Construction Equipment	Structural Damage			Human Annoyance		
		Estimated PPV in/sec	Threshold (PPV in/sec)	Exceeds Threshold?	Estimated VdB	Threshold (VdB)	Exceeds Threshold?
R19	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	33.3	75	No
	Loaded Trucks	0.000	0.3	No	32.0	75	No
	Small Bulldozer	0.000	0.3	No	3.9	75	No
	Vibratory Roller	0.000	0.3	No	36.4	75	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	29.0	75	No
	Loaded Trucks	0.000	0.3	No	27.6	75	No
	Small Bulldozer	0.000	0.3	No	-0.5	75	No
R20	Vibratory Roller	0.000	0.3	No	38.5	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	31.1	72	No
	Loaded Trucks	0.000	0.3	No	29.7	72	No
	Small Bulldozer	0.000	0.3	No	1.6	72	No
R21	Vibratory Roller	0.001	0.3	No	44.9	75	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	37.4	75	No
	Loaded Trucks	0.000	0.3	No	36.0	75	No
	Small Bulldozer	0.000	0.3	No	8.0	75	No

NOTES:
N/A – Receptor not vibration-sensitive with respect to human annoyance.

Source: ESA, 2019; FTA, Transit Noise and Vibration Impact Assessment Manual, 2018

East Transportation and Hotel Site

Transportation Hub

As indicated in **Table 3.11-28**, the use of a vibratory roller at the Project Site boundary nearest each vibration-sensitive receptor could generate vibration velocities of up to 2.348 in/sec PPV (115.4 VdB) at Transworld Aquatic Enterprises, Inc. adjacent to the East Transportation Site to the west (R18) (see Figure 3.11-19), exceeding the structural damage threshold of 0.3 in/sec PPV. These velocities would be generated when the use of vibratory rollers would occur at five feet or closer from a vibration-sensitive receptor. Vibration velocities from on-site construction equipment would not exceed the structural damage threshold for any of the other receptors.

With respect to human annoyance, the Proposed Project would generate vibration velocities in excess of applicable thresholds (72 VdB at residences and 75 VdB at commercial uses, industrial uses, and churches) at Transworld Aquatic Enterprises, Inc. adjacent to the East Transportation Site to the west (R18), the UPS facility adjacent to the East Transportation and Hotel Site to the east (R19), and multifamily residential uses to the south of the East Transportation Site (R20) (see Figure 3.11-19). Vibration velocities would not exceed applicable thresholds for any of the other receptors. Therefore, construction activity for the parking garage and transportation hub at the East Transportation and Hotel Site would result in the generation of groundborne vibration in excess of applicable thresholds and impacts would be **potentially significant**.

TABLE 3.11-28
GROUNDBORNE CONSTRUCTION VIBRATION LEVELS – EAST TRANSPORTATION AND HOTEL SITE (TRANSPORTATION HUB)

		Structural Damage			Human Annoyance		
Receptor	**Construction Equipment**	**Estimated PPV in/sec**	**Threshold (PPV in/sec)**	**Exceeds Threshold?**	**Estimated VdB**	**Threshold (VdB)**	**Exceeds Threshold?**
R1	Vibratory Roller	0.000	0.3	No	39.1	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	31.6	72	No
	Loaded Trucks	0.000	0.3	No	30.2	72	No
	Small Bulldozer	0.000	0.3	No	2.1	72	No
R2	Vibratory Roller	0.000	0.3	No	35.6	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	28.1	72	No
	Loaded Trucks	0.000	0.3	No	26.7	72	No
	Small Bulldozer	0.000	0.3	No	-1.3	72	No
R3	Vibratory Roller	0.000	0.3	No	36.0	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	28.5	72	No
	Loaded Trucks	0.000	0.3	No	27.2	72	No
	Small Bulldozer	0.000	0.3	No	-0.9	72	No
R4	Vibratory Roller	0.000	0.3	No	39.2	75	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	31.8	75	No
	Loaded Trucks	0.000	0.3	No	30.4	75	No
	Small Bulldozer	0.000	0.3	No	2.3	75	No
R5	Vibratory Roller	0.000	0.3	No	35.5	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	28.0	72	No
	Loaded Trucks	0.000	0.3	No	26.6	72	No
	Small Bulldozer	0.000	0.3	No	-1.4	72	No
R6	Vibratory Roller	0.000	0.3	No	37.7	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	30.3	72	No
	Loaded Trucks	0.000	0.3	No	28.9	72	No

TABLE 3.11-28
GROUNDBORNE CONSTRUCTION VIBRATION LEVELS – EAST TRANSPORTATION AND HOTEL SITE (TRANSPORTATION HUB)

Receptor	Construction Equipment	Structural Damage			Human Annoyance		
		Estimated PPV in/sec	Threshold (PPV in/sec)	Exceeds Threshold?	Estimated VdB	Threshold (VdB)	Exceeds Threshold?
	Small Bulldozer	0.000	0.3	No	0.8	72	No
R7	Vibratory Roller	0.000	0.3	No	38.5	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	31.0	75	No
	Loaded Trucks	0.000	0.3	No	29.7	75	No
	Small Bulldozer	0.000	0.3	No	1.6	75	No
R8	Vibratory Roller	0.001	0.3	No	46.4	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	39.0	72	No
	Loaded Trucks	0.000	0.3	No	37.6	72	No
	Small Bulldozer	0.000	0.3	No	9.5	72	No
R9	Vibratory Roller	0.001	0.3	No	51.0	N/A	No
	Large Bulldozer or Bore/Drill Rig	0.001	0.3	No	43.5	N/A	No
	Loaded Trucks	0.001	0.3	No	42.2	N/A	No
	Small Bulldozer	0.000	0.3	No	14.1	N/A	No
R10	Vibratory Roller	0.002	0.3	No	54.6	75	No
	Large Bulldozer or Bore/Drill Rig	0.001	0.3	No	47.2	75	No
	Loaded Trucks	0.001	0.3	No	45.8	75	No
	Small Bulldozer	0.000	0.3	No	17.7	75	No
R11	Vibratory Roller	0.000	0.3	No	39.9	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	32.4	72	No
	Loaded Trucks	0.000	0.3	No	31.1	72	No
	Small Bulldozer	0.000	0.3	No	3.0	72	No
R12	Vibratory Roller	0.000	0.3	No	39.6	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	32.1	72	No

TABLE 3.11-28
GROUNDBORNE CONSTRUCTION VIBRATION LEVELS – EAST TRANSPORTATION AND HOTEL SITE (TRANSPORTATION HUB)

		Structural Damage			Human Annoyance		
Receptor	**Construction Equipment**	**Estimated PPV in/sec**	**Threshold (PPV in/sec)**	**Exceeds Threshold?**	**Estimated VdB**	**Threshold (VdB)**	**Exceeds Threshold?**
R13	Loaded Trucks	0.000	0.3	No	30.8	72	No
	Small Bulldozer	0.000	0.3	No	2.7	72	No
	Vibratory Roller	0.001	0.3	No	50.4	75	No
	Large Bulldozer or Bore/Drill Rig	0.001	0.3	No	42.9	75	No
	Loaded Trucks	0.000	0.3	No	41.5	75	No
	Small Bulldozer	0.000	0.3	No	13.5	75	No
R14	Vibratory Roller	0.002	0.3	No	54.2	72	No
	Large Bulldozer or Bore/Drill Rig	0.001	0.3	No	46.8	72	No
	Loaded Trucks	0.001	0.3	No	45.4	72	No
	Small Bulldozer	0.000	0.3	No	17.3	72	No
R15	Vibratory Roller	0.000	0.3	No	41.7	75	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	34.3	75	No
	Loaded Trucks	0.000	0.3	No	32.9	75	No
	Small Bulldozer	0.000	0.3	No	4.8	75	No
R16	Vibratory Roller	0.001	0.3	No	47.4	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	39.9	72	No
	Loaded Trucks	0.000	0.3	No	38.5	72	No
	Small Bulldozer	0.000	0.3	No	10.5	72	No
R17	Vibratory Roller	0.001	0.3	No	51.5	72	No
	Large Bulldozer or Bore/Drill Rig	0.001	0.3	No	44.0	72	No
	Loaded Trucks	0.001	0.3	No	42.6	72	No
	Small Bulldozer	0.000	0.3	No	14.6	72	No
R18	Vibratory Roller	2.348	0.3	**Yes**	115.4	75	**Yes**

TABLE 3.11-28
GROUNDBORNE CONSTRUCTION VIBRATION LEVELS – EAST TRANSPORTATION AND HOTEL SITE (TRANSPORTATION HUB)

		Structural Damage			Human Annoyance		
Receptor	**Construction Equipment**	**Estimated PPV in/sec**	**Threshold (PPV in/sec)**	**Exceeds Threshold?**	**Estimated VdB**	**Threshold (VdB)**	**Exceeds Threshold?**
R19	Large Bulldozer or Bore/Drill Rig	0.995	0.3	**Yes**	107.9	75	**Yes**
	Loaded Trucks	0.850	0.3	**Yes**	106.5	75	**Yes**
	Small Bulldozer	0.034	0.3	No	78.5	75	**Yes**
	Vibratory Roller	0.033	0.3	No	78.5	75	**Yes**
	Large Bulldozer or Bore/Drill Rig	0.014	0.3	No	71.0	75	No
	Loaded Trucks	0.012	0.3	No	69.6	75	No
	Small Bulldozer	0.000	0.3	No	41.6	75	No
R20	Vibratory Roller	0.040	0.3	No	80.1	72	**Yes**
	Large Bulldozer or Bore/Drill Rig	0.017	0.3	No	72.6	72	**Yes**
	Loaded Trucks	0.015	0.3	No	71.3	72	No
	Small Bulldozer	0.001	0.3	No	43.2	72	No
R21	Vibratory Roller	0.001	0.3	No	42.7	75	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	35.2	75	No
	Loaded Trucks	0.000	0.3	No	33.8	75	No
	Small Bulldozer	0.000	0.3	No	5.8	75	No

NOTES:
N/A – Receptor not vibration-sensitive with respect to human annoyance.

Source: ESA, 2019; FTA, Transit Noise and Vibration Impact Assessment Manual, 2018

Hotel

As indicated in **Table 3.11-29**, the use of a vibratory roller at the Project Site property line could generate vibration velocities of up to 0.014 in/sec PPV (63.6 VdB) at the UPS facility adjacent to the East Transportation and Hotel Site to the east (R19), which is the nearest vibration-sensitive receptor to the proposed hotel building. This velocity would not exceed the structural damage threshold of 0.3 in/sec PPV or the applicable human annoyance threshold (72 VdB at residences and 75 VdB at commercial uses, industrial uses, and churches). Therefore, construction activity for the hotel at the East Transportation and Hotel Site would not result in the generation of groundborne vibration in excess of applicable thresholds and impacts would be **less than significant.**

TABLE 3.11-29
GROUNDBORNE CONSTRUCTION VIBRATION LEVELS – EAST TRANSPORTATION AND HOTEL SITE (HOTEL)

		Structural Damage			Human Annoyance		
Receptor	**Construction Equipment**	**Estimated PPV in/sec**	**Threshold (PPV in/sec)**	**Exceeds Threshold?**	**Estimated VdB**	**Threshold (VdB)**	**Exceeds Threshold?**
R1	Vibratory Roller	0.000	0.3	No	37.0	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	29.5	72	No
	Loaded Trucks	0.000	0.3	No	28.1	72	No
	Small Bulldozer	0.000	0.3	No	0.1	72	No
R2	Vibratory Roller	0.000	0.3	No	33.8	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	26.4	72	No
	Loaded Trucks	0.000	0.3	No	25.0	72	No
	Small Bulldozer	0.000	0.3	No	-3.1	72	No
R3	Vibratory Roller	0.000	0.3	No	34.2	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	26.7	72	No
	Loaded Trucks	0.000	0.3	No	25.3	72	No
	Small Bulldozer	0.000	0.3	No	-2.7	72	No
R4	Vibratory Roller	0.000	0.3	No	37.0	75	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	29.5	75	No
	Loaded Trucks	0.000	0.3	No	28.2	75	No
	Small Bulldozer	0.000	0.3	No	0.1	75	No
R5	Vibratory Roller	0.000	0.3	No	34.1	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	26.7	72	No
	Loaded Trucks	0.000	0.3	No	25.3	72	No
	Small Bulldozer	0.000	0.3	No	-2.8	72	No
R6	Vibratory Roller	0.000	0.3	No	36.0	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	28.5	72	No
	Loaded Trucks	0.000	0.3	No	27.2	72	No

TABLE 3.11-29
GROUNDBORNE CONSTRUCTION VIBRATION LEVELS – EAST TRANSPORTATION AND HOTEL SITE (HOTEL)

		Structural Damage			Human Annoyance		
Receptor	**Construction Equipment**	**Estimated PPV in/sec**	**Threshold (PPV in/sec)**	**Exceeds Threshold?**	**Estimated VdB**	**Threshold (VdB)**	**Exceeds Threshold?**
	Small Bulldozer	0.000	0.3	No	-0.9	72	No
R7	Vibratory Roller	0.000	0.3	No	36.7	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	29.2	75	No
	Loaded Trucks	0.000	0.3	No	27.8	75	No
	Small Bulldozer	0.000	0.3	No	-0.2	75	No
R8	Vibratory Roller	0.001	0.3	No	42.6	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	35.2	72	No
	Loaded Trucks	0.000	0.3	No	33.8	72	No
	Small Bulldozer	0.000	0.3	No	5.7	72	No
R9	Vibratory Roller	0.001	0.3	No	45.8	N/A	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	38.4	N/A	No
	Loaded Trucks	0.000	0.3	No	37.0	N/A	No
	Small Bulldozer	0.000	0.3	No	8.9	N/A	No
R10	Vibratory Roller	0.001	0.3	No	48.2	75	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	40.8	75	No
	Loaded Trucks	0.000	0.3	No	39.4	75	No
	Small Bulldozer	0.000	0.3	No	11.3	75	No
R11	Vibratory Roller	0.000	0.3	No	37.8	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	30.3	72	No
	Loaded Trucks	0.000	0.3	No	28.9	72	No
	Small Bulldozer	0.000	0.3	No	0.9	72	No
R12	Vibratory Roller	0.000	0.3	No	37.3	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	29.9	72	No

TABLE 3.11-29
GROUNDBORNE CONSTRUCTION VIBRATION LEVELS – EAST TRANSPORTATION AND HOTEL SITE (HOTEL)

Receptor	Construction Equipment	Structural Damage			Human Annoyance		
		Estimated PPV in/sec	Threshold (PPV in/sec)	Exceeds Threshold?	Estimated VdB	Threshold (VdB)	Exceeds Threshold?
	Loaded Trucks	0.000	0.3	No	28.5	72	No
	Small Bulldozer	0.000	0.3	No	0.4	72	No
R13	Vibratory Roller	0.001	0.3	No	45.1	75	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	37.6	75	No
	Loaded Trucks	0.000	0.3	No	36.3	75	No
	Small Bulldozer	0.000	0.3	No	8.2	75	No
R14	Vibratory Roller	0.001	0.3	No	48.2	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	40.7	72	No
	Loaded Trucks	0.000	0.3	No	39.3	72	No
	Small Bulldozer	0.000	0.3	No	11.3	72	No
R15	Vibratory Roller	0.000	0.3	No	38.9	75	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	31.4	75	No
	Loaded Trucks	0.000	0.3	No	30.1	75	No
	Small Bulldozer	0.000	0.3	No	2.0	75	No
R16	Vibratory Roller	0.001	0.3	No	43.1	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	35.6	72	No
	Loaded Trucks	0.000	0.3	No	34.2	72	No
	Small Bulldozer	0.000	0.3	No	6.2	72	No
R17	Vibratory Roller	0.001	0.3	No	45.7	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	38.2	72	No
	Loaded Trucks	0.000	0.3	No	36.9	72	No
	Small Bulldozer	0.000	0.3	No	8.8	72	No
R18	Vibratory Roller	0.003	0.3	No	57.6	75	No

TABLE 3.11-29
GROUNDBORNE CONSTRUCTION VIBRATION LEVELS – EAST TRANSPORTATION AND HOTEL SITE (HOTEL)

Receptor	Construction Equipment	Structural Damage			Human Annoyance		
		Estimated PPV in/sec	Threshold (PPV in/sec)	Exceeds Threshold?	Estimated VdB	Threshold (VdB)	Exceeds Threshold?
R19	Large Bulldozer or Bore/Drill Rig	0.001	0.3	No	50.2	75	No
	Loaded Trucks	0.001	0.3	No	48.8	75	No
	Small Bulldozer	0.000	0.3	No	20.7	75	No
	Vibratory Roller	0.014	0.3	No	71.1	75	No
	Large Bulldozer or Bore/Drill Rig	0.006	0.3	No	63.6	75	No
	Loaded Trucks	0.005	0.3	No	62.2	75	No
	Small Bulldozer	0.000	0.3	No	34.2	75	No
R20	Vibratory Roller	0.004	0.3	No	59.3	72	No
	Large Bulldozer or Bore/Drill Rig	0.002	0.3	No	51.8	72	No
	Loaded Trucks	0.001	0.3	No	50.5	72	No
	Small Bulldozer	0.000	0.3	No	22.4	72	No
R21	Vibratory Roller	0.000	0.3	No	40.6	75	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	33.2	75	No
	Loaded Trucks	0.000	0.3	No	31.8	75	No
	Small Bulldozer	0.000	0.3	No	3.7	75	No

NOTES:
N/A – Receptor not vibration-sensitive with respect to human annoyance.

Source: ESA, 2019; FTA, Transit Noise and Vibration Impact Assessment Manual, 2018

Well Relocation Site

As indicated in Table 3.11-30, the use of a vibratory roller at the Project Site property line could generate vibration velocities of up to 2.348 in/sec PPV (115.4 VdB) at the industrial structure adjacent to the Well Relocation Site to the west (R13) and single family and multifamily residential uses adjacent to the Well Relocation Site to the east (R14) (see Figure 3.11-19), exceeding the structural damage threshold of 0.3 in/sec PPV. These velocities would be generated when the use of vibratory rollers would occur at five feet from a vibration-sensitive receptor. Vibration velocities from on-site construction equipment would not exceed the structural damage threshold for any of the other receptors.

With respect to human annoyance, the use of vibratory rollers along the Project Site property line would generate vibration velocities in excess of applicable thresholds (72 VdB at residences and 75 VdB at commercial uses, industrial uses, and churches) at the warehousing and shipping structure adjacent to the Arena Site to the east (R10), the industrial structure adjacent to the Well Relocation Site to the west (R13), single family and multifamily residential uses adjacent to the Well Relocation Site to the east (R14), the multiple family residential uses adjacent to the Arena Site to the south (R16), and single family residential uses to the south of the Well Relocation Site (R17) (see Figure 3.11-19). Vibration velocities would not exceed applicable thresholds for any of the other receptors. Therefore, construction activity at the Well Relocation Site would result in the generation of groundborne vibration in excess of applicable thresholds and impacts would be **potentially significant.**

TABLE 3.11-30
GROUNDBORNE CONSTRUCTION VIBRATION LEVELS – WELL RELOCATION SITE

		Structural Damage			Human Annoyance		
Receptor	**Construction Equipment**	**Estimated PPV in/sec**	**Threshold (PPV in/sec)**	**Exceeds Threshold?**	**Estimated VdB**	**Threshold (VdB)**	**Exceeds Threshold?**
R1	Vibratory Roller	0.000	0.3	No	41.6	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	34.1	72	No
	Loaded Trucks	0.000	0.3	No	32.8	72	No
	Small Bulldozer	0.000	0.3	No	4.7	72	No
R2	Vibratory Roller	0.000	0.3	No	39.4	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	32.0	72	No
	Loaded Trucks	0.000	0.3	No	30.6	72	No
	Small Bulldozer	0.000	0.3	No	2.5	72	No
R3	Vibratory Roller	0.000	0.3	No	40.0	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	32.5	72	No
	Loaded Trucks	0.000	0.3	No	31.1	72	No
	Small Bulldozer	0.000	0.3	No	3.1	72	No
R4	Vibratory Roller	0.001	0.3	No	44.5	75	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	37.1	75	No
	Loaded Trucks	0.000	0.3	No	35.7	75	No
	Small Bulldozer	0.000	0.3	No	7.6	75	No
R5	Vibratory Roller	0.000	0.3	No	40.4	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	33.0	72	No
	Loaded Trucks	0.000	0.3	No	31.6	72	No
	Small Bulldozer	0.000	0.3	No	3.5	72	No
R6	Vibratory Roller	0.001	0.3	No	44.0	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	36.6	72	No
	Loaded Trucks	0.000	0.3	No	35.2	72	No

TABLE 3.11-30
GROUNDBORNE CONSTRUCTION VIBRATION LEVELS – WELL RELOCATION SITE

Receptor	Construction Equipment	Structural Damage			Human Annoyance		
		Estimated PPV in/sec	Threshold (PPV in/sec)	Exceeds Threshold?	Estimated VdB	Threshold (VdB)	Exceeds Threshold?
	Small Bulldozer	0.000	0.3	No	7.1	72	No
R7	Vibratory Roller	0.001	0.3	No	45.2	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	37.8	75	No
	Loaded Trucks	0.000	0.3	No	36.4	75	No
	Small Bulldozer	0.000	0.3	No	8.3	75	No
R8	Vibratory Roller	0.002	0.3	No	54.1	72	No
	Large Bulldozer or Bore/Drill Rig	0.001	0.3	No	46.7	72	No
	Loaded Trucks	0.001	0.3	No	45.3	72	No
	Small Bulldozer	0.000	0.3	No	17.2	72	No
R9	Vibratory Roller	0.004	0.3	No	59.7	N/A	No
	Large Bulldozer or Bore/Drill Rig	0.002	0.3	No	52.2	N/A	No
	Loaded Trucks	0.001	0.3	No	50.8	N/A	No
	Small Bulldozer	0.000	0.3	No	22.8	N/A	No
R10	Vibratory Roller	0.023	0.3	No	75.1	75	**Yes**
	Large Bulldozer or Bore/Drill Rig	0.010	0.3	No	67.6	75	No
	Loaded Trucks	0.008	0.3	No	66.3	75	No
	Small Bulldozer	0.000	0.3	No	38.2	75	No
R11	Vibratory Roller	0.001	0.3	No	47.7	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	40.3	72	No
	Loaded Trucks	0.000	0.3	No	38.9	72	No
	Small Bulldozer	0.000	0.3	No	10.8	72	No
R12	Vibratory Roller	0.001	0.3	No	47.5	72	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	40.0	72	No

TABLE 3.11-30
GROUNDBORNE CONSTRUCTION VIBRATION LEVELS – WELL RELOCATION SITE

Receptor	Construction Equipment	Structural Damage			Human Annoyance		
		Estimated PPV in/sec	Threshold (PPV in/sec)	Exceeds Threshold?	Estimated VdB	Threshold (VdB)	Exceeds Threshold?
	Loaded Trucks	0.000	0.3	No	38.7	72	No
	Small Bulldozer	0.000	0.3	No	10.6	72	No
R13	Vibratory Roller	2.348	0.3	**Yes**	115.4	75	**Yes**
	Large Bulldozer or Bore/Drill Rig	0.995	0.3	**Yes**	107.9	75	**Yes**
	Loaded Trucks	0.850	0.3	**Yes**	106.5	75	**Yes**
	Small Bulldozer	0.034	0.3	No	78.5	75	**Yes**
R14	Vibratory Roller	2.348	0.3	**Yes**	115.4	72	**Yes**
	Large Bulldozer or Bore/Drill Rig	0.995	0.3	**Yes**	107.9	72	**Yes**
	Loaded Trucks	0.850	0.3	**Yes**	106.5	72	**Yes**
	Small Bulldozer	0.034	0.3	No	78.5	72	**Yes**
R15	Vibratory Roller	0.002	0.3	No	52.6	75	No
	Large Bulldozer or Bore/Drill Rig	0.001	0.3	No	45.1	75	No
	Loaded Trucks	0.001	0.3	No	43.7	75	No
	Small Bulldozer	0.000	0.3	No	15.7	75	No
R16	Vibratory Roller	0.023	0.3	No	75.1	72	**Yes**
	Large Bulldozer or Bore/Drill Rig	0.010	0.3	No	67.6	72	No
	Loaded Trucks	0.008	0.3	No	66.3	72	No
	Small Bulldozer	0.000	0.3	No	38.2	72	No
R17	Vibratory Roller	0.045	0.3	No	81.0	72	**Yes**
	Large Bulldozer or Bore/Drill Rig	0.019	0.3	No	73.5	72	**Yes**
	Loaded Trucks	0.016	0.3	No	72.2	72	**Yes**
	Small Bulldozer	0.001	0.3	No	44.1	72	No
R18	Vibratory Roller	0.004	0.3	No	59.7	75	No

TABLE 3.11-30
GROUNDBORNE CONSTRUCTION VIBRATION LEVELS – WELL RELOCATION SITE

Receptor	Construction Equipment	Structural Damage			Human Annoyance		
		Estimated PPV in/sec	Threshold (PPV in/sec)	Exceeds Threshold?	Estimated VdB	Threshold (VdB)	Exceeds Threshold?
R19	Large Bulldozer or Bore/Drill Rig	0.002	0.3	No	52.2	75	No
	Loaded Trucks	0.001	0.3	No	50.8	75	No
	Small Bulldozer	0.000	0.3	No	22.8	75	No
	Vibratory Roller	0.001	0.3	No	46.7	75	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	39.2	75	No
	Loaded Trucks	0.000	0.3	No	37.8	75	No
	Small Bulldozer	0.000	0.3	No	9.8	75	No
R20	Vibratory Roller	0.001	0.3	No	51.3	72	No
	Large Bulldozer or Bore/Drill Rig	0.001	0.3	No	43.8	72	No
	Loaded Trucks	0.001	0.3	No	42.4	72	No
	Small Bulldozer	0.000	0.3	No	14.4	72	No
R21	Vibratory Roller	0.000	0.3	No	39.6	75	No
	Large Bulldozer or Bore/Drill Rig	0.000	0.3	No	32.1	75	No
	Loaded Trucks	0.000	0.3	No	30.8	75	No
	Small Bulldozer	0.000	0.3	No	2.7	75	No

NOTES:
N/A – Receptor not vibration-sensitive with respect to human annoyance.

Source: ESA, 2019; FTA, Transit Noise and Vibration Impact Assessment Manual, 2018

Off-Site Construction Traffic

As described above, construction haul trucks would travel on designated haul routes, which include Manchester Avenue and South Prairie Avenue when using I-110, Manchester Avenue, Prairie Avenue, and West Century Boulevard when using the I-405, and South Prairie Avenue when using the I-105. Heavy-duty construction trucks would generate groundborne vibration as they travel along the anticipated haul route(s). The vibration generated by a typical heavy-duty truck would be approximately 0.00566 in/sec PPV (63 VdB) at a distance of 50 feet from the truck.[72] There are existing buildings along the anticipated haul route(s) that are situated as close as 10 feet to the roadway right-of-way and would be expected to experience groundborne vibration levels of approximately 0.0633 in/sec PPV (84 VdB). This estimated vibration generated by construction trucks traveling along the anticipated haul route(s) would be well below the threshold of 0.3 in/sec PPV for structural damage. However, the anticipated vibration velocity of 84 VdB would exceed the 72 VdB and 75 VdB thresholds for residential and commercial/industrial uses, respectively. Therefore, off-site construction vibration impacts with respect to human annoyance would be **potentially significant.**

Conclusion

As described above, the potential exists for the generation of groundborne vibration in excess of structural damage and human annoyance thresholds at a number of locations around the Project Site. Therefore, these impacts would be **potentially significant.**

Mitigation Measure 3.11-3(a)

To address potential structural damage impacts, the operation of construction equipment that generates high levels of vibration, such as vibratory rollers, large bulldozers/drill rigs and loaded trucks, shall occur no nearer than 20 feet from neighboring structures, if feasible.

Mitigation Measure 3.11-3(b)

If vibratory rollers, large bulldozers or loaded trucks are required to operate within 20 feet of existing structures, implement a vibration, crack, and line and grade monitoring program at existing buildings located within 20 feet of demolition/construction activities. The following elements shall be included in this program:

a) Pre-Demolition and Construction:

i. Photos of current conditions shall be included as part of the crack survey that the construction contractor will undertake. This includes photos of existing cracks and other material conditions present on or at the surveyed buildings. Images of interior conditions shall be included if possible. Photos in the report shall be labeled in detail and dated.

ii. The construction contractors shall install crack gauges on cracks in the walls of the buildings to measure changes in existing cracks during project

[72] Federal Transit Administration, 2018. Transit Noise and Vibration Impact Assessment, Figure 5-4.

activities. Crack gauges shall be installed on multiple representative cracks, particularly on sides of the building facing the project.

iii. *The construction contractor shall determine the number and placement of vibration receptors at the affected buildings in consultation with a qualified architect. The number of units and their locations shall take into account proposed demolition and construction activities so that adequate measurements can be taken illustrating vibration levels during the course of the project, and if/when levels exceed the established threshold.*

iv. *A line and grade pre-construction survey at the affected buildings shall be conducted.*

b) *During Demolition and Construction:*

i. *The construction contractor shall regularly inspect and photograph crack gauges, maintaining records of these inspections to be included in post-construction reporting. Gauges shall be inspected every two weeks, or more frequently during periods of active project actions in close proximity to crack monitors.*

ii. *The construction contractor shall collect vibration data from receptors and report vibration levels to the City Chief Building Official on a monthly basis. The reports shall include annotations regarding project activities as necessary to explain changes in vibration levels, along with proposed corrective actions to avoid vibration levels approaching or exceeding the established threshold.*

c) *Post-Construction*

i. *The applicant (and its construction contractor) shall provide a report to the City Chief Building Official regarding crack and vibration monitoring conducted during demolition and construction. In addition to a narrative summary of the monitoring activities and their findings, this report shall include photographs illustrating the post-construction state of cracks and material conditions that were presented in the pre-construction assessment report, along with images of other relevant conditions showing the impact, or lack of impact, of project activities. The photographs shall sufficiently illustrate damage, if any, caused by the project and/or show how the project did not cause physical damage to the buildings. The report shall include annotated analysis of vibration data related to project activities, as well as summarize efforts undertaken to avoid vibration impacts. Finally, a post-construction line and grade survey shall also be included in this report.*

ii. *The project applicant (and its construction contractor) shall be responsible for repairs from damage to buildings if damage is caused by vibration or movement during the demolition and/or construction activities. Repairs may be necessary to address, for example, cracks that expanded as a result of the project, physical damage visible in post-construction assessment, or holes or connection points that were needed for shoring or stabilization. Repairs shall be directly related to project impacts and will not apply to general rehabilitation or restoration activities of the buildings.*

Mitigation Measure 3.11-3(c)

Designate a Community Affairs Liaison and conspicuously post this person's number around the project site, in adjacent public spaces, and in construction notifications. The Community Affairs Liaison shall be responsible for responding within 24 hours to any local complaints about construction activities. This Community Affairs Liaison shall receive all public complaints about construction vibration disturbances and be responsible for determining the cause of the complaint and implementation of feasible measures to be taken to alleviate the problem. The Community Affairs Liaison shall have the authority to coordinate with a designated construction contractor representative for the purpose of investigating the noise disturbance and undertaking all feasible measures to protect public health and safety, and shall ensure that steps be taken to reduce construction vibration levels as deemed appropriate and safe by the designated construction contractor representative . Such steps could include the application of vibration absorbing barriers, substitution of lower vibration generating equipment or activity, rescheduling of vibration-generating construction activity, or other potential adjustments to the construction program to reduce vibration impacts at the adjacent vibration-sensitive receptors.

Level of Significance After Mitigation: The potential for building damage due to typical construction techniques such as those expected to be used in the construction of the Proposed Project is rare except in extreme cases such as blasting or pile driving. The potential structural response from vibration velocities generated by Proposed Project construction would include minor cosmetic damage for fragile buildings.[73] Buildings that would be impacted by Project construction with regard to potential structural damage are not designated as historic, therefore would not be considered "fragile". With the implementation of Mitigation Measures 3.11-3(a) and 3.11-3(b), the Proposed Project would not result in the generation of excessive groundborne vibration levels exceeding structural damage thresholds during on-site construction activity, and any structural damage that may be created would be repaired. Thus, this impact with regard to structural damage would be considered **less than significant.**

Although vibration velocities may not be lowered by Mitigation Measure 3.11-3(c), annoyance would be addressed within 24 hours of complaint. Similar to structural damage mitigation, required setbacks for vibratory construction equipment from vibration sensitive receptors required under Mitigation Measures 3.11-3(a) and 3.11-3(b) would reduce vibration velocities. However, such restrictions on equipment usage would potentially result in delays in the construction schedule that would expose vibration-sensitive receptors to longer durations of construction activity, and thus may not be feasible to reduce the impact to insignificance. Therefore, impacts with regard to human annoyance would be considered **significant and unavoidable.**

As described above, heavy-duty construction truck travel along the designated haul route(s) could result in exceedance of human annoyance thresholds. The distance at which heavy-duty trucks need to travel in order to avoid exceedance of human annoyance thresholds of 72 VdB for residential uses and 75 VdB for commercial and industrial uses is 25 feet and 20 feet, respectively. Potential mitigation to address this impact includes prohibiting travel along the right lane of the roadway. Limiting the lanes of travel for construction trucks, including haul trucks, where residential, commercial, or industrial

[73] Federal Transit Administration, 2018. *Transit Noise and Vibration Impact Assessment Manual*. September 2018. p. 113.

uses could be impact would not be feasible because there would be no mechanism for enforcement. Additionally, the drivers of construction vehicles may not be under the management of the Project Proponent. Therefore, no feasible mitigation is available to mitigate on-road construction vibration impacts with regard to human annoyance and impacts would be **significant and unavoidable.**

Impact 3.11-4: The Proposed Project is located within the Planning Boundary/Airport Influence Area for LAX as designated within the airport land use plan and could expose people residing or working in the region surrounding the Project Site to excessive noise levels. (Less than Significant)

The Project Site is located within the Planning Boundary/AIA for LAX as designated within the ALUP. The Planning Boundary/AIA is based in part on the 65 dBA CNEL contour included in the ALUP, as shown in Figure 3.11-3. Figure 2-4 (see Chapter 2, Project Description) depicts the 14 CFR Part 150 Noise Exposure Map for LAX. As shown in Figure 2-4, parts of the Project Site located between 102nd Street and Century Boulevard are generally located in areas exposed to CNEL 65 dBA -70 dBA in the 14 CFR Part 150 study. This includes both the West and East Parking Garage sites, the Plaza area including commercial and community uses, most of the Arena and Practice and Athletic Training Facility, Office, and Sports Medicine Clinic, and the Hotel. Parts of the Project Site south of 102nd Street are generally located in areas exposed to CNEL 70 dBA – 75 dBA in the 14 CFR Part 150 study. This includes part of the Arena and Practice and Athletic Training Facility, Office, and Sports Medicine Clinic, as well as the South Parking Garage.

Pursuant to ALUP Policies G-1 and N-3, the compatibility of proposed land uses is determined by consulting the land use compatibility table provided in Section V of the ALUP. The land use compatibility table identifies land uses by category, including residential, commercial, and industrial land use; the Proposed Project components would all generally fall within the commercial and recreational land use categories. The compatibility criteria provided in the land use compatibility table is the same for both commercial and recreational land uses. The compatibility criteria require that commercial and recreational land uses located in areas exposed to noise levels of CNEL 65 dBA – 75 dBA must be reviewed for noise insulation needs. Noise insulation is unlikely to be required for elements of the Proposed Project that are not considered noise sensitive, including the arena outdoor plaza areas, the West Parking Garage, or the East Transportation Hub and Parking Garage.

Standard building construction practices for the commercial structures in the Plaza area and for the Hotel would typically reduce interior noise levels to acceptable levels although some level of additional insulation may be appropriate, especially for the proposed hotel use. With such actions typically undertaken in the design and building inspection process, the Proposed Project would comply with ALUP Policies G-1 and N-3, and would not expose people residing (staying in the hotel), working in the project area, or attending events in the Arena to excessive noise levels. Impacts would be **less than significant.**

Mitigation Measures

None required.

Cumulative Impacts

The geographic context for the analysis of cumulative impacts for noise and vibration depends on the impact being analyzed. For example, the Project's contribution to localized impacts, such as those associated with Project construction and Project operation/traffic noise, could affect the local neighborhood and Project's traffic study area. This cumulative impacts discussion provides separate analyses of cumulative construction and operational impacts in light of the variation of timing of construction and operational activities.

In addition to the Proposed Project, there are 145 cumulative projects that have been taken into consideration when developing the cumulative context, although the context varies by impact type. The closest cumulative projects to the Project Site are: the cumulative development of the HPSP area (the residential uses within the HPSP are represented as noise- and vibration-sensitive receptor R21), located immediately to the north of the Arena Site; the Airport Park View Hotel site located at 3900 West Century Boulevard (included as noise- and vibration-sensitive receptor R8); and the Inglewood Transit Connector. These are addressed as Cumulative Projects 67, 73, and 74, respectively. Cumulative Projects 67 and 73 are addressed as both receptors and generators of noise.

Impact 3.11-5: Construction of the Proposed Project, in conjunction with other cumulative development, would result in cumulative temporary increases in ambient noise levels. (Significant and Unavoidable)

The geographic scope for the consideration of cumulative construction noise impacts would be primarily the areas immediately surrounding the Project Site, and, to a lesser degree, along designated routes where heavy construction truck traffic would travel during Project construction periods. Generally, noise impacts are limited to the area directly surrounding the noise source, as noise attenuates with distance at a higher rate in proximity to the source, and based on the rate of attenuation only has the potential to combine with other noise sources occurring simultaneously within 500 feet from the construction site.

Cumulative Project 67, the cumulative HPSP development, is located within the HPSP area and was analyzed as noise-sensitive receptor R8. Cumulative Project 73, located at 3900 West Century Boulevard, would be located adjacent to the Arena Site and was analyzed as noise-sensitive receptor R8. Cumulative Project 74 (Inglewood Transit Connector) would be constructed above South Prairie Avenue, and would extend to the north side of the South Prairie Avenue/West Century Boulevard intersection.

Cumulative Project 67, the cumulative HPSP development, is located approximately 500 feet from noise-sensitive receptor R1, and Cumulative Project 74 is located adjacent to noise-sensitive

receptors along Prairie Avenue (including R1 and R21). Both Cumulative Projects 67 and 74 are of sufficient scale that depending upon the specifics of future project construction, construction that overlaps with Proposed Project construction could occur. Therefore, should construction activities (day or night) at the Project Site occur concurrently with construction of Cumulative Project 67 and/or Cumulative Project 73, receptors along Prairie Avenue (including R1) and R1, respectively, could be exposed to increases in temporary noise in excess of significance thresholds.

No noise-sensitive receptors (i.e., residential, hotel, school, etc.) are located within 500 feet of Cumulative Project 73 that could be impacted by combined construction noise levels from the Proposed Project and Cumulative Project 73. No other cumulative projects, as shown in Figure 3.0-1, are located within 500 feet of the Project Site.

Should construction of Cumulative Projects 67, 73 and/or 74 overlap with construction (day or night) at the Project Site, construction noise could combine and result in levels that would be in excess of significance thresholds. Because the cumulative exceedances of the significance thresholds in the absence of the Proposed Project construction, the contribution of the Proposed Project would be cumulatively considerable. Therefore, the cumulative impact would be **potentially significant**.

Heavy-duty construction trucks would utilize designated haul routes. Should construction of any of the cumulative projects overlap with construction of the Proposed Project and should the same haul routes be used, traffic volumes could potentially increase such that the resulting cumulative noise increase due to construction traffic along the haul routes could be noticeable (3 dBA over ambient). Because the cumulative exceedances of the significance thresholds in the absence of the Proposed Project construction truck traffic, the contribution of the Proposed Project would be cumulatively considerable. Therefore, cumulative impacts would be **potentially significant.**

Mitigation Measure 3.11-5

Implement Mitigation Measure 3.11-1.

Significance after Mitigation: Implementation of the Construction Noise Reduction Plan in combination with proposed permanent and temporary noise barriers would reduce Proposed Project contribution to cumulative construction-related noise levels from on-site activities and off-site construction traffic. Although all feasible measures to minimize construction noise from the Proposed Project would be undertaken, the close proximity of affected noise sensitive receptors to potentially overlapping construction activities from the Proposed Project and nearby Cumulative Project 67 could result in cumulative impacts in excess of applicable thresholds at nearby noise-sensitive receptors. In addition, overlapping construction traffic, even with mitigation, could result in cumulative noise level increases at noise-sensitive land uses along truck routes in excess of 3 dBA. Due to the uncertainty with feasibility and effectiveness of noise reduction strategies, the Proposed Project contribution could remain considerable, and the impacts would be **significant and unavoidable.**

Impact 3.11-6: Operation of the Proposed Project, in conjunction with other cumulative development, would result in cumulative permanent increases in ambient noise levels. (Significant and Unavoidable)

The operation of the Proposed Project would generate pedestrian noise, parking lot noise, outdoor plaza noise from live performances, mechanical equipment at the West Parking Garage, Arena Structure, East Transportation Hub and hotel, media truck noise, and mobile sources (e.g., vehicle trips). Noise generated from mechanical equipment, parking lot noise, media truck noise, and outdoor plaza noise associated with the Proposed Project would be generated on the Project Site while pedestrian noise would be generated along West Century Boulevard and South Prairie Avenue.

The development of other cumulative development, including cumulative projects in proximity to the Project Site, as well as other cumulative projects and development throughout the region, would add noise generators to the vicinity of the Project Site, and traffic to roads and highways that would serve the Project Site.

On-Site Operational Noise

Cumulative Project 73 (the Airport Park View Hotel)is adjacent on two sides to the Arena Site, and is located approximately 500 feet from noise-sensitive receptor R1 (single family residential uses northwest of the intersection of Century Boulevard and Prairie Avenue), and Cumulative Project 74 (Inglewood Transit Connector) is located within the right-of-way of South Prairie Avenue, just north of West Century Boulevard, immediately to the east of receptor R1.

Noise sources associated with Cumulative Project 73 includes the operation of mechanical equipment and parking lot activity. However, there are no noise-sensitive uses within 500 feet of Cumulative Project 73. Therefore, Project operations would not combine with operational noise from Cumulative Project 73 to generate a cumulative impact.

Noise sources associated with Cumulative Project 67 includes the operation of mechanical equipment, pedestrian noise, and parking activity noise similar to that of the Proposed Project on a non-event day. Additionally, operational noise from Cumulative Project 67, which includes an NFL Stadium, would combine with Project operational noise during concurrent event days. Noise sources associated with Cumulative Project 74 includes pedestrian activity and transit noise. Noise sources from operation of Cumulative Projects 67 and 74 could combine with Proposed Project operations to increase ambient noise levels in the immediate vicinity of the Project area, specifically during Major Event days. For this reason, the cumulative noise impacts associated with these sources would be **potentially significant**. As discussed above, Proposed Project operations would result in significant increases in the ambient noise environment in excess of significance thresholds under Major Event Post Event conditions. Therefore, the Project contribution to the cumulative impact would be considerable, and, thus, the cumulative impact is **significant**.

Off-Site Operational Traffic Noise

Future roadway noise levels accounting for traffic from cumulative projects were calculated along various arterial segments adjacent to the Project Site. Cumulative traffic noise levels under Non-Event Day, Day-Time Corporate/Community Event, Other Sporting Event or Gathering, and Major Event conditions were calculated using the traffic noise model previously described and compared to the applicable Adjusted Baseline traffic noise levels.

Cumulative Plus Project Non-Event Day

Impacts under the Cumulative Plus Project (Non-Event Day) condition are shown in **Table 3.11-31**. As indicated, increases in traffic noise during the weekday PM peak period would range from 0.1 dBA Leq up to 1.7 dBA Leq. and would not exceed the significance threshold of 3 dBA Leq. Therefore, cumulative traffic noise impacts during the weekday PM peak period on a non-event day would be less than significant.

During the weekday AM peak period on a non-event day, cumulative increases in traffic noise along studied roadway segments would range from 0.2 dBA Leq up to 3.9 dBA Leq. The cumulative increase in traffic noise along one roadway segment, Myrtle Avenue between Hardy Street and Century Boulevard, would exceed the 3 dBA Leq significance threshold during the weekday AM peak hour of a non-event day. Because the significance threshold would be exceeded on one roadway segment during the AM peak hour under the Cumulative Plus Project (Non-Event Day) condition, the cumulative impact would be **potentially significant**.

Although cumulative increases in traffic noise would result in significant impacts along Myrtle Avenue between Hardy Street and Century Boulevard, Project-only traffic would result in an increase of 0.1 dBA Leq (see Table 3.11-18) during the Non-Event Day AM Peak Period. This increase of less than 1 dBA Leq would not be perceptible unless in controlled laboratory setting.[74] Because the cumulative effect would be significant without contribution of the Proposed Project, and the incremental difference would not be a perceptible change in noise levels, the Proposed Project's contribution would be less than considerable, and thus would be **less than significant**.

Cumulative Plus Project Day-Time Corporate/Community Event

Impacts under the Cumulative Plus Project Day-Time Corporate/Community Event condition are shown in **Table 3.11-32**. As indicated, the cumulative increase in traffic noise along one roadway segment, Myrtle Avenue between Hardy Street and Century Boulevard, would exceed the significance threshold of a 3 dBA Leq increase, resulting in an increase in traffic noise of 3.9 dBA Leq for a Day-Time Corporate/Community Event during the weekday AM peak period. Therefore, cumulative impacts under the Cumulative Plus Project Day-Time Corporate/ Community Event condition would be **potentially significant.**

74 California Department of Transportation, 2013. Technical Noise Supplement. September 2013. p. 6-5.

TABLE 3.11-31
CUMULATIVE PLUS PROJECT NON-EVENT DAY

Segment	Weekday AM Peak Period				Weekday PM Peak Period			
	Adjusted Baseline (dBA Leq)	Cumulative Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?	Adjusted Baseline (dBA Leq)	Cumulative Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Centinela between La Cienega Blvd and La Brea Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Centinela between La Brea Ave and Florence Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Florence Ave between La Brea Ave and Hillcrest Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Florence Ave between Hillcrest Blvd and Centinela Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Florence Ave between Centinela Ave and Prairie Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Florence Ave between Prairie Ave and West Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Ash Ave/405 NB Off-Ramp and La Brea Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between La Brea Ave and Hillcrest Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Hillcrest Blvd and Spruce Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Spruce Ave and Prairie Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Kareem Ct and Crenshaw Dr	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Crenshaw Dr and Crenshaw Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Crenshaw Blvd and Van Ness Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Van Ness Ave and Western Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Western Ave and Normandie Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Normandie Ave and Vermont Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Vermont Ave and Hoover St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manchester Blvd between Hoover St and Figueroa St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pincay Dr between Prairie Ave and Kareem Ct	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pincay Dr between Kareem Ct and Crenshaw Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arbor Vitae St between La Cienega Blvd and Inglewood Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arbor Vitae St between Inglewood Ave and La Brea Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arbor Vitae St between La Brea Ave and Myrtle Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arbor Vitae St between Myrtle Ave and Prairie Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hardy St between La Brea Ave and Myrtle Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hardy St between Myrtle Ave and Prairie Ave	59.7	61.0	1.3	No	59.7	60.3	0.6	No
Century Blvd between Concourse Way and La Cienega Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Century Blvd between 405 on/off Ramp and Felton Ave	70.8	72.5	1.7	No	71.6	72.4	0.8	No
Century Blvd between Felton Ave and Inglewood Ave	70.7	72.3	1.7	No	71.4	72.2	0.8	No
Century Blvd between Inglewood Ave and Fir Ave/Firmona Ave	71.2	72.8	1.6	No	71.5	72.3	0.8	No
Century Blvd between Fir Ave/Firmona Ave and Grevillea Ave	71.0	72.6	1.6	No	71.5	72.3	0.9	No
Century Blvd between Hawthorne Blvd/La Brea Blvd and Myrtle Ave	70.1	71.7	1.6	No	70.9	71.8	0.9	No
Century Blvd between Myrtle Ave and Freeman Ave	70.1	72.1	2.0	No	70.9	71.9	0.9	No
Century Blvd between Freeman Ave and Prairie Ave	69.9	72.0	2.1	No	70.6	71.6	1.0	No
Century Blvd between Prairie Ave and Doty Ave	69.6	71.8	2.2	No	71.1	72.1	1.0	No
Century Blvd between 11th Ave/Village Ave and Crenshaw Blvd	69.5	71.9	2.4	No	71.5	72.4	0.9	No
Century Blvd between Crenshaw Blvd and 5th Ave	68.3	70.7	2.4	No	69.8	71.0	1.2	No
Century Blvd between 5th Ave and Van Ness Ave	68.4	70.7	2.3	No	69.0	70.3	1.3	No
Century Blvd between Van Ness Ave and Gramercy Pl	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Century Blvd between Gramercy Pl and Western Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Century Blvd between Western Ave and Normandie Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Century Blvd between Normandie Ave and Vermont Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

TABLE 3.11-31
CUMULATIVE PLUS PROJECT NON-EVENT DAY

Segment	Weekday AM Peak Period				Weekday PM Peak Period			
	Adjusted Baseline (dBA Leq)	Cumulative Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?	Adjusted Baseline (dBA Leq)	Cumulative Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Century Blvd between Vermont Ave and Hoover St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Century Blvd between Hoover St and Figueroa St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Century Blvd between Figueroa St and Grand Ave/110 SB off ramp	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
104th St between Inglewood Ave and Hawthorne Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
104th St between Hawthorne Blvd and Prairie Ave	55.9	56.1	0.2	No	57.8	58.0	0.2	No
104th St between Prairie Ave and Doty Ave	57.4	57.7	0.2	No	58.6	59.0	0.4	No
104th St between Doty Ave and Yukon Ave	57.7	57.9	0.2	No	58.5	58.7	0.2	No
104th St between Yukon Ave and Crenshaw Blvd	61.0	61.1	0.2	No	60.5	60.7	0.2	No
Lennox Blvd between La Cienega Blvd and Inglewood Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lennox Blvd between Inglewood Ave and Hawthorne Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lennox Blvd between Hawthorne Blvd and Freeman Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lennox Blvd between Freeman Ave and Prairie Ave	62.1	62.3	0.2	No	62.5	62.6	0.1	No
Imperial Hwy between Prairie Ave and Doty Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Imperial Hwy between Doty Ave and Yukon Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Imperial Hwy between Yukon Ave and Crenshaw Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
120th St between Prairie Ave and 105 on/off ramp	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
La Cienega Blvd between Stocker St and La Tijera Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
La Cienega Blvd between La Tijera Blvd and Centinela Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
La Cienega Blvd between Centinela Ave and Florence Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
La Cienega Blvd between Arbor Vitae St and 405 on/off rams (n/o Century)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
La Cienega Blvd between 405 on/off rams (n/o Century) and Century Blvd	70.7	71.6	0.9	No	69.4	71.1	1.7	No
La Cienega Blvd between 405 on/off ramps (s/o Century) and 104th St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Inglewood Ave between Century Blvd and 104th St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Inglewood Ave between 104th St and Lennox Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
La Brea Ave between Stocker St and Slauson Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
La Brea Ave between Slauson Ave and Centinela Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
La Brea Ave between Centinela Ave and Florence Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
La Brea Ave between Florence Ave and Manchester Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
La Brea Ave between Manchester Blvd and Hillcrest Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
La Brea Ave between La Brea Ave and Arbor Vitae St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hawthorne Ave between 104th St and Lennox Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hawthorne Ave between Lennox Blvd and 111th St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hillcrest Blvd between Florence Ave and Manchester Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mrytle Ave between Hardy St and Century Blvd	57.3	61.2	3.9	**Yes**	57.8	58.0	0.2	No
Freeman Ave between Lennox Blvd and Imperial Hwy	61.7	62.2	0.5	No	62.3	62.8	0.5	No
Prairie Ave between Florence Ave and Grace Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Prairie Ave between Grace Ave and East Carondelet Way	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Prairie Ave between East Carondelet Way and E Regent St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Prairie Ave between E Regent St and Manchester Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Prairie Ave between Manchester Blvd and Kelso St/Pincay Dr	69.4	70.1	0.7	No	69.4	69.9	0.5	No
Prairie Ave between Kelso St/Pincay Dr and Buckthorn St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Prairie Ave between Buckthorn St and Arbor Vitae St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

TABLE 3.11-31
CUMULATIVE PLUS PROJECT NON-EVENT DAY

Segment	Weekday AM Peak Period				Weekday PM Peak Period			
	Adjusted Baseline (dBA Leq)	Cumulative Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?	Adjusted Baseline (dBA Leq)	Cumulative Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Prairie Ave between Arbor Vitae St and Hardy St	69.0	70.0	1.0	No	69.5	70.1	0.6	No
Prairie Ave between Hardy St and 97th St	69.2	70.3	1.0	No	69.8	70.4	0.7	No
Prairie Ave between 97th St and Century Blvd	69.3	70.2	0.9	No	69.8	70.3	0.5	No
Prairie Ave between 102nd St and 104th St	69.1	70.3	1.1	No	69.6	70.4	0.8	No
Prairie Ave between 104th St and Lennox Blvd	69.7	70.6	1.0	No	70.1	70.8	0.7	No
Prairie Ave between 108th St and 111 St	69.7	70.6	0.9	No	70.3	71.0	0.7	No
Prairie Ave between 111 St and 112th St/105 off ramp	70.0	70.9	0.9	No	70.4	71.1	0.7	No
Prairie Ave between 112th St/105 off ramp and Imperial Hwy	69.6	70.3	0.7	No	69.9	70.6	0.7	No
Prairie Ave between Imperial Hwy and 118th St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Prairie Ave between 118th St and 120th St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Yukon Ave between 102nd St and 104th St	62.1	62.3	0.2	No	63.1	63.2	0.1	No
Yukon Ave between 104th St and 108th St	61.8	62.2	0.4	No	61.8	62.0	0.3	No
Yukon Ave between 108th St and 111th St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Yukon Ave between 111th St and Imperial Hwy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crenshaw Blvd between Florence Ave and Manchester Blvd (W)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crenshaw Blvd between Florence Ave and Manchester Blvd (E)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crenshaw Blvd between Manchester Blvd and Pincay Dr	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crenshaw Blvd between Pincay Dr and Hardy St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crenshaw Blvd between Hardy St and Century Blvd	69.3	70.3	0.9	No	69.6	70.3	0.7	No
Crenshaw Blvd between Century Blvd and 104th St	69.8	71.0	1.2	No	70.1	70.9	0.8	No
Crenshaw Blvd between 104th St and 109th St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crenshaw Blvd between 109th St and Imperial Hwy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crenshaw Blvd between Imperial Hwy and 105 off ramp/118th Pl	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Van Ness Ave between Manchester Blvd and Hardy St/96th St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Van Ness Ave between Hardy St/96th St and Century Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Van Ness Ave between Century Blvd and 104th St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Western Ave between Manchester Blvd and Century Blvd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vermont Ave between Manchester Blvd and Century Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hoover St between Manchester Blvd and Century Ave	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

NOTES:
N/A – Traffic along these segments are most affected by event-related traffic and not by daily AM or PM peak hour traffic. Therefore, traffic volumes for these segments were not simulated under the weekday AM or PM peak hours.

SOURCE: ESA, 2019 (Appendix J)

TABLE 3.11-32
CUMULATIVE PLUS PROJECT DAY-TIME CORPORATE/COMMUNITY EVENT

Segment	Weekday AM Peak Period			
	Adjusted Baseline (dBA Leq)	Cumulative Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Centinela between La Cienega Blvd and La Brea Ave	N/A	N/A	N/A	N/A
Centinela between La Brea Ave and Florence Ave	N/A	N/A	N/A	N/A
Florence Ave between La Brea Ave and Hillcrest Blvd	N/A	N/A	N/A	N/A
Florence Ave between Hillcrest Blvd and Centinela Ave	N/A	N/A	N/A	N/A
Florence Ave between Centinela Ave and Prairie Ave	N/A	N/A	N/A	N/A
Florence Ave between Prairie Ave and West Blvd	N/A	N/A	N/A	N/A
Manchester Blvd between Ash Ave/405 NB Off-Ramp and La Brea Ave	N/A	N/A	N/A	N/A
Manchester Blvd between La Brea Ave and Hillcrest Blvd	N/A	N/A	N/A	N/A
Manchester Blvd between Hillcrest Blvd and Spruce Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Spruce Ave and Prairie Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Kareem Ct and Crenshaw Dr	N/A	N/A	N/A	N/A
Manchester Blvd between Crenshaw Dr and Crenshaw Blvd	N/A	N/A	N/A	N/A
Manchester Blvd between Crenshaw Blvd and Van Ness Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Van Ness Ave and Western Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Western Ave and Normandie Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Normandie Ave and Vermont Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Vermont Ave and Hoover St	N/A	N/A	N/A	N/A
Manchester Blvd between Hoover St and Figueroa St	N/A	N/A	N/A	N/A
Pincay Dr between Prairie Ave and Kareem Ct	N/A	N/A	N/A	N/A
Pincay Dr between Kareem Ct and Crenshaw Blvd	N/A	N/A	N/A	N/A
Arbor Vitae St between La Cienega Blvd and Inglewood Ave	N/A	N/A	N/A	N/A
Arbor Vitae St between Inglewood Ave and La Brea Ave	N/A	N/A	N/A	N/A
Arbor Vitae St between La Brea Ave and Myrtle Ave	N/A	N/A	N/A	N/A
Arbor Vitae St between Myrtle Ave and Prairie Ave	N/A	N/A	N/A	N/A
Hardy St between La Brea Ave and Myrtle Ave	N/A	N/A	N/A	N/A
Hardy St between Myrtle Ave and Prairie Ave	59.7	61.0	1.3	No
Century Blvd between Concourse Way and La Cienega Blvd	N/A	N/A	N/A	N/A
Century Blvd between 405 on/off Ramp and Felton Ave	70.8	72.8	2.0	No
Century Blvd between Felton Ave and Inglewood Ave	70.7	72.7	2.0	No

TABLE 3.11-32
CUMULATIVE PLUS PROJECT DAY-TIME CORPORATE/COMMUNITY EVENT

Segment	Weekday AM Peak Period			
	Adjusted Baseline (dBA Leq)	Cumulative Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Century Blvd between Inglewood Ave and Fir Ave/Firmona Ave	71.2	73.0	1.8	No
Century Blvd between Fir Ave/Firmona Ave and Grevillea Ave	71.0	72.9	1.9	No
Century Blvd between Hawthorne Blvd/La Brea Blvd and Myrtle Ave	70.1	72.3	2.1	No
Century Blvd between Myrtle Ave and Freeman Ave	70.1	72.7	2.5	No
Century Blvd between Freeman Ave and Prairie Ave	69.9	72.5	2.7	No
Century Blvd between Prairie Ave and Doty Ave	69.6	72.0	2.4	No
Century Blvd between 11th Ave/Village Ave and Crenshaw Blvd	69.5	72.1	2.7	No
Century Blvd between Crenshaw Blvd and 5th Ave	68.3	70.8	2.5	No
Century Blvd between 5th Ave and Van Ness Ave	68.4	70.8	2.5	No
Century Blvd between Van Ness Ave and Gramercy Pl	N/A	N/A	N/A	N/A
Century Blvd between Gramercy Pl and Western Ave	N/A	N/A	N/A	N/A
Century Blvd between Western Ave and Normandie Ave	N/A	N/A	N/A	N/A
Century Blvd between Normandie Ave and Vermont Ave	N/A	N/A	N/A	N/A
Century Blvd between Vermont Ave and Hoover St	N/A	N/A	N/A	N/A
Century Blvd between Hoover St and Figueroa St	N/A	N/A	N/A	N/A
Century Blvd between Figueroa St and Grand Ave/110 SB off ramp	N/A	N/A	N/A	N/A
104th St between Inglewood Ave and Hawthorne Blvd	N/A	N/A	N/A	N/A
104th St between Hawthorne Blvd and Prairie Ave	55.9	56.5	0.6	No
104th St between Prairie Ave and Doty Ave	57.4	58.8	1.4	No
104th St between Doty Ave and Yukon Ave	57.7	59.0	1.3	No
104th St between Yukon Ave and Crenshaw Blvd	61.0	61.7	0.7	No
Lennox Blvd between La Cienega Blvd and Inglewood Ave	N/A	N/A	N/A	N/A
Lennox Blvd between Inglewood Ave and Hawthorne Blvd	N/A	N/A	N/A	N/A
Lennox Blvd between Hawthorne Blvd and Freeman Ave	N/A	N/A	N/A	N/A
Lennox Blvd between Freeman Ave and Prairie Ave	62.1	62.8	0.7	No
Imperial Hwy between Prairie Ave and Doty Ave	N/A	N/A	N/A	N/A
Imperial Hwy between Doty Ave and Yukon Ave	N/A	N/A	N/A	N/A
Imperial Hwy between Yukon Ave and Crenshaw Blvd	N/A	N/A	N/A	N/A
120th St between Prairie Ave and 105 on/off ramp	N/A	N/A	N/A	N/A

TABLE 3.11-32
CUMULATIVE PLUS PROJECT DAY-TIME CORPORATE/COMMUNITY EVENT

Segment	Weekday AM Peak Period			
	Adjusted Baseline (dBA Leq)	Cumulative Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
La Cienega Blvd between Stocker St and La Tijera Blvd	N/A	N/A	N/A	N/A
La Cienega Blvd between La Tijera Blvd and Centinela Ave	N/A	N/A	N/A	N/A
La Cienega Blvd between Centinela Ave and Florence Ave	N/A	N/A	N/A	N/A
La Cienega Blvd between Arbor Vitae St and 405 on/off rams (n/o Century)	N/A	N/A	N/A	N/A
La Cienega Blvd between 405 on/off rams (n/o Century) and Century Blvd	70.7	71.8	1.1	No
La Cienega Blvd between 405 on/off ramps (s/o Century) and 104th St	N/A	N/A	N/A	N/A
Inglewood Ave between Century Blvd and 104th St	N/A	N/A	N/A	N/A
Inglewood Ave between 104th St and Lennox Blvd	N/A	N/A	N/A	N/A
La Brea Ave between Stocker St and Slauson Ave	N/A	N/A	N/A	N/A
La Brea Ave between Slauson Ave and Centinela Ave	N/A	N/A	N/A	N/A
La Brea Ave between Centinela Ave and Florence Ave	N/A	N/A	N/A	N/A
La Brea Ave between Florence Ave and Manchester Blvd	N/A	N/A	N/A	N/A
La Brea Ave between Manchester Blvd and Hillcrest Blvd	N/A	N/A	N/A	N/A
La Brea Ave between La Brea Ave and Arbor Vitae St	N/A	N/A	N/A	N/A
Hawthorne Ave between 104th St and Lennox Blvd	N/A	N/A	N/A	N/A
Hawthorne Ave between Lennox Blvd and 111th St	N/A	N/A	N/A	N/A
Hillcrest Blvd between Florence Ave and Manchester Blvd	N/A	N/A	N/A	N/A
Mrytle Ave between Hardy St and Century Blvd	57.3	61.2	3.9	**Yes**
Freeman Ave between Lennox Blvd and Imperial Hwy	61.7	62.2	0.5	No
Prairie Ave between Florence Ave and Grace Ave	N/A	N/A	N/A	N/A
Prairie Ave between Grace Ave and East Carondelet Way	N/A	N/A	N/A	N/A
Prairie Ave between East Carondelet Way and E Regent St	N/A	N/A	N/A	N/A
Prairie Ave between E Regent St and Manchester Blvd	N/A	N/A	N/A	N/A
Prairie Ave between Manchester Blvd and Kelso St/Pincay Dr	69.4	70.4	0.9	No
Prairie Ave between Kelso St/Pincay Dr and Buckthorn St	N/A	N/A	N/A	N/A
Prairie Ave between Buckthorn St and Arbor Vitae St	N/A	N/A	N/A	N/A
Prairie Ave between Arbor Vitae St and Hardy St	69.0	70.2	1.2	No
Prairie Ave between Hardy St and 97th St	69.2	70.5	1.2	No

TABLE 3.11-32
CUMULATIVE PLUS PROJECT DAY-TIME CORPORATE/COMMUNITY EVENT

Segment	Weekday AM Peak Period			
	Adjusted Baseline (dBA Leq)	Cumulative Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Prairie Ave between 97th St and Century Blvd	69.3	70.4	1.1	No
Prairie Ave between 102nd St and 104th St	69.1	70.8	1.7	No
Prairie Ave between 104th St and Lennox Blvd	69.7	71.0	1.3	No
Prairie Ave between 108th St and 111 St	69.7	70.7	1.0	No
Prairie Ave between 111 St and 112th St/105 off ramp	70.0	71.0	1.0	No
Prairie Ave between 112th St/105 off ramp and Imperial Hwy	69.6	70.3	0.7	No
Prairie Ave between Imperial Hwy and 118th St	N/A	N/A	N/A	N/A
Prairie Ave between 118th St and 120th St	N/A	N/A	N/A	N/A
Yukon Ave between 102nd St and 104th St	62.1	62.3	0.2	No
Yukon Ave between 104th St and 108th St	61.8	62.2	0.4	No
Yukon Ave between 108th St and 111th St	N/A	N/A	N/A	N/A
Yukon Ave between 111th St and Imperial Hwy	N/A	N/A	N/A	N/A
Crenshaw Blvd between Florence Ave and Manchester Blvd (W)	N/A	N/A	N/A	N/A
Crenshaw Blvd between Florence Ave and Manchester Blvd (E)	N/A	N/A	N/A	N/A
Crenshaw Blvd between Manchester Blvd and Pincay Dr	N/A	N/A	N/A	N/A
Crenshaw Blvd between Pincay Dr and Hardy St	N/A	N/A	N/A	N/A
Crenshaw Blvd between Hardy St and Century Blvd	69.3	70.3	1.0	No
Crenshaw Blvd between Century Blvd and 104th St	69.8	71.2	1.4	No
Crenshaw Blvd between 104th St and 109th St	N/A	N/A	N/A	N/A
Crenshaw Blvd between 109th St and Imperial Hwy	N/A	N/A	N/A	N/A
Crenshaw Blvd between Imperial Hwy and 105 off ramp/118th Pl	N/A	N/A	N/A	N/A
Van Ness Ave between Manchester Blvd and Hardy St/96th St	N/A	N/A	N/A	N/A
Van Ness Ave between Hardy St/96th St and Century Blvd	N/A	N/A	N/A	N/A
Van Ness Ave between Century Blvd and 104th St	N/A	N/A	N/A	N/A
Western Ave between Manchester Blvd and Century Blvd	N/A	N/A	N/A	N/A
Vermont Ave between Manchester Blvd and Century Ave	N/A	N/A	N/A	N/A
Hoover St between Manchester Blvd and Century Ave	N/A	N/A	N/A	N/A

NOTES:
N/A – Traffic along these segments are most affected by event-related traffic and not by daily AM peak hour traffic. Therefore, traffic volumes for these segments were not simulated under the weekday AM peak hour.

SOURCE: ESA, 2019 (Appendix J)

Although cumulative increases in traffic noise would result in a significant impact along Myrtle Avenue between Hardy Street and Century Boulevard, Project-only traffic would result in an increase of 0.0 dBA Leq, which is an increase that would not be perceptible (less than 1 dBA) unless in controlled laboratory setting (see Table 3.11-19).[75] Because the contribution of the Proposed Project would be unmeasurable and imperceptible, the contribution is considered less than considerable, and would be **less than significant**.

Cumulative Plus Project Other Sporting Event or Gathering

Impacts during the weekday PM peak period under the Cumulative Plus Project Other Sporting Event or Gathering condition are shown in **Table 3.11-33**. Increases in traffic noise along studied roadways under Cumulative Plus Project (Other Sporting Event or Gathering) conditions would not exceed the 3 dBA Leq or greater increase significance threshold. Therefore, this cumulative impact would be **less than significant**.

TABLE 3.11-33
CUMULATIVE PLUS PROJECT OTHER SPORTING EVENT OR GATHERING

	Weekday PM Peak Period			
Segment	**Adjusted Baseline (dBA Leq)**	**Cumulative Plus Project (dBA Leq)**	**Increase over Adjusted Baseline (dBA Leq)**	**Exceeds Threshold?**
Centinela between La Cienega Blvd and La Brea Ave	N/A	N/A	N/A	N/A
Centinela between La Brea Ave and Florence Ave	N/A	N/A	N/A	N/A
Florence Ave between La Brea Ave and Hillcrest Blvd	N/A	N/A	N/A	N/A
Florence Ave between Hillcrest Blvd and Centinela Ave	N/A	N/A	N/A	N/A
Florence Ave between Centinela Ave and Prairie Ave	N/A	N/A	N/A	N/A
Florence Ave between Prairie Ave and West Blvd	N/A	N/A	N/A	N/A
Manchester Blvd between Ash Ave/405 NB Off-Ramp and La Brea Ave	N/A	N/A	N/A	N/A
Manchester Blvd between La Brea Ave and Hillcrest Blvd	N/A	N/A	N/A	N/A
Manchester Blvd between Hillcrest Blvd and Spruce Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Spruce Ave and Prairie Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Kareem Ct and Crenshaw Dr	N/A	N/A	N/A	N/A
Manchester Blvd between Crenshaw Dr and Crenshaw Blvd	N/A	N/A	N/A	N/A
Manchester Blvd between Crenshaw Blvd and Van Ness Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Van Ness Ave and Western Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Western Ave and Normandie Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Normandie Ave and Vermont Ave	N/A	N/A	N/A	N/A
Manchester Blvd between Vermont Ave and Hoover St	N/A	N/A	N/A	N/A
Manchester Blvd between Hoover St and Figueroa St	N/A	N/A	N/A	N/A
Pincay Dr between Prairie Ave and Kareem Ct	N/A	N/A	N/A	N/A

[75] California Department of Transportation, 2013. Technical Noise Supplement. September 2013. p. 6-5.

TABLE 3.11-33
CUMULATIVE PLUS PROJECT OTHER SPORTING EVENT OR GATHERING

Segment	Weekday PM Peak Period			
	Adjusted Baseline (dBA Leq)	Cumulative Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Pincay Dr between Kareem Ct and Crenshaw Blvd	N/A	N/A	N/A	N/A
Arbor Vitae St between La Cienega Blvd and Inglewood Ave	N/A	N/A	N/A	N/A
Arbor Vitae St between Inglewood Ave and La Brea Ave	N/A	N/A	N/A	N/A
Arbor Vitae St between La Brea Ave and Myrtle Ave	N/A	N/A	N/A	N/A
Arbor Vitae St between Myrtle Ave and Prairie Ave	N/A	N/A	N/A	N/A
Hardy St between La Brea Ave and Myrtle Ave	N/A	N/A	N/A	N/A
Hardy St between Myrtle Ave and Prairie Ave	59.7	60.4	0.7	No
Century Blvd between Concourse Way and La Cienega Blvd	N/A	N/A	N/A	N/A
Century Blvd between 405 on/off Ramp and Felton Ave	71.6	72.8	1.2	No
Century Blvd between Felton Ave and Inglewood Ave	71.4	72.7	1.2	No
Century Blvd between Inglewood Ave and Fir Ave/Firmona Ave	71.5	72.8	1.3	No
Century Blvd between Fir Ave/Firmona Ave and Grevillea Ave	71.5	72.8	1.3	No
Century Blvd between Hawthorne Blvd/La Brea Blvd and Myrtle Ave	70.9	73.1	2.2	No
Century Blvd between Myrtle Ave and Freeman Ave	70.9	73.2	2.2	No
Century Blvd between Freeman Ave and Prairie Ave	70.6	71.9	1.4	No
Century Blvd between Prairie Ave and Doty Ave	71.1	72.6	1.4	No
Century Blvd between 11th Ave/Village Ave and Crenshaw Blvd	71.5	72.8	1.3	No
Century Blvd between Crenshaw Blvd and 5th Ave	69.8	71.3	1.5	No
Century Blvd between 5th Ave and Van Ness Ave	69.0	70.7	1.7	No
Century Blvd between Van Ness Ave and Gramercy Pl	N/A	N/A	N/A	N/A
Century Blvd between Gramercy Pl and Western Ave	N/A	N/A	N/A	N/A
Century Blvd between Western Ave and Normandie Ave	N/A	N/A	N/A	N/A
Century Blvd between Normandie Ave and Vermont Ave	N/A	N/A	N/A	N/A
Century Blvd between Vermont Ave and Hoover St	N/A	N/A	N/A	N/A
Century Blvd between Hoover St and Figueroa St	N/A	N/A	N/A	N/A
Century Blvd between Figueroa St and Grand Ave/110 SB off ramp	N/A	N/A	N/A	N/A
104th St between Inglewood Ave and Hawthorne Blvd	N/A	N/A	N/A	N/A
104th St between Hawthorne Blvd and Prairie Ave	57.8	58.3	0.5	No
104th St between Prairie Ave and Doty Ave	58.6	60.5	1.9	No
104th St between Doty Ave and Yukon Ave	58.5	60.5	2.0	No
104th St between Yukon Ave and Crenshaw Blvd	60.5	62.1	1.6	No
Lennox Blvd between La Cienega Blvd and Inglewood Ave	N/A	N/A	N/A	N/A
Lennox Blvd between Inglewood Ave and Hawthorne Blvd	N/A	N/A	N/A	N/A

TABLE 3.11-33
CUMULATIVE PLUS PROJECT OTHER SPORTING EVENT OR GATHERING

Segment	Weekday PM Peak Period			
	Adjusted Baseline (dBA Leq)	Cumulative Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Lennox Blvd between Hawthorne Blvd and Freeman Ave	N/A	N/A	N/A	N/A
Lennox Blvd between Freeman Ave and Prairie Ave	62.5	63.2	0.7	No
Imperial Hwy between Prairie Ave and Doty Ave	N/A	N/A	N/A	N/A
Imperial Hwy between Doty Ave and Yukon Ave	N/A	N/A	N/A	N/A
Imperial Hwy between Yukon Ave and Crenshaw Blvd	N/A	N/A	N/A	N/A
120th St between Prairie Ave and 105 on/off ramp	N/A	N/A	N/A	N/A
La Cienega Blvd between Stocker St and La Tijera Blvd	N/A	N/A	N/A	N/A
La Cienega Blvd between La Tijera Blvd and Centinela Ave	N/A	N/A	N/A	N/A
La Cienega Blvd between Centinela Ave and Florence Ave	N/A	N/A	N/A	N/A
La Cienega Blvd between Arbor Vitae St and 405 on/off rams (n/o Century)	N/A	N/A	N/A	N/A
La Cienega Blvd between 405 on/off rams (n/o Century) and Century Blvd	69.4	71.2	1.8	No
La Cienega Blvd between 405 on/off ramps (s/o Century) and 104th St	N/A	N/A	N/A	N/A
Inglewood Ave between Century Blvd and 104th St	N/A	N/A	N/A	N/A
Inglewood Ave between 104th St and Lennox Blvd	N/A	N/A	N/A	N/A
La Brea Ave between Stocker St and Slauson Ave	N/A	N/A	N/A	N/A
La Brea Ave between Slauson Ave and Centinela Ave	N/A	N/A	N/A	N/A
La Brea Ave between Centinela Ave and Florence Ave	N/A	N/A	N/A	N/A
La Brea Ave between Florence Ave and Manchester Blvd	N/A	N/A	N/A	N/A
La Brea Ave between Manchester Blvd and Hillcrest Blvd	N/A	N/A	N/A	N/A
La Brea Ave between La Brea Ave and Arbor Vitae St	N/A	N/A	N/A	N/A
Hawthorne Ave between 104th St and Lennox Blvd	N/A	N/A	N/A	N/A
Hawthorne Ave between Lennox Blvd and 111th St	N/A	N/A	N/A	N/A
Hillcrest Blvd between Florence Ave and Manchester Blvd	N/A	N/A	N/A	N/A
Mrytle Ave between Hardy St and Century Blvd	57.8	58.4	0.5	No
Freeman Ave between Lennox Blvd and Imperial Hwy	62.3	64.3	1.9	No
Prairie Ave between Florence Ave and Grace Ave	N/A	N/A	N/A	N/A
Prairie Ave between Grace Ave and East Carondelet Way	N/A	N/A	N/A	N/A
Prairie Ave between East Carondelet Way and E Regent St	N/A	N/A	N/A	N/A
Prairie Ave between E Regent St and Manchester Blvd	N/A	N/A	N/A	N/A
Prairie Ave between Manchester Blvd and Kelso St/Pincay Dr	69.4	70.0	0.6	No
Prairie Ave between Kelso St/Pincay Dr and Buckthorn St	N/A	N/A	N/A	N/A
Prairie Ave between Buckthorn St and Arbor Vitae St	N/A	N/A	N/A	N/A

TABLE 3.11-33
CUMULATIVE PLUS PROJECT OTHER SPORTING EVENT OR GATHERING

Segment	Weekday PM Peak Period			
	Adjusted Baseline (dBA Leq)	Cumulative Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Prairie Ave between Arbor Vitae St and Hardy St	69.5	70.3	0.8	No
Prairie Ave between Hardy St and 97th St	69.8	70.6	0.8	No
Prairie Ave between 97th St and Century Blvd	69.8	70.4	0.6	No
Prairie Ave between 102nd St and 104th St	69.6	72.0	2.4	No
Prairie Ave between 104th St and Lennox Blvd	70.1	72.0	2.0	No
Prairie Ave between 108th St and 111 St	70.3	72.0	1.6	No
Prairie Ave between 111 St and 112th St/105 off ramp	70.4	72.0	1.6	No
Prairie Ave between 112th St/105 off ramp and Imperial Hwy	69.9	71.6	1.6	No
Prairie Ave between Imperial Hwy and 118th St	N/A	N/A		
Prairie Ave between 118th St and 120th St	N/A	N/A		
Yukon Ave between 102nd St and 104th St	63.1	64.2	1.1	No
Yukon Ave between 104th St and 108th St	61.8	62.6	0.8	No
Yukon Ave between 108th St and 111th St	N/A	N/A	N/A	N/A
Yukon Ave between 111th St and Imperial Hwy	N/A	N/A	N/A	N/A
Crenshaw Blvd between Florence Ave and Manchester Blvd (W)	N/A	N/A	N/A	N/A
Crenshaw Blvd between Florence Ave and Manchester Blvd (E)	N/A	N/A	N/A	N/A
Crenshaw Blvd between Manchester Blvd and Pincay Dr	N/A	N/A	N/A	N/A
Crenshaw Blvd between Pincay Dr and Hardy St	N/A	N/A	N/A	N/A
Crenshaw Blvd between Hardy St and Century Blvd	69.6	70.6	1.0	No
Crenshaw Blvd between Century Blvd and 104th St	70.1	71.3	1.2	No
Crenshaw Blvd between 104th St and 109th St	N/A	N/A	N/A	N/A
Crenshaw Blvd between 109th St and Imperial Hwy	N/A	N/A	N/A	N/A
Crenshaw Blvd between Imperial Hwy and 105 off ramp/118th Pl	N/A	N/A	N/A	N/A
Van Ness Ave between Manchester Blvd and Hardy St/96th St	N/A	N/A	N/A	N/A
Van Ness Ave between Hardy St/96th St and Century Blvd	N/A	N/A	N/A	N/A
Van Ness Ave between Century Blvd and 104th St	N/A	N/A	N/A	N/A
Western Ave between Manchester Blvd and Century Blvd	N/A	N/A	N/A	N/A
Vermont Ave between Manchester Blvd and Century Ave	N/A	N/A	N/A	N/A
Hoover St between Manchester Blvd and Century Ave	N/A	N/A	N/A	N/A

NOTES:
N/A – Traffic along these segments are most affected by event-related traffic and not by daily PM peak hour traffic. Therefore, traffic volumes for these segments were not simulated under the weekday PM peak hour.

SOURCE: ESA, 2019 (Appendix J)

Cumulative Plus Project Major Event

Impacts under the Cumulative Plus Project (Major Event) condition are shown in **Table 3.11-34**. As indicated, during the weekday Pre Event Peak Period the increase in traffic noise along studied roadway segments would range from 0.1 dBA Leq up to 3.1 dBA Leq. During the weekday Pre Event Peak Period the increase in traffic noise along one roadway segment, Manchester Boulevard between Ash Avenue and La Brea Avenue, would exceed the 3 dBA Leq increase significance threshold. Therefore, traffic noise under the Cumulative Plus Project Major Event Weekday Pre Event condition would be **potentially significant**.

As is shown in Table 3.11-21, Project-only traffic on Manchester Boulevard between Ash Avenue and La Brea Avenue would result in an increase of 1.2 dBA Leq, which would be an increase that would be perceptible under a controlled laboratory setting.[76] Because the Proposed Project would contribute a perceptible cumulative increase in traffic noise during the Pre Event Peak Period of a Major Event along Manchester Boulevard between Ash Avenue and La Brea Avenue (see Table 3.11-21 and **Figure 3.11-20)**, the contribution of the Proposed Project would be considerable and **potentially significant.**

During the Cumulative Plus Project Major Event Weekday Post Event Peak Period condition, the increase in traffic noise along studied roadway segments would range from 0.1 dBA Leq up to 4.9 dBA Leq. Under this condition, 28 roadway segments would experience increases in traffic noise of 3.0 dBA Leq or greater and the cumulative impact would be **potentially significant**. Of those 28 roadway segments where potentially significant cumulative impacts could occur, the Proposed Project's contribution would result in increases greater than 1 dBA Leq, which is an increase that would be perceptible in a controlled laboratory setting, along 27 segments (all segments except for La Cienega between 405 on/off ramps and 104th Street) (see Table 3.11-21 and **Figure 3.11-21)**.[77] Therefore, the project's contribution would be cumulatively considerable and the cumulative impact is **potentially significant**.

During the Cumulative Plus Project Major Event Weekend Pre Event Peak Period, the cumulative increase in traffic noise along studied roadway segments would range from 0.1 dBA Leq up to 3.6 dBA Leq. Under this condition, four roadway segments would experience increases in traffic noise of 3.0 dBA Leq or greater and the cumulative impact would be **potentially significant**. Of those four roadway segments, the Proposed Project would not result in increases of greater than 1 dBA Leq, which is an increase that would be perceptible in a controlled laboratory setting, along any segments (see Table 3.11-21).[78] Therefore, the project's contribution is less than cumulatively considerable and the cumulative impact is **less than significant**.

[76] California Department of Transportation, 2013. Technical Noise Supplement. September 2013. p. 6-5
[77] California Department of Transportation, 2013. Technical Noise Supplement. September 2013. p. 6-5
[78] California Department of Transportation, 2013. Technical Noise Supplement. September 2013. p. 6-5

Table 3.11-34
Cumulative Plus Project Major Event

	Weekday Pre Event Peak Period				Weekday Post Event Peak Period				Weekend Pre Event				Weekend Post Event			
Segment	**Adjusted Baseline (dBA Leq)**	**Adjusted Baseline Plus Project (dBA Leq)**	**Increase over Adjusted Baseline (dBA Leq)**	**Exceeds Threshold?**	**Adjusted Baseline (dBA Leq)**	**Adjusted Baseline Plus Project (dBA Leq)**	**Increase over Adjusted Baseline (dBA Leq)**	**Exceeds Threshold?**	**Adjusted Baseline (dBA Leq)**	**Adjusted Baseline Plus Project (dBA Leq)**	**Increase over Adjusted Baseline (dBA Leq)**	**Exceeds Threshold?**	**Adjusted Baseline (dBA Leq)**	**Adjusted Baseline Plus Project (dBA Leq)**	**Increase over Adjusted Baseline (dBA Leq)**	**Exceeds Threshold?**
Centinela between La Cienega Blvd and La Brea Ave	69.6	69.9	0.2	No	67.3	67.8	0.4	No	69.5	69.7	0.2	No	66.4	66.9	0.5	No
Centinela between La Brea Ave and Florence Ave	69.5	70.0	0.5	No	66.8	67.4	0.6	No	68.6	69.4	0.8	No	65.9	66.5	0.6	No
Florence Ave between La Brea Ave and Hillcrest Blvd	68.2	69.2	1.1	No	65.8	66.6	0.8	No	67.0	68.7	1.7	No	64.8	65.7	0.9	No
Florence Ave between Hillcrest Blvd and Centinela Ave	68.9	69.9	1.0	No	66.6	67.3	0.7	No	67.9	69.4	1.5	No	65.7	66.4	0.7	No
Florence Ave between Centinela Ave and Prairie Ave	70.9	71.7	0.8	No	68.7	69.4	0.7	No	70.5	71.4	1.0	No	67.7	68.5	0.7	No
Florence Ave between Prairie Ave and West Blvd	71.0	71.8	0.9	No	68.6	69.6	1.0	No	70.3	71.4	1.1	No	67.6	68.8	1.1	No
Manchester Blvd between Ash Ave/405 NB Off-Ramp and La Brea Ave	66.5	69.5	3.1	**Yes**	64.0	67.9	3.9	**Yes**	66.2	69.4	3.2	**Yes**	63.0	67.4	4.4	**Yes**
Manchester Blvd between La Brea Ave and Hillcrest Blvd	69.7	71.2	1.5	No	67.0	69.2	2.2	No	68.9	70.7	1.8	No	66.1	68.6	2.5	No
Manchester Blvd between Hillcrest Blvd and Spruce Ave	69.8	71.3	1.5	No	67.0	69.3	2.3	No	69.0	70.8	1.8	No	66.1	68.7	2.6	No
Manchester Blvd between Spruce Ave and Prairie Ave	69.9	71.4	1.5	No	67.1	69.4	2.3	No	69.1	70.8	1.8	No	66.2	68.7	2.5	No
Manchester Blvd between Kareem Ct and Crenshaw Dr	71.0	72.1	1.1	No	68.1	69.5	1.4	No	70.0	71.4	1.4	No	67.1	68.8	1.6	No
Manchester Blvd between Crenshaw Dr and Crenshaw Blvd	69.9	71.5	1.6	No	67.6	69.3	1.7	No	69.2	71.0	1.9	No	66.7	68.6	1.9	No
Manchester Blvd between Crenshaw Blvd and Van Ness Ave	71.0	73.0	2.0	No	68.3	70.7	2.4	No	70.1	72.5	2.3	No	67.3	70.0	2.7	No
Manchester Blvd between Van Ness Ave and Western Ave	70.9	73.0	2.1	No	68.3	70.8	2.4	No	70.4	72.7	2.3	No	67.4	70.1	2.7	No
Manchester Blvd between Western Ave and Normandie Ave	71.0	72.8	1.8	No	68.6	70.8	2.2	No	70.6	72.6	2.0	No	67.7	70.2	2.5	No
Manchester Blvd between Normandie Ave and Vermont Ave	71.2	72.7	1.5	No	68.8	70.8	2.0	No	70.6	72.3	1.7	No	67.9	70.2	2.3	No
Manchester Blvd between Vermont Ave and Hoover St	71.3	72.8	1.4	No	69.8	71.4	1.7	No	70.8	72.4	1.5	No	68.8	70.7	1.9	No
Manchester Blvd between Hoover St and Figueroa St	71.6	72.9	1.4	No	70.0	71.6	1.6	No	70.8	72.3	1.6	No	69.1	70.9	1.8	No
Pincay Dr between Prairie Ave and Kareem Ct	68.7	69.5	0.8	No	64.3	64.7	0.4	No	67.0	67.6	0.6	No	63.4	63.9	0.5	No
Pincay Dr between Kareem Ct and Crenshaw Blvd	69.4	70.9	1.5	No	64.7	65.5	0.8	No	68.1	69.9	1.8	No	63.7	64.5	0.8	No
Arbor Vitae St between La Cienega Blvd and Inglewood Ave	65.9	67.0	1.1	No	63.4	65.1	1.7	No	65.5	66.5	1.0	No	62.4	64.4	2.0	No
Arbor Vitae St between Inglewood Ave and La Brea Ave	65.7	66.5	0.7	No	63.4	64.8	1.4	No	65.2	66.0	0.8	No	62.5	64.1	1.7	No
Arbor Vitae St between La Brea Ave and Myrtle Ave	64.3	66.3	1.9	No	61.6	64.9	3.3	**Yes**	63.8	65.8	2.0	No	60.6	64.4	3.8	**Yes**
Arbor Vitae St between Myrtle Ave and Prairie Ave	63.6	65.8	2.2	No	60.8	64.5	3.7	**Yes**	62.9	65.3	2.3	No	59.9	64.1	4.3	**Yes**
Hardy St between La Brea Ave and Myrtle Ave	60.3	61.1	0.8	No	57.1	59.0	1.9	No	59.6	60.3	0.8	No	56.2	58.2	2.1	No
Hardy St between Myrtle Ave and Prairie Ave	59.8	60.6	0.9	No	55.6	57.1	1.5	No	58.8	59.6	0.8	No	54.6	56.3	1.7	No
Century Blvd between Concourse Way and La Cienega Blvd	70.4	71.8	1.4	No	70.9	72.0	1.1	No	70.5	71.9	1.4	No	70.0	71.1	1.1	No
Century Blvd between 405 on/off Ramp and Felton Ave	70.5	72.7	2.1	No	68.5	71.7	3.2	**Yes**	70.3	72.5	2.2	No	67.6	71.1	3.6	**Yes**
Century Blvd between Felton Ave and Inglewood Ave	70.3	72.5	2.2	No	68.4	71.6	3.2	**Yes**	70.1	72.4	2.3	No	67.5	71.1	3.5	**Yes**
Century Blvd between Inglewood Ave and Fir Ave/Firmona Ave	70.5	72.6	2.1	No	68.2	71.7	3.5	**Yes**	70.1	72.4	2.3	No	67.3	71.2	3.9	**Yes**

Preliminary – Subject to Revision

Century Blvd between Fir Ave/Firmona Ave and Grevillea Ave	70.6	72.7	2.1	No	68.1	71.6	3.5	**Yes**	70.1	72.4	2.3	No	67.2	71.1	3.9	**Yes**
Century Blvd between Hawthorne Blvd/La Brea Blvd and Myrtle Ave	70.6	73.1	2.6	No	67.6	72.4	4.8	**Yes**	69.9	72.7	2.8	No	66.7	72.1	5.4	**Yes**
Century Blvd between Myrtle Ave and Freeman Ave	70.6	73.1	2.6	No	67.6	72.5	4.9	**Yes**	69.8	72.7	2.9	No	66.7	72.1	5.4	**Yes**
Century Blvd between Freeman Ave and Prairie Ave	70.3	73.0	2.6	No	67.3	71.2	3.9	**Yes**	69.6	72.5	2.9	No	66.3	70.7	4.3	**Yes**
Century Blvd between Prairie Ave and Doty Ave	70.8	72.8	2.0	No	68.2	71.7	3.6	**Yes**	70.6	72.7	2.1	No	67.2	71.2	4.0	**Yes**
Century Blvd between 11th Ave/Village Ave and Crenshaw Blvd	71.3	73.3	2.0	No	68.4	71.6	3.2	**Yes**	71.5	73.4	1.9	No	67.5	71.1	3.6	**Yes**
Century Blvd between Crenshaw Blvd and 5th Ave	69.3	71.6	2.3	No	66.5	70.4	4.0	**Yes**	69.3	71.6	2.3	No	65.5	69.9	4.4	**Yes**
Century Blvd between 5th Ave and Van Ness Ave	69.3	71.6	2.2	No	66.5	70.4	4.0	**Yes**	69.4	71.6	2.2	No	65.5	69.9	4.4	**Yes**
Century Blvd between Van Ness Ave and Gramercy Pl	69.7	71.9	2.1	No	66.8	70.3	3.5	**Yes**	69.6	71.8	2.2	No	65.9	69.8	3.9	**Yes**
Century Blvd between Gramercy Pl and Western Ave	69.8	71.9	2.1	No	66.8	70.3	3.5	**Yes**	69.6	71.8	2.2	No	65.9	69.8	3.9	**Yes**
Century Blvd between Western Ave and Normandie Ave	70.1	72.1	2.0	No	67.1	70.3	3.2	**Yes**	69.8	71.9	2.1	No	66.1	69.7	3.6	**Yes**
Century Blvd between Normandie Ave and Vermont Ave	70.5	72.4	1.9	No	67.6	70.6	3.0	**Yes**	70.2	72.3	2.1	No	66.6	70.0	3.4	**Yes**
Century Blvd between Vermont Ave and Hoover St	70.9	72.5	1.6	No	67.9	70.6	2.7	No	70.4	72.3	1.9	No	67.0	70.0	3.0	No
Century Blvd between Hoover St and Figueroa St	70.9	72.4	1.5	No	68.0	70.4	2.4	No	70.5	72.3	1.8	No	67.1	69.7	2.7	No
Century Blvd between Figueroa St and Grand Ave/110 SB off ramp	71.1	72.4	1.3	No	68.2	70.4	2.2	No	70.5	72.1	1.6	No	67.3	69.8	2.5	No
104th St between Inglewood Ave and Hawthorne Blvd	58.2	59.1	1.0	No	54.0	55.2	1.2	No	57.0	58.3	1.2	No	53.0	54.5	1.5	No
104th St between Hawthorne Blvd and Prairie Ave	57.4	59.4	2.0	No	54.2	57.6	3.4	**Yes**	56.7	58.6	1.9	No	53.2	57.2	3.9	**Yes**
104th St between Prairie Ave and Doty Ave	59.1	60.8	1.8	No	55.5	59.0	3.5	**Yes**	58.0	60.0	2.0	No	54.6	58.6	4.0	**Yes**
104th St between Doty Ave and Yukon Ave	58.5	60.7	2.2	No	55.0	59.0	4.0	**Yes**	57.8	60.2	2.4	No	54.0	58.7	4.6	**Yes**
104th St between Yukon Ave and Crenshaw Blvd	60.3	62.1	1.8	No	56.4	60.2	3.7	**Yes**	59.5	61.5	2.1	No	55.5	59.8	4.3	**Yes**
Lennox Blvd between La Cienega Blvd and Inglewood Ave	61.4	61.8	0.4	No	58.0	59.4	1.4	No	59.4	60.0	0.5	No	57.0	58.6	1.6	No
Lennox Blvd between Inglewood Ave and Hawthorne Blvd	63.6	63.9	0.3	No	60.9	61.8	0.8	No	62.6	62.9	0.3	No	60.0	60.9	0.9	No
Lennox Blvd between Hawthorne Blvd and Freeman Ave	62.6	63.2	0.6	No	59.3	60.8	1.5	No	61.8	62.5	0.7	No	58.3	60.1	1.8	No
Lennox Blvd between Freeman Ave and Prairie Ave	61.5	62.3	0.7	No	58.7	60.4	1.7	No	60.7	61.5	0.8	No	57.8	59.8	2.0	No
Imperial Hwy between Prairie Ave and Doty Ave	68.5	69.2	0.7	No	65.0	66.3	1.3	No	67.7	68.7	0.9	No	64.0	65.5	1.5	No
Imperial Hwy between Doty Ave and Yukon Ave	68.3	69.1	0.8	No	64.4	65.8	1.5	No	67.4	68.4	1.0	No	63.4	65.1	1.6	No
Imperial Hwy between Yukon Ave and Crenshaw Blvd	68.3	69.2	0.9	No	64.2	66.2	2.0	No	67.3	68.4	1.1	No	63.2	65.5	2.3	No
120th St between Prairie Ave and 105 on/off ramp	68.9	69.6	0.7	No	65.4	66.4	0.9	No	67.6	68.6	1.0	No	64.5	65.5	1.0	No
La Cienega Blvd between Stocker St and La Tijera Blvd	73.9	74.2	0.3	No	71.1	71.5	0.4	No	73.6	73.9	0.4	No	70.2	70.6	0.4	No
La Cienega Blvd between La Tijera Blvd and Centinela Ave	71.9	72.3	0.4	No	70.0	70.4	0.5	No	72.2	72.6	0.5	No	69.0	69.6	0.5	No
La Cienega Blvd between Centinela Ave and Florence Ave	70.2	71.2	1.0	No	68.2	69.2	1.0	No	70.2	71.2	1.0	No	67.3	68.3	1.0	No
La Cienega Blvd between Arbor Vitae St and 405 on/off rams (n/o Century)	67.5	70.1	2.6	No	65.4	68.1	2.7	No	66.3	69.6	3.3	**Yes**	64.5	67.3	2.9	No
La Cienega Blvd between 405 on/off rams (n/o Century) and Century Blvd	67.8	70.5	2.7	No	66.8	69.6	2.8	No	66.9	70.2	3.3	**Yes**	65.9	68.8	2.9	No
La Cienega Blvd between 405 on/off ramps (s/o Century) and 104th St	66.3	68.9	2.6	No	63.6	66.7	3.1	**Yes**	64.5	68.1	3.6	**Yes**	62.6	65.6	2.9	No
Inglewood Ave between Century Blvd and 104th St	64.9	65.9	1.0	No	62.2	63.0	0.8	No	64.2	65.3	1.1	No	61.3	62.2	0.9	No
Inglewood Ave between 104th St and Lennox Blvd	65.4	66.0	0.6	No	62.1	62.6	0.5	No	64.5	65.1	0.6	No	61.1	61.7	0.5	No
La Brea Ave between Stocker St and Slauson Ave	69.0	69.1	0.2	No	65.2	65.6	0.4	No	67.3	67.5	0.2	No	64.2	64.7	0.5	No

La Brea Ave between Slauson Ave and Centinela Ave	68.2	68.4	0.2	No	64.5	65.0	0.5	No	67.7	67.9	0.2	No	63.6	64.1	0.6	No
La Brea Ave between Centinela Ave and Florence Ave	67.7	68.3	0.6	No	63.9	65.2	1.3	No	67.0	67.8	0.8	No	63.0	64.5	1.4	No
La Brea Ave between Florence Ave and Manchester Blvd	67.0	67.9	0.9	No	63.8	65.3	1.5	No	66.3	67.4	1.1	No	62.9	64.5	1.7	No
La Brea Ave between Manchester Blvd and Hillcrest Blvd	66.1	67.3	1.2	No	62.7	65.5	2.8	No	65.3	66.9	1.5	No	61.8	65.0	3.2	**Yes**
La Brea Ave between La Brea Ave and Arbor Vitae St	67.1	68.1	1.0	No	63.4	66.2	2.8	No	66.2	67.5	1.3	No	62.5	65.6	3.2	**Yes**
Hawthorne Ave between 104th St and Lennox Blvd	68.9	70.2	1.3	No	66.1	68.4	2.3	No	68.2	69.8	1.5	No	65.2	67.8	2.6	No
Hawthorne Ave between Lennox Blvd and 111th St	69.3	70.6	1.3	No	66.7	68.9	2.2	No	68.6	70.2	1.5	No	65.8	68.3	2.5	No
Hillcrest Blvd between Florence Ave and Manchester Blvd	62.7	63.1	0.4	No	58.6	59.9	1.3	No	60.7	61.3	0.6	No	57.6	59.2	1.6	No
Mrytle Ave between Hardy St and Century Blvd	58.2	58.4	0.3	No	55.6	56.9	1.4	No	56.4	56.8	0.4	No	54.6	55.2	0.6	No
Freeman Ave between Lennox Blvd and Imperial Hwy	61.4	61.9	0.5	No	59.8	62.6	2.8	No	60.9	61.4	0.5	No	58.8	62.1	3.3	**Yes**
Prairie Ave between Florence Ave and Grace Ave	67.5	68.4	1.0	No	64.3	66.2	1.9	No	67.0	67.9	0.9	No	63.4	65.6	2.2	No
Prairie Ave between Grace Ave and East Carondelet Way	67.6	68.7	1.1	No	64.4	66.4	2.0	No	67.0	68.1	1.1	No	63.5	65.8	2.3	No
Prairie Ave between East Carondelet Way and E Regent St	67.6	68.8	1.2	No	64.4	66.4	2.0	No	67.1	68.2	1.2	No	63.5	65.8	2.3	No
Prairie Ave between E Regent St and Manchester Blvd	68.1	69.3	1.2	No	64.7	66.7	2.0	No	67.5	68.6	1.2	No	63.8	66.0	2.2	No
Prairie Ave between Manchester Blvd and Kelso St/Pincay Dr	68.7	70.2	1.5	No	65.5	67.9	2.4	No	68.3	69.7	1.3	No	64.6	67.3	2.7	No
Prairie Ave between Kelso St/Pincay Dr and Buckthorn St	68.8	70.4	1.6	No	65.7	68.1	2.4	No	68.4	70.0	1.6	No	64.7	67.5	2.8	No
Prairie Ave between Buckthorn St and Arbor Vitae St	68.7	70.4	1.7	No	65.4	67.5	2.1	No	68.2	69.9	1.7	No	64.5	66.9	2.4	No
Prairie Ave between Arbor Vitae St and Hardy St	68.5	70.4	1.9	No	65.4	68.0	2.6	No	68.1	70.1	1.9	No	64.5	67.5	3.0	No
Prairie Ave between Hardy St and 97th St	68.8	71.0	2.2	No	65.6	68.9	3.3	**Yes**	68.5	70.7	2.2	No	64.7	68.5	3.8	**Yes**
Prairie Ave between 97th St and Century Blvd	68.9	70.9	2.0	No	65.8	68.9	3.2	**Yes**	68.5	70.5	2.0	No	64.8	68.5	3.6	**Yes**
Prairie Ave between 102nd St and 104th St	68.8	71.2	2.4	No	65.9	69.9	4.1	**Yes**	68.4	70.9	2.5	No	64.9	69.5	4.6	**Yes**
Prairie Ave between 104th St and Lennox Blvd	69.5	71.3	1.9	No	66.9	69.8	2.9	No	69.0	70.9	1.9	No	66.0	69.3	3.3	**Yes**
Prairie Ave between 108th St and 111 St	69.7	71.2	1.5	No	67.2	69.7	2.5	No	69.3	70.8	1.5	No	66.3	69.2	2.9	No
Prairie Ave between 111 St and 112th St/105 off ramp	69.7	71.3	1.5	No	67.6	69.9	2.3	No	69.6	71.1	1.5	No	66.7	69.4	2.7	No
Prairie Ave between 112th St/105 off ramp and Imperial Hwy	69.5	70.3	0.9	No	67.3	69.6	2.4	No	69.3	70.1	0.8	No	66.3	69.1	2.7	No
Prairie Ave between Imperial Hwy and 118th St	68.5	69.2	0.7	No	65.7	66.6	0.9	No	67.7	68.5	0.8	No	64.8	65.8	1.0	No
Prairie Ave between 118th St and 120th St	68.3	69.0	0.7	No	65.4	66.3	0.9	No	67.4	68.2	0.8	No	64.5	65.5	1.1	No
Yukon Ave between 102nd St and 104th St	62.8	64.7	1.9	No	59.2	62.9	3.7	**Yes**	62.5	64.4	1.8	No	58.3	62.5	4.3	**Yes**
Yukon Ave between 104th St and 108th St	61.4	62.5	1.1	No	57.7	61.0	3.3	**Yes**	60.9	62.0	1.2	No	56.7	60.6	3.8	**Yes**
Yukon Ave between 108th St and 111th St	60.7	61.7	1.0	No	57.2	59.9	2.7	No	59.9	61.0	1.1	No	56.2	59.4	3.1	**Yes**
Yukon Ave between 111th St and Imperial Hwy	60.3	61.0	0.7	No	56.6	59.2	2.6	No	59.3	60.1	0.8	No	55.6	58.6	3.1	**Yes**
Crenshaw Blvd between Florence Ave and Manchester Blvd (W)	67.4	67.8	0.5	No	62.9	63.1	0.2	No	66.3	67.2	0.9	No	62.0	62.2	0.2	No
Crenshaw Blvd between Florence Ave and Manchester Blvd (E)	69.1	70.1	1.0	No	65.9	66.9	1.0	No	68.7	70.1	1.4	No	65.0	66.1	1.1	No
Crenshaw Blvd between Manchester Blvd and Pincay Dr	70.3	71.5	1.2	No	66.9	68.9	2.0	No	69.7	71.3	1.6	No	66.0	68.2	2.3	No
Crenshaw Blvd between Pincay Dr and Hardy St	70.0	71.0	1.1	No	66.9	68.7	1.8	No	69.4	70.9	1.4	No	66.0	68.1	2.1	No
Crenshaw Blvd between Hardy St and Century Blvd	69.3	70.5	1.2	No	66.9	68.7	1.8	No	69.0	70.6	1.6	No	66.0	68.1	2.1	No
Crenshaw Blvd between Century Blvd and 104th St	70.0	71.7	1.7	No	67.5	69.8	2.3	No	69.7	71.6	1.9	No	66.6	69.2	2.6	No
Crenshaw Blvd between 104th St and 109th St	70.3	72.3	1.9	No	67.9	69.9	2.0	No	70.0	72.2	2.2	No	66.9	69.2	2.3	No
Crenshaw Blvd between 109th St and Imperial Hwy	70.3	72.3	2.0	No	67.9	70.3	2.4	No	70.3	72.4	2.1	No	66.9	69.7	2.7	No
Crenshaw Blvd between Imperial Hwy and 105 off ramp/118th Pl	70.6	72.5	1.9	No	68.4	70.6	2.2	No	70.6	72.6	2.0	No	67.5	70.0	2.6	No
Van Ness Ave between Manchester Blvd and Hardy St/96th St	65.5	66.0	0.5	No	62.6	63.5	0.9	No	64.9	65.5	0.5	No	61.6	62.7	1.1	No
Van Ness Ave between Hardy St/96th St and Century Blvd	65.5	66.0	0.5	No	62.5	63.5	1.0	No	64.8	65.3	0.6	No	61.6	62.7	1.1	No

Van Ness Ave between Century Blvd and 104th St	66.0	66.3	0.3	No	63.0	63.6	0.6	No	65.2	65.5	0.3	No	62.1	62.8	0.7	No
Western Ave between Manchester Blvd and Century Blvd	68.1	68.5	0.4	No	65.1	65.6	0.5	No	67.4	67.9	0.4	No	64.2	64.8	0.6	No
Vermont Ave between Manchester Blvd and Century Ave	68.3	68.5	0.2	No	65.0	65.3	0.3	No	67.2	67.6	0.4	No	64.1	64.4	0.3	No
Hoover St between Manchester Blvd and Century Ave	63.1	63.2	0.1	No	59.3	59.4	0.1	No	62.5	62.7	0.1	No	58.3	58.4	0.1	No

SOURCE: ESA, 2019 (Appendix J)

During the Cumulative Plus Project Major Event Weekend Post Event Peak Period, the cumulative increase in traffic noise along studied roadway segments would range from 0.1 dBA Leq up to 5.4 dBA Leq. Under this condition, 33 roadway segments would experience increases in traffic noise of 3.0 dBA Leq or greater and the cumulative impact would be **potentially significant**. Of those 33 roadway segments, the Proposed Project would result in increases of greater than 1 dBA Leq for all segments, which is an increase that would be perceptible in a controlled laboratory setting, along any segments (see Table 3.11-21 and **Figure 3.11-22**).[79] Therefore, the project's contribution would be cumulatively considerable and the cumulative impact is **potentially significant**.

[79] California Department of Transportation, 2013. Technical Noise Supplement. September 2013. p. 6-5

Figure 3.11-20 Significant Cumulative Traffic Noise Impact Locations - Project Major Event (Weekday Pre Event)

Figure 3.11-21 Significant Cumulative Traffic Noise Impact Locations - Project Major Event (Weekday Post Event)

Figure 3.11-22 Significant Cumulative Traffic Noise Impact Locations - Project Major Event (Weekend Post Event)

Cumulative Plus Stadium Mid-Sized Event Plus Forum Plus Project

Impacts under the Cumulative Plus Stadium Mid-Sized Event Plus Forum Plus Project (Weekday Pre Event) condition are shown in **Table 3.11-35**. As indicated, the cumulative increase in traffic noise along studied roadway segments would range from 0.1 dBA Leq up to 6.4 dBA Leq during the weekday Pre Event Peak Period. The increase in traffic noise along studied roadway segments would exceed the significance threshold of a 3 dBA Leq increase during the weekday Pre Event Peak Period along 21 roadway segments. Therefore, impacts under the Cumulative Plus Stadium Plus Forum Plus Project Weekday Pre Event condition would be **potentially significant**. Although cumulative increase in traffic noise would result in significant impacts along 21 roadway segments, the Proposed Project's contribution would not result in increases greater than 1 dBA Leq, which is an increase that would be perceptible unless in controlled laboratory setting (see Table 3.11-22).[80] Therefore, the project's contribution would be less than cumulatively considerable and the cumulative impact is **less than significant.**

During the Cumulative Plus Stadium Mid-Sized Event Plus Forum Plus Project (Weekday Post Event) condition, the increase in traffic noise along studied roadway segments would range from 0.1 dBA Leq up to 8.5 dBA Leq. Under this condition, 74 roadway segments would experience increases in traffic noise of 3.0 dBA Leq or greater and, thus, the cumulative impacts on these segments would be **potentially significant**. Of those 74 roadway segments where potentially significant cumulative impacts could occur, the Proposed Project would result in increases greater than 1 dBA Leq, which is an increase that would be perceptible in a controlled laboratory setting along 67 segments (see Table 3.11-22 and **Figure 3.11-23**).[81] Therefore, the project's contribution would be cumulatively considerable and the cumulative impact is **potentially significant.**

[80] California Department of Transportation, 2013. Technical Noise Supplement. September 2013. p. 6-5.
[81] California Department of Transportation, 2013. Technical Noise Supplement. September 2013. p. 6-5.

TABLE 3.11-35
CUMULATIVE PLUS STADIUM MID-SIZED EVENT PLUS FORUM PLUS PROJECT

Segment	Weekday Pre Event Peak Period				Weekday Post Event Peak Period			
	Adjusted Baseline (dBA Leq)	Cumulative + Stadium + Forum Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?	Adjusted Baseline (dBA Leq)	Cumulative + Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Centinela between La Cienega Blvd and La Brea Ave	69.6	70.1	0.4	No	67.3	68.2	0.9	No
Centinela between La Brea Ave and Florence Ave	69.5	70.3	0.8	No	66.8	67.2	0.4	No
Florence Ave between La Brea Ave and Hillcrest Blvd	68.2	69.9	1.8	No	65.8	67.0	1.3	No
Florence Ave between Hillcrest Blvd and Centinela Ave	68.9	70.5	1.6	No	66.6	67.7	1.1	No
Florence Ave between Centinela Ave and Prairie Ave	70.9	72.3	1.4	No	68.7	69.9	1.3	No
Florence Ave between Prairie Ave and West Blvd	71.0	72.5	1.5	No	68.6	70.7	2.1	No
Manchester Blvd between Ash Ave/405 NB Off-Ramp and La Brea Ave	66.5	72.9	6.4	**Yes**	64.0	72.5	8.5	**Yes**
Manchester Blvd between La Brea Ave and Hillcrest Blvd	69.7	72.4	2.8	No	67.0	72.1	5.1	**Yes**
Manchester Blvd between Hillcrest Blvd and Spruce Ave	69.8	72.6	2.8	No	67.0	72.1	5.1	**Yes**
Manchester Blvd between Spruce Ave and Prairie Ave	69.9	72.8	2.8	No	67.1	72.3	5.2	**Yes**
Manchester Blvd between Kareem Ct and Crenshaw Dr	71.0	72.9	1.9	No	68.1	71.9	3.8	**Yes**
Manchester Blvd between Crenshaw Dr and Crenshaw Blvd	69.9	72.5	2.6	No	67.6	71.8	4.2	**Yes**
Manchester Blvd between Crenshaw Blvd and Van Ness Ave	71.0	73.7	2.7	No	68.3	72.8	4.6	**Yes**
Manchester Blvd between Van Ness Ave and Western Ave	70.9	73.7	2.8	No	68.3	72.9	4.5	**Yes**
Manchester Blvd between Western Ave and Normandie Ave	71.0	73.6	2.6	No	68.6	72.9	4.3	**Yes**
Manchester Blvd between Normandie Ave and Vermont Ave	71.2	73.4	2.2	No	68.8	72.8	4.0	**Yes**
Manchester Blvd between Vermont Ave and Hoover St	71.3	73.5	2.1	No	69.8	73.2	3.4	**Yes**
Manchester Blvd between Hoover St and Figueroa St	71.6	73.6	2.1	No	70.0	73.3	3.3	**Yes**
Pincay Dr between Prairie Ave and Kareem Ct	68.7	72.4	3.7	**Yes**	64.3	69.1	4.7	**Yes**
Pincay Dr between Kareem Ct and Crenshaw Blvd	69.4	72.4	2.9	No	64.7	67.4	2.8	No
Arbor Vitae St between La Cienega Blvd and Inglewood Ave	65.9	68.0	2.0	No	63.4	66.5	3.1	**Yes**
Arbor Vitae St between Inglewood Ave and La Brea Ave	65.7	67.7	2.0	No	63.4	66.3	2.9	No
Arbor Vitae St between La Brea Ave and Myrtle Ave	64.3	67.2	2.9	No	61.6	65.9	4.4	**Yes**
Arbor Vitae St between Myrtle Ave and Prairie Ave	63.6	66.8	3.2	**Yes**	60.8	65.6	4.8	**Yes**
Hardy St between La Brea Ave and Myrtle Ave	60.3	61.1	0.8	No	57.1	58.8	1.6	No
Hardy St between Myrtle Ave and Prairie Ave	59.8	60.6	0.9	No	55.6	57.0	1.3	No
Century Blvd between Concourse Way and La Cienega Blvd	70.4	74.4	4.0	**Yes**	70.9	76.0	5.1	**Yes**
Century Blvd between 405 on/off Ramp and Felton Ave	70.5	73.5	3.0	**Yes**	68.5	73.1	4.5	**Yes**
Century Blvd between Felton Ave and Inglewood Ave	70.3	73.4	3.1	**Yes**	68.4	73.0	4.6	**Yes**
Century Blvd between Inglewood Ave and Fir Ave/Firmona Ave	70.5	73.4	2.8	No	68.2	72.5	4.3	**Yes**
Century Blvd between Fir Ave/Firmona Ave and Grevillea Ave	70.6	73.4	2.8	No	68.1	72.5	4.4	**Yes**
Century Blvd between Hawthorne Blvd/La Brea Blvd and Myrtle Ave	70.6	73.3	2.7	No	67.6	73.1	5.5	**Yes**
Century Blvd between Myrtle Ave and Freeman Ave	70.6	73.3	2.8	No	67.6	73.1	5.5	**Yes**
Century Blvd between Freeman Ave and Prairie Ave	70.3	73.1	2.8	No	67.3	71.9	4.6	**Yes**
Century Blvd between Prairie Ave and Doty Ave	70.8	73.8	2.9	No	68.2	73.0	4.8	**Yes**
Century Blvd between 11th Ave/Village Ave and Crenshaw Blvd	71.3	73.8	2.5	No	68.4	72.8	4.4	**Yes**
Century Blvd between Crenshaw Blvd and 5th Ave	69.3	72.2	2.8	No	66.5	71.4	4.9	**Yes**
Century Blvd between 5th Ave and Van Ness Ave	69.3	72.2	2.8	No	66.5	71.4	4.9	**Yes**
Century Blvd between Van Ness Ave and Gramercy Pl	69.7	72.4	2.7	No	66.8	71.3	4.4	**Yes**

TABLE 3.11-35
CUMULATIVE PLUS STADIUM MID-SIZED EVENT PLUS FORUM PLUS PROJECT

Segment	Weekday Pre Event Peak Period				Weekday Post Event Peak Period			
	Adjusted Baseline (dBA Leq)	Cumulative + Stadium + Forum Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?	Adjusted Baseline (dBA Leq)	Cumulative + Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Century Blvd between Gramercy Pl and Western Ave	69.8	72.4	2.6	No	66.8	71.2	4.5	**Yes**
Century Blvd between Western Ave and Normandie Ave	70.1	72.5	2.4	No	67.1	71.1	4.1	**Yes**
Century Blvd between Normandie Ave and Vermont Ave	70.5	72.8	2.3	No	67.6	71.4	3.8	**Yes**
Century Blvd between Vermont Ave and Hoover St	70.9	72.7	1.9	No	67.9	71.3	3.4	**Yes**
Century Blvd between Hoover St and Figueroa St	70.9	72.7	1.8	No	68.0	70.8	2.8	No
Century Blvd between Figueroa St and Grand Ave/110 SB off ramp	71.1	72.7	1.6	No	68.2	70.8	2.6	No
104th St between Inglewood Ave and Hawthorne Blvd	58.2	59.5	1.4	No	54.0	55.1	1.1	No
104th St between Hawthorne Blvd and Prairie Ave	57.4	59.5	2.1	No	54.2	58.6	4.4	**Yes**
104th St between Prairie Ave and Doty Ave	59.1	62.1	3.1	**Yes**	55.5	60.5	5.0	**Yes**
104th St between Doty Ave and Yukon Ave	58.5	62.0	3.4	**Yes**	55.0	60.7	5.7	**Yes**
104th St between Yukon Ave and Crenshaw Blvd	60.3	63.2	2.9	No	56.4	61.1	4.6	**Yes**
Lennox Blvd between La Cienega Blvd and Inglewood Ave	61.4	62.1	0.7	No	58.0	66.1	8.1	**Yes**
Lennox Blvd between Inglewood Ave and Hawthorne Blvd	63.6	64.1	0.5	No	60.9	66.7	5.8	**Yes**
Lennox Blvd between Hawthorne Blvd and Freeman Ave	62.6	64.1	1.5	No	59.3	62.7	3.4	**Yes**
Lennox Blvd between Freeman Ave and Prairie Ave	61.5	63.5	1.9	No	58.7	62.5	3.8	**Yes**
Imperial Hwy between Prairie Ave and Doty Ave	68.5	69.7	1.2	No	65.0	67.6	2.7	No
Imperial Hwy between Doty Ave and Yukon Ave	68.3	69.5	1.2	No	64.4	67.3	2.9	No
Imperial Hwy between Yukon Ave and Crenshaw Blvd	68.3	69.6	1.3	No	64.2	67.5	3.3	**Yes**
120th St between Prairie Ave and 105 on/off ramp	68.9	69.7	0.8	No	65.4	66.6	1.1	No
La Cienega Blvd between Stocker St and La Tijera Blvd	73.9	74.5	0.6	No	71.1	72.5	1.5	No
La Cienega Blvd between La Tijera Blvd and Centinela Ave	71.9	72.7	0.9	No	70.0	71.8	1.8	No
La Cienega Blvd between Centinela Ave and Florence Ave	70.2	71.7	1.5	No	68.2	70.7	2.4	No
La Cienega Blvd between Arbor Vitae St and 405 on/off rams (n/o Century)	67.5	70.7	3.2	**Yes**	65.4	69.6	4.2	**Yes**
La Cienega Blvd between 405 on/off rams (n/o Century) and Century Blvd	67.8	71.5	3.7	**Yes**	66.8	70.6	3.8	**Yes**
La Cienega Blvd between 405 on/off ramps (s/o Century) and 104th St	66.3	70.5	4.2	**Yes**	63.6	72.1	8.5	**Yes**
Inglewood Ave between Century Blvd and 104th St	64.9	66.6	1.8	No	62.2	65.9	3.6	**Yes**
Inglewood Ave between 104th St and Lennox Blvd	65.4	66.8	1.4	No	62.1	65.7	3.6	**Yes**
La Brea Ave between Stocker St and Slauson Ave	69.0	69.4	0.5	No	65.2	66.5	1.3	No
La Brea Ave between Slauson Ave and Centinela Ave	68.2	68.7	0.5	No	64.5	66.0	1.5	No
La Brea Ave between Centinela Ave and Florence Ave	67.7	68.6	0.8	No	63.9	65.7	1.8	No
La Brea Ave between Florence Ave and Manchester Blvd	67.0	68.6	1.7	No	63.8	65.7	1.9	No
La Brea Ave between Manchester Blvd and Hillcrest Blvd	66.1	67.7	1.6	No	62.7	66.7	4.0	**Yes**
La Brea Ave between La Brea Ave and Arbor Vitae St	67.1	68.7	1.7	No	63.4	67.4	4.0	**Yes**
Hawthorne Ave between 104th St and Lennox Blvd	68.9	71.2	2.3	No	66.1	69.0	2.9	No
Hawthorne Ave between Lennox Blvd and 111th St	69.3	71.7	2.4	No	66.7	70.9	4.2	**Yes**
Hillcrest Blvd between Florence Ave and Manchester Blvd	62.7	63.1	0.4	No	58.6	59.7	1.1	No
Mrytle Ave between Hardy St and Century Blvd	58.2	58.6	0.4	No	55.6	56.9	1.3	No
Freeman Ave between Lennox Blvd and Imperial Hwy	61.4	62.4	1.0	No	59.8	64.8	5.0	**Yes**
Prairie Ave between Florence Ave and Grace Ave	67.5	70.0	2.5	No	64.3	67.9	3.6	**Yes**

TABLE 3.11-35
CUMULATIVE PLUS STADIUM MID-SIZED EVENT PLUS FORUM PLUS PROJECT

Segment	Weekday Pre Event Peak Period				Weekday Post Event Peak Period			
	Adjusted Baseline (dBA Leq)	Cumulative + Stadium + Forum Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?	Adjusted Baseline (dBA Leq)	Cumulative + Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Prairie Ave between Grace Ave and East Carondelet Way	67.6	70.2	2.6	No	64.4	68.0	3.6	**Yes**
Prairie Ave between East Carondelet Way and E Regent St	67.6	70.3	2.6	No	64.4	68.0	3.6	**Yes**
Prairie Ave between E Regent St and Manchester Blvd	68.1	70.6	2.5	No	64.7	68.2	3.5	**Yes**
Prairie Ave between Manchester Blvd and Kelso St/Pincay Dr	68.7	72.7	4.0	**Yes**	65.5	71.2	5.7	**Yes**
Prairie Ave between Kelso St/Pincay Dr and Buckthorn St	68.8	71.9	3.1	**Yes**	65.7	71.4	5.8	**Yes**
Prairie Ave between Buckthorn St and Arbor Vitae St	68.7	71.8	3.1	**Yes**	65.4	71.2	5.7	**Yes**
Prairie Ave between Arbor Vitae St and Hardy St	68.5	71.6	3.1	**Yes**	65.4	70.8	5.4	**Yes**
Prairie Ave between Hardy St and 97th St	68.8	72.2	3.4	**Yes**	65.6	71.9	6.2	**Yes**
Prairie Ave between 97th St and Century Blvd	68.9	72.2	3.4	**Yes**	65.8	72.0	6.2	**Yes**
Prairie Ave between 102nd St and 104th St	68.8	72.8	4.0	**Yes**	65.9	72.4	6.6	**Yes**
Prairie Ave between 104th St and Lennox Blvd	69.5	72.7	3.2	**Yes**	66.9	72.2	5.3	**Yes**
Prairie Ave between 108th St and 111 St	69.7	72.4	2.7	No	67.2	71.9	4.7	**Yes**
Prairie Ave between 111 St and 112th St/105 off ramp	69.7	72.4	2.7	No	67.6	72.1	4.4	**Yes**
Prairie Ave between 112th St/105 off ramp and Imperial Hwy	69.5	70.9	1.4	No	67.3	71.7	4.4	**Yes**
Prairie Ave between Imperial Hwy and 118th St	68.5	69.4	0.9	No	65.7	67.3	1.6	No
Prairie Ave between 118th St and 120th St	68.3	69.3	0.9	No	65.4	67.0	1.6	No
Yukon Ave between 102nd St and 104th St	62.8	64.5	1.7	No	59.2	62.5	3.2	**Yes**
Yukon Ave between 104th St and 108th St	61.4	62.3	1.0	No	57.7	60.5	2.8	No
Yukon Ave between 108th St and 111th St	60.7	61.5	0.8	No	57.2	59.7	2.5	No
Yukon Ave between 111th St and Imperial Hwy	60.3	60.9	0.6	No	56.6	58.9	2.3	No
Crenshaw Blvd between Florence Ave and Manchester Blvd (W)	67.4	68.1	0.7	No	62.9	63.7	0.8	No
Crenshaw Blvd between Florence Ave and Manchester Blvd (E)	69.1	70.3	1.2	No	65.9	67.4	1.5	No
Crenshaw Blvd between Manchester Blvd and Pincay Dr	70.3	72.5	2.2	No	66.9	70.4	3.5	**Yes**
Crenshaw Blvd between Pincay Dr and Hardy St	70.0	72.2	2.2	No	66.9	71.3	4.4	**Yes**
Crenshaw Blvd between Hardy St and Century Blvd	69.3	71.8	2.5	No	66.9	71.3	4.4	**Yes**
Crenshaw Blvd between Century Blvd and 104th St	70.0	72.9	2.9	No	67.5	72.4	4.9	**Yes**
Crenshaw Blvd between 104th St and 109th St	70.3	73.6	3.2	**Yes**	67.9	72.5	4.6	**Yes**
Crenshaw Blvd between 109th St and Imperial Hwy	70.3	73.6	3.3	**Yes**	67.9	72.7	4.8	**Yes**
Crenshaw Blvd between Imperial Hwy and 105 off ramp/118th Pl	70.6	73.6	2.9	No	68.4	72.4	4.1	**Yes**
Van Ness Ave between Manchester Blvd and Hardy St/96th St	65.5	66.0	0.5	No	62.6	63.5	0.9	No
Van Ness Ave between Hardy St/96th St and Century Blvd	65.5	66.0	0.5	No	62.5	63.5	0.9	No
Van Ness Ave between Century Blvd and 104th St	66.0	66.3	0.3	No	63.0	63.6	0.6	No
Western Ave between Manchester Blvd and Century Blvd	68.1	68.5	0.4	No	65.1	65.7	0.6	No
Vermont Ave between Manchester Blvd and Century Ave	68.3	68.5	0.3	No	65.0	65.3	0.3	No
Hoover St between Manchester Blvd and Century Ave	63.1	63.2	0.1	No	59.3	59.4	0.1	No

SOURCE: ESA, 2019 (Appendix J)

Figure 3.11-23 Significant Cumulative Traffic Noise Impact Locations - NFL Stadium Mid-Sized Event Plus Forum Plus Project (Weekday Post Event)

Cumulative Plus NFL Game Plus Forum Plus Project

Impacts under the Cumulative Plus NFL Game Plus Forum Plus Project (Weekend Pre Event) condition are shown in **Table 3.11-36**. As indicated, the cumulative increase in traffic noise along studied roadway segments would range from a decrease of -1.6 dBA Leq (where traffic volumes are anticipated to decrease) up to an increase of 6.6 dBA Leq. Under this condition, 21 roadway segments would experience increases in traffic noise of 3.0 dBA Leq or greater and the cumulative impact would be **potentially significant**. Of those 21 roadway segments, the Proposed Project would result in increases greater than 1 dBA Leq, which is an increase that would be perceptible in a controlled laboratory setting, along 12 segments (see Table 3.11-23 and **Figure 3.11-24**).[82] Therefore, the project's contribution would be cumulatively considerable and the cumulative impact is **potentially significant**.

During the Cumulative Plus NFL Game Plus Forum Plus Project (Weekend Post Event) condition, the cumulative increase in traffic noise along studied roadway segments would range from a decrease of 1.0 dBA Leq up to an increase of 9.6 dBA Leq. Under this condition, 108 roadway segments would experience increases in traffic noise of 3.0 dBA Leq or greater and the cumulative impact would be **potentially significant**. Of those 108 roadway segments, the Proposed Project would result in increases greater than 1 dBA Leq, which is an increase that would be perceptible in a controlled laboratory setting, along 47 segments (see Table 3.11-23 and **Figure 3.11-25**).[83] Therefore, the project's contribution would be cumulatively considerable and the cumulative impact is **potentially significant**.

[82] California Department of Transportation, 2013. Technical Noise Supplement. September 2013. p. 6-5.
[83] California Department of Transportation, 2013. Technical Noise Supplement. September 2013. p. 6-5.

TABLE 3.11-36
CUMULATIVE PLUS NFL GAME PLUS FORUM PLUS PROJECT

	Weekend Pre Event Peak Period				Weekend Post Event Peak Period			
Segment	**Adjusted Baseline (dBA Leq)**	**Cumulative + Stadium + Forum Plus Project (dBA Leq)**	**Increase over Adjusted Baseline (dBA Leq)**	**Exceeds Threshold?**	**Adjusted Baseline (dBA Leq)**	**Cumulative + Project (dBA Leq)**	**Increase over Adjusted Baseline (dBA Leq)**	**Exceeds Threshold?**
Centinela between La Cienega Blvd and La Brea Ave	69.5	70.0	0.6	No	66.4	69.6	3.2	**Yes**
Centinela between La Brea Ave and Florence Ave	68.6	69.7	1.2	No	65.9	69.2	3.4	**Yes**
Florence Ave between La Brea Ave and Hillcrest Blvd	67.0	68.7	1.7	No	64.8	68.2	3.4	**Yes**
Florence Ave between Hillcrest Blvd and Centinela Ave	67.9	69.4	1.5	No	65.7	68.8	3.1	**Yes**
Florence Ave between Centinela Ave and Prairie Ave	70.5	71.7	1.2	No	67.7	71.2	3.5	**Yes**
Florence Ave between Prairie Ave and West Blvd	70.3	71.7	1.4	No	67.6	71.2	3.6	**Yes**
Manchester Blvd between Ash Ave/405 NB Off-Ramp and La Brea Ave	66.2	72.8	6.6	**Yes**	63.0	72.7	9.6	**Yes**
Manchester Blvd between La Brea Ave and Hillcrest Blvd	68.9	72.2	3.3	**Yes**	66.1	71.9	5.8	**Yes**
Manchester Blvd between Hillcrest Blvd and Spruce Ave	69.0	72.3	3.3	**Yes**	66.1	72.0	5.9	**Yes**
Manchester Blvd between Spruce Ave and Prairie Ave	69.1	72.4	3.3	**Yes**	66.2	72.1	5.9	**Yes**
Manchester Blvd between Kareem Ct and Crenshaw Dr	70.0	72.6	2.7	No	67.1	72.3	5.2	**Yes**
Manchester Blvd between Crenshaw Dr and Crenshaw Blvd	69.2	72.0	2.9	No	66.7	71.7	5.0	**Yes**
Manchester Blvd between Crenshaw Blvd and Van Ness Ave	70.1	73.5	3.4	**Yes**	67.3	73.2	5.9	**Yes**
Manchester Blvd between Van Ness Ave and Western Ave	70.4	73.7	3.3	**Yes**	67.4	73.4	6.0	**Yes**
Manchester Blvd between Western Ave and Normandie Ave	70.6	73.6	3.1	**Yes**	67.7	73.3	5.6	**Yes**
Manchester Blvd between Normandie Ave and Vermont Ave	70.6	73.4	2.8	No	67.9	73.1	5.2	**Yes**
Manchester Blvd between Vermont Ave and Hoover St	70.8	73.4	2.6	No	68.8	73.0	4.2	**Yes**
Manchester Blvd between Hoover St and Figueroa St	70.8	73.4	2.6	No	69.1	72.9	3.8	**Yes**
Pincay Dr between Prairie Ave and Kareem Ct	67.0	65.4	-1.6	No	63.4	64.7	1.3	No
Pincay Dr between Kareem Ct and Crenshaw Blvd	68.1	71.8	3.7	**Yes**	63.7	71.6	7.9	**Yes**
Arbor Vitae St between La Cienega Blvd and Inglewood Ave	65.5	66.9	1.3	No	62.4	66.4	4.0	**Yes**
Arbor Vitae St between Inglewood Ave and La Brea Ave	65.2	66.4	1.2	No	62.5	65.9	3.4	**Yes**
Arbor Vitae St between La Brea Ave and Myrtle Ave	63.8	66.6	2.7	No	60.6	66.3	5.6	**Yes**
Arbor Vitae St between Myrtle Ave and Prairie Ave	62.9	66.2	3.3	**Yes**	59.9	65.9	6.1	**Yes**
Hardy St between La Brea Ave and Myrtle Ave	59.6	60.5	0.9	No	56.2	59.9	3.8	**Yes**
Hardy St between Myrtle Ave and Prairie Ave	58.8	59.5	0.7	No	54.6	59.1	4.4	**Yes**
Century Blvd between Concourse Way and La Cienega Blvd	70.5	71.9	1.4	No	70.0	71.0	1.0	No
Century Blvd between 405 on/off Ramp and Felton Ave	70.3	72.7	2.4	No	67.6	72.2	4.7	**Yes**
Century Blvd between Felton Ave and Inglewood Ave	70.1	72.6	2.5	No	67.5	72.1	4.6	**Yes**
Century Blvd between Inglewood Ave and Fir Ave/Firmona Ave	70.1	72.6	2.6	No	67.3	72.2	5.0	**Yes**
Century Blvd between Fir Ave/Firmona Ave and Grevillea Ave	70.1	72.7	2.5	No	67.2	72.3	5.1	**Yes**
Century Blvd between Hawthorne Blvd/La Brea Blvd and Myrtle Ave	69.9	72.7	2.8	No	66.7	72.4	5.7	**Yes**
Century Blvd between Myrtle Ave and Freeman Ave	69.8	72.7	2.9	No	66.7	72.3	5.7	**Yes**
Century Blvd between Freeman Ave and Prairie Ave	69.6	72.6	2.9	No	66.3	72.2	5.9	**Yes**
Century Blvd between Prairie Ave and Doty Ave	70.6	73.5	2.9	No	67.2	73.2	5.9	**Yes**
Century Blvd between 11th Ave/Village Ave and Crenshaw Blvd	71.5	73.8	2.3	No	67.5	73.5	6.0	**Yes**
Century Blvd between Crenshaw Blvd and 5th Ave	69.3	72.5	3.2	**Yes**	65.5	72.2	6.6	**Yes**
Century Blvd between 5th Ave and Van Ness Ave	69.4	72.5	3.1	**Yes**	65.5	72.2	6.7	**Yes**

TABLE 3.11-36
CUMULATIVE PLUS NFL GAME PLUS FORUM PLUS PROJECT

	Weekend Pre Event Peak Period				Weekend Post Event Peak Period			
Segment	**Adjusted Baseline (dBA Leq)**	**Cumulative + Stadium + Forum Plus Project (dBA Leq)**	**Increase over Adjusted Baseline (dBA Leq)**	**Exceeds Threshold?**	**Adjusted Baseline (dBA Leq)**	**Cumulative + Project (dBA Leq)**	**Increase over Adjusted Baseline (dBA Leq)**	**Exceeds Threshold?**
Century Blvd between Van Ness Ave and Gramercy Pl	69.6	72.6	2.9	No	65.9	72.3	6.4	**Yes**
Century Blvd between Gramercy Pl and Western Ave	69.6	72.6	2.9	No	65.9	72.3	6.4	**Yes**
Century Blvd between Western Ave and Normandie Ave	69.8	72.6	2.8	No	66.1	72.3	6.2	**Yes**
Century Blvd between Normandie Ave and Vermont Ave	70.2	73.0	2.8	No	66.6	72.7	6.0	**Yes**
Century Blvd between Vermont Ave and Hoover St	70.4	72.9	2.5	No	67.0	72.5	5.5	**Yes**
Century Blvd between Hoover St and Figueroa St	70.5	72.8	2.3	No	67.1	72.4	5.3	**Yes**
Century Blvd between Figueroa St and Grand Ave/110 SB off ramp	70.5	72.6	2.1	No	67.3	72.3	5.0	**Yes**
104th St between Inglewood Ave and Hawthorne Blvd	57.0	57.6	0.6	No	53.0	57.2	4.2	**Yes**
104th St between Hawthorne Blvd and Prairie Ave	56.7	58.8	2.1	No	53.2	58.4	5.2	**Yes**
104th St between Prairie Ave and Doty Ave	58.0	60.2	2.2	No	54.6	59.9	5.3	**Yes**
104th St between Doty Ave and Yukon Ave	57.8	60.3	2.6	No	54.0	60.1	6.1	**Yes**
104th St between Yukon Ave and Crenshaw Blvd	59.5	61.5	2.0	No	55.5	61.2	5.8	**Yes**
Lennox Blvd between La Cienega Blvd and Inglewood Ave	59.4	60.8	1.3	No	57.0	60.2	3.2	**Yes**
Lennox Blvd between Inglewood Ave and Hawthorne Blvd	62.6	63.4	0.7	No	60.0	62.8	2.8	No
Lennox Blvd between Hawthorne Blvd and Freeman Ave	61.8	63.0	1.2	No	58.3	62.6	4.3	**Yes**
Lennox Blvd between Freeman Ave and Prairie Ave	60.7	62.2	1.5	No	57.8	61.7	3.9	**Yes**
Imperial Hwy between Prairie Ave and Doty Ave	67.7	68.7	0.9	No	64.0	68.2	4.2	**Yes**
Imperial Hwy between Doty Ave and Yukon Ave	67.4	68.4	1.0	No	63.4	68.0	4.5	**Yes**
Imperial Hwy between Yukon Ave and Crenshaw Blvd	67.3	68.5	1.1	No	63.2	68.1	4.9	**Yes**
120th St between Prairie Ave and 105 on/off ramp	67.6	68.5	0.9	No	64.5	68.0	3.5	**Yes**
La Cienega Blvd between Stocker St and La Tijera Blvd	73.6	74.1	0.5	No	70.2	73.6	3.5	**Yes**
La Cienega Blvd between La Tijera Blvd and Centinela Ave	72.2	72.8	0.6	No	69.0	72.3	3.2	**Yes**
La Cienega Blvd between Centinela Ave and Florence Ave	70.2	71.2	1.0	No	67.3	70.6	3.3	**Yes**
La Cienega Blvd between Arbor Vitae St and 405 on/off rams (n/o Century)	66.3	69.9	3.6	**Yes**	64.5	69.4	4.9	**Yes**
La Cienega Blvd between 405 on/off rams (n/o Century) and Century Blvd	66.9	70.0	3.1	**Yes**	65.9	69.4	3.5	**Yes**
La Cienega Blvd between 405 on/off ramps (s/o Century) and 104th St	64.5	68.0	3.5	**Yes**	62.6	67.3	4.6	**Yes**
Inglewood Ave between Century Blvd and 104th St	64.2	65.0	0.8	No	61.3	64.5	3.2	**Yes**
Inglewood Ave between 104th St and Lennox Blvd	64.5	65.1	0.6	No	61.1	64.6	3.5	**Yes**
La Brea Ave between Stocker St and Slauson Ave	67.3	67.8	0.5	No	64.2	67.3	3.1	**Yes**
La Brea Ave between Slauson Ave and Centinela Ave	67.7	68.2	0.4	No	63.6	67.8	4.2	**Yes**
La Brea Ave between Centinela Ave and Florence Ave	67.0	68.1	1.1	No	63.0	67.7	4.7	**Yes**
La Brea Ave between Florence Ave and Manchester Blvd	66.3	67.7	1.4	No	62.9	67.3	4.4	**Yes**
La Brea Ave between Manchester Blvd and Hillcrest Blvd	65.3	67.1	1.7	No	61.8	66.7	4.9	**Yes**
La Brea Ave between La Brea Ave and Arbor Vitae St	66.2	67.7	1.5	No	62.5	67.3	4.8	**Yes**
Hawthorne Ave between 104th St and Lennox Blvd	68.2	69.6	1.4	No	65.2	69.2	4.0	**Yes**
Hawthorne Ave between Lennox Blvd and 111th St	68.6	70.0	1.4	No	65.8	69.6	3.8	**Yes**
Hillcrest Blvd between Florence Ave and Manchester Blvd	60.7	61.3	0.6	No	57.6	60.8	3.2	**Yes**
Mrytle Ave between Hardy St and Century Blvd	56.4	57.2	0.8	No	54.6	55.7	1.0	No
Freeman Ave between Lennox Blvd and Imperial Hwy	60.9	61.9	1.0	No	58.8	61.2	2.4	No

TABLE 3.11-36
CUMULATIVE PLUS NFL GAME PLUS FORUM PLUS PROJECT

Segment	Weekend Pre Event Peak Period				Weekend Post Event Peak Period			
	Adjusted Baseline (dBA Leq)	Cumulative + Stadium + Forum Plus Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?	Adjusted Baseline (dBA Leq)	Cumulative + Project (dBA Leq)	Increase over Adjusted Baseline (dBA Leq)	Exceeds Threshold?
Prairie Ave between Florence Ave and Grace Ave	67.0	68.8	1.7	No	63.4	68.4	5.0	**Yes**
Prairie Ave between Grace Ave and East Carondelet Way	67.0	68.9	1.9	No	63.5	68.5	5.1	**Yes**
Prairie Ave between East Carondelet Way and E Regent St	67.1	69.0	1.9	No	63.5	68.6	5.2	**Yes**
Prairie Ave between E Regent St and Manchester Blvd	67.5	69.3	1.9	No	63.8	69.0	5.2	**Yes**
Prairie Ave between Manchester Blvd and Kelso St/Pincay Dr	68.3	72.0	3.7	**Yes**	64.6	71.8	7.2	**Yes**
Prairie Ave between Kelso St/Pincay Dr and Buckthorn St	68.4	71.4	3.0	**Yes**	64.7	71.2	6.4	**Yes**
Prairie Ave between Buckthorn St and Arbor Vitae St	68.2	71.3	3.1	**Yes**	64.5	71.1	6.6	**Yes**
Prairie Ave between Arbor Vitae St and Hardy St	68.1	71.3	3.2	**Yes**	64.5	71.1	6.6	**Yes**
Prairie Ave between Hardy St and 97th St	68.5	72.0	3.5	**Yes**	64.7	71.8	7.1	**Yes**
Prairie Ave between 97th St and Century Blvd	68.5	72.1	3.6	**Yes**	64.8	71.9	7.0	**Yes**
Prairie Ave between 102nd St and 104th St	68.4	71.8	3.4	**Yes**	64.9	71.6	6.6	**Yes**
Prairie Ave between 104th St and Lennox Blvd	69.0	71.7	2.8	No	66.0	71.4	5.4	**Yes**
Prairie Ave between 108th St and 111 St	69.3	71.7	2.4	No	66.3	71.3	5.0	**Yes**
Prairie Ave between 111 St and 112th St/105 off ramp	69.6	71.9	2.3	No	66.7	71.5	4.8	**Yes**
Prairie Ave between 112th St/105 off ramp and Imperial Hwy	69.3	70.7	1.4	No	66.3	70.2	3.9	**Yes**
Prairie Ave between Imperial Hwy and 118th St	67.7	68.6	0.9	No	64.8	68.2	3.4	**Yes**
Prairie Ave between 118th St and 120th St	67.4	68.4	1.0	No	64.5	67.9	3.4	**Yes**
Yukon Ave between 102nd St and 104th St	62.5	64.0	1.5	No	58.3	63.7	5.4	**Yes**
Yukon Ave between 104th St and 108th St	60.9	62.1	1.3	No	56.7	61.8	5.0	**Yes**
Yukon Ave between 108th St and 111th St	59.9	61.0	1.1	No	56.2	60.6	4.4	**Yes**
Yukon Ave between 111th St and Imperial Hwy	59.3	60.3	1.0	No	55.6	59.9	4.3	**Yes**
Crenshaw Blvd between Florence Ave and Manchester Blvd (W)	66.3	67.7	1.5	No	62.0	67.4	5.5	**Yes**
Crenshaw Blvd between Florence Ave and Manchester Blvd (E)	68.7	70.6	1.9	No	65.0	70.2	5.3	**Yes**
Crenshaw Blvd between Manchester Blvd and Pincay Dr	69.7	72.6	3.0	No	66.0	72.3	6.4	**Yes**
Crenshaw Blvd between Pincay Dr and Hardy St	69.4	71.7	2.3	No	66.0	71.4	5.4	**Yes**
Crenshaw Blvd between Hardy St and Century Blvd	69.0	71.4	2.4	No	66.0	71.1	5.1	**Yes**
Crenshaw Blvd between Century Blvd and 104th St	69.7	71.9	2.3	No	66.6	71.6	5.0	**Yes**
Crenshaw Blvd between 104th St and 109th St	70.0	72.4	2.4	No	66.9	72.1	5.1	**Yes**
Crenshaw Blvd between 109th St and Imperial Hwy	70.3	72.6	2.3	No	66.9	72.3	5.4	**Yes**
Crenshaw Blvd between Imperial Hwy and 105 off ramp/118th Pl	70.6	72.8	2.2	No	67.5	72.5	5.0	**Yes**
Van Ness Ave between Manchester Blvd and Hardy St/96th St	64.9	65.6	0.7	No	61.6	65.2	3.5	**Yes**
Van Ness Ave between Hardy St/96th St and Century Blvd	64.8	65.5	0.7	No	61.6	65.0	3.4	**Yes**
Van Ness Ave between Century Blvd and 104th St	65.2	65.6	0.5	No	62.1	65.1	3.1	**Yes**
Western Ave between Manchester Blvd and Century Blvd	67.4	67.9	0.5	No	64.2	67.4	3.3	**Yes**
Vermont Ave between Manchester Blvd and Century Ave	67.2	67.7	0.5	No	64.1	67.2	3.2	**Yes**
Hoover St between Manchester Blvd and Century Ave	62.5	62.7	0.1	No	58.3	62.2	3.9	**Yes**

SOURCE: ESA, 2019 (Appendix J)

Figure 3.11-24 Significant Cumulative Traffic Noise Impact Locations - NFL Stadium Mid-Sized Event Plus Forum Plus Project (Weekend Pre Event)

Figure 3.11-25 Significant Cumulative Traffic Noise Impact Locations - NFL Stadium Mid-Sized Event Plus Forum Plus Project (Weekend Post Event)

Mitigation Measure 3.11-4(a) would be required to avoid or substantially lessen the project contribution to a cumulative construction noise impact, as described further below.

Mitigation Measure 3.11-6(a)

Implement Mitigation Measure 3.11-2(a)

Mitigation Measure 3.11-6(b)

Implement Mitigation Measure 3.11-2(b).

Significance after Mitigation: Implementation of the noise reduction strategies included in Mitigation Measure 3.11-2(a) would reduce Project composite noise levels. However, the feasibility of certain strategies such as installation of screening would need to be evaluated in conjunction with Project design. Due to the uncertainty with feasibility and effectiveness of noise reduction strategies, impacts would be considered **significant and unavoidable.**

Mitigation Measure 3.14-2(b) would require the implementation of an expanded Transportation Demand Management (TDM) program that would reduce Project-related traffic. A reduction in Project-related traffic would result in reductions in traffic noise. The extent to which this measure would reduce trips along impacted segments is uncertain. Therefore, impacts would be **significant and unavoidable.**

Impact 3.11-7: Construction of the Proposed Project, in conjunction with other cumulative development, would generate excessive groundborne vibration. (Significant and Unavoidable)

As previously discussed for vibration under Impact 3.11-3, the use of large bulldozers and bore/drill rigs near the project boundaries, in combination with use of other heavy construction equipment, could generate vibration velocities that exceed the structural damage threshold of 0.3 in/sec PPV at certain sensitive receptors. Cumulative Project 73, located at 3900 West Century Boulevard, is adjacent to the Arena Site and was analyzed as noise-sensitive receptor R8. Vibration-sensitive receptor R9 (self-storage facility) is adjacent to both Cumulative Project 73 and the Proposed Project.

Should construction of the Arena Site and Cumulative Project 73 overlap and large bull dozers or drill/bore rigs used on both sites along the property line of receptor R9, cumulative impacts would occur. Although groundborne vibration attenuates rapidly and generally has a non-additive nature, the cumulative impact of multiple projects causing potentially structurally damaging groundborne vibration on R9 is potentially significant. The heavy equipment used to construct the Proposed Project would be within five feet of vibration-sensitive receptor R9, and would have a considerable contribution to a vibration-related impact. Therefore, Proposed Project impacts on R9 would be cumulatively considerable and this cumulative impact is **significant**.

With respect to human annoyance, overlap of Proposed Project construction with cumulative projects could result in significant impacts on vibration-sensitive receptors. Should the construction of Cumulative Projects 67, 73, and/or 74 overlap with Proposed Project construction and be located adjacent to vibration-sensitive receptors affected by the Proposed Project,

cumulative impacts would be **potentially significant**. There are no vibration-sensitive receptors (with respect to human annoyance) that would be adjacent to both the Proposed Project and one of the three nearby cumulative projects. As described above under Impact 3.11-3, the operation of vibratory construction equipment for the Proposed Project could result in significant impacts with regard to human annoyance. However, vibration-sensitive receptors impacted by Proposed Project construction would not be located adjacent to any cumulative projects. Therefore, Proposed Project impacts would not be affected by cumulative project construction activity. Therefore, the cumulative impact would be **less than significant**.

As described above, heavy-duty construction truck travel along the designated haul route(s) could result in exceedance of human annoyance thresholds. Should the construction of cumulative projects, especially Cumulative Project 67 which is a potentially large and proximate cumulative project, overlap with Proposed Project construction and should heavy-duty construction trips from cumulative projects utilize the same haul routes as the Proposed Project, the cumulative impact would be **potentially significant**. Because of the size and intensity of expected construction activity for the Proposed Project, the Proposed Project's contribution would be cumulatively considerable. Thus, this cumulative impact would be **significant**.

Mitigation Measure 3.11-7

Implement Mitigation Measure 3.11-3(a).

Significance After Mitigation: Level of Significance After Mitigation: With the implementation of Mitigation Measure 3.11-7, the Proposed Project would not result in the generation of excessive groundborne vibration levels exceeding structural damage thresholds during on-site construction activity. Thus, with implementation of Mitigation Measure 3.11-7, the contribution of the Proposed Project to the cumulative vibration-related structural damage impact would be less than considerable, and this cumulative impact would be considered **less than significant.**

As described above, heavy-duty construction truck travel along the designated haul route(s) could result in exceedance of human annoyance thresholds. The distance at which heavy-duty trucks need to travel in order to avoid exceedance of human annoyance thresholds of 72 VdB for residential uses and 75 VdB for commercial and industrial uses is 25 feet and 20 feet, respectively. Potential mitigation to address this impact includes prohibiting travel along the right lane of the roadway. Limiting the lanes of travel for construction trucks, including haul trucks, where residential, commercial, or industrial uses could be impact would not be feasible because there would be no mechanism for enforcement. Additionally, the drivers of construction vehicles for cumulative projects would not be under the management of the Project Applicant or its construction contractors. Therefore, no feasible mitigation is available to mitigate cumulative on-road construction vibration impacts with regard to human annoyance and impacts would be **significant and unavoidable.**

Impact 3.11-8: Construction and operation of the Proposed Project, in conjunction with other cumulative development, could expose people residing or working in the region surrounding the Project Site to excessive noise levels from airport noise. (Less than Significant)

The Proposed Project along with all other past, present, or reasonably foreseeable future projects located within the County's ALUP Planning Area/AIA are required to be consistent with the ALUP policies. In addition to the Proposed Project, a total of 35 projects on the Cumulative Project List in Section 3.0, Introduction to the Analysis, Table 3.0-2, would be located within the LAX Planning Boundary/AIA. The ALUP noise contour shown in Figure 3.11-3 shows that the AIA falls within the CNEL 65 dB Contour for LAX. The 14 CFR Part 150 contours shown in Figure 2-4 show the 65 dB – 70 dB and 70 dB – 75 dB Contours.

As discussed in Section 3.8, Hazards and Hazardous Materials, the ALUP Land Use Compatibility Table identifies land use by category, including residential, commercial, and industrial land use. The elements of the Proposed Project generally fall within the commercial and recreational land use compatibility categories. Almost all the cumulative projects are residential or commercial in nature. The compatibility criteria provided in the Land Use Compatibility Table advises review of noise insulation needs for residential, commercial, and recreational land uses in areas exposed to CNEL 65 dB–70 dB within the ALUP CNEL Contour. The same criteria apply to commercial and recreational land uses in areas exposed to exposed to CNEL 70 dB–75 dB within the ALUP CNEL Contour. While the ALUP advises avoiding development of residential uses, reduction of interior noise levels to acceptable levels is typically achieved through standard residential and commercial building construction practices, and thus is reasonably foreseeable that no significant noise impacts would occur within the cumulative projects. As such, people residing or working in the cumulative projects that would occur within the LAX Planning Boundary/AIA would not be exposed to excessive noise from airport operations. Impacts would be **less than significant**.

Mitigation Measures

None required.