5.3 Noise

5.3 NOISE

The purpose of this section is to evaluate noise source impacts on-site and to surrounding land uses as a result of implementation of the proposed Project. This section evaluates short-term construction-related impacts, as well as future buildout conditions. Mitigation measures are also recommended to avoid or lessen the Project's noise impacts. Information in this section is based on the *Burbank2035 General Plan* (Burbank2035) and the *Burbank Municipal Code* (BMC). Noise technical data is included as Appendix D, *Noise Data*.

Traffic information contained in the *Traffic Impact Study for the Media Studios Office Project* (Traffic Study), dated August 2018 and prepared by Fehr & Peers, was utilized for the purposes of mobile source noise modeling and contour distribution; refer to Appendix E, *Traffic Study*.

5.3.1 EXISTING SETTING

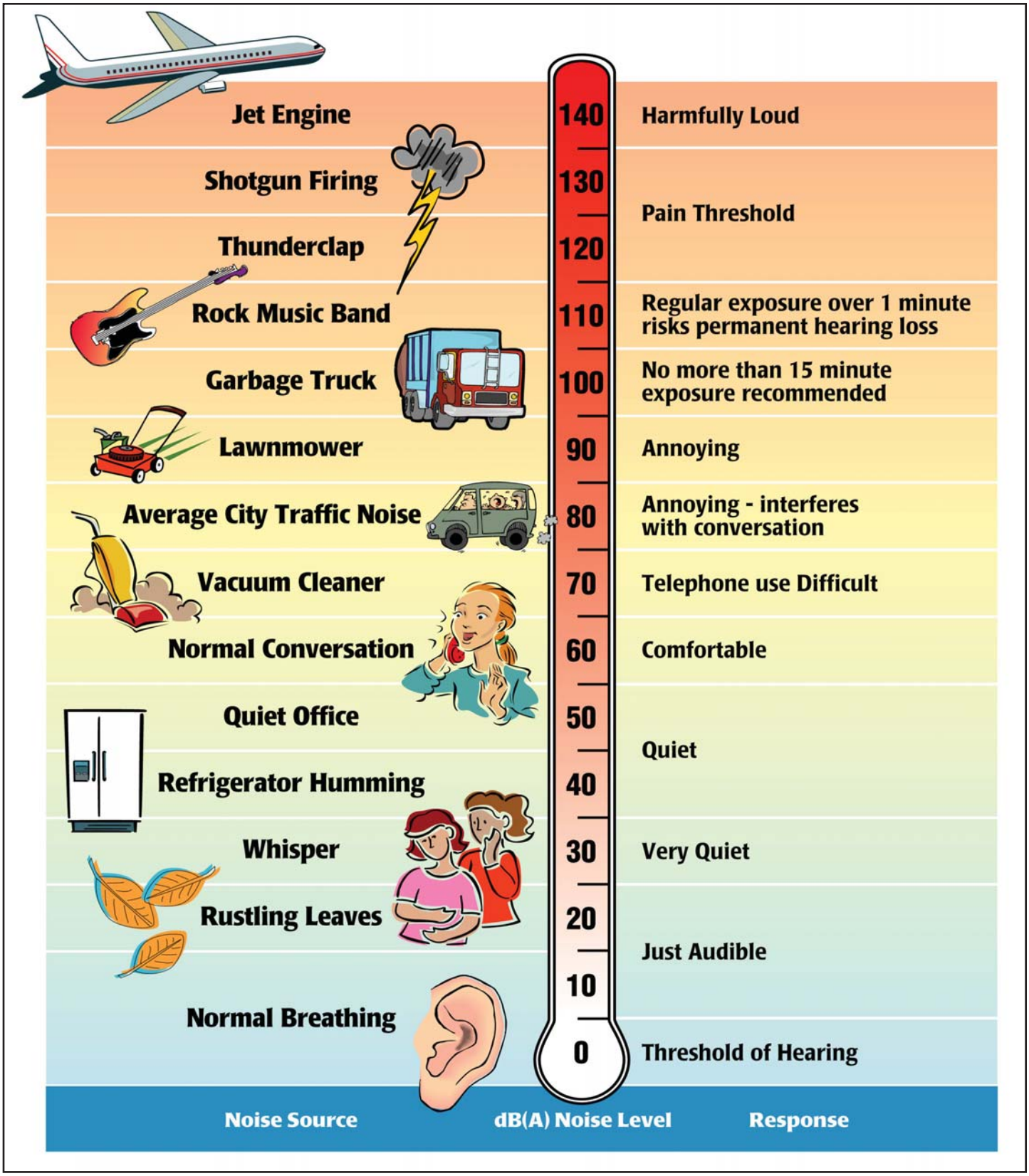
Sound is described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dBA higher than another is judged to be twice as loud, and 20 dBA higher four times as loud, and so forth. Everyday sounds normally range from 30 dBA (very quiet) to 100 dBA (very loud). Examples of various sound levels in different environments are illustrated on Exhibit 5.3-1, *Sound Levels and Human Response*.

Many methods have been developed for evaluating community noise to account for, among other things:

- The variation of noise levels over time;
- The influence of periodic individual loud events; and
- The community response to changes in the community noise environment.

Numerous methods have been developed to measure sound over a period of time; refer to Table 5.3-1, *Noise Descriptors*.



Source: Environmental Protection Agency, *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety* (EPA/ONAC 550/9-74-004), March 1974.

Common Environmental Noise Levels

Table 5.3-1
Noise Descriptors

Term	Definition
Decibel (dB)	The unit for measuring the volume of sound equal to 10 times the logarithm (base 10) of the ratio of the pressure of a measured sound to a reference pressure (20 micropascals).
A-Weighted Decibel (dBA)	A sound measurement scale that adjusts the pressure of individual frequencies according to human sensitivities. The scale accounts for the fact that the region of highest sensitivity for the human ear is between 2,000 and 4,000 cycles per second (hertz).
Equivalent Sound Level (L_{eq})	The sound level containing the same total energy as a time varying signal over a given time period. The L_{eq} is the value that expresses the time averaged total energy of a fluctuating sound level.
Maximum Sound Level (L_{max})	The highest individual sound level (dBA) occurring over a given time period.
Minimum Sound Level (L_{min})	The lowest individual sound level (dBA) occurring over a given time period.
Community Noise Equivalent Level (CNEL)	A rating of community noise exposure to all sources of sound that differentiates between daytime, evening, and nighttime noise exposure. These adjustments are +5 dBA for the evening, 7:00 p.m. to 10:00 p.m., and +10 dBA for the night, 10:00 p.m. to 7:00 a.m.
Day/Night Average (L_{dn})	The L_{dn} is a measure of the 24-hour average noise level at a given location. It was adopted by the U.S. Environmental Protection Agency (EPA) for developing criteria for the evaluation of community noise exposure. It is based on a measure of the average noise level over a given time period called the L_{eq}. The L_{dn} is calculated by averaging the L_{eq}'s for each hour of the day at a given location after penalizing the "sleeping hours" (defined as 10:00 p.m. to 7:00 a.m.) by 10 dBA to account for the increased sensitivity of people to noises that occur at night.
Exceedance Level (L_n)	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% (L_{01}, L_{10}, L_{50}, L_{90}, respectively) of the time during the measurement period.
Source: Cyril M. Harris, Handbook of Noise Control, 1979.	

HEALTH EFFECTS OF NOISE

Human response to sound is highly individualized. Annoyance is the most common issue regarding community noise. However, many factors influence people's response to noise. The factors can include the character of the noise, the variability of the sound level, the presence of tones or impulses, and the time of day of the occurrence. Additionally, non-acoustical factors, such as the person's opinion of the noise source, the ability to adapt to the noise, the attitude towards the source and those associated with it, and the predictability of the noise, all influence people's response. As such, response to noise varies widely from one person to another and with any particular noise, individual responses will range from "not annoyed" to "highly annoyed."

The effects of noise are often only transitory, but adverse effects can be cumulative with prolonged or repeated exposure. The effects of noise on the community can be organized into six broad categories:

- Noise-Induced Hearing Loss;
- Interference with Communication;
- Effects of Noise on Sleep;
- Effects on Performance and Behavior;
- Extra-Auditory Health Effects; and
- Annoyance.

According to the United States Public Health Service, nearly ten million of the estimated 21 million Americans with hearing impairments owe their losses to noise exposure. Noise can mask important sounds and disrupt communication between individuals in a variety of settings. This process can cause anything from a slight irritation to a serious safety hazard, depending on the circumstance. Noise can disrupt face-to-face communication and telephone communication, and the enjoyment of music and television in the home. It can also disrupt effective communication between teachers and pupils in schools and can cause fatigue and vocal strain in those who need to communicate in spite of the noise.

Interference with communication has proved to be one of the most important components of noise-related annoyance. Noise-induced sleep interference is one of the critical components of community annoyance. Sound level, frequency distribution, duration, repetition, and variability can make it difficult to fall asleep and may cause momentary shifts in the natural sleep pattern, or level of sleep. It can produce short-term adverse effects on mood changes and job performance, with the possibility of more serious effects on health if it continues over long periods. Noise can cause adverse effects on task performance and behavior at work, and non-occupational and social settings. These effects are the subject of some controversy, since the presence and degree of effects depends on a variety of intervening variables. Most research in this area has focused mainly on occupational settings, where noise levels must be sufficiently high and the task sufficiently complex for effects on performance to occur.

Annoyance can be viewed as the expression of negative feelings resulting from interference with activities, as well as the disruption of one's peace of mind and the enjoyment of one's environment. Field evaluations of community annoyance are useful for predicting the consequences of planned actions involving highways, airports, road traffic, railroads, or other noise sources. The consequences of noise-induced annoyance are privately held dissatisfaction, publicly expressed complaints to authorities, and potential adverse health effects, as discussed above. In a study conducted by the United States Department of Transportation, the effects of annoyance to the community were quantified. In areas where noise levels were consistently above 60 dBA CNEL, approximately nine percent of the community is highly annoyed. When levels exceed 65 dBA CNEL, that percentage rises to 15 percent. Although evidence for the various effects of noise have differing levels of certainty, it is clear that noise can affect human health. Most of the effects are, to a varying degree, stress related.

GROUND-BORNE VIBRATION

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. The peak particle velocity (PPV) or the root mean square (RMS) velocity is usually used to describe vibration amplitudes. PPV is defined as the maximum instantaneous peak or vibration signal, while RMS is defined as the square root of the average

of the squared amplitude of the signal. PPV is typically used for evaluating potential building damage, whereas RMS is typically more suitable for evaluating human response. Typically, ground-borne vibration, generated by man-made activities, attenuates rapidly with distance from the source of vibration. Man-made vibration issues are therefore usually confined to short distances (i.e., 500 feet or less) from the source.

Both construction and operation of development projects can generate ground-borne vibration. In general, demolition of structures preceding construction generates the highest vibrations. Construction equipment such as vibratory compactors or rollers, pile drivers, and pavement breakers can generate perceptible vibration during construction activities. Heavy trucks can also generate ground-borne vibrations that vary depending on vehicle type, weight, and pavement conditions.

SENSITIVE RECEPTORS

Human response to noise varies widely depending on the type of noise, time of day, and sensitivity of the receptor. The effects of noise on humans can range from temporary or permanent hearing loss to mild stress and annoyance due to such things as speech interference and sleep deprivation. Prolonged stress, regardless of the cause, is known to contribute to a variety of health disorders. Noise, or the lack thereof, is a factor in the aesthetic perception of some settings, particularly those with religious or cultural significance. Certain land uses are particularly sensitive to noise, including schools, hospitals, rest homes, long-term medical and mental care facilities, and parks and recreation areas. Residential areas are also considered noise sensitive, especially during the nighttime hours. The closest sensitive uses within the immediate Project area include residential uses located east of Ontario Street, approximately 85 feet east of the Media Studios campus's easternmost boundary. At approximately 690 feet to the east, these residential uses are also the closest sensitive uses to the proposed construction (Phase 6 site). Additional existing sensitive receptors located in the Project vicinity include a school, a medical office, and parks; refer to Table 5.3-2, *Sensitive Receptors*.

Table 5.3-2
Sensitive Receptors

Type	Name	Distance from Project Site[1] (feet)	Orientation from Project Site
Residential	Residential Uses	85	East
		500	Southeast
		1,525	Southwest
Schools	Providencia Elementary School	965	South
Recreation/Open Space	Gross Park	985	East
	Larry L. Maxam Memorial Park	1,380	Southwest
	Robert E. Lundigan Park	1,230	Northeast
Hospitals/Medical Offices	Burbank Emergency Medical Group	1,310	South

Note:
1. Distances are measured from the closest exterior Project (Media Studios) boundary and not from individual areas within the interior of the Project site. The distances are conservative as construction of the Phase 6 site would occur at greater distances than identified.

Source: Google Earth, 2018.

AMBIENT NOISE MEASUREMENTS

To quantify existing ambient noise levels in the Project area, Michael Baker International conducted noise measurements on January 24, 2018; refer to Exhibit 5.3-2, *Noise Measurement Locations*, and Table 5.3-3, *Noise Measurements*. The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the Project site. Short-term measurements were taken at each site between 11:40 a.m. and 1:00 p.m. Meteorological conditions were sunny/partly cloudy skies, cool temperatures, with light wind speeds (approximately 0 to 5 miles per hour). Noise monitoring equipment used for the ambient noise survey consisted of a Brüel & Kjær Hand-held Analyzer Type 2250 equipped with a Type 4189 pre-polarized microphone. The monitoring equipment complies with applicable requirements of the American National Standards Institute (ANSI) for Type I (precision) sound level meters.

Table 5.3-3
Noise Measurements

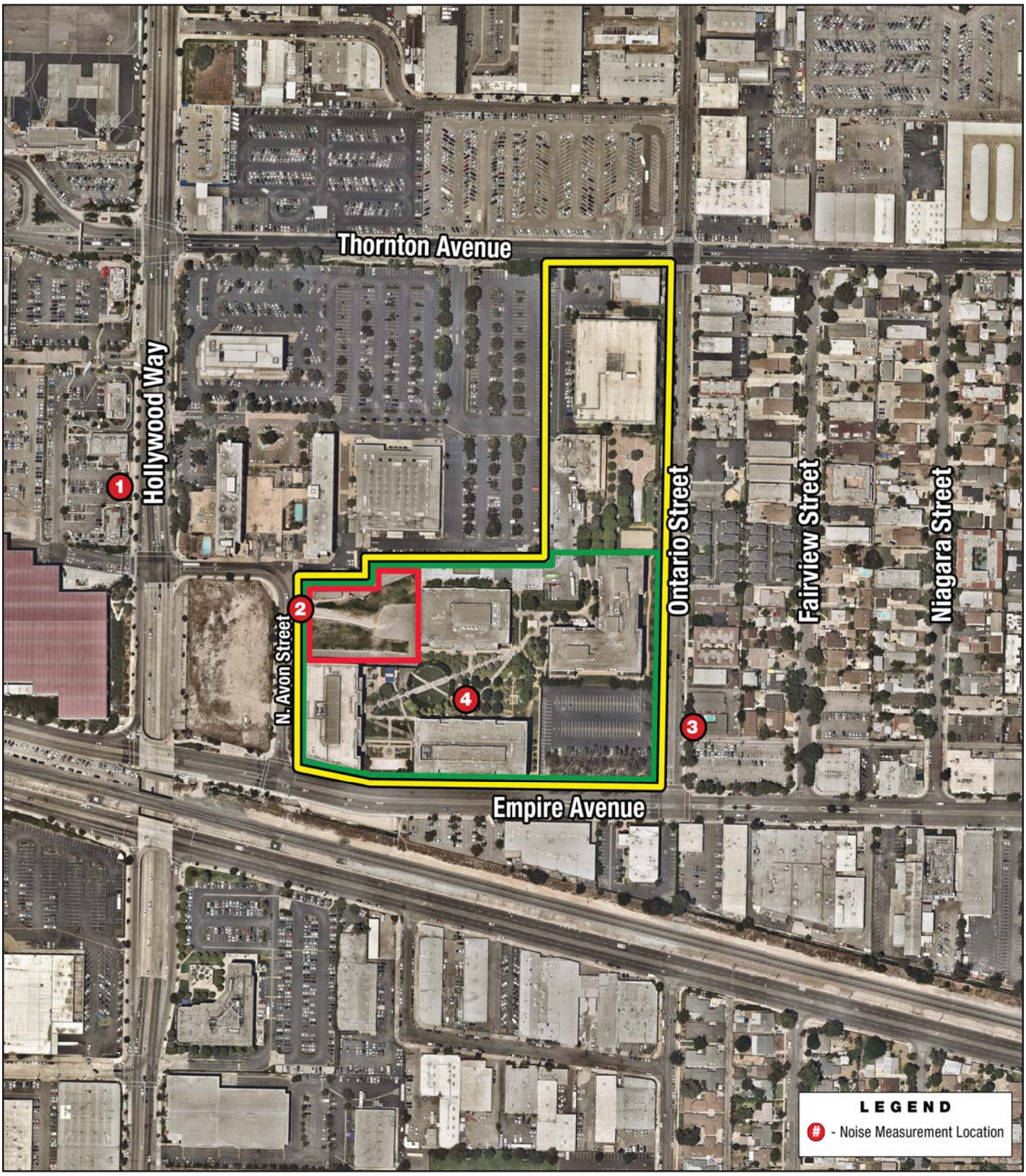
Measurement Location Number	Location	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)	Peak (dBA)	Time
1	Del Taco Parking Lot on North Hollywood Way.	71.3	52.2	95.5	102.1	11:40 a.m.
2	Western boundary of Project site along North Avon Street.	62.5	57.4	73.9	95.0	1:03 p.m.
3	Along Ontario Street near apartments.	60.6	46.6	77.5	96.8	12:09 p.m.
4	Media Studios Campus courtyard.	54.4	47.0	67.3	90.1	12:31 p.m.

Source: Michael Baker International, January 24, 2018.

MOBILE SOURCES

To assess the potential for mobile source noise impacts, it is necessary to determine the noise currently generated by vehicles traveling through the Project area. The existing roadway noise levels near the Project site were projected. Noise models were run using the Federal Highway Administration's Highway Noise Prediction Model (FHWA RD-77-108) together with several roadway and site parameters. These parameters determine the projected impact of vehicular traffic noise and include the roadway classification (e.g., collector, secondary, major or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period. The model does not account for ambient noise levels (i.e., noise from adjacent land uses) or topographical differences between the roadway and adjacent land uses. Noise projections are based on modeled vehicular traffic as derived from the Project's Traffic Study.

Existing modeled traffic noise levels are detailed in Table 5.3-4, *Existing Traffic Noise Levels*.



Source: Google Maps, 2017.

- Media Studios
- PD 89-7
- PD 89-7 Phase 6

MEDIA STUDIOS PROJECT
ENVIRONMENTAL IMPACT REPORT

Noise Measurement Locations

Michael Baker INTERNATIONAL

NOT TO SCALE

09/18 | JN 163182

Exhibit 5.3-2

Table 5.3-4
Existing Traffic Noise Levels

Roadway Segment	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)		
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour
Hollywood Way					
Thornton Avenue to Avon Street	37,172	68.7	871	275	87
Avon Street to Empire Avenue	40,476	69.3	949	300	95
South of Empire Way	40,476	69.2	948	300	95
Ontario Street					
Thornton Avenue to Empire Avenue	3,530	54.4	30	10	3
Thornton Avenue					
North Hollywood Way to Ontario Street	9,627	60.3	119	38	12
Ontario Street to Buena Vista Street	9,744	60.3	120	38	12
East of Buena Vista Street	5,048	57.5	62	20	6
Empire Avenue					
West of Hollywood Way	11,913	63.9	279	88	28
Hollywood Way to Avon Street	10,359	63.3	243	77	24
Avon Street to Ontario Street	10,894	62.1	188	59	19
East of Ontario Street	10,653	62.0	184	58	18
Avon Street					
North Hollywood Way to Empire Avenue	4,787	55.7	41	13	4

Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level

Source: Noise modeling is based upon traffic data within the *Traffic Impact Study for the Media Studios Office Project Burbank, California,* prepared Fehr & Peers, August 2018. Additional traffic data provided by Fehr & Peers on March 15, 2018.

STATIONARY NOISE SOURCES

The Project area consists of industrial, residential, recreational, and open space uses. The primary sources of stationary noise in the Project vicinity are urban-related activities (e.g., heating, ventilation, and air conditioning units, parking areas, and conversations). The noise associated with these sources may represent a single-event or a continuous occurrence.

5.3.2 REGULATORY SETTING

This section summarizes the laws, ordinances, regulations, and standards that are applicable to the Project. Regulatory requirements related to environmental noise are typically promulgated at the local level. However, federal and State agencies provide standards and guidelines to the local jurisdictions.

STATE

California Government Code

California Government Code Section 65302(f) mandates that the legislative body of each county, town, and city adopt a noise element as part of their comprehensive general plan. The local noise element must recognize the land use compatibility guidelines established by the State Department of Health Services, as shown in Table 5.3-5, *Land Use Compatibility for Community Noise Environments*. The guidelines rank noise land use compatibility in terms of "normally acceptable," "conditionally acceptable," "normally unacceptable," and "clearly unacceptable" noise levels for various land use types. Single-family homes are "normally acceptable" in exterior noise environments up to 60 CNEL and "conditionally acceptable" up to 70 CNEL. Multiple-family residential uses are "normally acceptable" up to 65 CNEL and "conditionally acceptable" up to 70 CNEL. Schools, libraries, and churches are "normally acceptable" up to 70 CNEL, as are office buildings and business, commercial, and professional uses.

Table 5.3-5
Land Use Compatibility for Community Noise Environments

Land Use Category	Community Noise Exposure (L_{dn} or CNEL, dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential - Low Density, Single-Family, Duplex, Mobile Homes	50 – 60	55 – 70	70 – 75	75 – 85
Residential - Multiple Family	50 – 65	60 – 70	70 – 75	70 – 85
Transient Lodging - Motel, Hotels	50 – 65	60 – 70	70 – 80	80 – 85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 – 70	60 – 70	70 – 80	80 – 85
Auditoriums, Concert Halls, Amphitheaters	NA	50 – 70	NA	65 – 85
Sports Arenas, Outdoor Spectator Sports	NA	50 – 75	NA	70 – 85
Playgrounds, Neighborhood Parks	50 – 70	NA	67.5 – 75	72.5 – 85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 – 70	NA	70 – 80	80 – 85
Office Buildings, Business Commercial and Professional	50 – 70	67.5 – 77.5	75 – 85	NA
Industrial, Manufacturing, Utilities, Agriculture	50 – 75	70 – 80	75 – 85	NA

Notes: NA = Not Applicable; L_{dn} = Day/Night Average; CNEL = community noise equivalent level; dBA = A-weighted decibels

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

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

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

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

Source: Office of Planning and Research, California, *General Plan Guidelines*, October 2003.

GREEN BUILDING STANDARDS CODE

The State's 2014 Green Building Standards Code contains mandatory measures for non-residential building construction in Section 5.507 on Environmental Comfort. These noise standards are applied to new construction in California for controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when non-residential structures are developed in areas where the exterior noise levels exceed 65 dBA CNEL, such as within a noise contour of an airport, freeway, railroad, and other areas where noise contours are not readily available. If the development falls within the 65 dBA CNEL noise contour of an airport or freeway, the combined sound transmission class (STC) rating of the wall and roof-ceiling assemblies must be at least 50. For those developments in areas where noise contours are not readily available, and the noise level exceeds 65 dBA L_{eq} for any hour of operation, a wall and roof-ceiling combined STC rating of 45, and exterior windows with a minimum STC rating of 40 are required.

LOCAL

Burbank2035 Noise Element

The *Burbank2035 General Plan* (Burbank2035) Noise Element (Noise Element) includes numerous goals, policies, and programs to regulate unwanted noise throughout the City. Certain areas of Burbank are subject to high noise levels from one or more of the following sources: freeways and arterial roadways, construction activities, machinery, industrial activities, railroads, and aircraft. Noise Element goals and policies minimize the effects of noise in the community, particularly in residential areas and near such noise-sensitive land uses as hospitals, convalescent and day care facilities, schools, and libraries. The Noise Element also describes best practices to protect residents and businesses from severe noise levels.

Goal 1 - Noise Compatible Land Uses: Burbank's diverse land use pattern is compatible with current and future noise levels.

Policy 1.1: Ensure the noise compatibility of land uses when making land use planning decisions.

Policy 1.2: Provide spatial buffers in new development projects to separate excessive noise-generating uses from noise-sensitive uses.

Goal 7 - Construction, Maintenance, and Nuisance Noise: Construction, maintenance, and nuisance noise is reduced in residential areas and at noise-sensitive land uses.

Policy 7.1: Avoid scheduling city maintenance and construction projects during evening, nighttime, and early morning hours.

Policy 7.2: Require project applicants and contractors to minimize noise in construction activities and maintenance operations.

Policy 7.3: Limit the allowable hours of construction activities and maintenance operations located adjacent to noise-sensitive land uses.

Policy 7.4: Limit the allowable hours of operation for and deliveries to commercial, mixed-use, and industrial uses located adjacent to residential areas.

NOISE STANDARDS AND LAND USE COMPATIBILITY

Burbank has developed land use compatibility standards, based on recommended parameters from the California Governor's Office of Planning and Research, that rate compatibility using the terms normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable. Using these land use compatibility guidelines, the City has established interior and exterior noise standards. The City's land use compatibility standards are presented in Table 5.3-6, *Maximum Allowable Noise Exposure – Transportation Sources*.

Table 5.3-6
Maximum Allowable Noise Exposure – Transportation Sources

Land Use Category	Exterior Normally Acceptable[1] (dBA CNEL/L_{dn})	Exterior Possibly Acceptable[2] (dBA CNEL/L_{dn})	Exterior Normally Unacceptable[3] (dBA CNEL/L_{dn})	Interior Acceptable[4] (dBA CNEL/L_{dn} except where noted)
Residential, single-family	Up to 60	61-70	71 and higher	45
Residential, multi-family	Up to 65	66-70	71 and higher	45
Residential, multi-family mixed-use	Up to 65	66-70	71 and higher	45
Transient lodging	Up to 65	66-70	71 and higher	45
Hospitals; nursing homes	Up to 60	61-70	71 and higher	45
Theaters; auditoriums; music halls	Up to 60	61-70	71 and higher	35 dBA L_{eq}[5]
Churches; meeting halls	Up to 60	61-70	71 and higher	40 dBA L_{eq}
Playgrounds; neighborhood parks	Up to 70	71-75	75 and higher	--
Schools; libraries; museums[6]	--	--	--	45 dBA L_{eq}
Offices[7]	--	--	--	45 dBA L_{eq}
Retail/commercial[7]	--	--	--	--
Industrial	--	--	--	--

Notes:
1. Normally acceptable means that land uses may be established in areas with the stated ambient noise level, absent any unique noise circumstances.
2. Possibly acceptable means that land uses should be established in areas with the stated ambient noise level only when exterior areas are omitted from the project or noise levels in exterior areas can be mitigated to the normally acceptable level.
3. Normally unacceptable means that land uses should generally not be established in areas with the stated ambient noise level. If the benefits of the project in addressing other Burbank2035 goals and policies outweigh concerns about noise, the use should be established only where exterior areas are omitted from the project or where exterior areas are located and shielded from noise sources to mitigate noise to the maximum extent feasible.
4. Interior acceptable means that the building must be constructed so that interior noise levels do not exceed the stated maximum, regardless of the exterior noise level. Stated maximums are as determined for a typical worst-case hour during periods of use.
5. dBA L_{eq} is as determined for a typical worst-case hour during periods of use.
6. Within the Airport Influence Area, these uses are not acceptable above 65 dBA CNEL if subject to the City's discretionary review procedures.
7. Within the Airport Influence Area, these uses may be acceptable up to 75 dBA CNEL following review for additional noise attenuation; in excess of 75 dBA CNEL these uses are not acceptable.

Source: City of Burbank, *Burbank 2035 General Plan Noise Element*, February 19, 2013.

The City's land use compatibility standards are based on the existing or intended future use of the property. The standards are purposefully general, and not every specific land use is identified. Application of the noise standards vary on a case-by-case basis according to location, development type, and associated noise sources. When stationary noise is the primary noise source, and to ensure that noise producers do not adversely affect noise-sensitive land uses, the City applies a second set of standards. These hourly daytime and nighttime performance standards (expressed in L_{eq}) for stationary noise sources are designed to protect noise-sensitive land uses adjacent to stationary sources from excessive noise. Table 5.3-7, *Maximum Allowable Noise Exposure – Stationary Noise Sources*, summarizes stationary-

source noise standards for various land use types, which represent acceptable noise levels at exterior spaces of the sensitive receptor.

Table 5.3-7
Maximum Allowable Noise Exposure – Stationary Noise Sources

Noise Source	Noise Level Descriptor	Exterior Spaces[2] - Daytime (7 a.m. to 10 p.m.)	Exterior Spaces[2] - Nighttime (10 p.m. to 7 a.m.)
Typical	Hourly dBA L_{eq}	55[1]	45[1]
Tonal, impulsive, repetitive, or consisting primarily of speech or music	Hourly dBA L_{eq}	50[1]	40[1]
Any	dBA L_{max}	75	65

Notes:
1. The City may impose noise level standards that are more or less restrictive than those specified above based upon determination of existing low or high ambient noise levels.
2. Where the location of exterior spaces (i.e., outdoor activity areas) is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use. Where it is not practical to mitigate exterior noise levels at patio or balconies of apartment complexes, a common area such as a pool or recreation area may be designated as the exterior space.

The City of Burbank has established non-transportation-related noise standards of 55 dBA hourly L_{eq} (L_{eq}[h]) for daytime hours (7:00 a.m. to 10:00 p.m.) and 45 dBA L_{eq}[h] for nighttime hours (10:00 p.m. to 7:00 a.m.), and land use compatibility noise standards of up to 65 dBA L_{dn} for outdoor activity areas and 45 dBA L_{dn} for interior spaces for residential land uses. The City of Burbank exempts construction noise that occurs between the hours of 7:00 a.m. to 7:00 p.m. weekdays, and 8:00 a.m. to 5:00 p.m. Saturdays. Construction noise is held to regular noise standards outside the hours listed above and on Sundays and Federal holidays.

Burbank Noise Ordinance

The City of Burbank Noise Ordinance (Title 9, Building Regulations; Chapter 3, Environmental Protection; Article 2, Noise Control of the BMC) contains performance standards for the purpose of prohibiting unnecessary, excessive, and annoying sounds that, at certain levels and frequencies, are detrimental to the health and welfare of the City's residents. In addition, the BMC identifies the days and hours that construction, alteration, movement, enlargement, replacement, repair, equipment, maintenance, removal, and demolition work can take place in the City.

The following sections of the City's Noise Ordinance are applicable to the proposed Project.

9-1-1-105.8: Construction Hours. The following construction hours shall apply to all construction, alteration, movement, enlargement, replacement, repair, equipment, maintenance, removal, and demolition work regulated by this code:

- Construction Hours:
  - Monday–Friday: 7:00 a.m. to 7:00 p.m.
  - Saturday: 8:00 a.m. to 5:00 p.m.
  - Sunday and City Holidays: None
  - Exception:

- Single-family residential owner-builder permits when work is performed solely by the owner and family members:
  - Monday–Friday: 7:00 a.m. to 7:00 p.m.
  - Saturday: 8:00 a.m. to 5:00 p.m.
  - Sunday and City Holidays: 8:00 a.m. to 5:00 p.m.

- Where work must be performed in an emergency situation, as defined in Section 9-3-204 of the Burbank Municipal Code.

- The Community Development Director may grant exceptions wherever there are practical difficulties involved in carrying out the provisions of this section or other specific onsite activity warrants unique consideration.

- The Planning Board or City Council may grant exceptions pursuant to land use entitlements.

9-3-208: *Machinery, Equipment, Fans and Air Conditioning*.

- *Decibel Limit:* No person shall operate any machinery, equipment, pump, fan, air conditioning apparatus, or similar mechanical device in such a manner as to cause the ambient noise level to be exceeded by more than five decibels. In the case of leaf blowers, as defined by Section 9-3-214 of this article, the ambient noise level may not be exceeded by more than 20 decibels.

- *Ambient Noise Base Level:* For the purposes of this section only, all ambient noise measurements shall commence at the following ambient noise base levels in the zones and during the times shown:

Noise Level (dB)	Time of Day	Land Use
45	Night	Residential
55	Any	Residential
65	Any	Commercial
70	Any	All Other

Accordingly, and by way of illustration, the ambient noise level in commercial zones shall be deemed to be 65 dBA notwithstanding a lower reading; provided, however, that when the ambient noise base level for the property on which the machinery, equipment, pump, fan, air conditioning apparatus or similar mechanical device is located is higher than the ambient noise base level for adjacent property, the ambient noise base level for the adjacent property shall apply. Properties separated by a street shall be deemed to be adjacent to one another.

5.3.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

Appendix G, of the CEQA Guidelines contains analysis guidelines related to the assessment of noise impacts. These guidelines have been utilized as thresholds of significance for this analysis. As stated in Appendix G, a project would create a significant environmental impact if it would:

- Expose persons to, or generate, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies (refer to Impact Statement NOI-1);

- Expose persons to or generate excessive ground borne vibration or ground borne noise levels (refer to Impact Statement NOI-2);

- Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project (refer to Impact Statements NOI-1, NOI-3, and NOI-4);

- Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (refer to Impact Statements NOI-1, NOI-3, and NOI-4);

- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels (refer to Impact Statement NOI-5); and/or

- For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels (refer to Impact Statement NOI-5).

Based on these standards, the effects of the proposed Project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

NOISE IMPACT CRITERIA

Significance of Changes in Noise Levels

Under Burbank2035, the analysis of noise impacts and determining appropriate mitigation under CEQA, an increase in ambient noise levels is assumed to be a significant noise impact if a project causes ambient noise levels to exceed the following:

- Where the existing ambient noise level is less than 60 dBA CNEL/L_{dn}, a project-related permanent increase in ambient noise levels of 5.0 dBA CNEL/L_{dn} or greater.

- Where the existing ambient noise level is greater than 60 dBA CNEL/L_{dn}, a project-related permanent increase in ambient noise levels of 3.0 dBA CNEL/L_{dn} or greater.

Significance of Changes in Cumulative Traffic Noise Levels

The Project's contribution to a cumulative noise increase would be considered significant when the combined effect exceeds the perception level (i.e., auditory level increase) threshold. The combined effect compares the "cumulative with project" condition to the "existing" conditions. This comparison accounts for the traffic noise increase from the Project generated in combination with traffic generated

by projects in the cumulative projects list. The following criteria have been utilized to evaluate the combined effect of the cumulative noise increase.

- *Combined Effects:* The cumulative with Project noise level ("Future With Project") would cause a significant cumulative impact if a 3.0 dB increase over existing conditions occurs and the resulting noise level exceeds the applicable exterior standard at a sensitive use.

Although there may be a significant noise increase due to the proposed Project in combination with other related projects (combined effects), it must also be demonstrated that the Project has an incremental effect. In other words, a significant portion of the noise increase must be due to the proposed Project. The following criteria have been utilized to evaluate the incremental effect of the cumulative noise increase.

- *Incremental Effects*: The "Future With Project" causes a 1.0 dBA increase in noise over the "Future No Project" noise level.

A significant impact would result only if both the combined and incremental effects criteria have been exceeded and the resulting noise level exceeds the applicable exterior standard at a noise sensitive use.

5.3.4 IMPACTS AND MITIGATION MEASURES

SHORT-TERM CONSTRUCTION NOISE IMPACTS

NOI-1 GRADING AND CONSTRUCTION WITHIN THE AREA WOULD NOT RESULT IN SIGNIFICANT TEMPORARY NOISE IMPACTS TO NEARBY NOISE SENSITIVE RECEIVERS.

Impact Analysis: Construction activities would occur within the Phase 6 site, located in the northwest portion of the Media Studios campus. Construction activities would generate perceptible noise levels during the demolition, grading, paving, and building construction phases. High groundborne noise levels and other miscellaneous noise levels can be created by the operation of heavy-duty trucks, backhoes, bulldozers, excavators, front-end loaders, scrapers, and other heavy-duty construction equipment. Table 5.3-8, *Maximum Noise Levels Generated by Construction Equipment*, indicates the anticipated noise levels of construction equipment. The average noise levels presented in Table 5.3-8 are based on the quantity, type, and Acoustical Use Factor for each type of equipment that is anticipated to be used.

Grading and site preparation for Phase 6 construction would require excavation for one level of subterranean parking resulting in approximately 15,400 cubic yards of import. The primary construction equipment noise sources used during construction would be during earthwork activities (use of graders, excavators, dozers), and building construction (use of forklifts, tractors/loaders/backhoes, and a crane). Pile drivers typically generate the highest noise levels, emitting approximately 101 dBA at a distance of 50 feet. Point sources of noise emissions are atmospherically attenuated by a factor of 6 dBA per doubling of distance. This assumes a clear line-of-sight and no other machinery or equipment noise that would mask Phase 6 construction noise. The shielding of buildings and other barriers that interrupt line-of-sight conditions further reduce noise levels from point sources.

Table 5.3-8
Maximum Noise Levels Generated by Construction Equipment

Type of Equipment	Acoustical Use Factor[1] (percent)	L_{max} at 50 Feet (dBA)	L_{max} at 100 Feet (dBA)	L_{max} at 690 Feet (dBA)
Crane	16	81	75	58
Dozer	40	82	76	59
Excavator	40	81	75	58
Generator	50	81	75	58
Grader	40	85	79	62
Other Equipment (greater than five horse power)	50	85	79	62
Paver	50	77	71	54
Pile Driver (impact)	20	101	95	78
Roller	20	80	74	57
Tractor	40	84	78	61
Truck	40	80	74	57
Welder	40	73	67	50

Note:
1. Acoustical use factor (percent): Estimates the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.

Source: Federal Highway Administration, Roadway Construction Noise Model (FHWA-HEP-05-054), January 2006.

Construction noise impacts generally happen when construction activities occur in areas immediately adjoining noise sensitive land uses, during noise sensitive times of the day, or when construction durations last over extended periods of time. The closest existing sensitive receptors are residential uses located approximately 690 feet east of the Phase 6 construction site. As indicated in Table 5.3-8, typical construction noise levels would range from approximately 50 to 78 dBA at this distance. These noise levels could intermittently occur for a few days when construction equipment is operating closest to the residential uses. The remainder of the time, the construction noise levels would be much less because the equipment would be working in a large area farther away from the existing sensitive uses.

The City of Burbank exempts construction activities from noise standards if it occurs between the hours of 7:00 a.m. to 7:00 p.m. during weekdays and 8:00 a.m. to 5:00 p.m. on Saturdays. However, Phase 6 construction activities could expose nearby residential uses to temporary excessive noise levels (50 to 78 dBA). Therefore, the proposed Project would implement Best Management Practices (BMPs) to ensure that construction noise levels are reduced to the maximum extent feasible. Such BMPs may include but are not limited to:

- Prior to approval of grading plans and/or issuance of building permits, plans shall include a note indicating that noise-generating Phase 6 construction activities shall only occur between the hours of 7:00 a.m. to 7:00 p.m. on weekdays, 8:00 a.m. to 5:00 p.m. on Saturdays, and with no activity allowed on Sundays. The Project construction supervisor shall ensure compliance with the note and the City shall conduct periodic inspection at its discretion.

- During Phase 6 construction activities, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with

manufacturers' standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the Phase 6 construction area.

- The construction contractor shall locate equipment staging in areas that would create the greatest distance between construction-related noise sources and noise-sensitive receivers nearest the Phase 6 construction area (i.e., to the center) during all construction activities.

- The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 7:00 a.m. to 7:00 p.m. on weekdays, 8:00 a.m. to 5:00 p.m. on Saturdays, and with no activity allowed on Sundays.). The haul route exhibit shall design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise.

Compliance with the BMPs listed above would reduce construction noise impacts at nearby sensitive receptors to ensure normal residential activities are not interfered with. A less than significant impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

VIBRATION IMPACTS

NOI-2 PROJECT IMPLEMENTATION WOULD NOT RESULT IN SIGNIFICANT VIBRATION IMPACTS TO NEARBY SENSITIVE RECEPTORS.

Impact Analysis:

SHORT-TERM CONSTRUCTION

Project construction can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s).

The Federal Transit Administration (FTA) has published standard vibration velocities for construction equipment operations. In general, the FTA architectural damage criterion for continuous vibrations for non-engineered timber and masonry buildings is 0.2 inch/second, which is conservative even for sustained pile driving. Pile driving levels often exceed 0.2 inch/second at distances of 50 feet, and 0.5 inch/second at 25 feet without any apparent damage to buildings. Additionally, the FTA recommends using the 0.5 inch/second PPV significance threshold for reinforced concrete, steel, or timber buildings,[1] such as the commercial office buildings within PD 89-7 adjacent to the Phase 6 construction area.

[1] Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Guidelines*, May 2006.

Construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. The typical vibration produced by construction equipment is illustrated in Table 5.3-9, *Typical Vibration Levels for Construction Equipment*.

Table 5.3-9
Typical Vibration Levels for Construction Equipment

Equipment	Approximate peak particle velocity (inches/second) at:[1,2]	
	50 feet	100 feet
Large bulldozer	0.031	0.004
Loaded trucks	0.027	0.003
Small bulldozer	0.001	0.000
Jackhammer	0.012	0.002
Pile Driver (Impact)	0.227	0.028
Vibratory compactor/roller	0.074	0.009

Notes:
1. Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Guidelines*, May 2006.
2. Calculated using the following formula:
   $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$
   where: PPV (equip) = the peak particle velocity in in/sec of the equipment adjusted for the distance
   PPV (ref) = the reference vibration level in in/sec from Table 12-2 of the FTA *Transit Noise and Vibration Impact Assessment Guidelines*
   D = the distance from the equipment to the receiver

The closest structures to the Phase 6 construction area would be the adjacent commercial office buildings within PD 89-7 located approximately 50 feet to the east and south. Groundborne vibration would be generated primarily during Phase 6 grading and construction activities on-site and by off-site haul-truck travel. As indicated in Table 5.3-9, vibration velocities from typical heavy construction equipment would range from 0.001 to 0.227 inch-per-second peak particle velocity (PPV) at 50 feet from the source of activity, which would not exceed the FTA's 0.5 inch/second threshold for reinforced concrete, steel, or timber buildings. Further, Phase 6 construction would be restricted to daytime hours consistent with City requirements thereby eliminating potential vibration impacts during the sensitive nighttime hours. As such, impacts associated with construction are anticipated to be less than significant and no mitigation measures are required.

LONG-TERM OPERATIONAL

The Project would not include any stationary or mobile vibration sources that would generate noticeable vibration levels at off-site uses. Therefore, a less than significant impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

LONG-TERM (MOBILE) NOISE IMPACTS

NOI-3 TRAFFIC GENERATED BY THE PROPOSED PROJECT WOULD NOT SIGNIFICANTLY CONTRIBUTE TO EXISTING TRAFFIC NOISE IN THE AREA OR EXCEED ESTABLISHED NOISE STANDARDS.

Impact Analysis: The "Future Without Project" and "Future With Project" scenarios were compared for long-term conditions. In Table 5.3-10, *Future Traffic Noise Levels*, the noise levels (dBA at 100 feet from centerline) depict what would typically be heard 100 feet perpendicular to the roadway centerline. As indicated in Table 5.3-10 under the "Future Without Project" scenario, noise levels at a distance of 100 feet from the centerline would range from approximately 55.4 dBA to 70.1 dBA. The highest noise levels under "Future Without Project" conditions would occur along Hollywood Way, between Avon Street and Empire Avenue. Under the "Future With Project" scenario, noise levels at a distance of 100 feet from the centerline would range from approximately 55.8 dBA to 70.2 dBA. The highest noise levels occurring under these conditions would also occur along Hollywood Way, between Avon Street and Empire Avenue.

Table 5.3-10 also compares the "Future Without Project" scenario to the "Future With Project" scenario. The proposed Project would increase noise levels on the surrounding roadways by a maximum of 0.4 dBA along Avon Street, between North Hollywood Way and Empire Avenue. Therefore, the Project would not increase traffic noise levels by 3.0 dBA or more, and operational traffic volumes would not significantly contribute to existing traffic noise in the area. Project-related future traffic noise impacts along these roadway segments would be less than significant.

Table 5.3-10
Future Traffic Noise Levels

Roadway Segment	Future Without Project					Future With Project					Difference in dBA @ 100 feet from Roadway
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	
Hollywood Way											
Thornton Avenue to Avon Street	47,298	69.8	1,109	351	111	47,517	69.8	1,114	352	111	0.0
Avon Street to Empire Avenue	49,517	70.1	1,159	367	116	49,808	70.2	1,167	369	117	0.1
South of Empire Way	48,899	70.0	1,145	362	115	49,190	70.1	1,153	365	115	0.1
Ontario Street											
Thornton Avenue to Empire Avenue	4,952	55.8	43	13	4	4,959	55.8	43	13	4	0.0
Thornton Avenue											
North Hollywood Way to Ontario Street	12,757	61.5	157	50	16	12,717	61.5	157	50	16	0.0
Ontario Street to Buena Vista Street	9,612	60.3	119	38	12	9,640	60.3	119	38	12	0.0
East of Buena Vista Street	4,198	56.7	52	16	5	4,198	56.7	52	16	5	0.0
Empire Avenue											
West of Hollywood Way	12,383	64.0	290	92	29	12,473	64.1	293	93	29	0.1
Hollywood Way to Avon Street	10,483	63.3	246	78	25	10,575	63.3	248	78	25	0.0
Avon Street to Ontario Street	12,743	62.8	220	70	22	12,982	62.9	224	71	22	0.1
East of Ontario Street	14,284	63.3	246	78	25	14,583	63.4	251	79	25	0.1
Avon Street											
North Hollywood Way to Empire Avenue	4,443	55.4	38	12	4	4,951	55.8	43	13	4	0.4

Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level

Source: Noise modeling is based upon traffic data within the *Traffic Impact Study for the Media Studios Office Project Burbank, California*, prepared Fehr & Peers, August 2018. Additional traffic data provided by Fehr & Peers on March 15, 2018.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

LONG-TERM (STATIONARY) NOISE IMPACTS

NOI-4 THE PROPOSED PROJECT WOULD NOT RESULT IN A SIGNIFICANT INCREASE IN LONG-TERM STATIONARY AMBIENT NOISE LEVELS.

Impact Analysis: Noise associated with operational activities of the proposed Project would be generated by heating, ventilation, and air conditioning (HVAC) units, and underground parking areas. The following is an analysis of each of the Project's stationary noise sources and associated impacts.

MECHANICAL EQUIPMENT

Future uses at the Project site would use HVAC systems for the proposed office building. HVAC systems typically result in noise levels that average between 40 and 50 dBA L_{eq} at 50 feet from the equipment. Due to building setbacks, access roads, loading areas, and other intervening facilities, a separation of at least 50 feet would buffer the commercial office building uses to the east and south and the on-site HVAC units. At this distance, noise levels from the HVAC would not exceed the exterior ambient noise standards of 55 dBA (refer to Table 5.3-7). Therefore, long-term stationary noise impacts from mechanical equipment would be less than significant.

PARKING AREAS

Vehicular access to the proposed office building would be provided via the existing entry drive at Empire Avenue and a proposed Project entry at North Avon Street. A total of 162 parking spaces are proposed in the subterranean level below the proposed Phase 6 office building and the balance (319 spaces) would be accommodated utilizing the excess parking in the adjacent and interconnected four-level subterranean parking structure to the south and east. Traffic associated with parking lots is typically not of sufficient volume to exceed community noise standards, which are based on a time-averaged scale (L_{dn}) scale. However, the instantaneous maximum sound levels generated by a car door slamming, engine starting up and car pass-bys may be an annoyance to adjacent noise-sensitive receptors. Estimates of the maximum noise levels associated with some parking lot activities are presented in Table 5.3-11, *Typical Noise Levels Generated by Parking Lots*.

Table 5.3-11
Typical Noise Levels Generated by Parking Lots

Noise Source	Maximum Noise Levels at 50 Feet from Source
Car door slamming	61 dBA L_{eq}
Car starting	60 dBA L_{eq}
Car idling	53 dBA L_{eq}

Source: Kariel, H. G., *Noise in Rural Recreational Environments*, Canadian Acoustics 19(5), 3-10, 1991.

As shown in Table 5.3-11, parking lot noise levels would range between 53 dBA and 61 dBA at a distance of 50 feet. However, the proposed subterranean parking garage would be fully enclosed and result in inaudible noise levels at off-site uses. In addition, parking lot noise is currently generated at the existing Media Studios parking structures to the south and east of the Phase 6 site. As such, parking lot noise impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

AIRPORT NOISE IMPACTS

NOI-5 THE PROJECT WOULD NOT EXPOSE PEOPLE RESIDING OR WORKING IN THE PROJECT AREA TO EXCESSIVE AIRPORT NOISE LEVELS.

Impact Analysis: The public airport nearest to the Project site is the Hollywood-Burbank (Burbank) Airport. According to the Los Angeles County Airport Land Use Commission (ALUC), the Project site is located outside the Burbank Airport 65 CNEL noise contour.[2] The measured existing ambient noise level at the Project site (measured during Burbank Airport operations) is 62.5 dBA L_{eq}; refer to noise measurement location 2 in Table 5.3-3. As such, Burbank Airport noise would not exceed the City's normally acceptable exterior noise standard (50-70 dBA CNEL) for office buildings. Additionally, the Project site is not located within the vicinity of a private airstrip. Therefore, the Project would not expose substantial numbers of people to excessive noise levels from airports and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.3.5 CUMULATIVE IMPACTS

Table 4-1, *Cumulative Projects List*, identifies the related projects and other possible development in the area determined as having the potential to interact with the proposed Project to the extent that a significant cumulative effect may occur. The following discussions are included per topic area to determine whether a significant cumulative effect would occur.

SHORT-TERM CONSTRUCTION NOISE IMPACTS

- **GRADING AND CONSTRUCTION WITHIN THE PROJECT AREA WOULD NOT RESULT IN CUMULATIVELY SIGNIFICANT SHORT-TERM NOISE IMPACTS TO NEARBY NOISE SENSITIVE RECEIVERS.**

Impact Analysis: Construction activities associated with the proposed Project and cumulative projects may overlap, resulting in construction noise in the area. However, cumulative construction noise impacts would affect only the areas immediately adjacent to the construction site. The closest cumulative project

[2] Los Angeles County Airport Land Use Commission, *Burbank/Glendale/Pasadena Airport Influence Area*, http://planning.lacounty.gov/assets/upl/project/aluc_airport-burbank.pdf, accessed April 9, 2018.

is the Airport Hotels adjoining the Project site to the north. Construction of this cumulative project may occur at the same time as the proposed Project. The City of Burbank has discretionary authority over the Airport Hotels. Construction noise impacts for this project would be mitigated through compliance with the City's standards and ordinances, and any necessary mitigation measures identified through the City's development review process. Thus, impacts would not be cumulatively considerable. In addition, the proposed Project would result in a less than significant impact regarding short-term construction noise with implementation of the BMPs discussed in Impact Statement NOI-1 and compliance with the City's noise standards and ordinances. Therefore, the Project's contribution to cumulative noise impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

VIBRATION IMPACTS

- **PROJECT IMPLEMENTATION WOULD NOT RESULT IN CUMULATIVELY SIGNIFICANT VIBRATION IMPACTS TO NEARBY SENSITIVE RECEPTORS.**

Impact Analysis: As stated above, construction activities associated with the proposed Project and cumulative projects may overlap. Despite the potential for overlap, groundborne vibration generated at the Project site during construction would not be in exceedance of the FTA threshold of 0.50 inch/second PPV for reinforced concrete, steel, or timber buildings. In addition, there would be no vibration impacts associated with operations at the Project site. The closest cumulative project is the Airport Hotels adjoining the Project site to the north. Although construction of this cumulative project may occur at the same time as the proposed Project, cumulatively significant construction vibration would generally only occur when construction activities on the sites occur in close vicinity of one another in a way that concentrates the vibration. The further construction activities occur from one another on each respective project site, the quicker the vibration dissipates by the time it reaches a sensitive receptor. Additionally, because heavy construction equipment moves around a project site and would only occur for limited durations, average vibration levels at the nearest structures would diminish with increasing distance between the structures and construction activities. As such, cumulative construction vibration impacts would not occur. Both the proposed Project and cumulative related projects would be required to comply with the BMC limitations on allowable hours of construction and mitigate their respective construction vibration impacts, as required. Therefore, the Project's contribution to cumulative vibration impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

LONG-TERM (MOBILE) NOISE IMPACTS

- **TRAFFIC GENERATED BY THE PROPOSED PROJECT WOULD NOT SIGNIFICANTLY CONTRIBUTE TO EXISTING TRAFFIC NOISE IN THE AREA OR EXCEED ESTABLISHED NOISE STANDARDS.**

Impact Analysis: The cumulative mobile noise analysis is conducted in a two-step process. First, the combined effects from both the proposed Project and other projects are compared. Second, for combined effects that are determined to be cumulatively significant, the Project's incremental effects then are analyzed. The Project's contribution to a cumulative traffic noise increase would be considered significant when the combined effect exceeds perception level (i.e., auditory level increase) threshold. The combined effect compares the "cumulative with project" condition to "existing" conditions. This comparison accounts for the traffic noise increase from the Project generated in combination with traffic generated by projects in the cumulative projects list. The following criteria have been utilized to evaluate the combined effect of the cumulative noise increase.

Combined Effects. The cumulative with Project noise level ("Future With Project") would cause a significant cumulative impact if a 3.0 dB increase over existing conditions occurs and the resulting noise level exceeds the applicable exterior standard at a sensitive use.

Although there may be a significant noise increase due to the proposed Project in combination with other related projects (combined effects), it must also be demonstrated that the Project has an incremental effect. In other words, a significant portion of the noise increase must be due to the proposed Project. The following criteria have been utilized to evaluate the incremental effect of the cumulative noise increase.

Incremental Effects. The "Future With Project" causes a 1.0 dBA increase in noise over the "Future Without Project" noise level.

A significant impact would result only if both the combined and incremental effects criteria have been exceeded. Noise by definition is a localized phenomenon, and drastically reduces as distance from the source increases. Consequently, only proposed projects and growth due to occur in the general vicinity of the Project site would contribute to cumulative noise impacts. Table 5.3-12, *Cumulative Noise Scenario*, lists the traffic noise effects along roadway segments in the Project vicinity for "Existing," "Future Without Project," and "Future With Project," including incremental and net cumulative impacts.

First, it must be determined whether the "Future With Project" increase above existing conditions (*Combined Effects*) is exceeded. Per Table 5.3-12, this criteria is not exceeded along any of the segments. Next, under the *Incremental Effects* criteria, cumulative noise impacts are defined by determining if the forecast ambient ("Future Without Project") noise level is increased by 1 dB or more. Based on the results of Table 5.3-12, the *Incremental Effects* criteria would not be exceeded. As such, there would not be any roadway segments that would result in significant impacts, as they would not exceed either the combined or the incremental effects criteria. The proposed Project would not result in long-term mobile noise impacts based on Project generated traffic as well as cumulative and incremental noise levels. Therefore, the proposed Project, in combination with cumulative background traffic noise levels, would result in a less than significant cumulative impact in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

Table 5.3-12
Cumulative Noise Scenario

Roadway Segment	Existing	Future Without Project	Future With Project	Combined Effects	Incremental Effects	Cumulatively Significant Impact?
	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	Difference In dBA Between Existing and Future With Project	Difference In dBA Between Future Without Project and Future With Project	
Hollywood Way						
Thornton Avenue to Avon Street	68.7	69.8	69.8	1.1	0.0	**No**
Avon Street to Empire Avenue	69.3	70.1	70.2	0.9	0.1	**No**
South of Empire Way	69.2	70.0	70.1	0.9	0.1	**No**
Ontario Street						
Thornton Avenue to Empire Avenue	54.4	55.8	55.8	1.4	0.0	**No**
Thornton Avenue						
North Hollywood Way to Ontario Street	60.3	61.5	61.5	1.2	0.0	**No**
Ontario Street to Buena Vista Street	60.3	60.3	60.3	0.0	0.0	**No**
East of Buena Vista Street	57.5	56.7	56.7	-0.8	0.0	**No**
Empire Avenue						
West of Hollywood Way	63.9	64.0	64.1	0.2	0.1	**No**
Hollywood Way to Avon Street	63.3	63.3	63.3	0.0	0.0	**No**
Avon Street to Ontario Street	62.1	62.8	62.9	0.8	0.1	**No**
East of Ontario Street	62.0	63.3	63.4	1.4	0.1	**No**
Avon Street						
North Hollywood Way to Empire Avenue	55.7	55.4	55.8	0.1	0.4	**No**

Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level

Source: Noise modeling is based upon traffic data within the *Traffic Impact Study for the Media Studios Office Project Burbank, California*, prepared Fehr & Peers, August 2018. Additional traffic data provided by Fehr & Peers on March 15, 2018.

LONG-TERM (STATIONARY) NOISE IMPACTS

- **THE PROPOSED PROJECT WOULD NOT RESULT IN A CUMULATIVELY SIGNIFICANT INCREASE IN LONG-TERM OPERATIONAL AMBIENT NOISE LEVELS.**

Impact Analysis: Although related cumulative projects have been identified within the Project study area, the noise generated by stationary equipment at each project site cannot be adequately quantified due to the conceptual nature of most of the projects. However, each cumulative project would require separate discretionary approval and CEQA assessment, that would address potential noise impacts and identify necessary attenuation measures, where appropriate. Additionally, as noise dissipates as it travels away from its source, noise impacts from stationary sources would be limited to each of the respective sites and their vicinities. The nearest cumulative project would be the Airport Hotels adjoining the Project site to the north. The Airport Marriott Hotel currently operates mechanical equipment and other stationary noise sources at the site to the north of the Project site. As such, the Airport Hotels would not introduce new stationary noise that isn't already contributing to the existing noise environment.

As noted above, the proposed Project would not result in significant stationary noise impacts. The proposed Project would not result in stationary long-term equipment that would significantly affect surrounding sensitive receptors. Thus, the proposed Project and cumulative projects are not anticipated to result in a significant cumulative impact.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

AIRPORT NOISE IMPACTS

- **THE PROPOSED PROJECT WOULD NOT RESULT IN A CUMULATIVELY SIGNIFICANT INCREASE IN EXCESSIVE AIRPORT NOISE LEVELS.**

Impact Analysis: As discussed above, the Project site is located outside the Burbank Airport 65 CNEL noise contour, which is below the City's land use compatibility standards for office buildings. Therefore, impacts would not be cumulatively considerable, and a less than significant cumulative impact would occur.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.3.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No unavoidable significant impacts related to noise have been identified following compliance with the applicable Federal, State, and local regulatory requirements.

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