Appendix I

Environmental Noise Assessment

Environmental Noise Assessment

Creekside at Woodlake Residential

City of Sacramento, California

June 11, 2025

Project #250504

Prepared for:

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INTRODUCTION

The Creekside Housing project consists of the development of single-family residential in the City of Sacramento, California. The project is located north of SR-160 and west of Canterbury Road. The primary noise source affecting the project is SR-160.

Figure 1 shows the project site plan. **Figure 2** shows the noise measurement locations and an aerial view of the project site.

ENVIRONMENTAL SETTING

BACKGROUND INFORMATION ON NOISE

Fundamentals of Acoustics

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment.

Creekside Housing
City of Sacramento, California

Figure 1
Project Site Plan

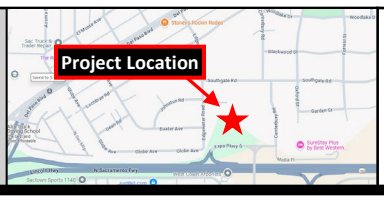

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Figure 2

Noise Measurement Sites

Legend

- Project Site
- Noise Measurement Site - Long Term

0 m 50 m 100 m

Projection: UTM Zone 10 / WGS84 / meters
Rev. Date: 05/22/2025

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The decibel scale is logarithmic, not linear. In other words, two sound levels 10-dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10-dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn}, and shows very good correlation with community response to noise.

The day/night average level (DNL or L_{dn}) is based upon the average noise level over a 24-hour day, with a +10-decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Table 1 lists several examples of the noise levels associated with common situations. **Appendix A** provides a summary of acoustical terms used in this report.

TABLE 1: TYPICAL NOISE LEVELS

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft.)	--100--	
Gas Lawn Mower at 1 m (3 ft.)	--90--	
Diesel Truck at 15 m (50 ft.), at 80 km/hr. (50 mph)	--80--	Food Blender at 1 m (3 ft.) Garbage Disposal at 1 m (3 ft.)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft.)	--70--	Vacuum Cleaner at 3 m (10 ft.)
Commercial Area Heavy Traffic at 90 m (300 ft.)	--60--	Normal Speech at 1 m (3 ft.)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

Source: Caltrans, Technical Noise Supplement, Traffic Noise Analysis Protocol. September, 2013.

Effects of Noise on People

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as hearing loss or sudden startling

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regard to increases in A-weighted noise level, the following relationships occur:

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

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6-dB per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

EXISTING AMBIENT NOISE LEVELS

The existing noise environment in the project area is defined primarily by traffic on SR-160 and Expo Parkway. To quantify the existing ambient noise environment in the project vicinity, Saxelby Acoustics conducted continuous (24-hr.) noise level measurements at two locations on the project site. Noise measurement locations are shown on **Figure 2**. A summary of the noise level measurement survey results is provided in **Table 2**. **Appendix B** contains the complete results of the noise monitoring.

The sound level meters were programmed to record the maximum, median, and average noise levels at each site during the survey. The maximum value, denoted L_{max}, represents the highest noise level measured. The average value, denoted L_{eq}, represents the energy average of all of the noise received by the sound level meter microphone during the monitoring period. The median value, denoted L_{50}, represents the sound level exceeded 50 percent of the time during the monitoring period.

Larson Davis Laboratories (LDL) model 812 and 820 precision integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before and after use with a CAL 200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

TABLE 2: SUMMARY OF EXISTING BACKGROUND NOISE MEASUREMENT DATA

Site	Date	L_{dn}	Daytime L_{eq}	Daytime L_{50}	Daytime L_{max}	Nighttime L_{eq}	Nighttime L_{50}	Nighttime L_{max}
LT-1: 40 ft. to CL of Expo Pkwy. S.	5/21/25	68	65	63	81	61	56	77
	5/22/25	68	66	63	86	61	56	76
LT-2: 30 ft. to CL of Expo Pkwy. S.	5/21/25	69	67	63	89	61	56	81
	5/22/25	69	66	63	89	61	57	79

Notes:

- *All values shown in dBA*
- *Daytime hours: 7:00 a.m. to 10:00 p.m.*
- *Nighttime Hours: 10:00 p.m. to 7:00 a.m.*
- *Source: Saxelby Acoustics 2025*

REGULATORY CONTEXT

FEDERAL

There are no federal regulations related to noise that apply to the Proposed Project.

STATE

The State Building Code, Title 24, Part 2 of the State of California Code of Regulations, establishes uniform minimum noise insulation performance standards to protect persons within new buildings which house people, including hotels, motels, dormitories, apartment houses, and dwellings other than single-family dwellings. Title 24 mandates that interior noise levels attributable to exterior sources shall not exceed 45 dB L_{dn} or CNEL in any habitable room. Title 24 also mandates that for structures containing noise-sensitive uses to be located where the L_{dn} or CNEL exceeds 60 dB, an acoustical analysis must be prepared to identify mechanisms for limiting exterior noise to the prescribed allowable interior levels. If the interior allowable noise levels are met by requiring that windows be kept closed, the design for the structure must also specify a ventilation or air conditioning system to provide a habitable interior environment.

LOCAL

City of Sacramento General Plan

The Environmental Resources and Constraints element of the City's General Plan identifies noise and land use compatibility standards for various land uses. The City's goal is to minimize noise impacts on human activity to ensure the health and safety of the community. **Table 3** below shows exterior noise compatibility standards for various land uses.

TABLE 3: CITY OF SACRAMENTO EXTERIOR NOISE COMPATIBILITY STANDARDS FOR VARIOUS LAND USES

Land Use Type	Highest Level of Noise Exposure that is Regarded as "Normally Acceptable"[a] (L_{dn}[b] or CNEL[c])
Residential - Low Density Single Family, Duplex, Mobile Homes	60 dBA[d,e]
Residential – Multi-family[g]	65 dBA
Urban Residential Infill[h] and Mixed-Use Projects[i,j]	70 dBA
Transient Lodging – Motels, Hotels	65 dBA
Schools, Libraries, Churches, Hospitals, Nursing Homes	70 dBA
Auditoriums, Concert Halls, Amphitheaters	Mitigation based on site-specific study
Sports Arena, Outdoor Spectator Sports	Mitigation based on site-specific study
Playgrounds, Neighborhood Parks	70 dBA
Golf Courses, Riding Stables, Water Recreation, Cemeteries	75 dBA
Office Buildings – Business, Commercial and Professional	70 dBA
Industrial, Manufacturing, Utilities, Agriculture	75 dBA

Source: Governor's Office of Planning and Research, State of California General Plan Guidelines 2003, October 2003

a. As defined in the California Office of Planning and Research Guidelines, "Normally Acceptable" means that the "specified land use is satisfactory, based upon the assumption that any building involved is of normal conventional construction, without any special noise insulation requirements.

b. Ldn, or day-night average sound level, is an average 24-hour noise measurement that factors in day and night noise levels.

c. CNEL, or Community Noise Equivalent Level, measurements are a weighted average of sound levels gathered throughout a 24-hour period.

d. Applies to the primary open space area of a detached single-family home, duplex, or mobile home, which is typically the backyard or fenced side yard, as measured from the center of the primary open space area (not the property line). This standard does not apply to secondary open space areas, such as front yards, balconies, stoops, and porches.

e. dBA, or A-weighted decibel scale, is a measurement of noise levels.

f. The exterior noise standard for the residential area west of McClellan Airport known as McClellan Heights/Parker Homes is 65 dBA.

g. Applies to the primary open space areas of townhomes and multi-family apartments or condominiums (private year yards for townhomes; common courtyards, roof gardens, or gathering spaces for multi-family developments). These standards shall not apply to balconies or small attached patios in multistoried multi-family structures.

h. Applies to the Central City and areas with a Residential Mixed-Use designation.

i. All mixed-use projects located anywhere in the City of Sacramento.

j. See notes d and g above for definition of primary open space areas for single-family and multi-family developments.

ERC-10.1 Exterior Noise Standards.

The City shall require noise mitigation for all development where the projected exterior noise levels exceed those shown in Table ERC-1, to the extent feasible.

ERC-10.3 Interior Noise Standards

The City shall require new development to include noise attenuation to assure acceptable interior noise levels appropriate to the land use, as follows:

- 45 dBA L_{dn} for residential, transient lodgings, hospitals, nursing homes, and other uses where people normally sleep; and
- 45 dBA L_{eq} (peak hour with windows closed) for office buildings and similar uses.

ERC-10.4 Interior Noise Review for Multiple, Loud, Short-Term Events.

In cases where new development is proposed in areas subject to frequent, high-noise events (such as aircraft over-flights, or train and truck passbys), the City shall evaluate interior noise impacts at proposed sensitive receptors. The evaluation shall incorporate measures necessary to meet the 45 dBA L_{dn} standard.

EVALUATION OF TRANSPORTATION NOISE ON PROJECT SITE

EXTERIOR NOISE

Saxelby Acoustics used the SoundPLAN noise model to calculate traffic noise levels at the proposed residential uses due to traffic on the local roadway network. Inputs to the SoundPLAN noise model include traffic noise level data from the ambient noise level survey, topography, existing and proposed structures, roadway elevations, and the proposed building pad elevations. It was estimated that existing noise levels would increase by +1 dBA to account for future increases in traffic volumes on SR 160. The results of this analysis are shown graphically on **Figure 3**.

As shown on **Figure 3**, the outdoor activity areas of the proposed project would be exposed to exterior noise levels of up to 64 dBA L_{dn}. This would not comply with the City's 60 dBA L_{dn} exterior noise standard for low density single-family residential. Therefore, additional noise control measures would be required.

Saxelby Acoustics determined the effect of including a sound wall in the project design. An 8-foot-tall barrier was modeled along portions of the southern project boundary to shield outdoor activity areas. Additionally, a 7-foot-tall barrier was modeled around the easternmost outdoor area of the residence on Lot 18. The barriers are predicted to lower noise levels at all outdoor activity areas on the project site to 60 dBA $L_{dn,}$ or less. **Figure 4** shows the recommended sound walls and resulting noise level contours.

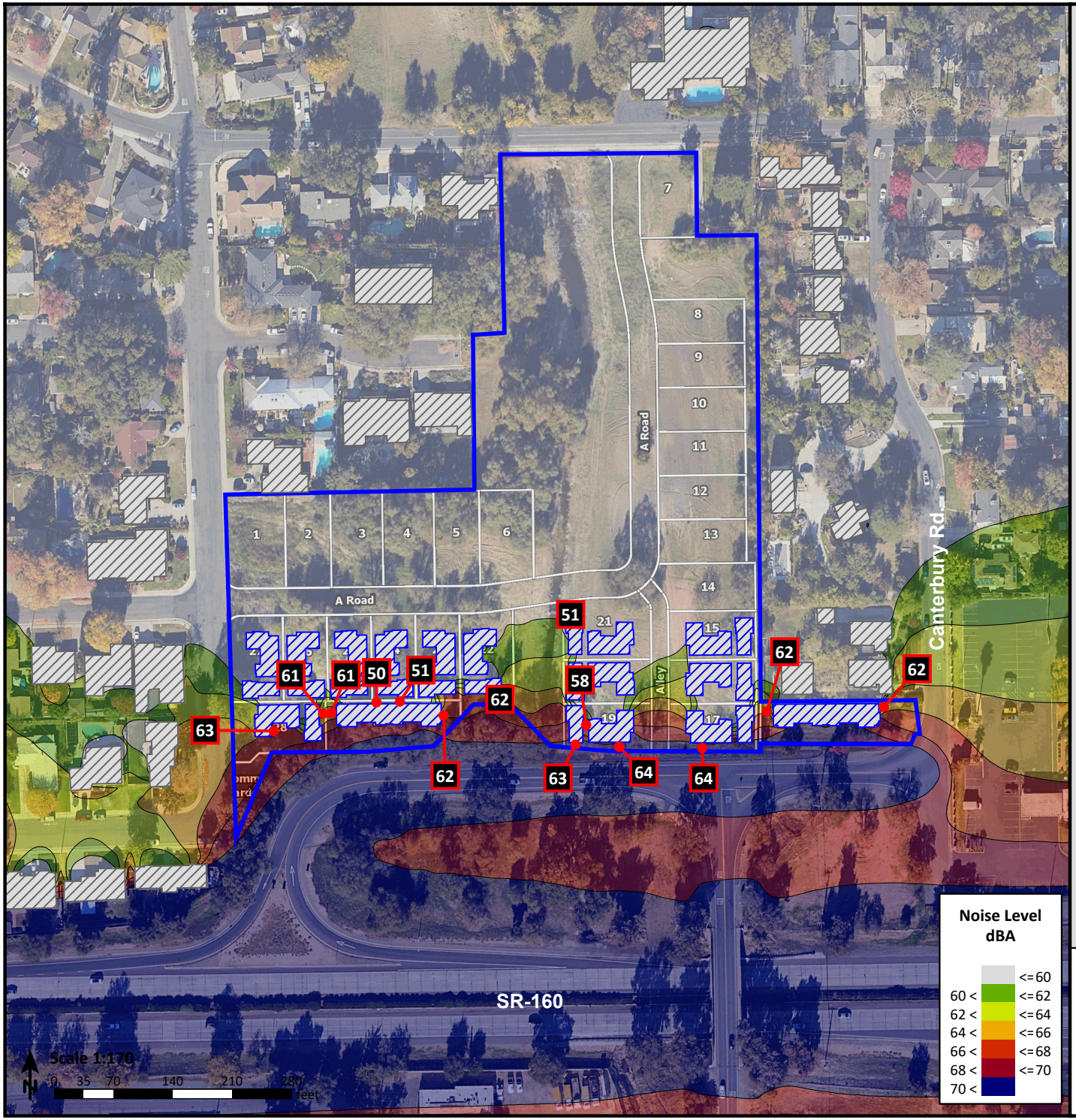

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Figure 3

Future Transportation Noise Levels (Ldn, dBA)

Legend

- Project Boundary
- Project Building
- Existing Building
- Noise Level

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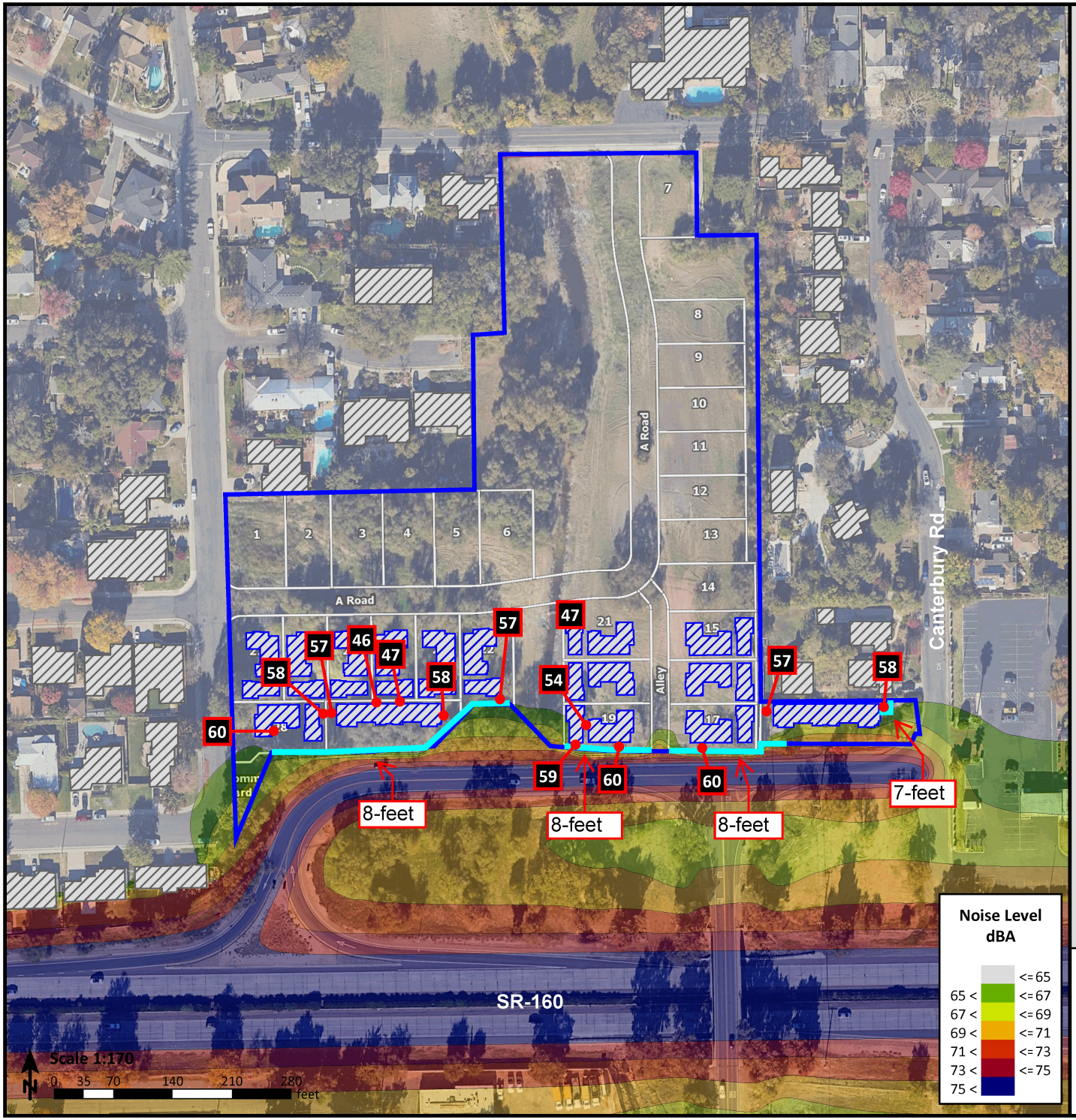

Creekside Housing

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Figure 4

Future Transportation Noise Levels with Sound Wall (Ldn, dBA)

Legend

- Project Boundary
- Project Building
- Existing Building
- Noise Level
- Sound Wall

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INTERIOR NOISE

Modern building construction methods typically yield an exterior-to-interior noise level reduction of 25 dBA. This assumes glazing would have a minimum STC rating of 29. Therefore, where exterior noise levels are 70 dBA L_{dn}, or less, no additional interior noise control measures are typically required. For this project, exterior noise levels are predicted to be less than 70 dBA L_{dn} at the building facades closest to SR 160. Therefore, no additional noise control measures would be required.

Recommended Condition of Approval

*Prior to approval of project improvement plans, the plans for the proposed project shall show that the first-row lots shall be shielded from SR-160 through the use of minimum eight-foot tall and seven-foot-tall sound walls, as shown on **Figure 4**, per the approval of the City Engineer. Sound walls may include a combination of earthen berm and masonry wall to achieve the required height. Wall heights shall be measured relative to either pad or roadway centerline elevations, whichever is higher. The approximate locations of these barriers are shown on **Figure 4**. Other types of barrier may be employed but shall be reviewed by an acoustical engineer prior to being constructed.*

CONCLUSION

The proposed project, which consists of the development of low-density single-family residential, is predicted to be exposed to exterior noise levels of up to 64 dBA L_{dn} at the outdoor activity areas of the proposed residences. To reduce noise levels to below the acceptable threshold of 60 dBA L_{dn}, Saxelby Acoustics recommends the construction of sound walls as depicted in **Figure 4**. Implementation of these walls would reduce noise levels to below acceptable noise levels for exterior and interior occurrences. No special interior noise control measures are required, assuming that minimum STC 29 rated window assemblies are used for lots with a direct view of SR-160.

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Appendix A: Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
ASTC	Apparent Sound Transmission Class. Similar to STC but includes sound from flanking paths and correct for room reverberation. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by +5 dBA and nighttime hours weighted by +10 dBA.
DNL	See definition of Ldn.
IIC	Impact Insulation Class. An integer-number rating of how well a building floor attenuates impact sounds, such as footsteps. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz (Hz).
Ldn	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
Leq	Equivalent or energy-averaged sound level.
Lmax	The highest root-mean-square (RMS) sound level measured over a given period of time.
L(n)	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L50 is the sound level exceeded 50% of the time during the one-hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
NIC	Noise Isolation Class. A rating of the noise reduction between two spaces. Similar to STC but includes sound from flanking paths and no correction for room reverberation.
NNIC	Normalized Noise Isolation Class. Similar to NIC but includes a correction for room reverberation.
Noise	Unwanted sound.
NRC	Noise Reduction Coefficient. NRC is a single-number rating of the sound-absorption of a material equal to the arithmetic mean of the sound-absorption coefficients in the 250, 500, 1000, and 2,000 Hz octave frequency bands rounded to the nearest multiple of 0.05. It is a representation of the amount of sound energy absorbed upon striking a particular surface. An NRC of 0 indicates perfect reflection; an NRC of 1 indicates perfect absorption.
RT60	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 Sabin.
SEL	Sound Exposure Level. SEL is a rating, in decibels, of a discrete event, such as an aircraft flyover or train pass by, that compresses the total sound energy into a one-second event.
SPC	Speech Privacy Class. SPC is a method of rating speech privacy in buildings. It is designed to measure the degree of speech privacy provided by a closed room, indicating the degree to which conversations occurring within are kept private from listeners outside the room.
STC	Sound Transmission Class. STC is an integer rating of how well a building partition attenuates airborne sound. It is widely used to rate interior partitions, ceilings/floors, doors, windows and exterior wall configurations. The STC rating is typically used to rate the sound transmission of a specific building element when tested in laboratory conditions where flanking paths around the assembly don't exist. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
Simple Tone	Any sound which can be judged as audible as a single pitch or set of single pitches.

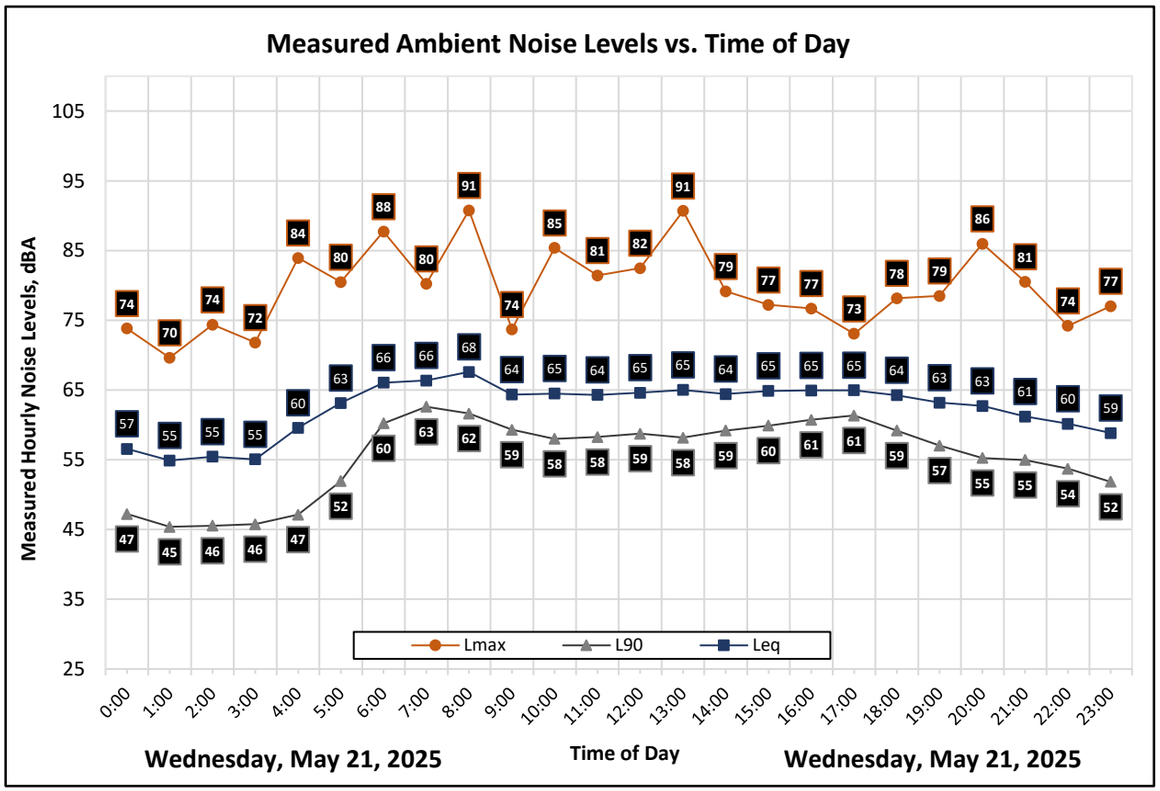
Appendix B: Continuous Long-Term Ambient Noise Measurement Results

Appendix B1a: Continuous Noise Monitoring Results

Site: LT-1
Project: Creekside Housing
Location: Southern Project Boundary
Coordinates: (38.6009830, -121.4593700)
Meter: LDL 820-6
Calibrator: CAL200

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Wednesday, May 21, 2025	0:00	57	74	53	47
Wednesday, May 21, 2025	1:00	55	70	51	45
Wednesday, May 21, 2025	2:00	55	74	50	46
Wednesday, May 21, 2025	3:00	55	72	50	46
Wednesday, May 21, 2025	4:00	60	84	54	47
Wednesday, May 21, 2025	5:00	63	80	61	52
Wednesday, May 21, 2025	6:00	66	88	65	60
Wednesday, May 21, 2025	7:00	66	80	66	63
Wednesday, May 21, 2025	8:00	68	91	65	62
Wednesday, May 21, 2025	9:00	64	74	63	59
Wednesday, May 21, 2025	10:00	65	85	62	58
Wednesday, May 21, 2025	11:00	64	81	62	58
Wednesday, May 21, 2025	12:00	65	82	62	59
Wednesday, May 21, 2025	13:00	65	91	62	58
Wednesday, May 21, 2025	14:00	64	79	63	59
Wednesday, May 21, 2025	15:00	65	77	63	60
Wednesday, May 21, 2025	16:00	65	77	64	61
Wednesday, May 21, 2025	17:00	65	73	64	61
Wednesday, May 21, 2025	18:00	64	78	63	59
Wednesday, May 21, 2025	19:00	63	79	61	57
Wednesday, May 21, 2025	20:00	63	86	60	55
Wednesday, May 21, 2025	21:00	61	81	60	55
Wednesday, May 21, 2025	22:00	60	74	59	54
Wednesday, May 21, 2025	23:00	59	77	57	52

Statistics	Leq	Lmax	L50	L90
Day Average	65	81	63	59
Night Average	61	77	56	50
Day Low	61	73	60	55
Day High	68	91	66	63
Night Low	55	70	50	45
Night High	66	88	65	60
Ldn	68	Day %		81
CNEL	68	Night %		19

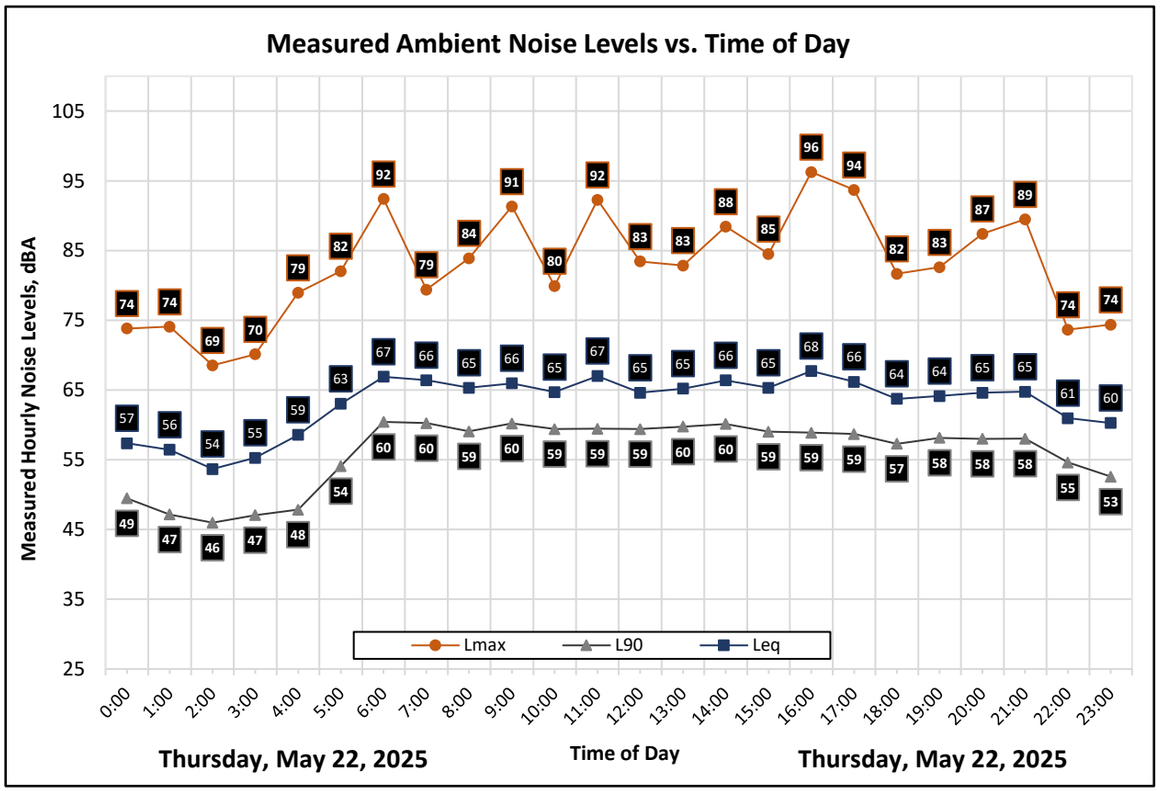


Appendix B1b: Continuous Noise Monitoring Results

Site: LT-1
Project: Creekside Housing
Location: Southern Project Boundary
Coordinates: (38.6009830, -121.4593700)
Meter: LDL 820-6
Calibrator: CAL200

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Thursday, May 22, 2025	0:00	57	74	55	49
Thursday, May 22, 2025	1:00	56	74	53	47
Thursday, May 22, 2025	2:00	54	69	50	46
Thursday, May 22, 2025	3:00	55	70	52	47
Thursday, May 22, 2025	4:00	59	79	54	48
Thursday, May 22, 2025	5:00	63	82	61	54
Thursday, May 22, 2025	6:00	67	92	65	60
Thursday, May 22, 2025	7:00	66	79	66	60
Thursday, May 22, 2025	8:00	65	84	64	59
Thursday, May 22, 2025	9:00	66	91	64	60
Thursday, May 22, 2025	10:00	65	80	63	59
Thursday, May 22, 2025	11:00	67	92	63	59
Thursday, May 22, 2025	12:00	65	83	63	59
Thursday, May 22, 2025	13:00	65	83	63	60
Thursday, May 22, 2025	14:00	66	88	64	60
Thursday, May 22, 2025	15:00	65	85	64	59
Thursday, May 22, 2025	16:00	68	96	63	59
Thursday, May 22, 2025	17:00	66	94	62	59
Thursday, May 22, 2025	18:00	64	82	61	57
Thursday, May 22, 2025	19:00	64	83	62	58
Thursday, May 22, 2025	20:00	65	87	62	58
Thursday, May 22, 2025	21:00	65	89	62	58
Thursday, May 22, 2025	22:00	61	74	60	55
Thursday, May 22, 2025	23:00	60	74	58	53

Statistics	Leq	Lmax	L50	L90
Day Average	66	86	63	59
Night Average	61	76	56	51
Day Low	64	79	61	57
Day High	68	96	66	60
Night Low	54	69	50	46
Night High	67	92	65	60
Ldn	68	Day %		83
CNEL	69	Night %		17

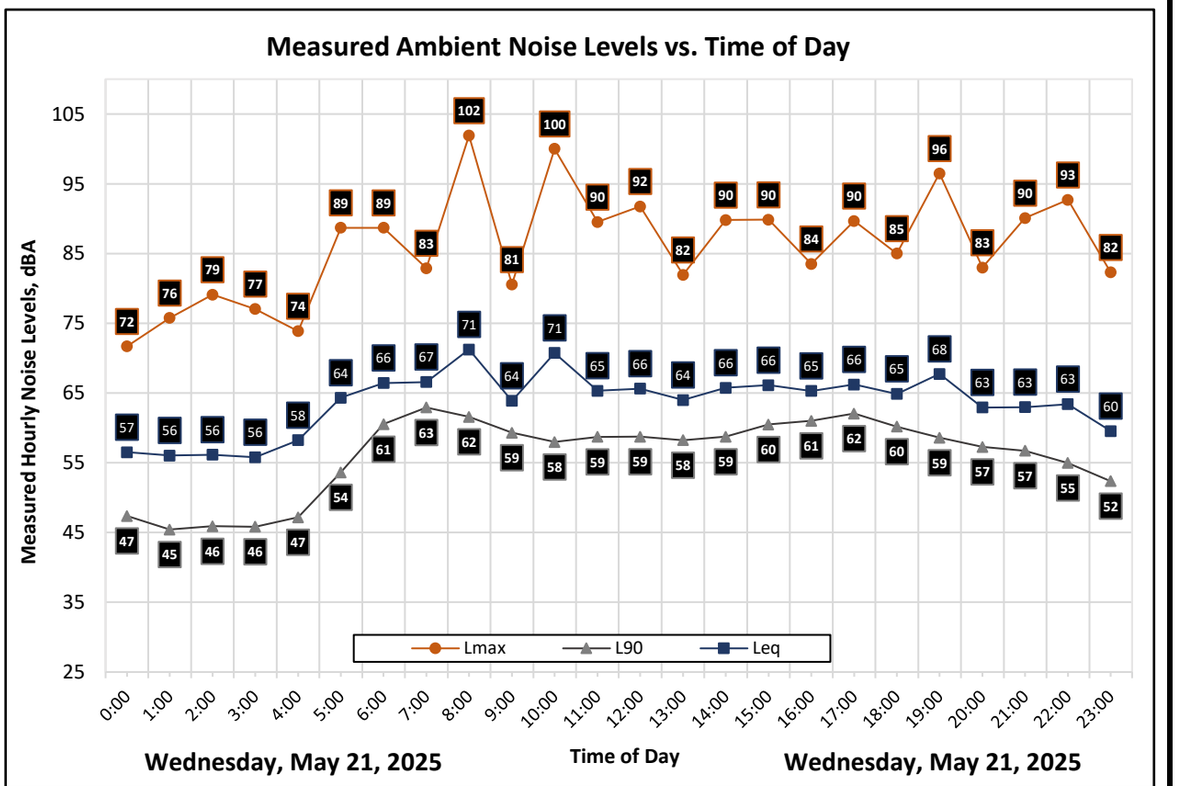


Appendix B2a: Continuous Noise Monitoring Results

Site: LT-2
Project: Creekside Housing
Location: Southern Project Boundary
Coordinates: (38.6009631, -121.4581449)
Meter: LDL 820-1
Calibrator: CAL200

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Wednesday, May 21, 2025	0:00	57	72	54	47
Wednesday, May 21, 2025	1:00	56	76	52	45
Wednesday, May 21, 2025	2:00	56	79	51	46
Wednesday, May 21, 2025	3:00	56	77	51	46
Wednesday, May 21, 2025	4:00	58	74	56	47
Wednesday, May 21, 2025	5:00	64	89	62	54
Wednesday, May 21, 2025	6:00	66	89	65	61
Wednesday, May 21, 2025	7:00	67	83	66	63
Wednesday, May 21, 2025	8:00	71	102	65	62
Wednesday, May 21, 2025	9:00	64	81	63	59
Wednesday, May 21, 2025	10:00	71	100	62	58
Wednesday, May 21, 2025	11:00	65	90	62	59
Wednesday, May 21, 2025	12:00	66	92	62	59
Wednesday, May 21, 2025	13:00	64	82	61	58
Wednesday, May 21, 2025	14:00	66	90	62	59
Wednesday, May 21, 2025	15:00	66	90	63	60
Wednesday, May 21, 2025	16:00	65	84	64	61
Wednesday, May 21, 2025	17:00	66	90	64	62
Wednesday, May 21, 2025	18:00	65	85	64	60
Wednesday, May 21, 2025	19:00	68	96	62	59
Wednesday, May 21, 2025	20:00	63	83	61	57
Wednesday, May 21, 2025	21:00	63	90	60	57
Wednesday, May 21, 2025	22:00	63	93	59	55
Wednesday, May 21, 2025	23:00	60	82	58	52

Statistics	Leq	Lmax	L50	L90
Day Average	67	89	63	60
Night Average	61	81	56	50
Day Low	63	81	60	57
Day High	71	102	66	63
Night Low	56	72	51	45
Night High	66	93	65	61
Ldn	69	Day %		85
CNEL	70	Night %		15



Appendix B2b: Continuous Noise Monitoring Results

Site: LT-2
Project: Creekside Housing
Location: Southern Project Boundary
Coordinates: (38.6009631, -121.4581449)
Meter: LDL 820-1
Calibrator: CAL200

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Thursday, May 22, 2025	0:00	58	78	56	50
Thursday, May 22, 2025	1:00	58	80	54	47
Thursday, May 22, 2025	2:00	54	70	51	46
Thursday, May 22, 2025	3:00	56	73	52	47
Thursday, May 22, 2025	4:00	58	72	55	48
Thursday, May 22, 2025	5:00	63	86	61	55
Thursday, May 22, 2025	6:00	66	86	65	61
Thursday, May 22, 2025	7:00	67	88	66	62
Thursday, May 22, 2025	8:00	66	84	64	61
Thursday, May 22, 2025	9:00	66	88	64	61
Thursday, May 22, 2025	10:00	65	91	63	60
Thursday, May 22, 2025	11:00	68	93	63	60
Thursday, May 22, 2025	12:00	64	82	63	60
Thursday, May 22, 2025	13:00	66	91	63	60
Thursday, May 22, 2025	14:00	68	96	63	61
Thursday, May 22, 2025	15:00	65	86	64	60
Thursday, May 22, 2025	16:00	66	92	63	61
Thursday, May 22, 2025	17:00	65	84	63	60
Thursday, May 22, 2025	18:00	64	81	62	59
Thursday, May 22, 2025	19:00	64	84	63	59
Thursday, May 22, 2025	20:00	65	90	63	59
Thursday, May 22, 2025	21:00	69	99	62	59
Thursday, May 22, 2025	22:00	61	83	60	56
Thursday, May 22, 2025	23:00	61	83	59	54

Statistics	Leq	Lmax	L50	L90
Day Average	66	89	63	60
Night Average	61	79	57	51
Day Low	64	81	62	59
Day High	69	99	66	62
Night Low	54	70	51	46
Night High	66	86	65	61
Ldn	69	Day %		84
CNEL	69	Night %		16