

APPENDIX G

NOISE DATA

MEMORANDUM

To: Hannah Smith, P.E., Kimley-Horn and Associates
From: Elena Ajdari and Ryan Chiene, Kimley-Horn and Associates
Date: February 10, 2022
Subject: Raising Cane's #0624 – Hollywood, CA – Noise Analysis

Purpose

The purpose of this memorandum is to identify noise and vibration impacts associated with construction and operations of the proposed Hollywood Raising Cane's Project (project) located within the Hollywood area of the City of Los Angeles, California.

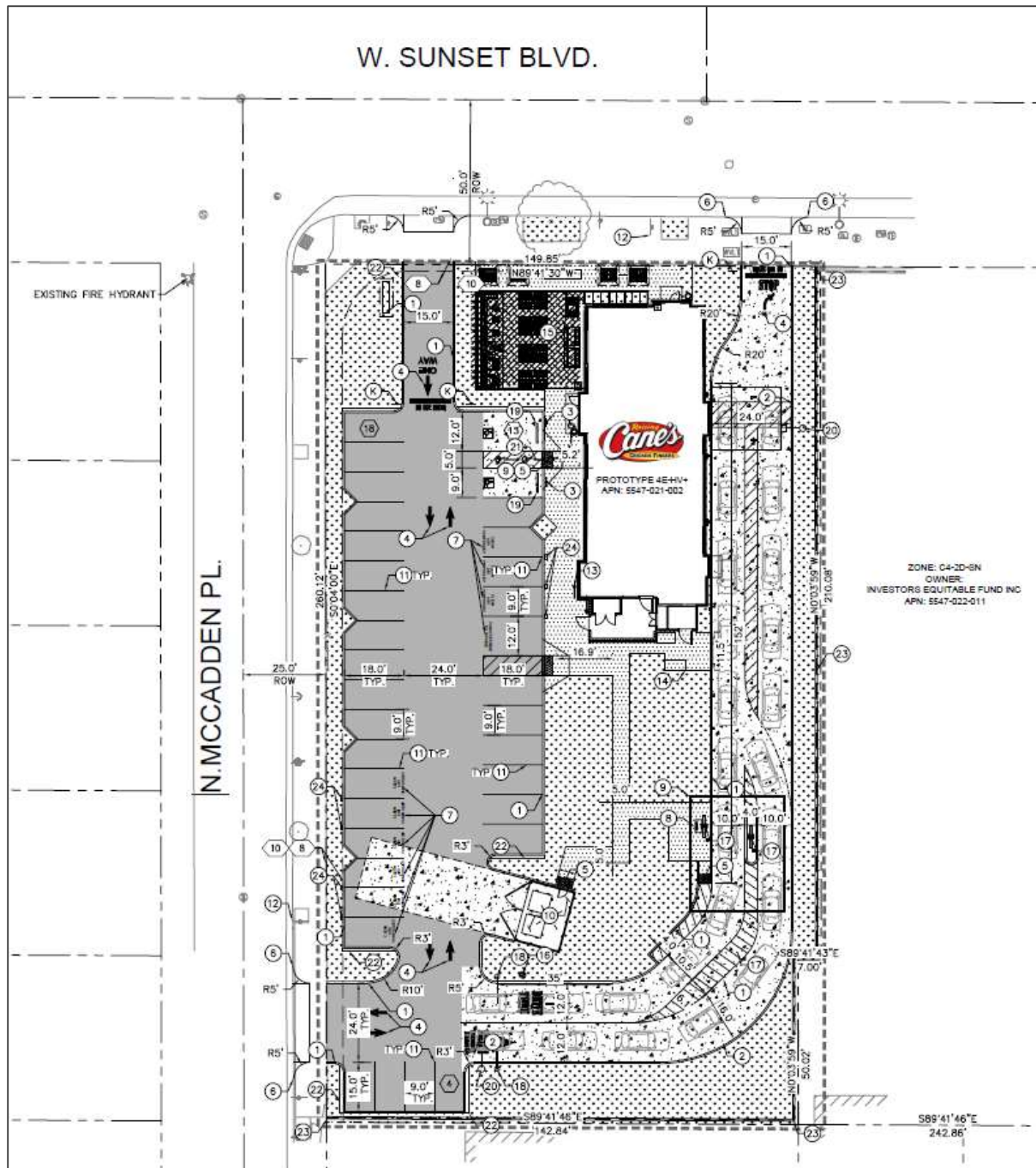
Project Location

The project is generally located along Sunset Boulevard in the central portion of the City of Los Angeles (City) within the Hollywood neighborhood. The project is approximately 0.75-mile southwest of U.S. Route 101 and 4.30 miles north of Interstate 10 (I-10). The project site is specifically located at 6726-6734 Sunset Boulevard (Assessor's Parcel Number [APNs] 5547-022-022 through -024) at the southeast corner of Sunset Boulevard and North McCadden Place on an approximately 0.89-acre lot and is currently an unoccupied commercial building. North McCadden Place and Sunset Boulevard are located to the west and north of the project site, respectively. A neighborhood garden and commercial uses are located to the north; the Hollywood Guest Inn located directly to the east; a single-family residence and the Aloha Suites (a multi-family residential building) are located immediately to the south; and a Chick-fil-A restaurant is located to the west of the project site across the North McCadden Place. Multi-family residential uses are also located directly to the southeast of the project site along Leland Way.

Project Description

The proposed project would demolish the existing commercial building and construct a 3,448 square-foot (sf) Raising Cane's restaurant with drive-thru access. Construction is anticipated to begin in June 2022 and last for approximately six months. The proposed project would provide a one-way access driveway along Sunset Boulevard and a two-way access driveway along North McCadden Place in the southwest portion of the site. All necessary utility improvements including water, sewer, and storm drain would be constructed within the property limits. See [Exhibit 1: Site Plan](#) for more details.

Exhibit 1: Site Plan



Noise Background

Sound is technically described in terms of amplitude (loudness) and frequency (pitch). The standard unit of sound amplitude measurement is the decibel (dB). The decibel scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Since the human ear is not equally sensitive to a given sound level at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) provides this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise, on the other hand, is typically defined as unwanted sound. A typical noise environment consists of a base of steady ambient noise that is the sum of various distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. These can vary from an occasional aircraft or train passing by to virtually continuous noise from traffic on a major highway.

Several rating scales have been developed to analyze the adverse effect of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise as well as the time of day when the noise occurs. For example, the equivalent continuous sound level (L_{eq}) is the average acoustic energy content of noise for a stated period of time; thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. The Day-Night Sound level (L_{dn}) is a 24-hour average L_{eq} with a 10 dBA “weighting” added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The Community Noise Equivalent Level (CNEL) is a 24-hour average L_{eq} with a 10-dBA weighting added to noise during the hours of 10:00 p.m. to 7:00 a.m. and an additional 5 dBA weighting during the hours of 7:00 p.m. to 10:00 p.m. to account for noise sensitivity in the evening and nighttime.

Regulatory Setting

State

California Government Code

California Government Code Section 65302(f) mandates that the legislative body of each county and city adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines established by the State Department of Health Services. 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.

Title 24 – Building Code

The State’s noise insulation standards are codified in the California Code of Regulations, Title 24: Part 1, Building Standards Administrative Code, and Part 2, California Building Code. These noise standards are applied to new construction in California for interior noise compatibility from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are located near major transportation noise sources, and where such noise sources create an exterior noise level of 65 dBA CNEL or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new multi-family residential buildings, the acceptable interior noise limit for new construction is 45 dBA CNEL.

Local

City of Los Angeles General Plan

The Noise Element of the Los Angeles City General Plan (Noise Element) provides guidance for the control of noise to protect residents, workers, and visitors from potentially adverse noise impacts. Its primary goal is to regulate long-term noise impacts to preserve acceptable noise environments for all types of land uses. The Noise Element defers regulation of temporary, point-source noises such as construction activities to the City’s Municipal Code Noise Ordinance. With regard to long-term noise impacts, the Noise Element contains stated goals, objectives, policies, and implementation programs for noise control.

Goal: A city where noise does not reduce the quality of urban life.

Objective 2: Reduce or eliminate nonairport related intrusive noise, especially relative to noise sensitive uses.

Policy 2.2: Enforce and/or implement applicable city, state and federal regulations intended to mitigate proposed noise producing activities, reduce intrusive noise and alleviate noise that is deemed a public nuisance.

Objective 3: Reduce or eliminate nonairport related intrusive noise, especially relative to noise sensitive uses.

Policy 3.1: Develop land use policies and programs that will reduce or eliminate potential and existing noise impacts.

- Implementation P5: Continue to enforce, as applicable, city, state and federal regulations intended to abate or eliminate disturbances of the peace and other intrusive noise.
- Implementation P11: For a proposed development project that is deemed to have a potentially significant noise impact on noise sensitive uses, as defined by this chapter, require mitigation measures, as appropriate, in accordance with California Environmental Quality Act and city procedures.
- Implementation P16: Use, as appropriate, the “Guidelines for Noise Compatible Land Use” (Exhibit I),¹ or other measures that are acceptable to the city, to guide land use and zoning reclassification, subdivision, conditional use and use variance determinations and environmental assessment considerations, especially relative to sensitive uses, as defined by this chapter, within a CNEL of 65 dB airport noise exposure areas and within a line-of-sight of freeways, major highways, railroads or truck haul routes.

City of Los Angeles Municipal Code

The City also has regulations to control unnecessary, excessive, and annoying noise, as set forth in the City’s Noise Ordinance (Chapter XI, Noise Regulation, of the Los Angeles Municipal Code [LAMC]). The City’s Noise Ordinance establishes acceptable ambient sound levels to regulate intrusive noises (e.g., stationary mechanical equipment and vehicles other than those traveling on public streets) within specific land use zones and provides procedures and criteria for the measurement of the sound level of noise sources. These procedures recognize and account for differences in the perceived level of different types of noise and/or noise sources.

Section 111.02 (Sound Level Measurement Procedure and Criteria) of the LAMC provides procedures and criteria for the measurement of the sound level of “offending” noise sources. According to the LAMC, a noise level increase of 5 dBA over the existing average ambient noise level at an adjacent property line is considered a noise violation. Section 112.01 (Radios, Television Sets, and Similar Devices) of the LAMC prohibits noise from any radio, musical instrument, phonograph, television receiver, or other machine or device for the producing, reproducing or amplification of the human voice, music, or any other sound, in such a manner, as to disturb the peace, quiet, and comfort of neighbor occupants or any reasonable person residing or working in the area or that exceeds the ambient noise level on the premises of any other occupied property, or if a condominium, apartment house, duplex, or attached business, within any adjoining unit, by more than 5 dBA.

Section 112.02 (Air Conditioning, Refrigeration, Heating, Pumping, Filtering Equipment) limits increases in noise levels from air conditioning, refrigeration, heating, pumping and filtering equipment. Such equipment may not be operated in such manner as to create any noise which would cause the noise level on the premises of any other occupied property, or, if a condominium,

apartment house, duplex, or attached business, within any adjoining unit, to exceed the ambient noise level by more than 5 dBA.

Section 112.05 of the LAMC sets a maximum noise level for construction equipment of 75 dBA at a distance of 50 feet when operated within 500 feet of a residential zone. Compliance with this standard is required only where “technically feasible.”¹ Section 41.40 (Noise Due to Construction, Excavation Work – When Prohibited) of the LAMC prohibits construction between the hours of 9:00 P.M. and 7:00 A.M. Monday through Friday, 6:00 P.M. and 8:00 A.M. on Saturday, and at any time on Sunday (i.e., construction is allowed Monday through Friday between 7:00 A.M. to 9:00 P.M.; and Saturdays and National Holidays between 8:00 A.M. to 6:00 P.M.).

Section 113.01 (Rubbish and Garage Collection and Disposal) of LAMC prohibits collecting or disposing of rubbish or garbage, to operate any refuse disposal truck, or collecting, loading, picking up, transferring, unloading, dumping, discarding, or disposing of any rubbish or garbage, as such terms are defined in Section 66.00 of LAMC, within 200 feet of any residential building between the hours of 9:00 P.M. and 6:00 A.M. of the following day, unless a permit therefore has been duly obtained beforehand from the Board of Police Commissioners.

L.A. CEQA Thresholds Guide

The City created the L.A. CEQA Thresholds Guide (Thresholds Guide) to help evaluate potential noise impacts of a project. The adopted noise standards within the Thresholds Guidelines are based, in part, on the community noise compatibility guidelines established by the State Office of Planning and Research (OPR) for use in assessing the compatibility of various land use types with a range of noise levels. These guidelines are set forth in the Thresholds Guide in terms of the CNEL. CNEL guidelines for specific land uses are classified into four categories: (1) “normally acceptable,” (2) “conditionally acceptable,” (3) “normally unacceptable,” and (4) “clearly unacceptable.” As shown in Table 1: City of Los Angeles Land Use Compatibility for Community Noise, the normally acceptable exterior noise level range for residential multi-family residential uses is 50 to 65 dB CNEL, and 50 to 60 dB CNEL for residential single family, duplex, and mobile home uses within the City. An interior noise standard of 45 dB CNEL for any habitable room has also been established in the Thresholds Guide.

¹ In accordance with Section 112.05 (Maximum Noise Level of Powered Equipment or Powered Hand Tools), “technically feasible” means that the established noise limitations can be complied with at a project site, with the use of mufflers, shields, sound barriers, and/or other noise reduction devices or techniques employed during the operation of equipment.

Table 1: City of Los Angeles Land Use Compatibility for Community Noise				
Land Use Category	Community Noise Exposure (CNEL dB)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Single Family, Duplex, Mobile Homes	50 - 60	55 - 70	70 - 75	above 70
Multi-Family Homes	50 - 65	60 - 70	70 - 75	above 70
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 - 70	60 - 70	70 - 80	above 80
Transient Lodging - Motels, Hotels	50 - 65	60 - 70	70 - 80	above 80
Auditoriums, Concert Halls, Amphitheaters	-	50 - 70	-	above 65
Sports Arena, Outdoor Spectator Sports	-	50 - 75	-	above 70
Playgrounds, Neighborhood Parks	50 - 70	-	67 - 75	above 72
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 - 75	-	70 - 80	above 80
Office Buildings, Business and Professional Commercial	50 - 70	67 - 77	above 75	-
Industrial, Manufacturing, Utilities, Agriculture	50 - 70	70 - 80	above 75	-
Notes: <u>Normally Acceptable:</u> Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements. <u>Conditionally Acceptable:</u> 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. <u>Normally Unacceptable:</u> New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. <u>Clearly Unacceptable:</u> New construction or development should generally not be undertaken.				
Source: City of Los Angeles, L.A. CEQA Thresholds Guide, 2006				

The Thresholds Guide also identifies the following criteria to evaluate construction noise:

- Construction activities lasting more than one day would exceed existing ambient exterior noise levels by 10 dBA L_{eq} or more at a noise sensitive use;
- Construction activities lasting more than 10 days in a three-month period would exceed existing ambient exterior noise levels by 5 dBA L_{eq} or more at a noise sensitive use; or
- Construction activities would exceed the ambient noise level by 5 dBA L_{eq} at a noise sensitive use between the hours of 9:00 P.M. and 7:00 A.M. Monday through Friday, before 8:00 A.M. or after 6:00 P.M. on Saturday, or at any time on Sunday.

Existing Setting

The project site is impacted by various noise sources. Mobile sources of noise, including traffic along Sunset Boulevard to the north and North McCadden Place to the west are the most common and prominent sources of noise in the project area. The primary sources of stationary noise near the project site include parking lot noise and mechanical equipment (e.g., heating, ventilation, and air conditioning [HVAC] units) operating at the nearby commercial and residential uses, and other urban-related activities (e.g., idling cars/trucks, pedestrians, car radios and music playing, dogs barking, etc.). The noise associated with these sources may represent a single-event noise occurrence or short-term noise.

Noise Measurements

To quantify existing ambient noise levels in the project area, Kimley-Horn conducted four short-term (10-minute) measurements on January 21, 2022, and one long-term noise measurement (72 hours in duration) starting on January 21, 2022 and ending January 24, 2022; see [Appendix A: Noise Data](#). The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the project site. The 10-minute daytime measurements were taken between 8:29 a.m. and 9:50 a.m. Measurements of L_{eq} are considered representative of the noise levels throughout the day. The average noise levels and sources of noise measured at each location are listed in [Table 2: Existing Noise Measurements](#) and shown on [Exhibit 2: Noise Measurement Locations](#).

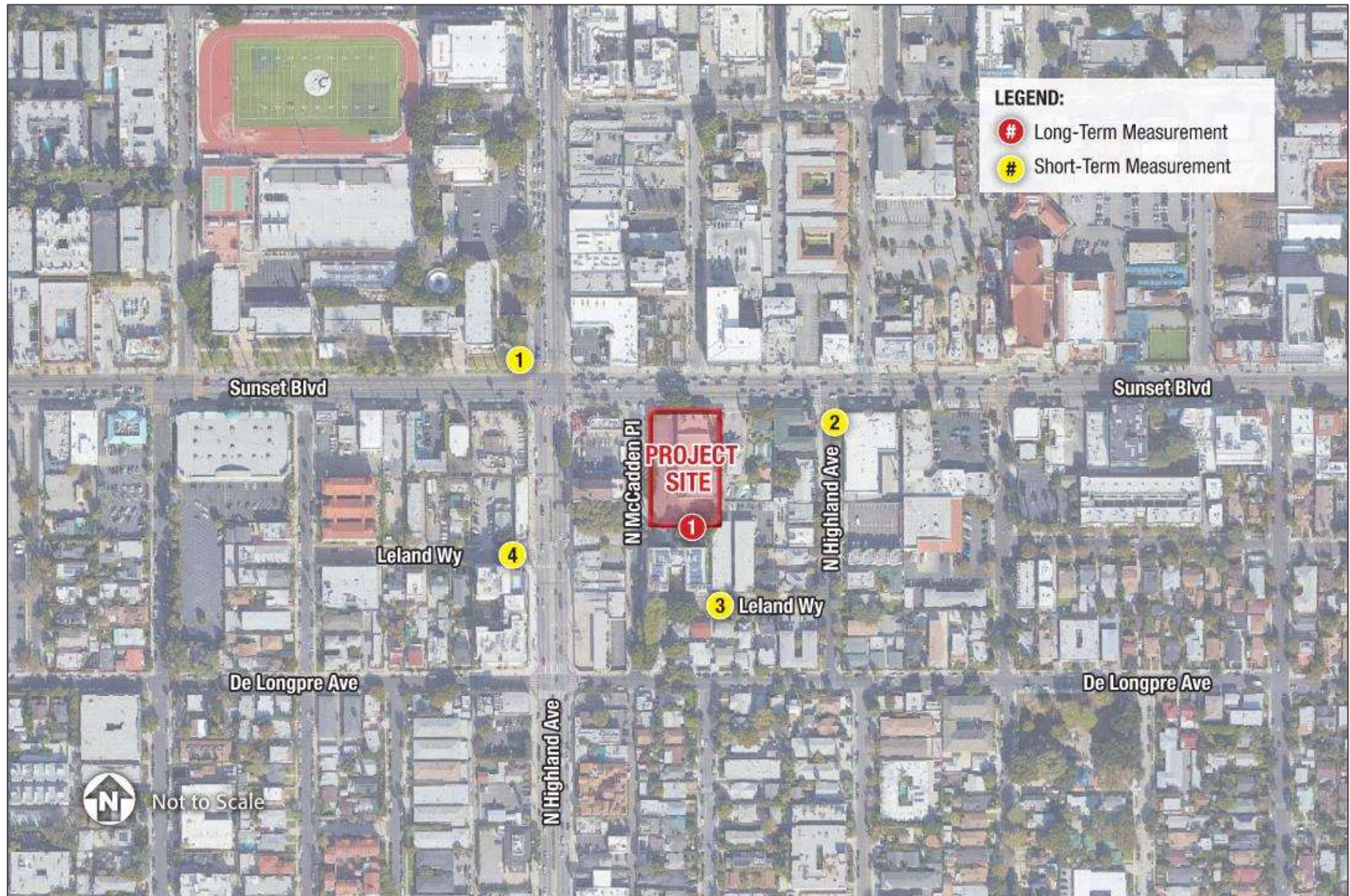
Sensitive Receptors

Noise exposure standards and guidelines for various types of land uses reflect the varying noise sensitivities associated with each of these uses. Residences, hospitals, schools, guest lodging, libraries, and churches are treated as the most sensitive to noise intrusion and therefore have more stringent noise exposure targets than do other uses, such as manufacturing or agricultural uses that are not subject to impacts such as sleep disturbance. Sensitive receptors near the project site are shown in [Table 3: Sensitive Receptors](#).

Table 2: Existing Noise Measurements					
Site	Location	Measurement Period	Duration	Daytime Average L _{eq} (dBA) ¹	Nighttime Average L _{eq} (dBA) ¹
Short-Term Noise Measurements (10-minute measurements)					
ST-1	Northwest corner of the Sunset Boulevard and North Highland Avenue intersection, to the northwest of the project site.	8:29 a.m., Friday, January 21, 2022	10 min	77.5	-
ST-2	Along North Las Palmas Avenue to the east of the project site.	8:45 a.m., Friday, January 21, 2022	10 min	65.1	-
ST-3	Along the northern side of Leland Way to the south of the project site.	9:18 a.m., Friday, January 21, 2022	10 min	70.3	-
ST-4	Near the southwestern corner of the Leland Way and North Highland Avenue intersection, to the west of the project site.	8:15 a.m., Friday, January 21, 2022	10 min	73.9	-
Long-Term Noise Measurements (continuous 72-hour measurements)					
LT-1	Along the southern boundary of the project site, adjacent to the residential uses to the south.	Friday, January 21, 2022 to Saturday, January 22, 2022	24 hr	56.6	57.4
		Saturday, January 22, 2022 to Sunday, January 23, 2022	24 hr	56.8	52.8
		Sunday, January 23, 2022 to Monday, January 24, 2022	24 hr	54.0	52.4
	Average			56.0	54.8
Notes:					
1. Daytime hours are from 7:00 a.m. to 10:00 p.m., and nighttime hours are from 10:00 p.m. to 7:00 a.m. The 15-hour daytime average (15-hour L _{eq}) and 9-hour nighttime average were calculated from 24-hour measurements take at LT-1. The 10-minute L _{eq} is listed from short-term measurement data.					
Source: Noise measurements taken by Kimley-Horn and Associates, January 21-24, 2022. See Appendix A for noise measurement results.					

Table 3: Sensitive Receptors	
Receptor Description	Distance and Direction from the Project
Single-Family Residential Dwellings	Adjoining to the south
Multi-Family Residential Dwellings	adjoining to the southeast
The Aloha Suites	50 ft to the south
Source: Google Earth, 2022.	

Exhibit 2: Noise Measurement Locations



Noise Impacts

Construction Noise

Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. During construction, exterior noise levels could affect the buildings near the construction site.

Construction activities would include demolition, site preparation, grading, building construction, paving, and architectural coating. Such activities may require concrete/industrial saws, dozers, and tractors/loaders/backhoes during demolition; graders, tractors/loaders/backhoes and dozers during site preparation; graders, dozers, and tractors/loaders/backhoes during grading; forklifts, generator sets, tractors/loaders/backhoes, and welders during building construction; pavers, rollers, mixers, tractors/loaders/backhoes, and paving equipment during paving; and air compressors during architectural coating. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 to 4 minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. The site preparation and grading phases of project construction tend to be the shortest in duration and create the highest construction noise levels due to the operation of heavy equipment required to complete these activities. It should be noted that only a limited amount of equipment can operate near a given location at a particular time. Typical noise levels associated with individual construction equipment are listed in [Table 4: Typical Construction Noise Levels](#).

As indicated in [Table 4](#), construction noise levels would be noticeable at the adjacent residential uses and other properties in the project vicinity. However, due to the variability of construction activities and equipment for the project, overall construction noise levels would be intermittent and would fluctuate over time. Thus, actual construction-related noise activities would be lower than the conservative levels shown in [Table 4](#) and would cease upon completion of construction. In addition, the noise levels assume that construction noise is constant, when, in fact, construction activities and associated noise levels would fluctuate and generally be brief and sporadic, depending on the type, intensity, and location of construction activities.

Table 4: Typical Construction Noise Levels	
Equipment	Typical Noise Level (dBA) at 50 feet from Source
Air Compressor	80
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Mobile	83
Dozer	85
Generator	82
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	80
Paver	85
Pneumatic Tool	85
Pump	77
Roller	85
Saw	76
Scraper	85
Shovel	82
Truck	84

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

Following FTA’s methodology for quantitative construction noise assessments, the Federal Highway Administration’s (FHWA’s) Roadway Construction Noise Model (RCNM) was used to predict construction noise at the nearest noise-sensitive receptors (i.e., the residential uses immediately to the south of the project site) consistent with the methodologies in the FTA *Transit Noise and Vibration Impact Assessment Manual* (September 2018) (FTA Noise and Vibration Manual). Table 5: Project Construction Noise Levels shows the estimated exterior construction noise levels at the nearest receptors to the south of the Project site. Following FTA methodology, when calculating construction noise, all equipment is assumed to operate at the center of the Project site, as equipment would operate throughout the project site and not at a fixed location for extended periods of time. Therefore, the distances used in the RCNM model were 130 feet and 175 feet for the nearest residential uses located to the south of the project construction area.

Table 5: Project Construction Noise Levels

Construction Phase	Receptor Location			L.A. CEQA Guidelines			LAMC Section 112.05		
	Land Use	Direction	Distance (feet) ¹	Unmitigated Worst Case Modeled Exterior Noise Level (dBA L _{eq})	Noise Threshold (dBA L _{eq}) ²	Exceeded?	Noise Level at 50 feet (dBA L _{eq}) ³	Noise Threshold at 50 feet (dBA L _{eq}) ⁴	Exceeded?
Demolition	Residential	South	130	67.9	75.3	No	66.2	75	No
	Residential	South	175	65.3	75.3	No			
Site Preparation	Residential	South	130	67.3	75.3	No	65.6		No
	Residential	South	175	64.7	75.3	No			
Grading	Residential	South	130	68.3	75.3	No	66.6		No
	Residential	South	175	65.7	75.3	No			
Building Construction	Residential	South	130	68.1	75.3	No	66.4		No
	Residential	South	175	65.5	75.3	No			
Paving	Residential	South	130	66.8	75.3	No	65.1		No
	Residential	South	175	64.2	75.3	No			
Architectural Coating	Residential	South	130	57.4	75.3	No	55.7		No
	Residential	South	175	54.8	75.3	No			

1. Per the methodology described in the FTA Noise and Vibration Manual (September 2018), distances are measured from the property line of the nearest receptors to the center of the Project construction site.

2. The L.A. CEQA Guidelines states that construction activities lasting more than 10 days in a three-month would exceed existing ambient exterior noise levels by 5 dBA L_{eq} or more at a noise sensitive use. Therefore, the construction noise threshold represents the nearest measured short-term ambient noise level (see ST-3 in [Table 2](#)) plus 5 dBA.

3. Noise calculations include a 10 dBA noise reduction from the use of mufflers in accordance with California Vehicle Code Section 21750(a).

4. Section 112.05 of the LAMC sets a maximum noise level for construction equipment of 75 dBA at a distance of 50 feet when operated within 500 feet of a residential zone.

Source: Federal Highway Administration, *Roadway Construction Noise Model*, 2006. Refer to Appendix A: RCNM Modeling Results for noise modeling results.

As indicated in [Table 5](#), Project construction noise would be below the LA CEQA noise threshold (existing ambient noise level plus 5 dBA) at the nearest residential uses and would also not exceed the LAMC Section 112.05 threshold of 75 dBA at 50 feet for construction equipment with the application of mufflers in accordance with California Vehicle Code Section 21750(a). In addition, construction-related noise would be temporary and would not result in a permanent increase in ambient noise levels in the area. Construction activities would also be prohibited between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday and 6:00 p.m. to 8:00 a.m. on Saturdays, and at any time on Sunday. The City's permitted hours of construction are required in recognition that construction activities undertaken during daytime hours are a typical part of living in an urban environment and do not cause a significant impact. Thus, construction noise impacts would be less than significant following compliance with the allowable construction hours and provisions in the LAMC.

Operational Noise

On-Site Operations

The project proposes to operate a Raising Cane's restaurant with drive-thru access and walk-up ordering with an outdoor seating area. The primary noise sources associated with the proposed Raising Cane's restaurant would consist of drive-thru operations (i.e., sound from the ordering intercom and vehicles idling/queuing in the drive-thru lanes), parking lot noise, outdoor dining, and mechanical equipment. A discussion of each of these project noise sources is provided below.

Drive-Thru Operations

The proposed restaurant would be open daily between 9:00 a.m. and 3:30 a.m. Two drive-thru menu boards and intercoms would be located to the south of the proposed restaurant building, in the southeastern portion of the project site. Project noise sources from drive-thru operations include amplified speech from the intercom, idling vehicles, vehicles circulating along the drive-thru lanes. The measured noise level associated with active drive-thru operations is 64 dBA at a distance of 20 feet.² The residential properties to the southeast and south would be located approximately 85 feet and 90 feet, respectively, from the closest menu board and intercom, and as close as 20 feet from the drive-thru lane/queuing area.

Parking Lot Noise

The instantaneous maximum sound levels from parking lot activities (e.g., a car door slamming, engine starting up, and car pass-bys) range from 53 to 61 dBA³ and may be an annoyance to adjacent noise-sensitive receptors. Conversations in parking areas may also be an annoyance to adjacent sensitive

² Drive-thru noise sample collected at Raising Cane's restaurant by Kimley-Horn on August 17, 2018.

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

receptors. Sound levels of speech typically range from 33 dBA at 50 feet for normal speech to 50 dBA at 50 feet for very loud speech.⁴ Parking lot noise would occur at the proposed surface parking lot as close as approximately 10 feet from the single-family residential property to the south of the project site.

Mechanical Equipment

The project would include HVAC units located on the rooftop of the restaurant building. Mechanical equipment (e.g., HVAC equipment) typically generates noise levels of approximately 52 dBA at 50 feet.⁵ Rooftop HVAC equipment would be positioned as close as 100 feet from the single-family residential property to the south of the project site.

Combined Exterior Noise Levels

Exterior noise levels associated with drive-thru operations, parking lot noise, and mechanical equipment were modeled with the SoundPLAN software. SoundPLAN allows computer simulations of noise situations, and creates noise contour maps using reference noise levels, topography, point and area noise sources, mobile noise sources, and intervening structures. Inputs to the SoundPLAN model included ground topography and ground type, noise source locations and heights, receiver locations, and sound power level data. The SoundPLAN run for project operations conservatively assumes the simultaneous operation of all on-site noise sources.

Utilizing the input data described above, SoundPLAN was used to calculate noise levels at the nearest sensitive receptors surrounding the project site. It should be noted that predicted noise levels are conservative estimates since it was assumed that all equipment and operational activity at the project site would occur in a constant, simultaneous manner. In reality, it is anticipated that these noise sources would occur intermittently throughout the day and night (except for rooftop HVAC which would operate in a steady-state manner).

The modeled noise levels for the project are provided in [Table 6: Modeled Noise Levels](#), [Exhibit 3: Project Noise Contours - Daytime](#), and [Exhibit 4: Project Noise Contours - Nighttime](#).

Table 6: Modeled Noise Levels									
Receptor No.	Land Use	Modeled Noise Level – Daytime (dBA L_{eq})				Modeled Noise Level – Nighttime (dBA L_{eq})			
		1st Floor	2nd Floor	3rd Floor	4th Floor	1st Floor	2nd Floor	3rd Floor	4th Floor
1	Commercial	40.4	43.5	-	-	39.4	42.9	-	-
2	Nursery	41.7	-	-	-	40.8	-	-	-
3	Office	47.3	-	-	-	47.2	-	-	-
4	Office	36.4	-	-	-	36.1	-	-	-

⁴ Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden. *Noise Navigator Sound Level Database with Over 1700 Measurement Values*, June 26, 2015.

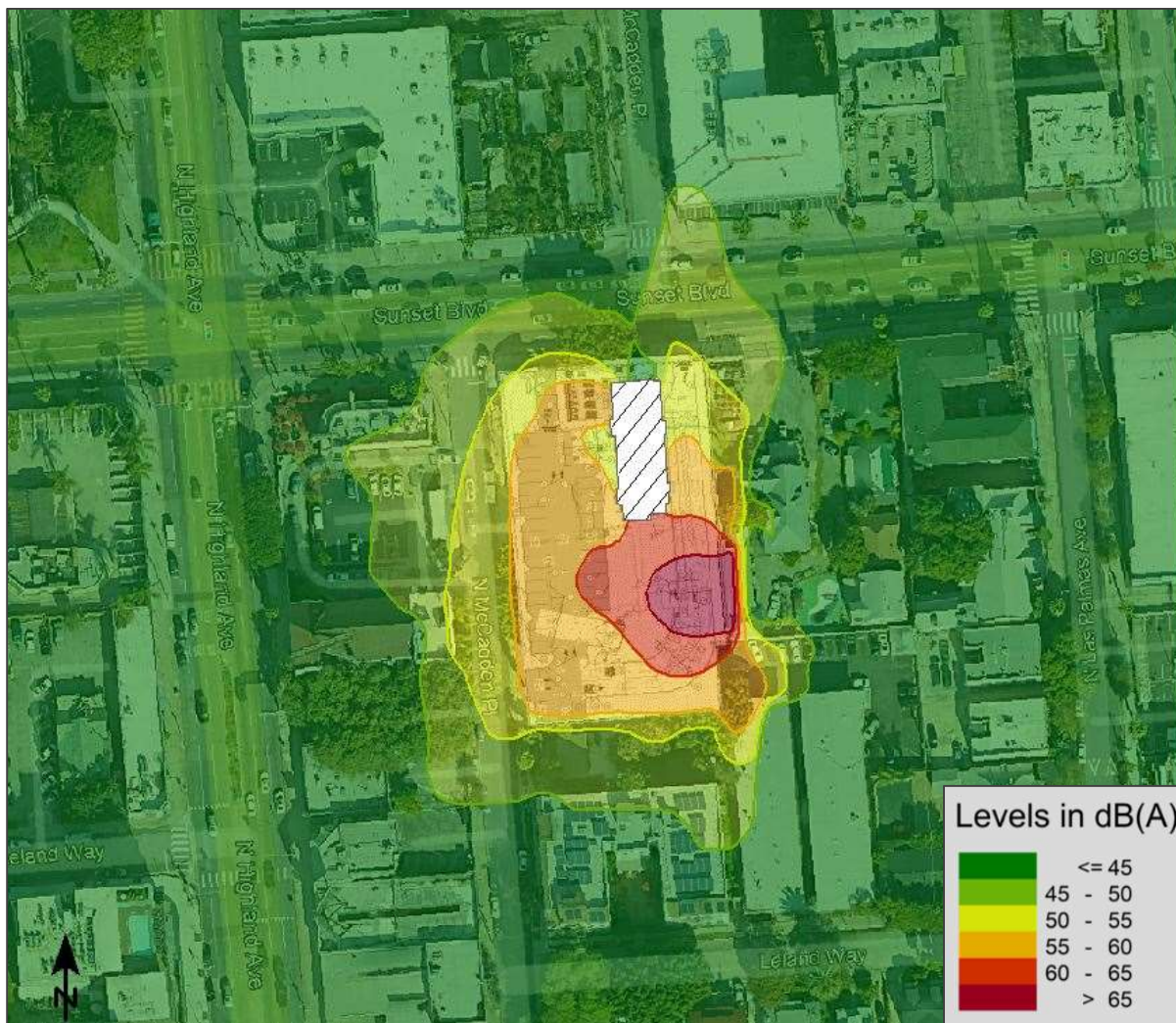
⁵ Ibid.

Table 6: Modeled Noise Levels									
Receptor No.	Land Use	Modeled Noise Level – Daytime (dBA L _{eq})				Modeled Noise Level – Nighttime (dBA L _{eq})			
		1 st Floor	2 nd Floor	3 rd Floor	4 th Floor	1 st Floor	2 nd Floor	3 rd Floor	4 th Floor
5	Hotel	55.0	-	-	-	54.9	-	-	-
6	Residential	57.1	-	-	-	57.0	-	-	-
7	Residential	49.0	-	-	-	48.8	-	-	-
8	Residential	45.5	51.3	51.4	51.3	45.3	51.1	51.3	51.2
9	Residential	45.9	51.9	52.3	51.7	45.7	51.8	52.1	51.5
10	Residential	47.2	53.2	53.5	53.5	47.0	53.0	53.3	53.2
11	Office	47.4	-	-	-	46.8	-	-	-
12	Office	51.3	-	-	-	50.4	-	-	-
13	Commercial	49.3	-	-	-	48.5	-	-	-
14	Commercial	48.5	-	-	-	47.5	-	-	-
Source: SoundPLAN Essential version 5.1. See Appendix A for noise modeling data and results.									

As shown in [Table 6](#), project-generated noise levels at the surrounding uses would range from 36.4 dBA to 57.1 dBA at first floor receptors, 43.5 dBA to 53.2 dBA at second floor receptors, 51.4 dBA to 53.5 dBA at third floor receptors, and 51.3 dBA to 53.5 dBA during daytime hours. During nighttime hours, noise levels at the surrounding uses would range from 36.1 dBA to 57.0 dBA at first floor receptors, 42.9 dBA to 53.0 dBA at second floor receptors, 51.3 dBA to 53.3 dBA at third floor receptors, and 51.2 dBA to 53.2 dBA in the project vicinity.

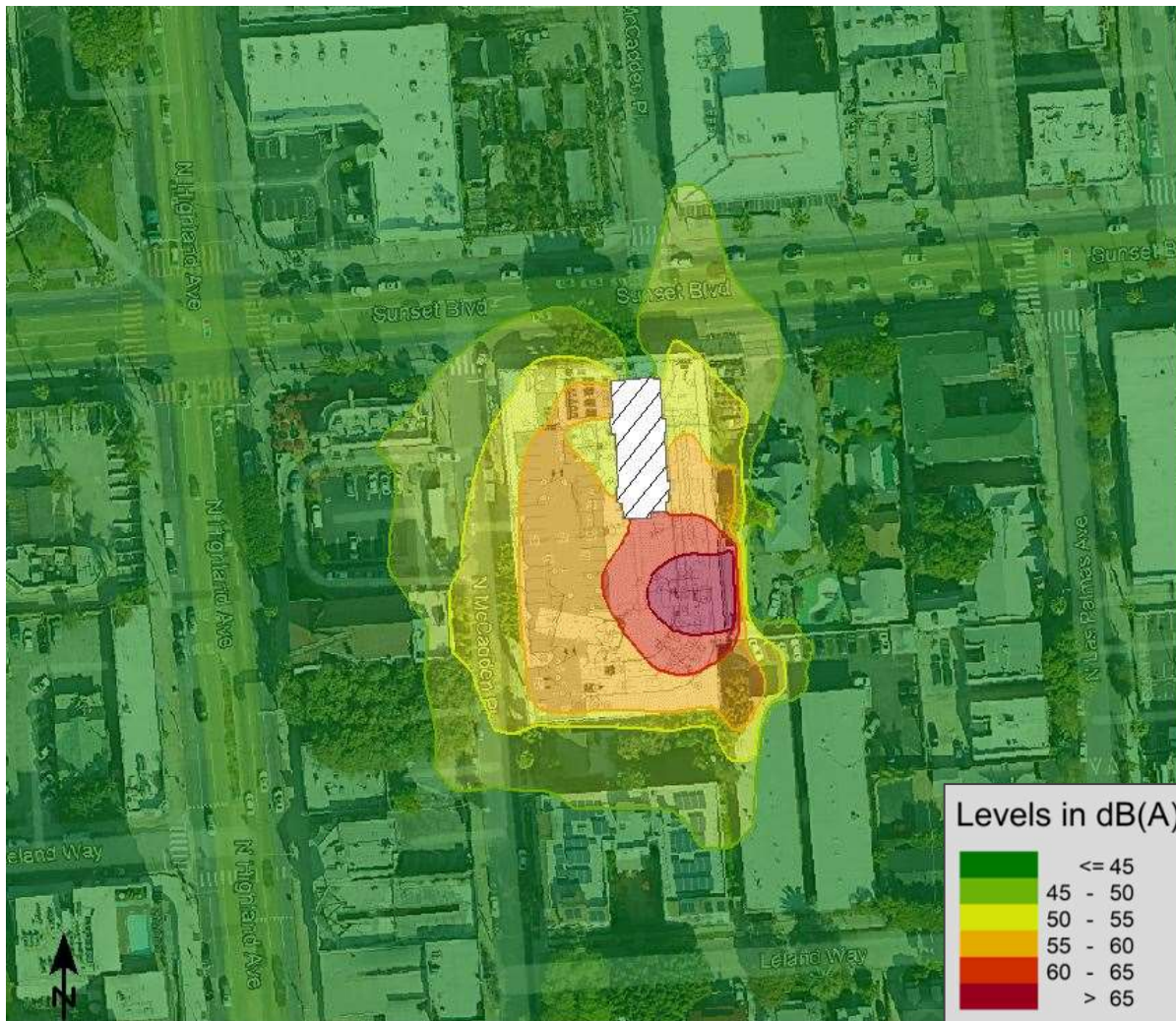
[Table 7: Composite Project Operational Noise](#) shows project noise levels from all sources combined with existing ambient levels. As discussed above in the [Regulatory Setting](#) above, Section 111.02 (Sound Level Measurement Procedure and Criteria) of the LAMC provides procedures and criteria for the measurement of the sound level of “offending” noise sources. According to LAMC Section 111.02, a noise level increase of 5 dBA over the existing average ambient noise level at an adjacent property line is considered a noise violation. [Table 7](#) shows that the maximum increase in ambient noise levels from the project would be 1.9 dBA during the daytime and 4.2 dBA during the nighttime at the surrounding properties and would not exceed the City’s 5 dBA increase threshold set forth in LAMC Section 111.02. In addition, the project would comply with LAMC Sections 112.02 and 66.00 regarding HVAC equipment noise levels and trash/refuse collection. Therefore, impacts would be less than significant in this regard and no mitigation is required.

Exhibit 3: Project Noise Contours – Daytime



Source: SoundPLAN Essential version 5.1.

Exhibit 4: Project Noise Contours – Nighttime



Source: SoundPLAN Essential version 5.1.

Receptor No.	Land Use	Daytime					Nighttime				
		Ambient Noise Level (dBA Leq) ¹	Maximum Project Operational Noise Level	Ambient + Project (dBA Leq)	Increase Over Ambient (dBA Leq)	Increase Exceeds ≥ 5 dBA? ²	Ambient Noise Level (dBA Leq) ³	Maximum Project Operational Noise Level	Ambient + Project (dBA Leq)	Increase Over Ambient (dBA Leq) ²	Increase Exceeds ≥ 5 dBA? ²
1	Commercial	77.5	43.5	77.5	0.0	No	54.8	42.9	55.1	0.3	No
2	Nursery	77.5	41.7	77.5	0.0	No	54.8	40.8	55.0	0.2	No
3	Office	65.1	47.3	65.2	0.1	No	54.8	47.2	55.5	0.7	No
4	Office	65.1	36.4	65.1	0.0	No	54.8	36.1	54.9	0.1	No
5	Hotel	65.1	55.0	65.5	0.4	No	54.8	54.9	57.9	3.1	No
6	Residential	65.1	57.1	65.7	0.6	No	54.8	57.0	59.0	4.2	No
7	Residential	56.0	49.0	56.8	0.8	No	54.8	48.8	55.8	1.0	No
8	Residential	56.0	51.4	57.3	1.3	No	54.8	51.3	56.4	1.6	No
9	Residential	56.0	52.3	57.5	1.5	No	54.8	52.1	56.7	1.9	No
10	Residential	56.0	53.5	57.9	1.9	No	54.8	53.3	57.1	2.3	No
11	Office	73.9	47.4	73.9	0.0	No	54.8	46.8	55.4	0.6	No
12	Office	73.9	51.3	73.9	0.0	No	54.8	50.4	56.1	1.3	No
13	Commercial	77.5	49.3	77.5	0.0	No	54.8	48.5	55.7	0.9	No
14	Commercial	77.5	48.5	77.5	0.0	No	54.8	47.5	55.5	0.7	No
Notes: 1. The nearest measured ambient daytime noise level was selected for each receptor. See Table 2 and Exhibit 2 for noise measurement results and locations, and Appendix A for SoundPLAN receptor locations. 2. According to Section 111.02 of the LAMC, a noise level increase of 5 dBA over the existing average ambient noise level at an adjacent property line is considered a noise violation. 3. The measured nighttime ambient noise level of 54.8 dBA Leq from LT-1 (see Table 2) was conservatively used to analyzed nighttime noise impacts for all modeled receptors. Source: SoundPLAN Essential version 5.1. See Appendix A for noise modeling data and results.											

Off-Site Traffic Noise

In general, a 3-dBA increase in traffic noise is barely perceptible to people, while a 5-dBA increase is readily noticeable. Traffic volumes on project area roadways would have to approximately double for the resulting traffic noise levels to generate a 3-dBA increase.⁶ The proposed restaurant would result in approximately 1,554 net daily trips which is not enough to double the existing traffic volumes on Sunset Boulevard or North Highland Avenue⁷ (the nearest access roadways to the project site). Therefore, the proposed project would not generate enough traffic to result in a noticeable 3-dBA increase in ambient noise levels. Impacts would be less than significant in this regard.

Vibration Impacts

Increases in ground-borne vibration levels attributable to the project would be primarily associated with short-term construction-related activities. Project construction would have the potential to result in varying degrees of temporary ground-borne vibration, depending on the specific construction equipment used and the operations involved.

The Federal Transit Administration (FTA) has published standard vibration velocities for construction equipment operations. In general, the FTA architectural damage criterion for continuous vibrations (i.e., 0.2 in/sec) appears to be conservative. The types of 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. For example, for a building that is constructed with reinforced concrete with no plaster, the FTA guidelines show that a vibration level of up to 0.50 in/sec is considered safe and would not result in any construction vibration damage. This evaluation uses the FTA architectural damage criterion for continuous vibrations at non-engineered timber and masonry buildings of 0.2 inch-per-second peak particle velocity (PPV) and human annoyance criterion of 0.4 inch-per-second PPV in accordance with Caltrans guidance.⁸

⁶ According to the California Department of Transportation, *Technical Noise Supplement to Traffic Noise Analysis Protocol* (September 2013), it takes a doubling of traffic to create a noticeable (i.e., 3 dBA) noise increase.

⁷ Based on the *Los Angeles GeoHub Traffic Counts* posted on the City's website, <https://geohub.lacity.org/datasets/a27ad0d462f74efb92bfa230e5f64239/explore?location=34.092010%2C-118.359768%2C13.73>, accessed February 1, 2022.

⁸ California Department of Transportation, *Transportation and Construction Vibration Guidance Manual, Table 20*, April 2020.

Table 8: Typical Construction Equipment Vibration Levels lists vibration levels at 25 feet for typical construction equipment. The ground-borne vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. As indicated in Table 8, based on FTA data, vibration velocities from typical heavy construction equipment operations that would be used during project construction range from 0.003 to 0.210 inches per second peak particle velocity (in/sec PPV) at 25 feet from the source of activity.

Table 8: Typical Construction Equipment Vibration Levels	
Equipment	Peak Particle Velocity at 25 Feet (in/sec)
Large Bulldozer	0.089
Caisson Drilling	0.089
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozer/Tractors	0.003
Source: Federal Transit Administration, <i>Transit Noise and Vibration Impact Assessment Manual</i> , September 2018.	

The concentration of construction activities would occur at least 25 feet from the nearest off-site structures to the south, southeast, and east of the project site. As shown in Table 8, at 25 feet, construction equipment vibration velocities could reach approximately 0.089 in/sec PPV, which is below the FTA's 0.20 PPV threshold and Caltrans' 0.4 in/sec PPV threshold for human annoyance. It is also acknowledged that construction activities would occur throughout the project site and would not be concentrated at the point closest to the nearest off-site structure. Additionally, once operational, the project would not be a source of ground-borne vibration. Therefore, vibration impacts associated with the proposed project would be less than significant.

Conclusion

Project implementation would result in less than significant short- and long-term noise and vibration impacts. No mitigation measures would be required.

Appendix A

Noise Data

Noise Measurement Field Data

Project:	Hollywood Raising Cane's		Job Number:	094797107
Site No.:	ST-1		Date:	1/21/2022
Analyst:	Serena Lin, Simran Singh, Bryant DeLaTorre		Time:	8:29 - 8:39 AM
Location:	Northwest corner of the Sunset Boulevard and North Highland Avenue intersection			
Noise Sources:	Cars, traffic, high school, pedestrians			
Results (dBA):				
	Leq:	Lmin:	Lmax:	Peak:
	77.5	62.8	99.1	110.6

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	55
Wind (mph):	<5
Sky:	Clear
Bar. Pressure:	30.05 inHG
Humidity:	47%

Photo:



Measurement Report

Report Summary

Meter's File Name	HWD.002.s		Computer's File Name	LxTse_0005586-20220121 082927-HWD.002.ldbin	
Meter	LxT SE	0005586			
Firmware	2.404				
User			Location		
Job Description					
Note					
Start Time	2022-01-21 08:29:27	Duration	0:10:00.0		
End Time	2022-01-21 08:39:27	Run Time	0:10:00.0	Pause Time	0:00:00.0

Results

Overall Metrics

L _{Aeq}	77.5 dB		
L _{AE}	105.2 dB	SEA	--- dB
EA	3.7 mPa²h		
L _{Apeak}	110.6 dB	2022-01-21 08:31:13	
L _{ASmax}	99.1 dB	2022-01-21 08:31:14	
L _{ASmin}	62.8 dB	2022-01-21 08:31:01	
L _{Aeq}	77.5 dB		
L _{Ceq}	85.1 dB	L _{Ceq} - L _{Aeq}	7.7 dB
L _{AIeq}	80.3 dB	L _{AIeq} - L _{Aeq}	2.9 dB

Exceedances

Count

Duration

LAS > 85.0 dB	2	0:00:11.5
LAS > 115.0 dB	0	0:00:00.0
L _{Apeak} > 135.0 dB	0	0:00:00.0
L _{Apeak} > 137.0 dB	0	0:00:00.0
L _{Apeak} > 140.0 dB	0	0:00:00.0

Community Noise

LDN

LDay

LNight

77.5 dB

77.5 dB

0.0 dB

LDEN

LDay

LEve

LNight

77.5 dB

77.5 dB

--- dB

--- dB

Any Data

A

C

Z

	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	77.5 dB		85.1 dB		--- dB	
L _{S(max)}	99.1 dB	2022-01-21 08:31:14	--- dB		--- dB	
L _{S(min)}	62.8 dB	2022-01-21 08:31:01	--- dB		--- dB	
L _{Peak(max)}	110.6 dB	2022-01-21 08:31:13	--- dB		--- dB	

Overloads

Count

Duration

OBA Count

OBA Duration

0

0:00:00.0

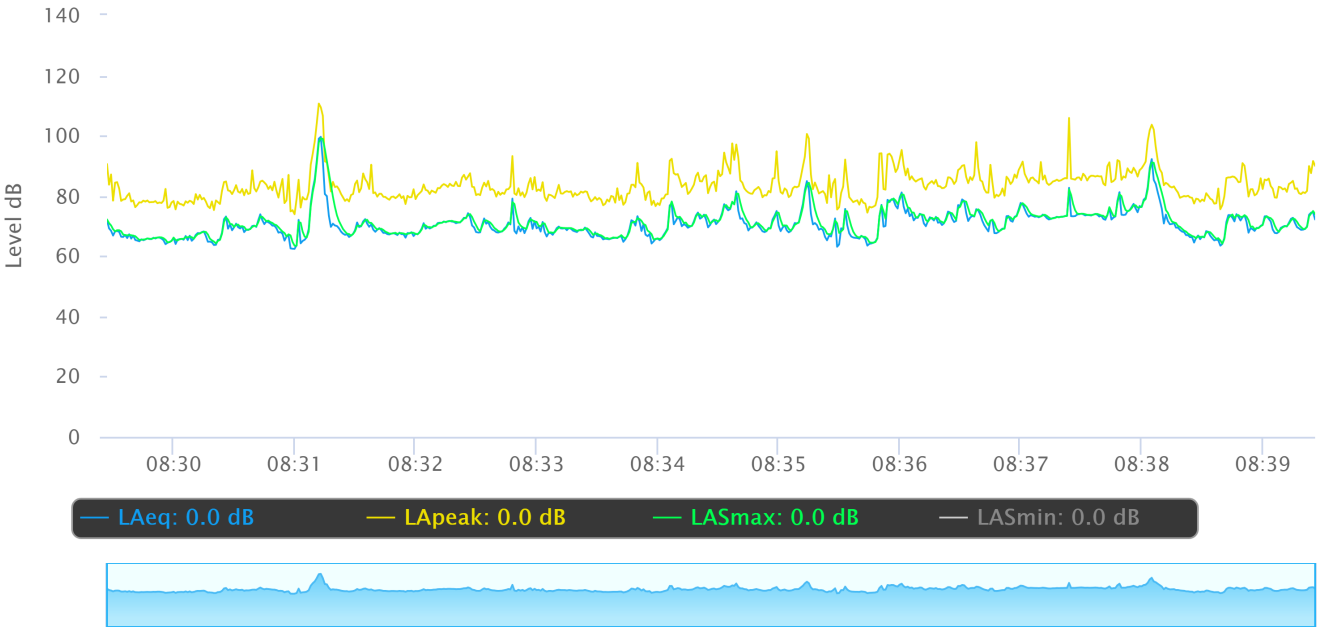
0

0:00:00.0

Statistics

LAS 5.0	78.4 dB
LAS 10.0	75.9 dB
LAS 33.3	72.0 dB
LAS 50.0	70.1 dB
LAS 66.6	68.6 dB
LAS 90.0	65.9 dB

Time History



Noise Measurement Field Data

Project:	Hollywood Raising Cane's	Job Number:	094797107	
Site No.:	ST-2	Date:	1/21/2022	
Analyst:	Serena Lin, Simran Singh, Bryant DeLaTorre	Time:	8:45 - 8:55 AM	
Location:	Near the Sunset Boulevard and North Las Palmas Avenue intersection			
Noise Sources:	Cars and pedestrians			
Results (dBA):				
	Leq:	Lmin:	Lmax:	Peak:
	65.1	50.7	76.3	91.7

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	55
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	30.05 inHG
Humidity:	47%

Photo:



Measurement Report

Report Summary

Meter's File Name	HWD.003.s		Computer's File Name	LxTse_0005586-20220121 084528-HWD.003.ldbin	
Meter	LxT SE	0005586			
Firmware	2.404				
User	Location				
Job Description					
Note					
Start Time	2022-01-21 08:45:28	Duration	0:10:00.0		
End Time	2022-01-21 08:55:28	Run Time	0:10:00.0	Pause Time	0:00:00.0

Results

Overall Metrics

L _{Aeq}	65.1 dB		
L _{AE}	92.9 dB	SEA	--- dB
EA	214.3 µPa²h		
L _{Apeak}	91.7 dB	2022-01-21 08:52:44	
L _{ASmax}	76.3 dB	2022-01-21 08:51:31	
L _{ASmin}	50.7 dB	2022-01-21 08:53:00	
L _{Aeq}	65.1 dB		
L _{Ceq}	74.2 dB	L _{Ceq} - L _{Aeq}	9.1 dB
L _{AIeq}	66.2 dB	L _{AIeq} - L _{Aeq}	1.2 dB

Exceedances

	Count	Duration
--	-------	----------

LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
L _{Apeak} > 135.0 dB	0	0:00:00.0
L _{Apeak} > 137.0 dB	0	0:00:00.0
L _{Apeak} > 140.0 dB	0	0:00:00.0

Community Noise

	LDN	LDay	LNight
--	-----	------	--------

	65.1 dB	65.1 dB	0.0 dB
--	---------	---------	--------

	LDEN	LDay	LEve	LNight
--	------	------	------	--------

	65.1 dB	65.1 dB	--- dB	--- dB
--	---------	---------	--------	--------

Any Data

	A		C		Z
--	---	--	---	--	---

	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	65.1 dB		74.2 dB		--- dB	
L _{S(max)}	76.3 dB	2022-01-21 08:51:31	--- dB		--- dB	
L _{S(min)}	50.7 dB	2022-01-21 08:53:00	--- dB		--- dB	
L _{Peak(max)}	91.7 dB	2022-01-21 08:52:44	--- dB		--- dB	

Overloads

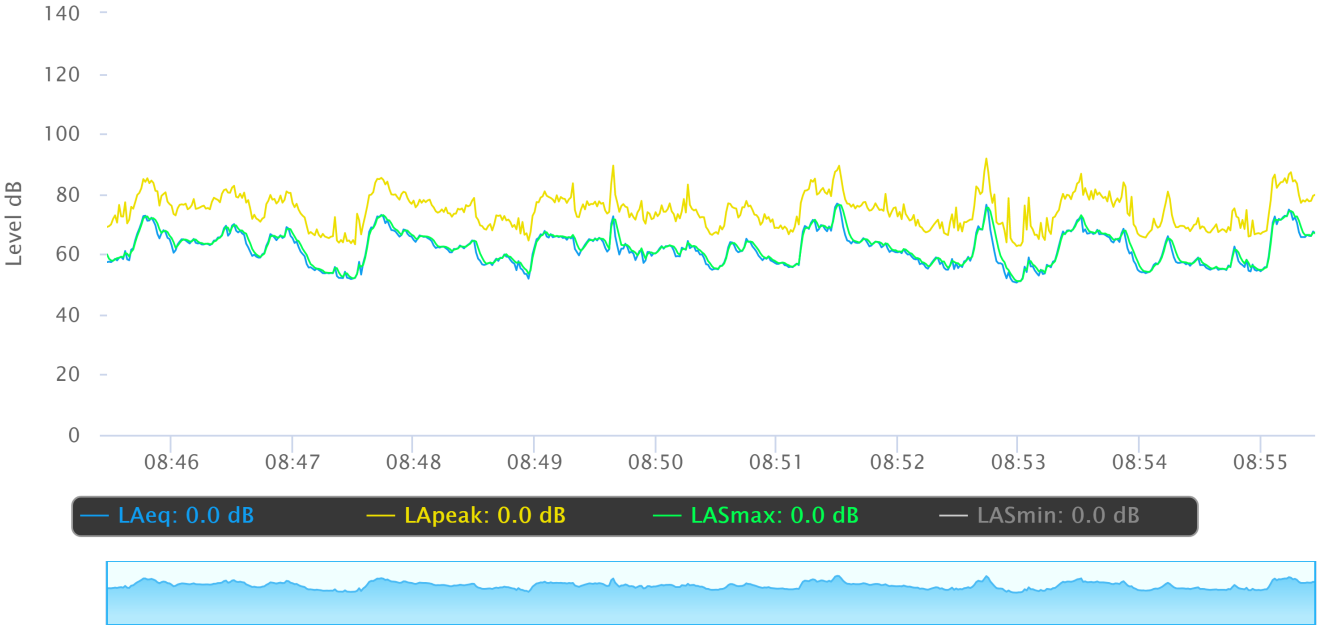
	Count	Duration	OBA Count	OBA Duration
--	-------	----------	-----------	--------------

	0	0:00:00.0	0	0:00:00.0
--	---	-----------	---	-----------

Statistics

LAS 5.0	71.2 dB
LAS 10.0	68.7 dB
LAS 33.3	64.5 dB
LAS 50.0	61.9 dB
LAS 66.6	58.7 dB
LAS 90.0	55.1 dB

Time History



Noise Measurement Field Data

Project:	Hollywood Raising Cane's	Job Number:	094797107	
Site No.:	ST-3	Date:	1/21/2022	
Analyst:	Serena Lin, Simran Singh, Bryant DeLaTorre	Time:	9:18 - 9:28 AM	
Location:	Along the northern side of Leland Way to the south of the project site.			
Noise Sources:	Residential, birds, cars, trash truck			
Results (dBA):				
	Leq:	Lmin:	Lmax:	Peak:
	70.3	45.9	92.3	109.7

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather - 8/17/21	
Temp. (degrees F):	56
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	30.05 inHG
Humidity:	54%

Photo:



Measurement Report

Report Summary

Meter's File Name	HWD.005.s	Computer's File Name	LxTse_0005586-20220121 091801-HWD.005.ldbin
Meter	LxT SE	0005586	
Firmware	2.404		
User		Location	
Job Description			
Note			
Start Time	2022-01-21 09:18:01	Duration	0:10:00.0
End Time	2022-01-21 09:28:01	Run Time	0:10:00.0
		Pause Time	0:00:00.0

Results

Overall Metrics

L _{Aeq}	70.3 dB		
L _{AE}	98.1 dB	SEA	--- dB
EA	714.2 µPa²h		
L _{Apeak}	109.7 dB	2022-01-21 09:21:46	
L _{ASmax}	92.3 dB	2022-01-21 09:21:46	
L _{ASmin}	45.9 dB	2022-01-21 09:24:25	
L _{Aeq}	70.3 dB		
L _{Ceq}	77.7 dB	L _{Ceq} - L _{Aeq}	7.4 dB
L _{AIeq}	73.5 dB	L _{AIeq} - L _{Aeq}	3.2 dB

Exceedances

	Count	Duration
--	-------	----------

LAS > 85.0 dB	1	0:00:06.6
LAS > 115.0 dB	0	0:00:00.0
L _{Apeak} > 135.0 dB	0	0:00:00.0
L _{Apeak} > 137.0 dB	0	0:00:00.0
L _{Apeak} > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
-----	------	--------

70.3 dB	70.3 dB	0.0 dB
---------	---------	--------

LDEN	LDay	LEve	LNight
------	------	------	--------

70.3 dB	70.3 dB	--- dB	--- dB
---------	---------	--------	--------

Any Data

A	C	Z
---	---	---

	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	70.3 dB		77.7 dB		--- dB	
L _{S(max)}	92.3 dB	2022-01-21 09:21:46	--- dB		--- dB	
L _{S(min)}	45.9 dB	2022-01-21 09:24:25	--- dB		--- dB	
L _{Peak(max)}	109.7 dB	2022-01-21 09:21:46	--- dB		--- dB	

Overloads

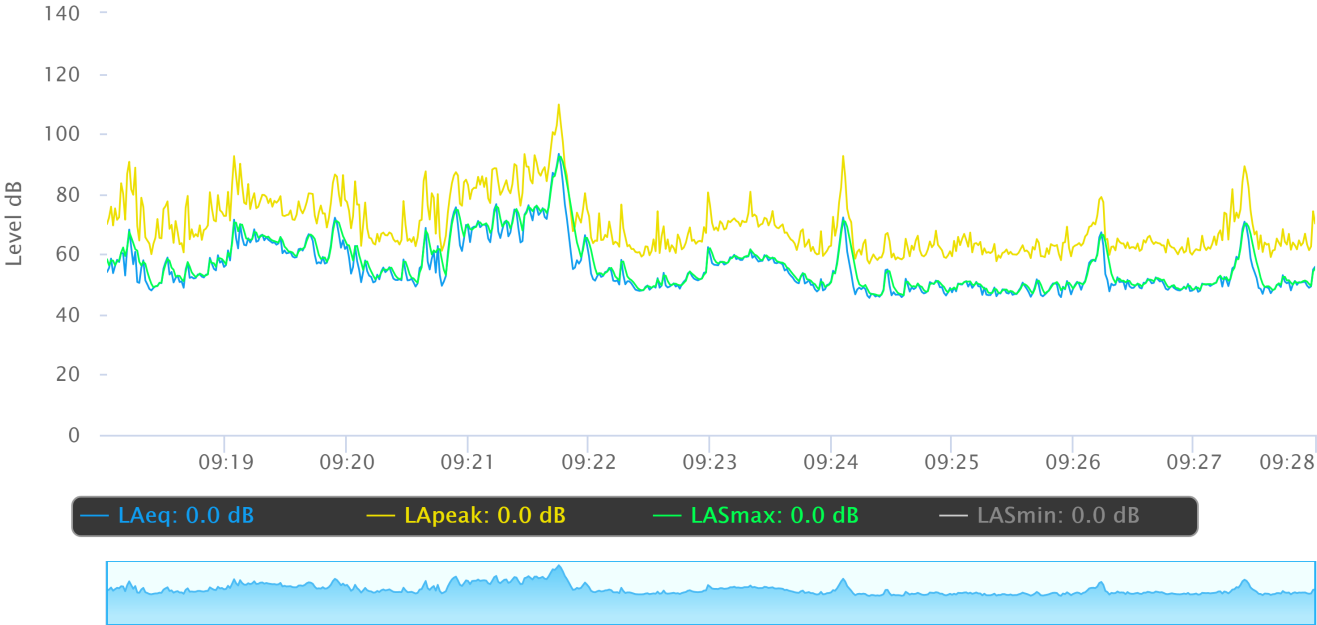
Count	Duration	OBA Count	OBA Duration
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0	0:00:00.0	0	0:00:00.0
---	-----------	---	-----------

Statistics

LAS 5.0	71.9 dB
LAS 10.0	68.1 dB
LAS 33.3	57.7 dB
LAS 50.0	53.0 dB
LAS 66.6	50.4 dB
LAS 90.0	48.1 dB

Time History



Noise Measurement Field Data

Project:	Hollywood Raising Cane's		Job Number:	094797107
Site No.:	ST-4		Date:	1/21/2022
Analyst:	Serena Lin, Simran Singh, Bryant DeLaTorre		Time:	8:15 - 8:25 AM
Location:	Near the southwestern corner of the Leland Way and North Highland Avenue intersection			
Noise Sources:	Cars, traffic, high school, pedestrians			
Results (dBA):				
	Leq:	Lmin:	Lmax:	Peak:
	73.9	55.3	86.0	102.6

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather - 8/17/21	
Temp. (degrees F):	55
Wind (mph):	< 3
Sky:	Clear
Bar. Pressure:	30.05 inHG
Humidity:	47%

Photo:



Measurement Report

Report Summary

Meter's File Name	HWD.001.s		Computer's File Name	LxTse_0005586-20220121 081540-HWD.001.ldbin	
Meter	LxT SE	0005586			
Firmware	2.404				
User			Location		
Job Description					
Note					
Start Time	2022-01-21 08:15:40	Duration	0:10:00.0		
End Time	2022-01-21 08:25:40	Run Time	0:10:00.0	Pause Time	0:00:00.0

Results

Overall Metrics

LA _{eq}	73.9 dB		
LAE	101.7 dB	SEA	--- dB
EA	1.6 mPa²h		
LA _{peak}	102.6 dB	2022-01-21 08:21:24	
LAS _{max}	86.0 dB	2022-01-21 08:21:25	
LAS _{min}	55.3 dB	2022-01-21 08:22:25	
LA _{eq}	73.9 dB		
LC _{eq}	79.0 dB	LC _{eq} - LA _{eq}	5.1 dB
LAI _{eq}	75.4 dB	LAI _{eq} - LA _{eq}	1.5 dB

Exceedances

Count

Duration

LAS > 85.0 dB	1	0:00:01.6
LAS > 115.0 dB	0	0:00:00.0
LAPeak > 135.0 dB	0	0:00:00.0
LAPeak > 137.0 dB	0	0:00:00.0
LAPeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN

LDay

LNight

73.9 dB

73.9 dB

0.0 dB

LDEN

LDay

LEve

LNight

73.9 dB

73.9 dB

--- dB

--- dB

Any Data

A

C

Z

	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	73.9 dB		79.0 dB		--- dB	
LS _(max)	86.0 dB	2022-01-21 08:21:25	--- dB		--- dB	
LS _(min)	55.3 dB	2022-01-21 08:22:25	--- dB		--- dB	
L _{Peak(max)}	102.6 dB	2022-01-21 08:21:24	--- dB		--- dB	

Overloads

Count

Duration

OBA Count

OBA Duration

0

0:00:00.0

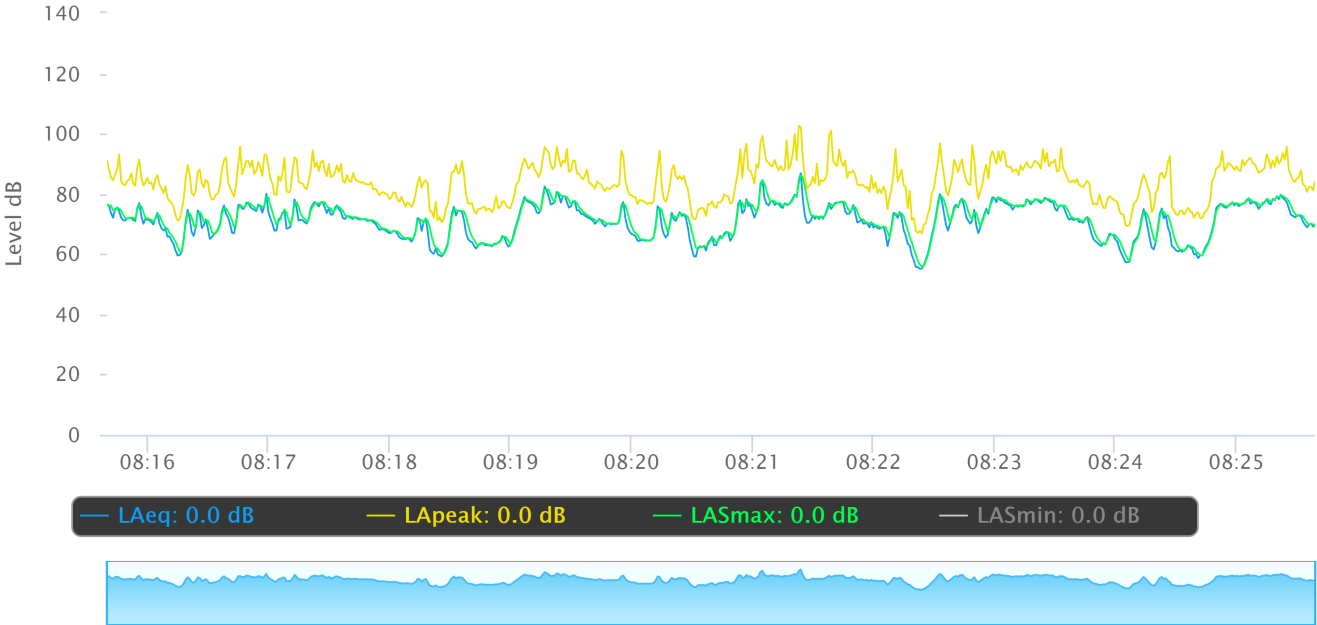
0

0:00:00.0

Statistics

LAS 5.0	78.2 dB
LAS 10.0	77.4 dB
LAS 33.3	74.4 dB
LAS 50.0	71.9 dB
LAS 66.6	69.5 dB
LAS 90.0	63.1 dB

Time History



Noise Measurement Field Data

Project:	Hollywood Raising Cane's	Job Number:	094797107	
Site No.:	LT-1	Date:	1/21/2022-1/24/2022	
Analyst:	Serena Lin, Simran Singh, Bryant DeLaTorre	Time:	9:59 AM (1/21/2022) - 9:12 AM (1/24/2022)	
Location:	Southern end of the project site			
Noise Sources:	Cars passing by on North McCadden Place and Leland Way			
Results (dBA):				
	Leq:	Lmin:	Lmax:	Peak:
	55.6	38.0	84.8	119.0

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather - 8/17/21	
Temp. (degrees F):	56
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	30.05 inHG
Humidity:	54%

Photo:



Kimley»Horn

Measurement Report

Report Summary

Meter's File Name	HWD.006.s	Computer's File Name	LxTse_0005586-20220121 095927-HWD.006.ldbin
Meter	LxT SE	0005586	
Firmware	2.404		
User		Location	
Job Description			
Note			
Start Time	2022-01-21 09:59:27	Duration	71:13:27.5
End Time	2022-01-24 09:12:54	Run Time	71:13:27.5
		Pause Time	0:00:00.0

Results

Overall Metrics

LA _{eq}	55.6 dB		
LAE	109.7 dB	SEA	--- dB
EA	10.4 mPa²h		
LA _{peak}	119.0 dB	2022-01-24 09:12:03	
LAS _{max}	84.8 dB	2022-01-23 15:55:26	
LAS _{min}	38.0 dB	2022-01-23 04:19:46	
LA _{eq}	55.6 dB		
LC _{eq}	69.4 dB	LC _{eq} - LA _{eq}	13.8 dB
LAI _{eq}	58.1 dB	LAI _{eq} - LA _{eq}	2.5 dB

Exceedances

Count

Duration

LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LAPeak > 135.0 dB	0	0:00:00.0
LAPeak > 137.0 dB	0	0:00:00.0
LAPeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN

LDay

LNight

61.4 dB

56.1 dB

0.0 dB

LDEN

LDay

LEve

LNight

61.6 dB

56.3 dB

55.1 dB

54.8 dB

Any Data

A

C

Z

	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	55.6 dB		69.4 dB		--- dB	
LS _(max)	84.8 dB	2022-01-23 15:55:26	--- dB		--- dB	
LS _(min)	38.0 dB	2022-01-23 04:19:46	--- dB		--- dB	
L _{Peak(max)}	119.0 dB	2022-01-24 09:12:03	--- dB		--- dB	

Overloads

Count

Duration

OBA Count

OBA Duration

0

0:00:00.0

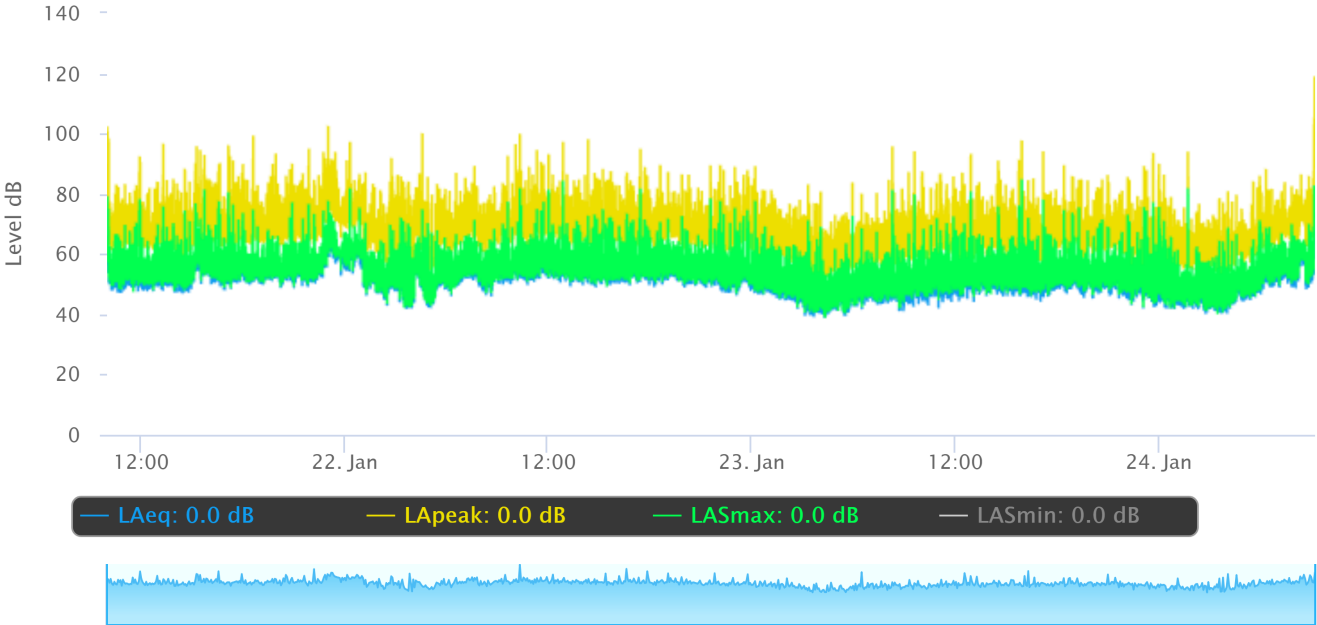
0

0:00:00.0

Statistics

LAS 5.0	60.1 dB
LAS 10.0	57.9 dB
LAS 33.3	53.6 dB
LAS 50.0	52.1 dB
LAS 66.6	50.5 dB
LAS 90.0	46.4 dB

Time History



Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 2/2/2022
Case Description: 01 Demolition

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
South (Single Family)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment			
			Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Concrete Saw	No	20		89.6	130	8
Dozer	No	40		81.7	130	8
Backhoe	No	40		77.6	130	8

Results

	Calculated (dBA)			Noise Limits (dBA)					Noise Limit Exceedance (dBA)				
	*Lmax	Leq	Day	Leq	Evening	Night	Day	Evening	Night				
Equipment													
Concrete Saw	73.3	66.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
Dozer	65.4	61.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
Backhoe	61.3	57.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
Total	73.3	67.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
*Calculated Lmax is the Loudest value.													

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
South (Aloha Suites)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment			
			Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Concrete Saw	No	20		89.6	175	8
Dozer	No	40		81.7	175	8
Backhoe	No	40		77.6	175	8

Results

	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day	Leq	Evening	Night	Leq	Day	Leq	Evening	Night	Leq	Day	Leq	
Equipment															
Concrete Saw	70.7	63.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Dozer	62.8	58.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Backhoe	58.7	54.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Total	70.7	65.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
*Calculated Lmax is the Loudest value.															

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 2/2/2022
Case Description: 02 Site Prep.

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
South (Single Family)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec	Actual		
			Lmax (dBA)	Lmax (dBA)		
Grader	No	40	85		130	8
Tractor	No	40	84		130	8

Results

	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)				
	*Lmax	Leq	Day	Leq	Lmax	Evening	Night	Leq	Lmax	Day	Leq	Lmax	Evening	Night
Equipment														
Grader	68.7	64.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	67.7	63.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	68.7	67.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
*Calculated Lmax is the Loudest value.														

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
South (Aloha Suites)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec	Actual		
			Lmax (dBA)	Lmax (dBA)		
Grader	No	40	85		175	8
Tractor	No	40	84		175	8

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day		Evening		Night		Day		Evening		Night	
Equipment														
Grader	66.1	62.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	65.1	61.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	66.1	64.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 2/2/2022
Case Description: 03 Grading

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
South (Single Family)	Residential	55	50	45

Description	Impact	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec	Actual		
			Lmax (dBA)	Lmax (dBA)		
Grader	No	40	85		130	8
Tractor	No	40	84		130	8
Dozer	No	40		81.7	130	8

Results

		Calculated (dBA)			Noise Limits (dBA)				Noise Limit Exceedance (dBA)							
				Day				Night			Day				Evening	Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Grader		68.7	64.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		67.7	63.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		65.4	61.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total	68.7	68.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
*Calculated Lmax is the Loudest value.																

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
South (Aloha Suites)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec	Actual		
			Lmax (dBA)	Lmax (dBA)		
Grader	No	40	85		175	8
Tractor	No	40	84		175	8
Dozer	No	40		81.7	175	8

Results

Equipment	Calculated (dBA)			Noise Limits (dBA)					Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day	Leq	Evening		Night		Day	Evening		Night		
			Lmax		Lmax	Leq	Lmax	Leq		Lmax	Leq	Lmax	Leq	
Grader	66.1	62.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	65.1	61.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	62.8	58.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	66.1	65.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
*Calculated Lmax is the Loudest value.														

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 2/2/2022

Case Description: 04 Building Construction

---- Receptor #1 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
South (Single Family)	Residential	55	50	45

Equipment

Description	Impact Device	Usage(%)	Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Crane	No	16		80.6	130	8
Tractor	No	40	84		130	8
All Other Equipment > 5 HP	No	50	85		130	8

Results

	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)				
	*Lmax	Leq	Day	Leq	Evening		Night		Day	Evening		Night		
Equipment														
Crane	64.3	56.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	67.7	63.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	68.7	65.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	68.7	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
*Calculated Lmax is the Loudest value.														

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
South (Aloha Suites)	Residential	55	50	45

Equipment

Description	Impact Device	Usage(%)	Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Crane	No	16		80.6	175	8
Tractor	No	40	84		175	8
All Other Equipment > 5 HP	No	50	85		175	8

Results

	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day	Leq	Lmax	Leq	Lmax	Leq	Day	Lmax	Leq	Evening	Lmax	Leq	Night
Equipment															
Crane	61.7	53.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	65.1	61.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	66.1	63.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	66.1	65.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 2/2/2022
Case Description: 05 Paving

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
South (Single Family)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment			
			Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Paver	No	50		77.2	130	8
Roller	No	20		80	130	8
All Other Equipment > 5 HP	No	50	85		130	8

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	60.9	57.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	63.7	56.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	68.7	65.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	68.7	66.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
*Calculated Lmax is the Loudest value.														

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
South (Aloha Suites)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment			
			Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Paver	No	50		77.2	175	8
Roller	No	20		80	175	8
All Other Equipment > 5 HP	No	50	85		175	8

Results

	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)				
	*Lmax	Leq	Day	Leq	Lmax	Leq	Lmax	Leq	Day	Lmax	Leq	Lmax	Leq	Lmax
Equipment														
Paver	58.3	55.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	61.1	54.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	66.1	63.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	66.1	64.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 2/2/2022
Case Description: 06 AC

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
South (Single Family)	Residential	55	50	

Description	Impact	Usage(%)	Equipment			
			Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Compressor (air)	No	40		77.7	130	8

Results

		Calculated (dBA)			Noise Limits (dBA)					Noise Limit Exceedance (dBA)					
		Day			Evening		Night		Day		Evening		Night		
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)		61.4	57.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total	61.4	57.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		*Calculated Lmax is the Loudest value.													

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
South (Aloha Suites)	Residential	55	50	

Description	Impact Device	Usage(%)	Equipment			
			Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Compressor (air)	No	40		77.7	175	8

Results

		Calculated (dBA)			Noise Limits (dBA)				Noise Limit Exceedance (dBA)						
				Day		Evening		Night		Day		Evening		Night	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)		58.8	54.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total	58.8	54.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
*Calculated Lmax is the Loudest value.															

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 2/2/2022
Case Description: 01 Demolition

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
South (Single Family)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment			
			Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Concrete Saw	No	20		89.6	50	8
Dozer	No	40		81.7	50	8
Backhoe	No	40		77.6	50	8

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day		Evening		Night		Day		Evening		Night	
Equipment														
Concrete Saw	81.6	74.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	73.7	69.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	69.6	65.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	81.6	76.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
South (Aloha Suites)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment			
			Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Concrete Saw	No	20		89.6	50	8
Dozer	No	40		81.7	50	8
Backhoe	No	40		77.6	50	8

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day	Evening	Night				Day	Evening	Night			
Equipment														
Concrete Saw	81.6	74.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	73.7	69.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	69.6	65.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	81.6	76.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 2/2/2022
Case Description: 02 Site Prep.

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
South (Single Family)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec	Actual		
			Lmax (dBA)	Lmax (dBA)		
Grader	No	40	85		50	8
Tractor	No	40	84		50	8

Results

		Calculated (dBA)			Noise Limits (dBA)				Noise Limit Exceedance (dBA)					
		Day			Evening				Night					
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader		77	73	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		76	72	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total		77	75.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
*Calculated Lmax is the Loudest value.														

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
South (Aloha Suites)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec	Actual		
			Lmax (dBA)	Lmax (dBA)		
Grader	No	40	85		50	8
Tractor	No	40	84		50	8

Results

		Calculated (dBA)			Noise Limits (dBA)					Noise Limit Exceedance (dBA)									
				Day			Evening			Night			Day			Evening			Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader			77	73	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor			76	72	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total		77	75.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
*Calculated Lmax is the Loudest value.																			

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 2/2/2022
Case Description: 03 Grading

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
South (Single Family)	Residential	55	50	45

Description	Impact	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec	Actual		
			Lmax (dBA)	Lmax (dBA)		
Grader	No	40	85		50	8
Tractor	No	40	84		50	8
Dozer	No	40		81.7	50	8

Results

		Calculated (dBA)			Noise Limits (dBA)				Noise Limit Exceedance (dBA)							
				Day				Night			Day				Evening	Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	
Grader		77		73	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Tractor		76		72	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Dozer		73.7		69.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Total	77		76.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
*Calculated Lmax is the Loudest value.																

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
South (Aloha Suites)	Residential	55	50	45

Description	Impact	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec	Actual		
			Lmax (dBA)	Lmax (dBA)		
Grader	No	40	85		50	8
Tractor	No	40	84		50	8
Dozer	No	40		81.7	50	8

Results

		Calculated (dBA)			Noise Limits (dBA)				Noise Limit Exceedance (dBA)						
				Day				Night			Day				Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader		77	73	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor		76	72	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		73.7	69.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total	77	76.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
*Calculated Lmax is the Loudest value.															

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 2/2/2022
Case Description: 04 Building Construction

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
South (Single Family)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment			
			Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Crane	No	16		80.6	50	8
Tractor	No	40	84		50	8
All Other Equipment > 5 HP	No	50	85		50	8

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day		Evening		Night		Day		Evening		Night	
Equipment														
Crane	72.6	64.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	76	72	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	77	74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	77	76.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
South (Aloha Suites)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment			
			Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Crane	No	16		80.6	50	8
Tractor	No	40	84		50	8
All Other Equipment > 5 HP	No	50	85		50	8

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day		Evening		Night		Day		Evening		Night	
Equipment														
Crane	72.6	64.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	76	72	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	77	74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	77	76.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 2/2/2022
Case Description: 05 Paving

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
South (Single Family)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment			
			Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Paver	No	50		77.2	50	8
Roller	No	20		80	50	8
All Other Equipment > 5 HP	No	50	85		50	8

Results

[illegible]

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
South (Aloha Suites)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment			
			Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Paver	No	50		77.2	50	8
Roller	No	20		80	50	8
All Other Equipment > 5 HP	No	50	85		50	8

Results

[illegible]

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 2/2/2022
Case Description: 06 AC

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
South (Single Family)	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment			
			Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Compressor (air)	No	40		77.7	50	8

Results

		Calculated (dBA)			Noise Limits (dBA)				Noise Limit Exceedance (dBA)										
		Day			Evening			Night			Day			Evening			Night		
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq		
Compressor (air)		69.7	65.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
	Total	69.7	65.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
		*Calculated Lmax is the Loudest value.																	

---- Receptor #2 ----

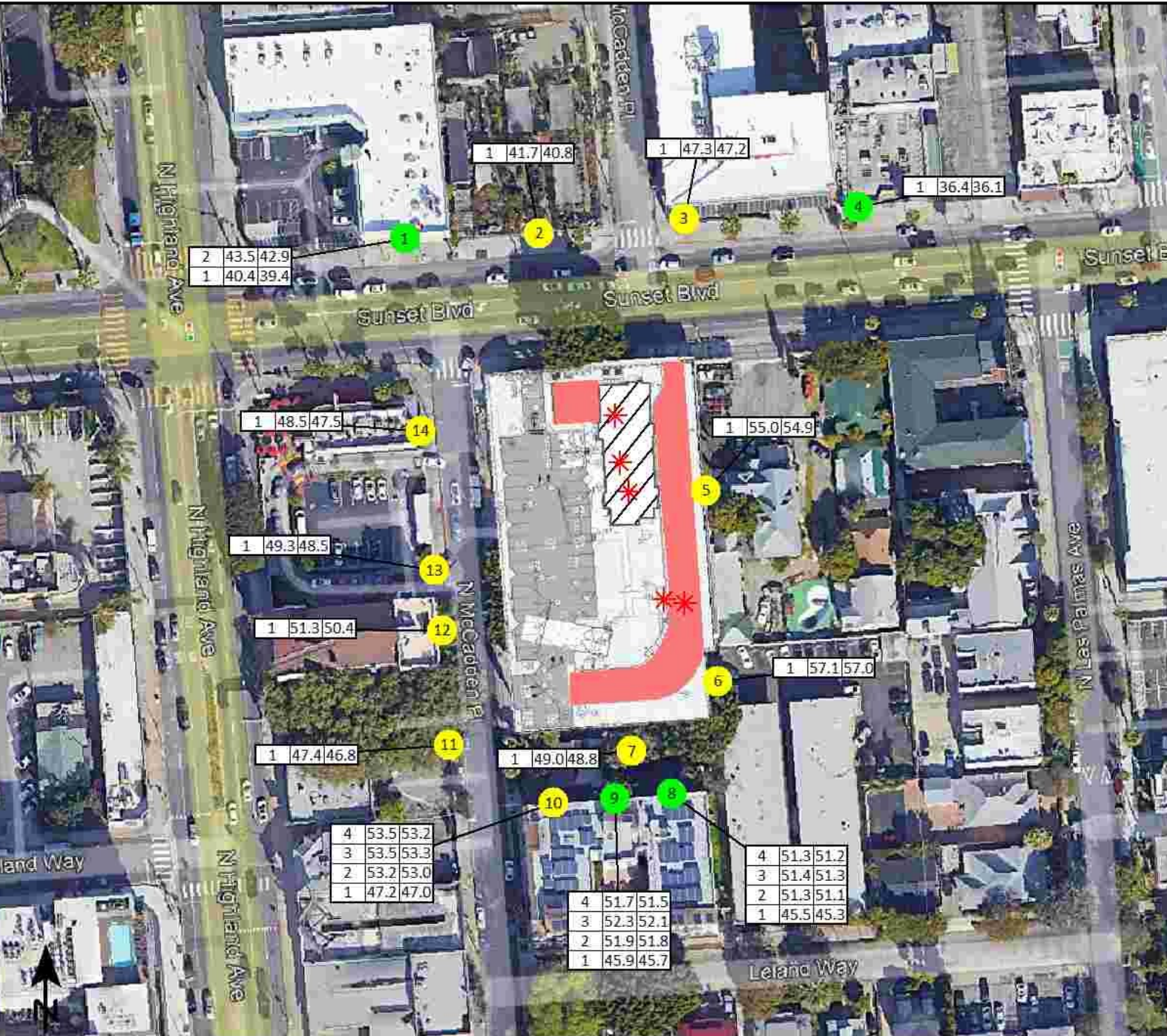
Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
South (Aloha Suites)	Residential	55	50	45

Description	Impact	Usage(%)	Equipment			
			Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Compressor (air)	No	40		77.7	50	8

Results

		Calculated (dBA)			Noise Limits (dBA)				Noise Limit Exceedance (dBA)						
				Day	Evening		Night		Day		Evening		Night		
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)		69.7	65.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total	69.7	65.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
*Calculated Lmax is the Loudest value.															

Hollywood Raising Cane's



Signs and symbols

- Proposed Raising Cane's Restaurant
- Receiver
- Receiver at building
- Point Source
- Area Source

1 : 1433

0 5 10 20 30 40 m

SoundPLAN Receiver Results

No.	Receiver name	Building side	Floor	Limit		Level w/o NP		Level w NP		Difference		Conflict	
				Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
				dB(A)		dB(A)		dB(A)		dB		dB	
1	1	South	GF	-	-	40.4	39.4	0.0	0.0	-40.4	-39.4	-	-
			1.FI	-	-	43.5	42.9	0.0	0.0	-43.5	-42.9	-	-
2	2	-	GF	-	-	41.7	40.8	0.0	0.0	-41.7	-40.8	-	-
3	3	-	GF	-	-	47.3	47.2	0.0	0.0	-47.3	-47.2	-	-
4	4	South	GF	-	-	36.4	36.1	0.0	0.0	-36.4	-36.1	-	-
5	5	-	GF	-	-	55.0	54.9	0.0	0.0	-55.0	-54.9	-	-
6	6	-	GF	-	-	57.1	57.0	0.0	0.0	-57.1	-57.0	-	-
7	7	-	GF	-	-	49.0	48.8	0.0	0.0	-49.0	-48.8	-	-
8	8	North	GF	-	-	45.5	45.3	0.0	0.0	-45.5	-45.3	-	-
			1.FI	-	-	51.3	51.1	0.0	0.0	-51.3	-51.1	-	-
			2.FI	-	-	51.4	51.3	0.0	0.0	-51.4	-51.3	-	-
			3.FI	-	-	51.3	51.2	0.0	0.0	-51.3	-51.2	-	-
9	9	North	GF	-	-	45.9	45.7	0.0	0.0	-45.9	-45.7	-	-
			1.FI	-	-	51.9	51.8	0.0	0.0	-51.9	-51.8	-	-
			2.FI	-	-	52.3	52.1	0.0	0.0	-52.3	-52.1	-	-
			3.FI	-	-	51.7	51.5	0.0	0.0	-51.7	-51.5	-	-
10	10	-	GF	-	-	47.2	47.0	0.0	0.0	-47.2	-47.0	-	-
			1.FI	-	-	53.2	53.0	0.0	0.0	-53.2	-53.0	-	-
			2.FI	-	-	53.5	53.3	0.0	0.0	-53.5	-53.3	-	-
			3.FI	-	-	53.5	53.2	0.0	0.0	-53.5	-53.2	-	-
11	11	-	GF	-	-	47.4	46.8	0.0	0.0	-47.4	-46.8	-	-
12	12	-	GF	-	-	51.3	50.4	0.0	0.0	-51.3	-50.4	-	-
13	13	-	GF	-	-	49.3	48.5	0.0	0.0	-49.3	-48.5	-	-
14	14	-	GF	-	-	48.5	47.5	0.0	0.0	-48.5	-47.5	-	-