### Appendix D Environmental Noise Assessment

#### **Environmental Noise Assessment**

### Jesuit High School Stadium Lights Project

Sacramento County, California

BAC Job # 2022-128

Prepared For:

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#### Introduction

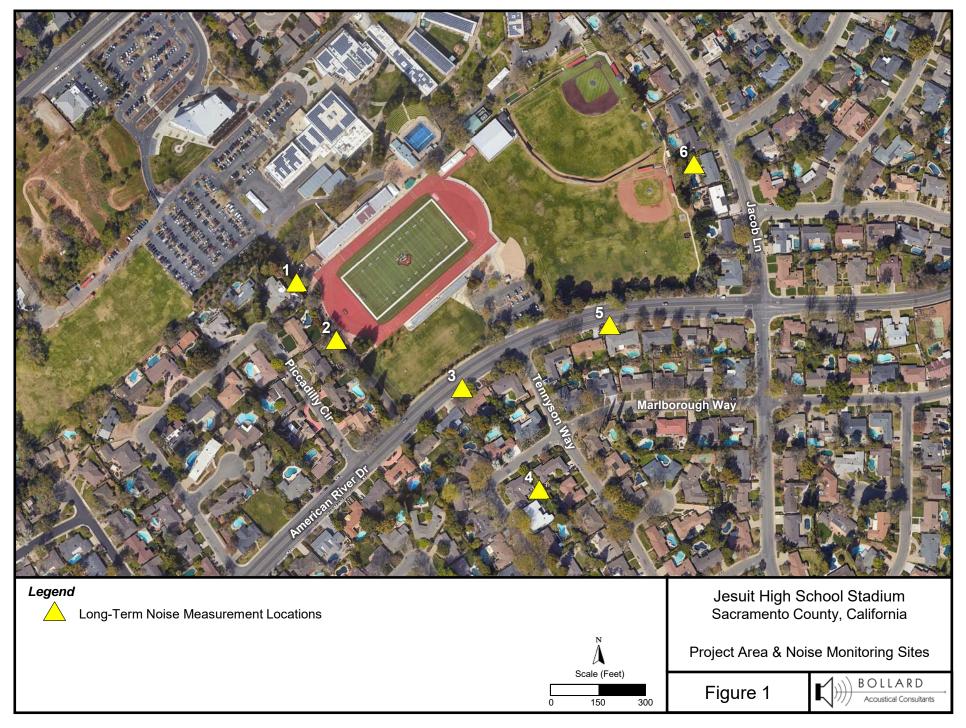
Jesuit High School (JHS) is located at 1200 Jacob Lane in the unincorporated community of Carmichael within Sacramento County, California. JHS is proposing to install lighting at their existing stadium to make the stadium playing field available for use during evening hours which are not currently available due to darkness.

The JHS stadium is bordered by residential uses to the immediate west / southwest on Piccadilly Circle with additional residences located beyond those nearest residences. The stadium is bordered to the south by a JHS practice filed beyond which is American River Drive and residential neighborhoods. The stadium is bordered to the east by JHS baseball diamonds beyond which are residential neighborhoods along Jacobs Lane. The stadium is bordered to the north by the JHS campus with the nearest residences located approximately 500 feet to the north along Lantern Court. Figure 1 shows an aerial image of the JHS stadium and nearby residential uses.

The JHS stadium has an approximately 3,000-person maximum capacity – 2,000 home and 1,000 visitor seats – and currently hosts a variety of JHS sporting events as identified on Table 7. In addition to spectators, certain sporting events include a cheer squad and a marching band. The stadium is also equipped with a public address (PA) system which is utilized for select events. The PA speakers are currently attached to four wooden poles at a height of 44-feet above grade on the home side and 35-feet above grade on the visitors' side. As a part of the project, the existing poles will be replaced with taller lighting poles and the PA speakers reinstalled at their current height with the same angle of projection.

The addition of lighting at the JHS stadium would allow sporting events and other school-related activities to occur at the stadium after dark when such events and activities currently do not occur. As a result, the project would result in the creation of noise at the stadium during periods when stadium noise generation is not currently occurring. Following installation of lights at the stadium all stadium activities would be scheduled to be completed by 10 pm, which is considered by Sacramento County to be the onset of nighttime hours.

As a result of the project's extended hours of noise generation at the stadium, Bollard Acoustical Consultants, Inc. (BAC) was retained by JHS to prepare this noise impact analysis. The specific purposes of this analysis are to quantify pre-project (baseline) ambient noise conditions in the residential areas surrounding the JHS stadium, to evaluate the impacts of noise generated during evening hours at the stadium within those residential areas, and to evaluate measures to reduce the noise generation of those activities where appropriate and feasible.



#### Noise Fundamentals and Terminology

#### General

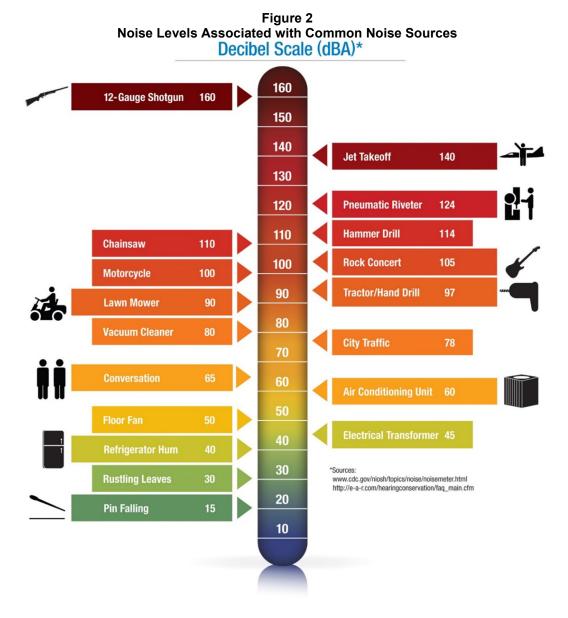
Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and are designated as sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second, or Hertz (Hz). Definitions of acoustical terminology used in this report are provided in Appendix A.

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 of pressure) as a point of reference, defined as 0 dB. Other sound pressures are then compared to the 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. Another useful aspect of the decibel scale is that changes in decibel levels correspond closely to human perception of relative loudness. Noise levels associated with common noise sources are provided in Figure 2.

#### **A-Weighting and Noise Metrics**

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 filtering the frequency response of a sound level meter by means of the standardized A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported herein are in terms of A-weighted levels.

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 noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level ( $L_{eq}$ ). The  $L_{eq}$  is the foundation of the day-night average noise descriptor, DNL (or  $L_{dn}$ ), and shows very good correlation with community response to noise. DNL is based on the average noise level over a 24-hour day, with a +10-decibel weighting applied to noise occurring during nighttime (10:00 PM to 7:00 AM) hours. The nighttime penalty is based on the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because DNL represents a 24-hour average, it tends to disguise short-term variations in the noise environment, such as those generated during activities within the JHS stadium.



The Sacramento County General Plan utilizes DNL for the assessment of noise generated by traffic and railroad noise sources. For aircraft, the County General Plan utilizes the Community Noise Equivalent Level (CNEL), to describe noise exposure. For non-transportation noise sources and activities occurring on private property, such as activities occurring at the Jesuit HS stadium, the County General Plan utilizes both median (L50) and single-event maximum (Lmax) metrics.

In addition to applying the applicable County noise standards to this Project, the California Environmental Quality Act (CEQA) requires that noise impacts be assessed relative to changes in ambient noise conditions present without the project. As a result, ambient noise surveys were conducted and comparisons of Project to No-Project noise levels were used to assess noise impacts of the stadium lights project.

Noise Impact Assessment

Jesuit High School Stadium Lights Project - Sacramento County, CA

#### **Effects of Noise on People**

The effects of noise on people can be divided into three categories: 1) Subjective effects of annoyance, nuisance, dissatisfaction; 2) interference with activities such as speech, sleep, and learning; and 3) 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 third category.

An important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment (or ambient noise) to which one has adapted. 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 levels, a 3 dBA change in similar noise sources is commonly considered to be the threshold of perception with a 5 dBA change being considered "clearly noticeable". When a noise source is introduced into an environment containing noise-sensitive uses (i.e. residences), which is of different frequency content than ambient conditions, changes in perception typically occur with smaller increases in noise levels.

#### **Noise Attenuation over Distance**

Stationary "point" sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate of approximately 6+ dBA per doubling of distance from the source, depending upon environmental conditions (i.e., atmospheric conditions and noise barriers, either vegetative or manufactured, etc.). Atmospheric absorption of sound varies depending on temperature and relative humidity, as well as the frequency content of the noise source. In general, "average day" atmospheric conditions result in additional noise attenuation at a rate of approximately 1.5 dB per thousand feet of distance (SAE ARP 866A, 1975).

#### Criteria for Acceptable Noise Exposure

#### Federal Interagency Commission on Noise (FICON)

There are no federal noise criteria which would be directly applicable to this project. However, because the Sacramento County General Plan and County Code do not currently have standards for assessing noise impacts caused by increases in ambient noise levels resulting from a project, recommendations made by the Federal Interagency Commission on Noise (FICON) for such assessments are provided here for reference.

FICON has developed a graduated scale for use in the assessment of project-related noise level increases. The criteria shown in Table 1 was developed by FICON as a means of developing thresholds for impact identification for project-related noise level increases. The FICON standards have been used extensively in recent years in the preparation of the noise sections of Environmental Impact Reports that have been certified in many California cities and counties.

The use of the FICON standards is considered conservative relative to thresholds used by other agencies in the State of California. For example, the California Department of Transportation (Caltrans) requires a project-related traffic noise level increase of 12 dB for a finding of significance, and the California Energy Commission (CEC) considers project-related noise level increases between 5 to 10 dB significant, depending on local factors. Therefore, the use of the FICON standards, which set the threshold for finding of significant noise impacts as low as 1.5 dB, provides a very conservative approach to impact assessment.

Table 1
Significance of Changes in Cumulative Noise Exposure

Ambient Noise Level Without Project (DNL)	Change in Ambient Noise Level Due to Project
<60 dB	+5.0 dB or more
60 to 65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more
Source: Federal Interagency Committee on Noise (FICON)	

Based on the FICON research, a 5 dB increase in noise levels due to a project is required for a finding of significant noise impact where ambient noise levels without the project are less than 60 dB DNL. Where pre-project ambient conditions are between 60 and 65 dB DNL, a 3 dB increase is applied as the standard of significance. Finally, in areas already exposed to higher noise levels, specifically pre-project noise levels in excess of 65 dB DNL, a 1.5 dB increase is considered by FICON as the threshold of significance. It should be noted that the use of these thresholds is consistent with Sacramento County General Plan Noise Element Policy NO-9, which applies to capacity enhancing roadway improvement projects.

The FICON criteria shown in Table 1 do not, however, account for changes in noise levels from dissimilar sources. For example, if the current evening ambient noise environment in the vicinity of the JHS stadium is defined primarily by local traffic on American River Drive, the introduction of noise generated by the stadium public address system (P/A), crowds, and JHS marching band into those hours could trigger adverse public reaction from nearby residents at levels lower than those presented in Table 1.

#### California Environmental Quality Act (CEQA)

The State of California has established regulatory criteria that are applicable to this assessment. Specifically, Appendix G of the State of California Environmental Quality Act (CEQA) Guidelines are used to assess the potential significance of impacts pursuant to local General Plan policies, County Code standards, or the applicable standards of other agencies. According to Appendix G of the CEQA guidelines, a significant noise or vibration impact may occur if the Project results in:

- A. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or other applicable standards of other agencies.
- B. Generation of excessive groundborne vibration or groundborne noise levels.

Noise Impact Assessment Jesuit High School Stadium Lights Project – Sacramento County, CA Page 6 C. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

Because activities at the JHS stadium do not generate appreciable ground vibration, and because the JHS project area is not appreciably affected by aircraft noise, CEQA criteria B & C are not considered germane to this evaluation of project noise impacts. Therefore, the only applicable CEQA criteria would be A.

It should be noted that audibility is not a test of significance according to CEQA. If this were the case, any project which added any audible amount of noise to the environment would be considered significant according to CEQA. Because every physical process creates noise, the use of audibility alone as significance criteria would be unworkable. Under CEQA, a significant impact may occur when there is a substantial increase in noise levels, not simply an audible change.

#### **Sacramento County General Plan**

The Noise Element of the Sacramento County General Plan contains the County's noise-related policies. The specific policies which are applicable to non-transportation noise sources are reproduced below:

Policy NO-6

Where a project would consist of or include non-transportation noise sources, the noise generation of those sources shall be mitigated so as not exceed the interior and exterior noise level standards of Table 2 at existing noise-sensitive areas in the project vicinity.

Policy NO-7

The "last use there" shall be responsible for noise mitigation. However, if a noise generating use is proposed adjacent to lands zoned for uses which may have sensitivity to noise, then the noise generating use shall be responsible for mitigating its noise generation to a state of compliance with the Table 2 standards at the property line of the generating use in anticipation of the future neighboring development.

Policy NO-12

All noise analyses prepared to determine compliance with the noise level standards contained within this Noise Element shall be prepared in accordance with Table 3.

Policy NO-13

Where noise mitigation measures are required to satisfy the noise level standards of this Noise Element, emphasis shall be placed on the use of setbacks and site design to the extent feasible, prior to consideration of the use of noise barriers.

Policy NO-16

The following sources of noise shall be exempt from the provisions of this Noise Element:

- A. Emergency warning devices and equipment operated in conjunction with emergency situations, such as sirens and generators which are activated during power outages. The routine testing of such warning devices and equipment shall also be exempt provided such testing occurs during daytime hours.
- B. Activities associated with events for which a permit has been obtained from the County.

Table 2 Non-Transportation Noise Standards - Median (L<sub>50</sub>) / Maximum (L<sub>max</sub>)<sup>1</sup>

	Outdo	or Area	Interior <sup>2</sup>	
	Daytime	Nighttime		
Receiving Land Use	(7am-10pm)	(10pm to 7am)	Day & Night	Notes
Residential	55 / 75	50 / 70	35 / 55	
Transient lodging	55 / 75		35 / 55	3
Hospitals, nursing homes	55 / 75		35 / 55	4,5
Theaters & auditoriums			30 / 50	5
Churches, schools, libraries	55 / 75		35 / 60	5
Office buildings	60 / 75		45 / 65	5
Commercial buildings			45 / 65	5
Playgrounds, parks	65 / 75			5
Industry	60 / 80		50 / 70	5

The Table 2 standards shall be reduced by 5 dB for sounds consisting primarily of speech or music, and for recurring impulsive sounds. If the existing ambient noise level exceeds the standards of Table 2, then the noise level standards shall be increased at 5 dB increments to encompass the ambient.

Source: Sacramento County General Plan, Noise Element, Table 2 (2011)

<sup>&</sup>lt;sup>2</sup> Interior noise level standards are applied within noise-sensitive areas with windows and doors in the closed positions.

Outdoor activity areas of transient lodging facilities are not commonly used during nighttime hours.

<sup>&</sup>lt;sup>4</sup> Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.

<sup>&</sup>lt;sup>5</sup> The outdoor activity areas of these uses (if any) are not typically utilized during nighttime hours.

<sup>-</sup>Where median (L50) noise level data is not available for a particular noise source, average (Leg) values may be substituted for the standards of this table provided the noise source in question operates for at least 30 minutes of an hour. If the source in question operates less than 30 minutes per hour, then the maximum noise level standards shown would apply.

#### Table 3 Requirements for Acoustical Analyses Prepared in Sacramento County

An acoustical analysis prepared pursuant to the Noise Element shall:

- 1. Be the responsibility of the applicant.
- 2. Be prepared by qualified persons experienced in the fields of environmental noise assessment and architectural acoustics.
- 3. Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions.
- 4. Estimate projected future (20 year) noise levels in terms of the Standards of Table 2 and compare those levels to the adopted policies of the Noise Element.
- 5. Recommend appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element.
- 6. Estimate interior and exterior noise exposure after the prescribed mitigation measures have been implemented.

Source: Sacramento County General Plan, Noise Element, Table 3 (2011)

#### **Sacramento County Code**

The provisions of the Sacramento County Code which would be most applicable to this project are reproduced below. For residential uses affected by non-transportation noise sources, the County Code standards are effectively identical to the County's General Plan standards shown in Table 2.

#### 6.68.070 Exterior Noise Standards.

A. The following noise standards, shown in Table 4, unless otherwise specifically indicated in this chapter, shall apply to all properties within a designated noise area.

Table 4 Sacramento County Code Noise Standards

Noise Area	County Zoning Districts	Time Period	Exterior Noise Standard
4	RE-1, RD-1, RE-2, RD-2, RE-3, RED-3, RD-4, R-1-A, RD-5, R-2, RD-40, R-20, RD-20, R-2, RD-20,	7:00 a.m. to 10:00 p.m.	55 dBA
1	RD-10, R-2A, RD-20, R-3, RD- 30, RD-40, RM-1, RM-2, A-1-B, AR-1, A-2, AR-2, A-5, AR-5	10:00 p.m. to 7:00 a.m.	50 dBA

B. It is unlawful for any person at any location within the County to create any noise which causes the noise levels on an affected property, when measured in the designated noise area, to exceed for the duration of time set forth in Table 5, the specified exterior noise standards shown in Table 4 in any one hour by:

Table 5
Offsets to the Table 4 Standards for Duration of Intrusive Noise

Cumulative Duration of the Intrusive Sound	Allowance Decibels
Cumulative period of 30 minutes per hour	0
2. Cumulative period of 15 minutes per hour	+5
3. Cumulative period of 5 minutes per hour	+10
4. Cumulative period of 1 minute per hour	+15
5. Level not to be exceeded for any time per hour	+20

- C. Each of the noise limits specified in subdivision (B) of this section shall be reduced by five dBA for impulsive or simple tone noises, or for noises consisting of speech or music.
- D. If the ambient noise level exceeds that permitted by any of the first four noise limit categories specified in subdivision (B), the allowable noise limit shall be increased in five dBA increments in each category to encompass the ambient noise level. If the ambient noise level exceeds the fifth noise level category, the maximum ambient noise level shall be the noise limit for that category.

#### **6.68.090 Exemptions.**

The following activities shall be exempted from the provisions of this chapter:

- A. School bands, school athletic and school entertainment events;
- B. Outdoor gatherings, public dances, shows and sporting and entertainment events, provided said events are conducted pursuant to a license by a public entity or private school;
- C. Activities conducted on parks, public playgrounds and school grounds, provided such parks, playgrounds and school grounds are owned and operated by a public entity or private school;

#### **Noise Standards Applied to this Evaluation**

The non-transportation noise standards of the Sacramento County General Plan Noise Element (Table 2) are essentially identical to the median (L50) and maximum (Lmax) standards contained within the Sacramento County Code (70 dBA Lmax & 50 dBA L50 after application of 5 dBA penalty for sources consisting of speech or music). As a result, compliance with County General Plan noise standards would result in similar compliance with the Sacramento County Code noise standards. However, as indicated in Exemptions A, B, and C of Section 6.68.090 of the County Code, activities occurring within the JHS stadium would technically be exempt from the provisions of the Sacramento County Code. Presumably, these exemptions are a recognition that the identified venues and activities are known to result in noise generation which is considered to be a normal and accepted aspect of certain school and youth activities. It is unclear if a similar exemption would apply to the Sacramento General Plan Noise Element standards shown in Table 2 although Policy NO-16(B) indicates that the General Plan standards would not apply to activities

authorized by a County issued permit. This evaluation nonetheless assesses potential noise impacts of the project since the objective is not merely to discuss the project's consistency with County policy but to serve as an informational document for the public and the decision-makers. Therefore, regardless of any potential County exemption for school athletics, the report evaluates the project relative to the County's noise standards shown in Tables 2, 4 and 5.

In addition, this evaluation evaluates potential noise impacts of the project relative to the increases in noise levels which would be expected to occur during the evening hours when stadium usage currently does not occur but which would occur with the project. For the assessment of impacts relative to ambient conditions, the FICON criteria indicate a 5 dBA threshold would be appropriate. However, the project would introduce noise sources consisting of speech and music into an evening ambient noise condition which does not currently include those noise sources. As a result, a 3 dBA increase is conservatively used as the threshold for assessing impacts relative to baseline ambient conditions, rather than a 5 dBA increase which would normally be applied using the FICON criteria.

#### **Existing Ambient Noise Environment**

#### **Noise-Sensitive Receptors in the Project Vicinity**

Noise-sensitive receptors are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the primary intended use of the land. The nearest noise-sensitive receptors to the project area consist primarily of residential neighborhoods surrounding the high school.

It is not necessary to predict project noise generation, or monitor baseline noise levels at each of the residences in the general project vicinity, as residential areas with similar noise exposure and ambient conditions can be grouped. For purposes of this analysis, six (6) locations were selected for analysis as the baseline noise conditions and project noise exposure at those six locations was considered to be representative of worst-case conditions experienced by the neighboring residences during stadium usage. Figure 1 shows the locations of the six representative residential locations analyzed in this study.

#### **Existing (Baseline) Ambient Noise Environment in the Project Vicinity**

The ambient noise environment within the immediate project vicinity is defined primarily by local traffic and activities at JHS. The stadium is currently available for use during daylight hours. As a result, this analysis concludes that shifting some activities into evening hours would logically result in a decrease in noise levels in the community during the daytime hours during which those activities currently occur. This would be particularly true of Saturday periods when afternoon football games currently occur as the shifting of those games to Friday evenings would result in decreased noise on Saturday. Conversely, because there are presumably little or no activities currently occurring at the JHS stadium following sundown (due to the lack of stadium lighting), any activities which would be feasible at the stadium after dark as a result of the lighting project would constitute a new noise source during those hours and an expected increase in noise in the immediate vicinity of the stadium.

Noise Impact Assessment Jesuit High School Stadium Lights Project – Sacramento County, CA Page 11 Therefore, the most critical time period with respect to evaluating changes in ambient noise conditions in the JHS stadium vicinity are considered to be the period from dusk to approximately 10 pm. Although the time of sunset varies throughout the year, for purposes of this assessment it was conservatively assumed to be 5 pm as home football games would occur between 5-10 pm following installation of lights at the stadium. As a result, the period of 5 pm to 10 pm is considered to be the primary hours during which ambient conditions would experience the greatest potential for change as a result of the proposed project.

To quantify existing ambient noise levels during the critical 5-10 pm period at the nearest representative residences to the JHS stadium, long-term ambient noise surveys were conducted at the six (6) locations indicated on Figure 1. The survey period extended from approximately noon on Friday, September 30 through noon on Monday, October 10<sup>th</sup>, 2022, a period of approximately 240 consecutive hours at each location. Photographs of the noise survey locations are provided in Appendix B.

The noise survey locations were intentionally selected to be representative of the noise exposure of the residences located in the closest proximity to the stadium (Sites 1-3, 5 and 6). Site 4 was selected to represent typical ambient conditions at neighborhood residential locations which are set back from the stadium and local roadways (specifically American River Drive and Jacob Lane).

Based on feedback from local residents which are more distant from the JHS stadium than the 6 residences selected for the ambient noise surveys, it is understood that sound generated during events currently being held at the JHS stadium are frequently audible at those more distant residences. However, because sound decreases with distance, the residences located nearest to the stadium would experience the highest noise exposure during stadium events. Therefore, it is unnecessary (and clearly infeasible), to conduct baseline ambient monitoring at all residences in the JHS stadium vicinity where the sound of stadium events is periodically audible. Rather, the focus of the assessment of potential noise impacts related to the lighting project is on the closest potentially-affected residences to the JHS Stadium, which was the rationale for the noise monitoring site selection.

Larson Davis Laboratories (LDL) Model 831 and Model 820 precision integrating sound level meters were used to complete the noise level measurement surveys. The meters were calibrated before and after use with an LDL Model CA200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all specifications of the American National Standards Institute requirements for Type 1 sound level meters (ANSI S1.4). Weather conditions were typical for the period with no anomalous atmospheric conditions present which would have adversely affected the integrity of the measurement results.

The specific purposes of the ambient noise survey were twofold. The first was to quantify baseline ambient noise conditions during the 5pm – 10 pm period when no activities were occurring within the stadium. The second was to quantify the noise generated during JHS football games which occurred on Saturday, October 1<sup>st</sup> and Saturday, October 8<sup>th</sup>, 2022. The results of the football game noise monitoring program are presented in the next section of this report.

The 10-day average ambient noise survey results for the 5 pm to 10 pm period at each of the noise monitoring sites is presented in Table 6. The detailed results of the complete ambient noise survey are presented in tabular form in Appendix C and graphically in Appendix D.

Table 6
10-Day Ambient Noise Survey Results: 5 pm – 10 pm
Jesuit High School Stadium Vicinity: September 30 – October 10, 2022

		Average Ambie	ent Level, dBA	Adjusted Noise St	•
Site	Address	Lmax	L50	Lmax	L50
1	844 Piccadilly Circle	60	42	70	50
2	852 Piccadilly Circle	66	42	70	50
3	4720 American River Drive	73	48	73	50
4	4748 Marlborough Way	61	41	70	50
5	4760 American River Drive	75	50	75	50
6	1131 Jacob Lane	68	47	70	50

Source: Bollard Acoustical Consultants, Inc. (BAC), 2022

The County's 75 dBA Lmax and 55 dBA L50 noise standards are adjusted downward by 5 dB where the noise source in question consists of speech or music, which is the case for noise generated within the JHS stadium. In addition, in cases where the measured maximum ambient noise levels currently exceed the County's standards, the standards are increased to equal the ambient conditions. This explains the increased standards at Sites 3 and 5.

The ambient noise survey results shown in Table 6 indicate that, with the exception of Sites 3 and 5, both of which were located in front-yard areas of residences on American River Drive, the 10-day average measured ambient noise levels were below the Sacramento County maximum and median daytime noise level standards, after downward adjustment for noise sources consisting of music and speech, between the hours of 5 and 10 pm. At sites 3 and 5, ambient conditions were elevated as expected due to the influence of American River Drive traffic noise. At monitoring Site 6, ambient conditions were somewhat elevated due to barking dogs and swimming pool equipment.

#### **Noise Impact Evaluation**

#### Stadium Activities and Event Schedules

The JHS stadium is used for a variety of practice and game/event activities, primarily consisting of the sports of football, lacrosse, track and field, and soccer. Table 7 shows the types of events and activities held at the stadium, the proposed time of day, day of the week, typical crowd sizes and whether or not amplified sound (P/A system) would occur during the stadium usage. As noted in the Introduction section of this report, the existing PA speakers are currently attached to four wooden poles at a height of 44-feet above grade on the home side and 35-feet above grade on the visitors' side. As a part of the project, the existing poles will be replaced with taller lighting poles but the PA speakers will be reinstalled at their current height with the same angle of projection. As a result, no change in PA system sound levels would result from the proposed project.

As indicated in Table 7, activities at the JHS stadium are distributed throughout the year, with a historic average of 22 events per year during which the P/A system would be used. Based on the crowd size, event duration, band music generation, P/A system usage, and number of events occurring per year, football games represent the events with the highest noise generating potential during evening stadium usage. As a result, the analysis of noise impacts related to the JHS stadium lights project utilizes home football games as the worst-case noise source. Noise generated by other activities at the stadium is predicted to be of lesser intensity in the residential areas surrounding the JHS stadium.

Table 7 Anticipated Jesuit High School Stadium Usage Following Lighting Installation

		Historic	- ccug			<u> </u>			
Event Type	Sport	Average # of Home Games	Time	Days	Months	Light Level (appx)	Crowd Size (Est)	Public Address System Used	Marching Band
	Football	5	5-10 pm	F	Aug-Oct	100%	800-1500	Yes	Yes
Regular Competitions	Lacrosse	10	5-9 pm	TBD	Mar-Apr	100%	100-300	Yes	No
Compounding	Soccer	14	3-7 pm	Tu, Th	Dec-Feb	80%	100-300	No	No
	Football	N/A	4-7 pm	M-Th	Aug-Nov	50%	N/A	No	No
Desetions	Lacrosse	N/A	4-8 pm	M-F	Feb-Apr	50%	N/A	No	No
Practices	Soccer	N/A	4-7 pm	M-F	Nov-Feb	50%	N/A	No	No
	Track & Field	N/A	4-7 pm	M-F	Feb-Apr	50%	N/A	No	No
	Football	2	7-10 pm	F	Nov	100%	1500-3000	Yes	Yes
Discostin / Economic	Lacrosse	1	7-9 pm	TBD	May	100%	200-500	Yes	No
Playoffs / Events	Soccer	4	5-7 pm	TBD	Feb	80%	500-900	Yes	No
	Track & Field	Rarely	3-8 pm	Rarely	Mar-Apr	80%	500-900	Yes	No
Source: Jesuit H	High School, 202	72							

Source: Jesuit High School, 2022

#### Measured JHS Stadium Football Game Noise Levels

As noted previously in this report, based on the crowd size, event duration, P/A system usage, band music generation, and number of events occurring per year, football games represent the events with the highest noise-generating potential during evening stadium usage. Two home football games were played at the JHS stadium during the ambient noise monitoring period described above. Specifically, home football games were played on Saturday, October 1<sup>st</sup> and Saturday, October 8<sup>th</sup>, 2022. These football games are described below.

#### October 1, 2022 Football Games

On October 1<sup>st</sup>, the junior varsity football game began at approximately 11 am and the varsity game concluded at approximately 4:30 pm. Approximately 1,500 spectators were reportedly in attendance during this game. Between the hours of approximately noon and 2:40 pm on October 1<sup>st</sup>, noise generated by aircraft operations associated with the California Capital Airshow held at Mather Airport contributed to the measured noise levels, obscuring the noise measurement results for the football game.

Figures 3 – 5 show the measured noise levels at monitoring Sites 1, 4, and 6 during the October 1<sup>st</sup> game. These figures clearly illustrate that maximum noise levels generated by airshow aircraft ranged from approximately 70 to over 90 dBA Lmax at these locations. Similar results were noted at the other monitoring sites.

As indicated on Figure 3, after the airshow concluded the measured maximum noise levels caused by the noise sources attributable to the JHS stadium football game stabilized and generally ranged from 60 to 65 dBA Lmax at monitoring Site 1, which is one of the closest sites to the football stadium.

#### October 8, 2022 Football Games

On October  $8^{th}$ , the junior varsity football game began at approximately 11 am and the varsity game concluded at approximately 3:20 pm. Approximately 1,500 spectators were reportedly in attendance during this game. There was no air show occurring on this Saturday and the noise measurement results indicate that there was very little influence on the noise measurement results from aircraft operating in the area during the football games. Figures 6 – 8 show the measured noise levels at monitoring Sites 1, 4, and 6 during the October  $8^{th}$  game.

As indicated on Figure 6, measured maximum noise levels caused by the noise sources attributable to the JHS stadium football game were fairly stable, also generally ranging from 60 to 65 dBA Lmax at monitoring Site 1, which is one of the closest sites to the football stadium.

Figure 3

Jesuit High School Stadium Noise Measurement Results

Site 1 - 844 Piccadilly Circle

Saturday, October 1, 2022

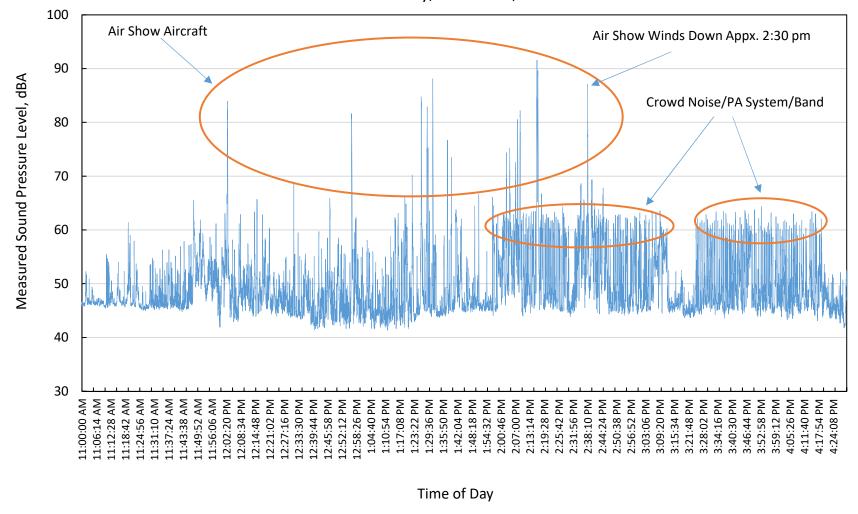




Figure 4
Jesuit High School Stadium Noise Measurement Results
Site 4 - 4748 Marlborough Way
Saturday, October 1, 2022

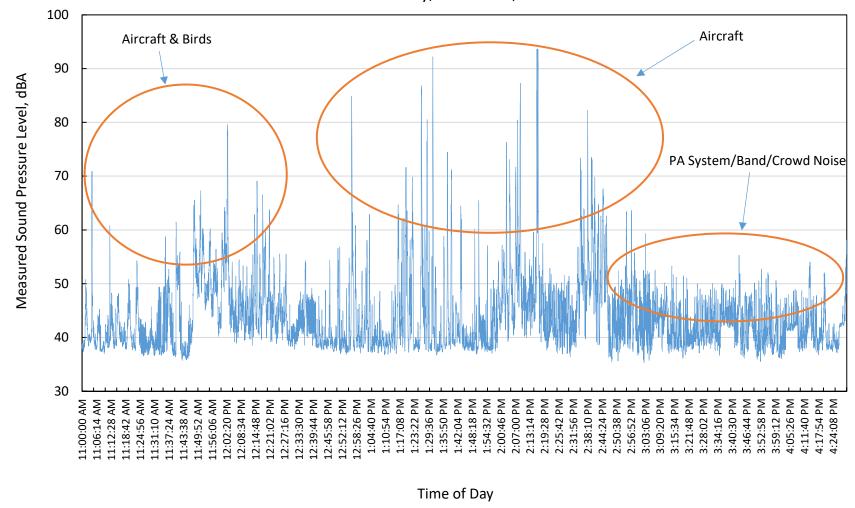




Figure 5
Jesuit High School Stadium Noise Measurement Results
Site 6 - 1131 Jacob Lane
Saturday, October 1, 2022

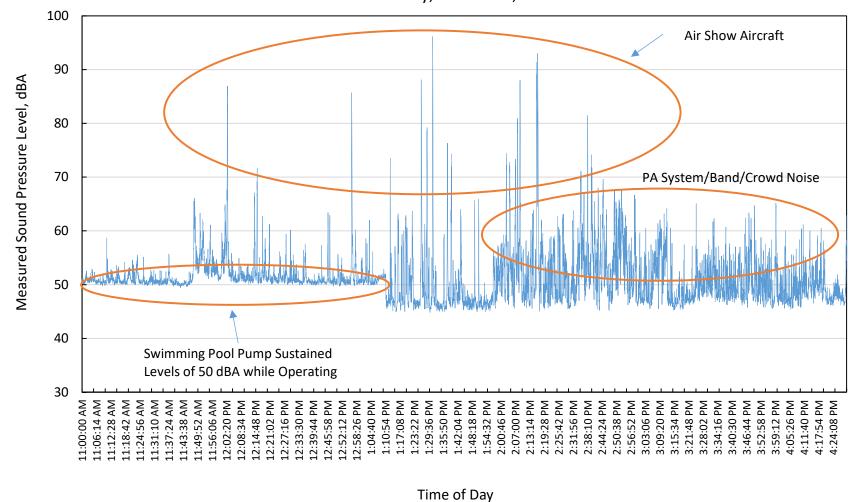




Figure 6
Jesuit High School Stadium Noise Measurement Results
Site 1 - 844 Piccadilly Circle
Saturday, October 8, 2022

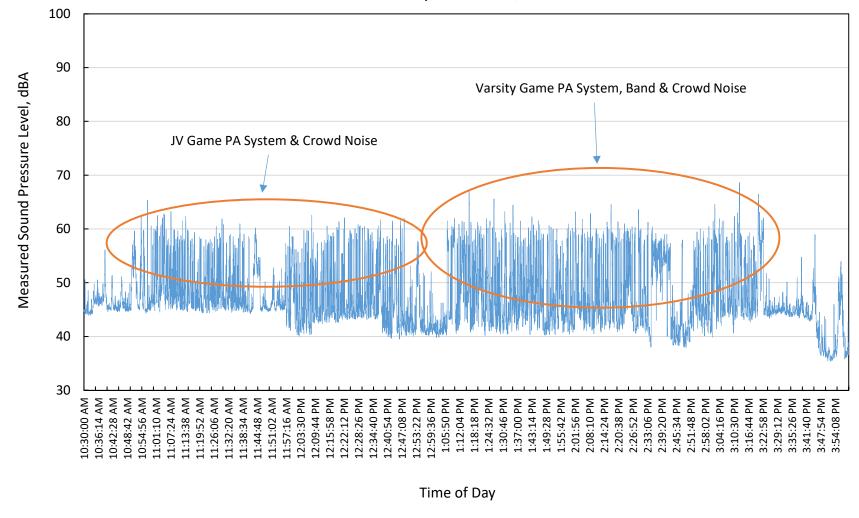


Figure 7
Jesuit High School Stadium Noise Measurement Results
Site 4 - 4748 Marlborough Way
Saturday, October 8, 2022

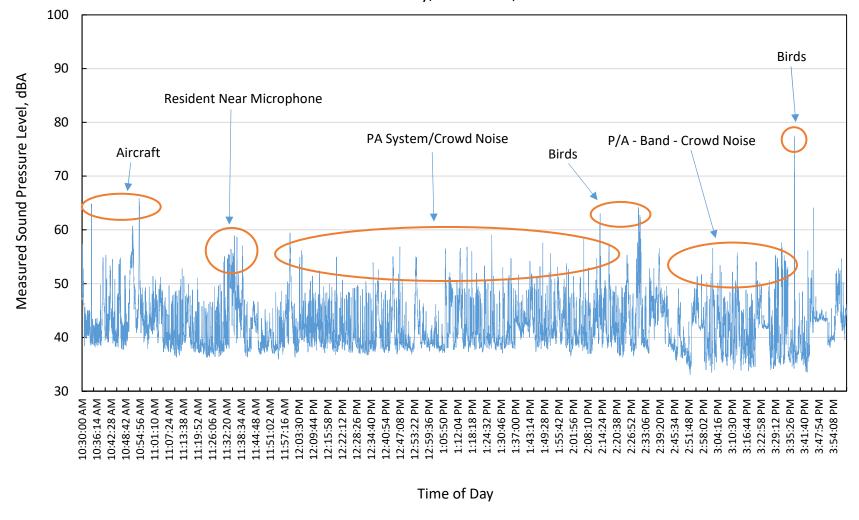
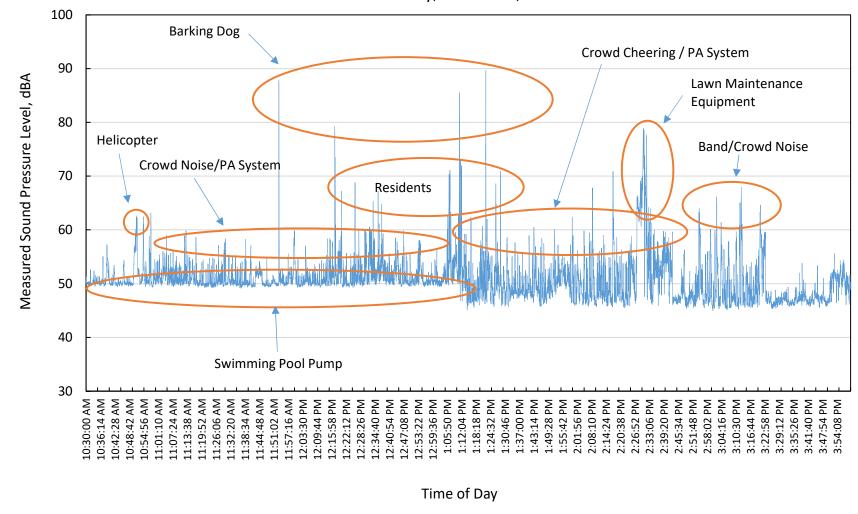


Figure 8

Jesuit High School Stadium Noise Measurement Results

Site 6 - 1131 Jacob Lane

Saturday, October 8, 2022





#### **Analysis of Football Game Noise Measurement Results**

As noted previously, the Sacramento County Code exempts activities occurring on school grounds from the noise standards contained within the code. As a result, the County Code noise standards would not be applicable to this project. Nonetheless, Table 8 was prepared to provide a summary of the measured maximum (Lmax) and median (L50) noise levels for each of the six monitoring sites during the October 8th football game so that a comparison could be made relative to the County Code noise standards. The measurement data for the October 1st football game was not utilized for this analysis due to undue influence of that data by aircraft noise associated with an air show occurring at Mather Airport during the football game. The duration of the analysis period for the October 8th football games was 4.5 hours, as indicated in Table 8.

Table 8 Measured Noise Levels During October 8, 2022 Football Games Jesuit High School Stadium - Sacramento County, CA

	Measured Median (L50) Noise Level by Monitoring Site <sup>2</sup>					
Time <sup>1</sup>	1	2	34	4	5 <sup>4</sup>	6
10:50 am - 11 am	47	48	56	45	56	51
11 am - 12 pm	47	51	57	41	57	50
12 pm - 1 pm	45	48	56	40	53	51
1 pm - 2 pm	46	51	56	41	54	50
2 pm - 3 pm	46	51	58	42	55	49
3 pm - 3:20 pm	47	50	55	40	54	48
Average	46	50	57	41	55	50
Noise Standard	50	50	50	50	50	50
	ı	Measured Maxi	mum (Lmax) No	oise Level by N	lonitoring Site <sup>2</sup>	2
Time	1	<b>2</b> <sup>3</sup>	34	4	5 <sup>4</sup>	6 <sup>5</sup>
10:50 am - 11 am	65	67	70	66	77	63
11 am - 12 pm	63	75	77	59	73	88
12 pm - 1 pm	63	72	74	57	79	79
1 pm - 2 pm	67	75	72	59	69	90
2 pm - 3 pm	65	75	85	64	81	79
3 pm - 3:20 pm	69	78	73	57	75	68
Average	65	74	75	60	76	78
Noise Standard	70	70	73	70	75	70

Source: Bollard Acoustical Consultants, Inc. (BAC) 2022

- The noise generation of the junior varsity football game started approximately 10:50 am and the noise generation of the varsity football game ended at approximately 3:20 pm on October 8, 2022.
- 2. Numbers shown in Blue would technically be satisfactory relative to the adjusted Sacramento County noise standards if those standards are applicable to this project.
- It is unknown why the measured maximum noise levels at Site 2 were so much higher than at Site 1 when both sites were approximately equidistant to the football field and separated by approximately 175 feet.
- Monitoring Sites 3 and 5 were located adjacent to American River Drive, which explains the higher measured median noise levels at these locations.
- Noise from barking dogs and residents talking accounted for the elevated maximum noise levels at monitoring Site 6.

As indicated in Table 8, noise levels measured during the October 8<sup>th</sup> football games held at the JHS stadium appear to have exceeded the Sacramento County Code noise standards at 4 of the 6 noise measurement locations. However, some of those exceedances were determined to have been caused by sources of noise unrelated to the JHS football game. The noise measurement results at each of the 6 monitoring sites, and the significance of project noise impacts at those locations, are discussed below.

#### <u>Site 1 – Residence at North End of Piccadilly Circle</u>

Site 1 was located closest to the home bleachers, approximately 160 feet from the JHS football field. The Table 8 data indicate that the Sacramento County Code noise level standards were not exceeded at Site 1 during any hour, or any fraction of an hour, during which the football games were occurring on October 8<sup>th</sup>, 2022. Specifically, measured median noise levels averaged 46 dBA L50 and measured maximum noise levels averaged 65 dBA Lmax during the football games. These levels were 4 and 5 dBA below the County Code median and maximum noise standards, respectively.

As shown in Table 1, measured average ambient conditions during the 5 pm to 10 pm period at Site 1 were 42 dBA L50 and 60 dBA Lmax. Overlaying the football game noise levels measured between 10:50 am and 3:20 pm on October 8th onto the baseline 5-10 pm ambient noise levels measured between September 30th and October 10th indicates that the shifting of football games into the evening hours could result in increases in ambient noise levels at Site 1 of 3 dBA L50 and 5 dBA Lmax. Although the County Code noise standards are not applicable to this project and were not exceeded at this location, and although the increase in median noise levels which would occur during the evening games is not predicted to exceed the 3 dBA threshold applied to this project, noise impacts at this location are nonetheless considered to be potentially significant on the evenings when home football games are occurring (approximately 7 nights per year), due to the potential 5 dBA increase in maximum noise levels which could be experienced at this location during evening football games. During evening lacrosse, soccer, and track & field events at the JHS stadium, noise generation is expected to be lower than during football games, and noise impacts, should they occur, would be less intensive.

#### Site 2 – Residences Along Piccadilly Circle

Site 2 was located closest to the visiting-team bleachers, approximately 150 feet from the JHS football field. The Table 8 data indicate that the Sacramento County Code 50 dBA L50 median noise level standard was exceeded at this location during three of the hours monitored during the football game, but only by 1 dBA during those periods. The average of the measured median noise levels at Site 2 was computed to be 50 dBA L50, which would be in compliance with the County's 50 dBA daytime noise standard if the project were not exempt from those standards. Maximum noise levels measured at Site 2 exceeded the County's 70 dBA Lmax daytime noise standard by an average of 4 dBA during the October 8<sup>th</sup> football game.

Relative to baseline ambient conditions during the 5-10 pm period, football games at the JHS stadium could theoretically result in increases in median noise levels of 3 dBA L50 over baseline conditions, and increases in maximum noise levels of 8 dBA over baseline conditions without the

Noise Impact Assessment Jesuit High School Stadium Lights Project – Sacramento County, CA Page 24 project. As a result, noise impacts resulting from the project at the residence located at Site 2 (and other Piccadilly Circle residences with similar noise exposure), are predicted to be significant on the evenings when home football games would occur. During evening lacrosse, soccer, and track & field events at the JHS stadium, noise generation is expected to be lower than during football games, and noise impacts, should they occur, would be less intensive.

#### Site 3 – Residences on American River Drive, between Tennyson Way & Piccadilly Circle

Site 3 was located approximately 370 feet from the JHS football field. This site was also located 50 feet from the center of the eastbound lane of American River Drive. The Table 8 data indicate that the Sacramento County Code 50 dBA L50 median noise level standard was exceeded at this location by an average of 7 dBA during the October 8<sup>th</sup> football game, with measured maximum noise levels exceeding the adjusted 73 dBA Lmax standard at this location by an average of 2 dBA. However, the exceedances of these standards is believed to have been more attributable to traffic on American River Drive than due to the JHS football game.

Relative to baseline ambient conditions present during the 5-10 pm period, the Table 8 data suggests that football games at the JHS stadium could result in increases in median noise levels of 7 dBA L50 over baseline conditions, and average maximum noise level increases of 3 dBA over baseline conditions without the project. However, as noted previously, considerable noise generation from traffic on American River Drive is known to have contributed to the noise levels measured at this location during the October 8<sup>th</sup> football game, so the actual increase in ambient conditions resulting from JHS stadium activities would be lower. Nonetheless, because football games could result in increases in baseline median or maximum ambient noise level in excess of 3 dBA at this location, noise impacts resulting from the project are predicted to be potentially significant on the evenings when home football games would occur. During evening lacrosse, soccer, and track & field events at the JHS stadium, noise generation is expected to be lower than during football games, and noise impacts, should they occur, would be less intensive.

#### Site 4 - Residences Along Marlborough Way

Site 4 was located in the backyard of the residence on Marlborough Way at the location indicated on Figure 1. This location was 725 feet from the JHS football field and was shielded from view of the JHS stadium by intervening residences on the north side of Marlborough Way and residences on the south side of American River Drive.

The Table 8 data indicate that the Sacramento County Code noise level standards were not exceeded at Site 4 during any hour, or fraction of an hour, during which the football games were occurring on October 8<sup>th</sup>, 2022. Specifically, measured median noise levels averaged 41 dBA L50 and measured maximum noise levels averaged 60 dBA Lmax. These levels were 9 and 10 dBA below the County Code median and maximum noise standards, respectively.

Relative to baseline ambient conditions present during the 5-10 pm period shown in Table 6, the Table 8 data suggests that increases in ambient noise levels at this location during football games at the JHS stadium would be less than 3 dBA at this location. As a result, noise impacts of the project are predicted to be less than significant at this location, as well as at other residences located along Marlborough Way with similar noise exposure (and more distant residences to the

Noise Impact Assessment

south). During evening lacrosse, soccer, and track & field events at the JHS stadium, noise generation is expected to be lower than during football games, and noise impacts associated with such events are similarly predicted to be less than significant at this location.

#### Site 5 - Residences on American River Drive, between Tennyson Way & Jacob Lane

Site 5 was located approximately 530 feet from the JHS football field. This site was also located 50 feet from the center of the eastbound lane of American River Drive. The Table 8 data indicate that the Sacramento County Code 50 dBA L50 median noise level standard was exceeded at this location during by an average of 5 dBA during the October 8<sup>th</sup> football game, with measured maximum noise levels exceeding the adjusted 75 dBA Lmax standard at this location by an average of 1 dBA. However, the exceedances of these standards is believed to have been more attributable to traffic on American River Drive than due to the JHS football game.

Relative to baseline ambient conditions present during the 5-10 pm period, the Table 8 data suggests that football games at the JHS stadium could result in increases in median noise levels of 4 dBA L50 over baseline conditions, and average maximum noise level increases of 1 dBA over baseline conditions without the project. However, as noted previously, considerable noise generation from traffic on American River Drive is known to have contributed to the noise levels measured at this location during the October 8<sup>th</sup> football game. As a result, the actual increases in ambient noise levels at residences with similar noise exposure to the residence at Site 5 would likely be 3 dBA or less. Nonetheless, because football games could result in increases in baseline median ambient noise level in excess of 3 dBA at this location, noise impacts resulting from the project are predicted to be potentially significant on the evenings when home football games would occur. During evening lacrosse, soccer, and track & field events at the JHS stadium, noise generation is expected to be lower than during football games, and noise impacts, should they occur, would be less intensive.

#### Site 6 - Nearest Residences on Jacob Lane to the JHS Stadium

Site 6 was located approximately 750 feet from the JHS football field. The Table 8 data indicate that the Sacramento County Code 50 dBA L50 median noise level standard was exceeded at this location during 2 periods of the October 8<sup>th</sup> football game, but the exceedance was only by 1 dBA. Measured maximum noise levels at this location exceeded the County's 70 dBA Lmax standard by an average of 8 dBA during the football games. However, inspection of the noise level data collected at this location indicate those exceedances were caused by barking dogs and lawn maintenance equipment (see Figure 8), and not by activities related to the football game. Maximum noise levels generated by the football game were identified as being below the County's 70 dBA maximum noise level standard.

Relative to baseline ambient conditions present during the 5-10 pm period, the Table 8 data suggests that football games at the JHS stadium would result in increases in median noise levels of 3 dBA L50 over baseline conditions, and average maximum noise level increases of 9 dBA over baseline conditions without the project. However, as noted previously, considerable noise generation from barking dogs and lawn maintenance equipment contributed to the measured maximum noise levels. When considering noise generated by football games in isolation at this

Noise Impact Assessment Jesuit High School Stadium Lights Project – Sacramento County, CA Page 26 location, the increase in maximum noise levels is predicted to be less than 3 dBA Lmax. Nonetheless, because median noise levels during evening football games could exceed baseline ambient levels by 3 dBA, noise impacts resulting from the project are predicted to be potentially significant at the locations of residences on Jacobs Lane on the evenings when home football games would occur. During evening lacrosse, soccer, and track & field events at the JHS stadium, noise generation is expected to be lower than during football games, and noise impacts related to those events are similarly predicted to be less than significant.

#### Football Game Noise Generation during Playoffs vs. Regular Season

As indicated above, approximately 1,500 persons attended each of the two regular-season football games held on October 1<sup>st</sup> and 8<sup>th</sup>, 2022. According to Table 7, crowd sizes during playoff football games are expected to range from 1,500 to 3,000 persons. As a result, the noise measurement results represent the largest crowd sizes typically present during regular season football games and the lower end of expected crowd sizes during playoff games.

Typically, a doubling of the size of a noise source results in a 3 dBA increase in noise levels attributable to that source. So the increase in crowd noise generation could be as much as 3 dBA higher during playoff games than during regular season games (for the largest expected crowd sizes). However, crowd-generated noise is only one component of the overall noise generated during football games. Public address system and marching band sound also contribute to the overall football game noise generation. Unlike crowd-generated noise, the noise generated by the marching band and public address systems would not be expected to change appreciably between regular season and playoff conditions. As a result, the increase in overall (combined) noise generation during the (up to) two playoff football games would be less than 3 dBA. The actual increase in playoff football game noise generation is estimated to be approximately 1-2 dBA higher than noise generated during regular-season games. As with the noise generation of regular-season football games, playoff game noise levels would exceed the County Code noise standards at nearby residences but that noise is not expected to be dramatically louder than that generated during regular season games.

#### Conclusions and Recommendations

Noise generated during events or practices at the JHS stadium during which the P/A system is utilized, the JHS band plays, and/or large crowds are present is clearly audible within the residential neighborhoods surrounding the JHS stadium. And while the project would result in a decrease in noise during periods when events currently occurring during daylight hours are shifted to evening hours under the lights, an increase in noise levels during those evening hours is expected.

This analysis concludes that, if noise generated by evening football games held at the JHS stadium were not exempt from the local Sacramento County Code noise standards, noise generated by certain events and activities held at the stadium (primarily football games), would exceed those standards at some residential areas surrounding the stadium. The magnitude of those exceedances, where they would occur, would generally be limited to approximately 3-5 dBA.

Noise Impact Assessment Jesuit High School Stadium Lights Project – Sacramento County, CA Page 27 Relative to CEQA guidelines, which require the evaluation of a project's noise impacts relative to ambient conditions present without the project, this analysis concludes that such project-related noise level increases could be significant at some residential areas surrounding the stadium. The magnitude of the project-related increase in ambient noise levels during the evening hours during which football games would occur (approximately 7 evenings per year), would generally exceed the 3 dBA threshold of significance applied in this analysis to the project by approximately 1-5 dBA, depending on location.

Because this analysis concludes that evening activities and sporting events held under the lights at the JHS stadium could result in substantial increases in ambient noise levels in the adjacent residential neighborhoods, consideration of noise mitigation for this project is warranted. It should be noted, however, that events where substantial increases in ambient conditions could occur would be limited both in terms of frequency and duration. Given the variable nature of crowd noise, feasible options for reducing crowd noise generated by the project at nearby residential areas are not apparent. A similar condition applies to music generated by the JHS band during stadium events. As a result, the remaining noise source, and the source which is likely most responsible for the substantial increases in maximum noise levels, is the P/A system. The following options should be considered to determine the extent by which P/A system noise could be reduced in the community, thereby reducing the potential for annoyance during evening activities and events held within the stadium.

- 1. Events should be scheduled so as to be concluded by 10 pm. This may not always be feasible in cases where football games end in a tie and require overtime to complete the game, but football schedules should be set to account for this potential eventuality to the maximum extent reasonable and feasible.
- The manufacturers and installers of the P/A system utilized at the stadium should evaluate
  options for reducing the P/A system output, to the extent feasible, through focusing the
  sound within the bleacher areas and minimizing spillover of P/A system sound into
  surrounding residential areas.
- 3. P/A system settings should also be established at the minimum levels required for intelligibility over background crowd noise. A limiter shall be included in the P/A system to ensure that this maximum level is not exceeded or that the amplifier setting are not increased.
- 4. Where usage of the proposed P/A system is not specifically needed for certain events or activities, the usage of the P/A system should be avoided.

This concludes BAC's assessment of noise generated by the proposed Jesuit High School Stadium Lighting Improvements. Please contact BAC at (530) 537-2328 or <a href="mailto:info@bacnoise.com">info@bacnoise.com</a> with any questions or comments on this assessment.

### 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.

**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 a factor of three and

nighttime hours weighted by a factor of 10 prior to averaging.

**Frequency** The measure of the rapidity of alterations of a periodic signal, expressed in cycles per

second or hertz.

IIC Impact Insulation Class (IIC): A single-number representation of a floor/ceiling partition's

impact generated noise insulation performance. The field-measured version of this

number is the FIIC.

Ldn Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.

**Leg** Equivalent or energy-averaged sound level.

Lmax The highest root-mean-square (RMS) sound level measured over a given period of time.

**Loudness** A subjective term for the sensation of the magnitude of sound.

**Masking** The amount (or the process) by which the threshold of audibility is for one sound is

raised by the presence of another (masking) sound.

Noise Unwanted sound.

**Peak Noise** The level corresponding to the highest (not RMS) sound pressure measured over a

given period of time. This term is often confused with the "Maximum" level, which is the

highest RMS level.

RT<sub>60</sub> The time it takes reverberant sound to decay by 60 dB once the source has been

removed.

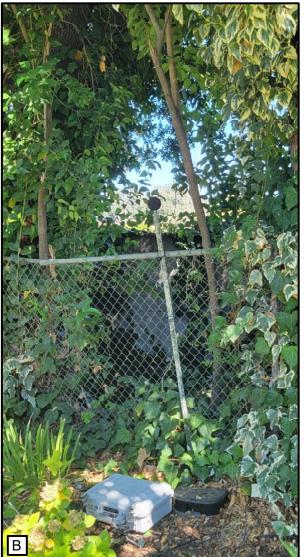
STC Sound Transmission Class (STC): A single-number representation of a partition's noise

insulation performance. This number is based on laboratory-measured, 16-band (1/3-octave) transmission loss (TL) data of the subject partition. The field-measured version

of this number is the FSTC.









#### Legend

A Site 1 Back Yard at 844 Piccadilly Circle

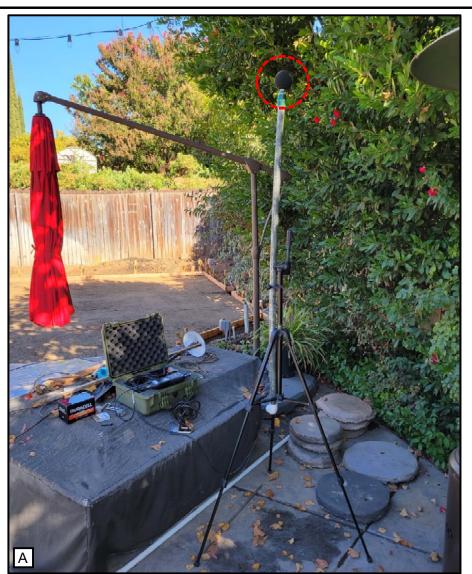
B Site 2 Back Yard at 852 Piccadilly Circle

Site 3 Front Yard at 4720 American River Drive

Jesuit High School Stadium
Sacramento County, California
Photographs of Noise Survey Locations

Appendix B-1









#### Legend

A Site 4 Back Yard at 4748 Marlborough Way

B Site 5 Front Yard at 4760 American River Drive

Site 6 Back Yard at 1131 Jacob Lane

Jesuit High School Stadium Sacramento County, California Photographs of Noise Survey Locations

O Microphone Appendix B-2



# Appendix C-1 Long-Term Ambient Noise Monitoring Results - Site 1 Jesuit HS Stadium - Sacramento County, California Friday, September 30, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM				
1:00 AM				
2:00 AM				
3:00 AM				
4:00 AM				
5:00 AM				
6:00 AM				
7:00 AM				
8:00 AM				
9:00 AM				
10:00 AM				
11:00 AM				
12:00 PM				
1:00 PM	71	97	39	37
2:00 PM	43	56	40	37
3:00 PM	46	66	43	39
4:00 PM	50	76	42	39
5:00 PM	61	86	41	38
6:00 PM	76	106	43	40
7:00 PM	44	58	43	41
8:00 PM	45	57	44	42
9:00 PM	43	56	42	40
10:00 PM	42	53	41	39
11:00 PM	41	57	39	38

		Statistical Summary					
		Daytim	e (7 a.m 1	0 p.m.)	Nighttime (10 p.m 7 a.m.)		
		High	High Low Average			Low	Average
Leq	(Average)	76	43	67	42	41	41
Lmax	(Maximum)	106	56	73	57	53	55
L50	(Median)	44	39	42	41	39	40
L90	(Background)	42	37	39	39	38	39

Computed DNL, dB	65
% Daytime Energy	100%
% Nighttime Energy	0%

GPS Coordinates	38°35'2.03"N
GPS Coordinates	121°21'12.72"W



# Appendix C-2 Long-Term Ambient Noise Monitoring Results - Site 1 Jesuit HS Stadium - Sacramento County, California Saturday, October 1, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	45	58	42	41
1:00 AM	40	55	38	36
2:00 AM	37	45	37	34
3:00 AM	37	45	37	35
4:00 AM	37	49	36	34
5:00 AM	38	46	38	36
6:00 AM	43	52	42	40
7:00 AM	50	70	47	43
8:00 AM	48	62	48	47
9:00 AM	47	63	47	46
10:00 AM	47	57	46	45
11:00 AM	50	66	47	46
12:00 PM	59	84	46	44
1:00 PM	62	88	46	43
2:00 PM	66	92	51	45
3:00 PM	53	64	47	45
4:00 PM	49	63	45	41
5:00 PM	42	55	40	38
6:00 PM	43	55	41	40
7:00 PM	43	50	42	41
8:00 PM	45	62	44	41
9:00 PM	43	54	42	41
10:00 PM	42	54	42	41
11:00 PM	41	53	41	40

		Statistical Summary					
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	66	42	57	45	37	41
Lmax	(Maximum)	92	50	66	58	45	51
L50	(Median)	51	40	45	42	36	39
L90	(Background)	47	38	43	41	34	37

Computed DNL, dB	55
% Daytime Energy	98%
% Nighttime Energy	2%

GPS Coordinates	38°35'2.03"N		
	121°21'12.72"W		



# Appendix C-3 Long-Term Ambient Noise Monitoring Results - Site 1 Jesuit HS Stadium - Sacramento County, California Sunday, October 2, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	45	57	42	41
1:00 AM	40	55	38	37
2:00 AM	39	51	38	36
3:00 AM	39	53	38	36
4:00 AM	37	46	37	36
5:00 AM	39	53	38	36
6:00 AM	42	53	39	38
7:00 AM	47	66	46	40
8:00 AM	47	57	46	46
9:00 AM	47	59	46	45
10:00 AM	48	68	46	45
11:00 AM	49	66	46	45
12:00 PM	55	82	44	38
1:00 PM	54	77	38	36
2:00 PM	65	88	40	36
3:00 PM	53	75	39	37
4:00 PM	52	79	41	37
5:00 PM	44	61	41	39
6:00 PM	44	61	42	39
7:00 PM	43	54	43	40
8:00 PM	44	56	43	41
9:00 PM	42	51	41	41
10:00 PM	41	50	41	40
11:00 PM	40	52	39	38

		Statistical Summary					
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	65	42	55	45	37	41
Lmax	(Maximum)	88	51	67	57	46	52
L50	(Median)	46	38	43	42	37	39
L90	(Background)	46	36	40	41	36	37

Computed DNL, dB	54
% Daytime Energy	98%
% Nighttime Energy	2%

GPS Coordinates	38°35'2.03"N		
	121°21'12.72"W		



### Appendix C-4 Long-Term Ambient Noise Monitoring Results - Site 1 Jesuit HS Stadium - Sacramento County, California Monday, October 3, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	41	46	41	39
1:00 AM	38	53	36	33
2:00 AM	34	45	34	33
3:00 AM	35	44	34	33
4:00 AM	39	60	36	35
5:00 AM	40	50	40	38
6:00 AM	44	56	43	41
7:00 AM	48	65	48	45
8:00 AM	50	60	49	47
9:00 AM	49	66	47	46
10:00 AM	48	66	46	45
11:00 AM	52	74	47	44
12:00 PM	42	54	41	37
1:00 PM	45	66	39	37
2:00 PM	41	56	37	35
3:00 PM	43	63	40	37
4:00 PM	43	65	41	38
5:00 PM	45	63	42	39
6:00 PM	44	63	41	39
7:00 PM	43	55	42	41
8:00 PM	44	60	42	41
9:00 PM	43	57	42	41
10:00 PM	42	50	41	40
11:00 PM	40	49	40	39

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	52	41	47	44	34	40
Lmax	(Maximum)	74	54	62	60	44	50
L50	(Median)	49	37	43	43	34	38
L90	(Background)	47	35	41	41	33	37

Computed DNL, dB	48
% Daytime Energy	88%
% Nighttime Energy	12%

GPS Coordinates	38°35'2.03"N		
	121°21'12.72"W		



### Appendix C-5 Long-Term Ambient Noise Monitoring Results - Site 1 Jesuit HS Stadium - Sacramento County, California Tuesday, October 4, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	45	56	42	40
1:00 AM	38	50	37	35
2:00 AM	37	47	36	34
3:00 AM	37	45	37	35
4:00 AM	38	44	37	36
5:00 AM	43	56	42	39
6:00 AM	46	60	45	43
7:00 AM	50	68	48	47
8:00 AM	48	67	48	47
9:00 AM	50	67	48	46
10:00 AM	51	82	46	45
11:00 AM	48	67	45	44
12:00 PM	47	71	42	38
1:00 PM	44	63	39	37
2:00 PM	53	66	50	41
3:00 PM	44	63	41	38
4:00 PM	43	58	41	38
5:00 PM	45	61	43	40
6:00 PM	43	59	42	40
7:00 PM	44	62	43	41
8:00 PM	43	62	42	40
9:00 PM	42	57	41	40
10:00 PM	41	47	41	40
11:00 PM	41	51	40	39

		Statistical Summary					
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	53	42	48	46	37	42
Lmax	(Maximum)	82	57	65	60	44	51
L50	(Median)	50	39	44	45	36	40
L90	(Background)	47	37	41	43	34	38

Computed DNL, dB	50
% Daytime Energy	87%
% Nighttime Energy	13%

GPS Coordinates	38°35'2.03"N		
	121°21'12.72"W		



### Appendix C-6 Long-Term Ambient Noise Monitoring Results - Site 1 Jesuit HS Stadium - Sacramento County, California Wednesday, October 5, 2022

Цоля	Log	I may	LEO	1.00
Hour	Leq	Lmax	L50	L90
12:00 AM	42	57	41	40
1:00 AM	38	51	37	34
2:00 AM	38	45	38	37
3:00 AM	39	53	39	36
4:00 AM	39	46	39	37
5:00 AM	43	51	43	40
6:00 AM	48	56	47	45
7:00 AM	49	61	48	47
8:00 AM	50	61	49	48
9:00 AM	50	65	47	46
10:00 AM	56	67	52	45
11:00 AM	46	57	45	44
12:00 PM	44	66	41	37
1:00 PM	40	54	38	37
2:00 PM	45	69	38	36
3:00 PM	44	67	42	38
4:00 PM	46	67	43	40
5:00 PM	46	61	43	40
6:00 PM	44	57	42	41
7:00 PM	43	57	43	41
8:00 PM	44	52	43	42
9:00 PM	42	58	41	39
10:00 PM	39	47	39	38
11:00 PM	38	54	37	35

		Statistical Summary					
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	56	40	48	48	38	42
Lmax	(Maximum)	69	52	61	57	45	51
L50	(Median)	52	38	44	47	37	40
L90	(Background)	48	36	41	45	34	38

Computed DNL, dB	50
% Daytime Energy	88%
% Nighttime Energy	12%

GPS Coordinates	38°35'2.03"N		
	121°21'12.72"W		



### Appendix C-7 Long-Term Ambient Noise Monitoring Results - Site 1 Jesuit HS Stadium - Sacramento County, California Thursday, October 6, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	45	58	41	40
1:00 AM	38	48	37	34
2:00 AM	36	41	36	34
3:00 AM	37	45	37	35
4:00 AM	38	42	38	36
5:00 AM				
6:00 AM				
7:00 AM				
8:00 AM				
9:00 AM				
10:00 AM				
11:00 AM				
12:00 PM	51	72	42	38
1:00 PM	51	69	42	40
2:00 PM	45	65	42	39
3:00 PM	45	58	41	39
4:00 PM	43	56	40	38
5:00 PM	47	66	44	41
6:00 PM	47	65	44	42
7:00 PM	46	60	44	43
8:00 PM	45	58	44	42
9:00 PM	44	55	43	41
10:00 PM	41	53	41	40
11:00 PM	39	54	38	37

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	51	43	47	45	36	40
Lmax	(Maximum)	72	55	62	58	41	49
L50	(Median)	44	40	43	41	36	38
L90	(Background)	43	38	40	40	34	36

Computed DNL, dB	49
% Daytime Energy	89%
% Nighttime Energy	11%

GPS Coordinates	38°35'2.03"N		
	121°21'12.72"W		



### Appendix C-8 Long-Term Ambient Noise Monitoring Results - Site 1 Jesuit HS Stadium - Sacramento County, California Friday, October 7, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	44	60	41	40
1:00 AM	38	53	36	34
2:00 AM	36	51	36	34
3:00 AM	40	52	39	37
4:00 AM	42	52	42	40
5:00 AM	43	52	42	40
6:00 AM	48	63	47	44
7:00 AM	52	61	52	49
8:00 AM	49	57	49	47
9:00 AM	49	69	46	45
10:00 AM	48	65	45	44
11:00 AM	50	66	45	44
12:00 PM	45	63	42	38
1:00 PM	50	68	42	38
2:00 PM	45	66	39	37
3:00 PM	45	67	42	40
4:00 PM	46	68	42	40
5:00 PM	50	75	43	40
6:00 PM	46	61	44	43
7:00 PM	45	55	44	43
8:00 PM	45	59	43	41
9:00 PM	44	59	42	40
10:00 PM	45	58	43	41
11:00 PM	47	64	44	42

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	52	44	48	48	36	44
Lmax	(Maximum)	75	55	64	64	51	56
L50	(Median)	52	39	44	47	36	41
L90	(Background)	49	37	42	44	34	39

Computed DNL, dB	51
% Daytime Energy	81%
% Nighttime Energy	19%

GPS Coordinates	38°35'2.03"N		
	121°21'12.72"W		



### Appendix C-9 Long-Term Ambient Noise Monitoring Results - Site 1 Jesuit HS Stadium - Sacramento County, California Saturday, October 8, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	45	61	42	40
1:00 AM	40	56	38	37
2:00 AM	39	56	37	35
3:00 AM	37	55	37	35
4:00 AM	37	44	37	35
5:00 AM	39	53	39	37
6:00 AM	44	57	43	40
7:00 AM	49	65	48	45
8:00 AM	49	57	49	48
9:00 AM	47	57	47	46
10:00 AM	48	65	46	45
11:00 AM	51	63	47	45
12:00 PM	50	63	44	41
1:00 PM	52	67	45	41
2:00 PM	52	65	45	41
3:00 PM	51	69	45	37
4:00 PM	46	64	41	38
5:00 PM	43	65	41	39
6:00 PM	44	57	42	40
7:00 PM	43	58	42	40
8:00 PM	44	55	42	41
9:00 PM	43	69	43	41
10:00 PM	42	61	41	40
11:00 PM	43	53	42	41

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	52	43	49	45	37	42
Lmax	(Maximum)	69	55	63	61	44	55
L50	(Median)	49	41	44	43	37	39
L90	(Background)	48	37	42	41	35	38

Computed DNL, dB	50
% Daytime Energy	89%
% Nighttime Energy	11%

GPS Coordinates	38°35'2.03"N		
	121°21'12.72"W		



### Appendix C-10 Long-Term Ambient Noise Monitoring Results - Site 1 Jesuit HS Stadium - Sacramento County, California Sunday, October 9, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	46	55	43	42
1:00 AM	40	55	39	38
2:00 AM	38	46	37	37
3:00 AM	39	52	38	36
4:00 AM	39	53	38	37
5:00 AM	40	50	39	38
6:00 AM	42	53	40	39
7:00 AM	47	56	47	41
8:00 AM	47	58	47	46
9:00 AM	49	61	47	46
10:00 AM	49	66	46	45
11:00 AM	47	68	45	44
12:00 PM	43	57	41	38
1:00 PM	42	56	39	37
2:00 PM	43	59	39	37
3:00 PM	43	65	40	37
4:00 PM	42	56	40	37
5:00 PM	41	52	40	37
6:00 PM	42	59	40	38
7:00 PM	43	53	41	40
8:00 PM	44	58	41	40
9:00 PM	44	58	40	39
10:00 PM	41	52	40	38
11:00 PM	42	50	41	39

		Statistical Summary					
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	49	41	45	46	38	41
Lmax	(Maximum)	68	52	59	55	46	52
L50	(Median)	47	39	42	43	37	40
L90	(Background)	46	37	40	42	36	38

Computed DNL, dB	49
% Daytime Energy	80%
% Nighttime Energy	20%

GPS Coordinates	38°35'2.03"N		
	121°21'12.72"W		



### Appendix C-11 Long-Term Ambient Noise Monitoring Results - Site 1 Jesuit HS Stadium - Sacramento County, California Monday, October 10, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	42	50	42	41
1:00 AM	39	55	38	36
2:00 AM	38	47	37	36
3:00 AM	39	49	38	37
4:00 AM	40	54	40	38
5:00 AM	44	52	44	42
6:00 AM	46	59	45	43
7:00 AM	50	70	49	46
8:00 AM	50	63	49	47
9:00 AM	48	68	46	45
10:00 AM	47	59	45	44
11:00 AM	54	82	44	44
12:00 PM	49	66	45	38
1:00 PM				
2:00 PM				
3:00 PM				
4:00 PM				
5:00 PM				
6:00 PM				
7:00 PM				
8:00 PM	-			-
9:00 PM				
10:00 PM	-			-
11:00 PM				

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	54	47	51	46	38	42
Lmax	(Maximum)	82	59	68	59	47	52
L50	(Median)	49	44	46	45	37	40
L90	(Background)	47	38	44	43	36	39

Computed DNL, dB	51
% Daytime Energy	92%
% Nighttime Energy	8%

GPS Coordinates	38°35'2.03"N		
	121°21'12.72"W		



### Appendix C-12 Long-Term Ambient Noise Monitoring Results - Site 2 Jesuit HS Stadium - Sacramento County, California Friday, September 30, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	•			
1:00 AM				
2:00 AM				
3:00 AM				
4:00 AM				
5:00 AM				
6:00 AM				
7:00 AM				
8:00 AM				
9:00 AM				
10:00 AM				
11:00 AM				
12:00 PM				
1:00 PM				
2:00 PM	44	57	43	39
3:00 PM	50	73	47	42
4:00 PM	54	80	45	42
5:00 PM	61	86	45	42
6:00 PM	73	103	48	44
7:00 PM	57	75	46	44
8:00 PM	47	61	46	44
9:00 PM	45	57	45	42
10:00 PM	44	58	43	40
11:00 PM	41	54	40	38

		Statistical Summary					
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq (	(Average)	73	44	64	44	41	43
Lmax (	(Maximum)	103	57	74	58	54	56
L50 (	(Median)	48	43	46	43	40	41
L90 (	(Background)	44	39	42	40	38	39

Computed DNL, dB	62
% Daytime Energy	100%
% Nighttime Energy	0%

GPS Coordinates	38°35'0.50"N		
	121°21'11.05"W		



### Appendix C-13 Long-Term Ambient Noise Monitoring Results - Site 2 Jesuit HS Stadium - Sacramento County, California Saturday, October 1, 2022

			. = 0	1.00
Hour	Leq	Lmax	L50	L90
12:00 AM	39	56	38	36
1:00 AM	38	56	36	35
2:00 AM	37	55	36	35
3:00 AM	37	57	36	35
4:00 AM	37	49	37	35
5:00 AM	39	48	39	37
6:00 AM	43	52	43	40
7:00 AM	47	67	44	43
8:00 AM	45	55	44	43
9:00 AM	45	56	44	43
10:00 AM	50	75	45	43
11:00 AM	52	69	46	43
12:00 PM	60	83	49	45
1:00 PM	63	88	54	46
2:00 PM	67	91	59	57
3:00 PM	60	72	58	57
4:00 PM	56	72	50	42
5:00 PM	44	56	43	40
6:00 PM	53	74	45	42
7:00 PM	53	65	44	42
8:00 PM	45	63	43	41
9:00 PM	43	54	43	41
10:00 PM	42	47	42	40
11:00 PM	42	52	41	40

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	67	43	58	43	37	40
Lmax	(Maximum)	91	54	69	57	47	53
L50	(Median)	59	43	47	43	36	38
L90	(Background)	57	40	44	40	35	37

Computed DNL, dB	57
% Daytime Energy	99%
% Nighttime Energy	1%

GPS Coordinates	38°35'0.50"N		
	121°21'11.05"W		



### Appendix C-14 Long-Term Ambient Noise Monitoring Results - Site 2 Jesuit HS Stadium - Sacramento County, California Sunday, October 2, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	40	47	39	38
1:00 AM	39	57	38	37
2:00 AM	38	53	37	36
3:00 AM	37	47	37	35
4:00 AM	38	50	37	36
5:00 AM	40	59	38	37
6:00 AM	42	55	40	38
7:00 AM	42	54	41	39
8:00 AM	42	55	40	37
9:00 AM	43	57	41	37
10:00 AM	46	69	40	37
11:00 AM	48	68	40	36
12:00 PM	53	79	43	38
1:00 PM	54	79	40	37
2:00 PM	65	88	43	38
3:00 PM	54	76	45	41
4:00 PM	53	76	45	40
5:00 PM	48	66	44	41
6:00 PM	55	74	45	41
7:00 PM	54	73	42	40
8:00 PM	46	57	43	41
9:00 PM	43	58	41	40
10:00 PM	41	50	40	39
11:00 PM	40	51	39	38

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	65	42	55	42	37	40
Lmax	(Maximum)	88	54	69	59	47	52
L50	(Median)	45	40	42	40	37	38
L90	(Background)	41	36	39	39	35	37

Computed DNL, dB	54
% Daytime Energy	98%
% Nighttime Energy	2%

GPS Coordinates	38°35'0.50"N		
	121°21'11.05"W		



### Appendix C-15 Long-Term Ambient Noise Monitoring Results - Site 2 Jesuit HS Stadium - Sacramento County, California Monday, October 3, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	38	51	38	36
1:00 AM	37	51	35	34
2:00 AM	35	49	35	33
3:00 AM	36	48	35	34
4:00 AM	39	57	37	36
5:00 AM	42	52	41	38
6:00 AM	55	72	45	43
7:00 AM	48	63	47	44
8:00 AM	50	70	48	44
9:00 AM	49	65	47	42
10:00 AM	46	66	41	38
11:00 AM	50	71	43	38
12:00 PM	44	66	41	37
1:00 PM	45	64	41	37
2:00 PM	43	68	39	36
3:00 PM	46	65	43	39
4:00 PM	50	72	45	41
5:00 PM	51	77	46	42
6:00 PM	55	72	46	41
7:00 PM	49	69	43	40
8:00 PM	45	65	43	41
9:00 PM	43	58	42	41
10:00 PM	40	51	40	38
11:00 PM	39	50	38	37

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	55	43	49	55	35	47
Lmax	(Maximum)	77	58	67	72	48	53
L50	(Median)	48	39	44	45	35	38
L90	(Background)	44	36	40	43	33	37

Computed DNL, dB	54
% Daytime Energy	75%
% Nighttime Energy	25%

GPS Coordinates	38°35'0.50"N		
	121°21'11.05"W		



### Appendix C-16 Long-Term Ambient Noise Monitoring Results - Site 2 Jesuit HS Stadium - Sacramento County, California Tuesday, October 4, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	37	50	36	35
1:00 AM	36	50	35	34
2:00 AM	35	44	35	34
3:00 AM	36	53	36	35
4:00 AM	38	47	37	35
5:00 AM	43	58	42	39
6:00 AM	47	59	45	43
7:00 AM	50	68	48	45
8:00 AM	47	64	47	43
9:00 AM	49	66	45	42
10:00 AM	50	68	43	41
11:00 AM	46	64	41	37
12:00 PM	47	70	42	38
1:00 PM	63	85	41	38
2:00 PM	73	92	58	45
3:00 PM	47	60	45	41
4:00 PM	46	61	44	41
5:00 PM	49	69	46	43
6:00 PM	55	73	47	43
7:00 PM	48	65	45	43
8:00 PM	45	63	44	41
9:00 PM	43	56	41	40
10:00 PM	40	47	40	38
11:00 PM	39	48	38	37

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	- 7 a.m.)
		High	Low	Average	High	Low	Average
Leq	(Average)	73	43	62	47	35	41
Lmax	(Maximum)	92	56	68	59	44	51
L50	(Median)	58	41	45	45	35	38
L90	(Background)	45	37	41	43	34	37

Computed DNL, dB	60
% Daytime Energy	100%
% Nighttime Energy	0%

GPS Coordinates	38°35'0.50"N		
	121°21'11.05"W		



# Appendix C-17 Long-Term Ambient Noise Monitoring Results - Site 2 Jesuit HS Stadium - Sacramento County, California Wednesday, October 5, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	37	47	36	35
1:00 AM	37	47	36	35
2:00 AM	36	48	35	34
3:00 AM	37	46	36	35
4:00 AM	39	48	39	37
5:00 AM	43	51	43	41
6:00 AM	49	61	48	47
7:00 AM	49	62	48	46
8:00 AM	49	61	48	45
9:00 AM	53	70	45	42
10:00 AM	60	73	53	42
11:00 AM	49	64	41	37
12:00 PM	45	66	41	37
1:00 PM	43	66	40	37
2:00 PM	46	68	41	38
3:00 PM	48	62	46	42
4:00 PM	51	67	46	42
5:00 PM	50	66	47	43
6:00 PM	47	65	46	44
7:00 PM	47	60	46	44
8:00 PM	56	75	49	45
9:00 PM	46	65	44	41
10:00 PM	42	54	41	39
11:00 PM	40	60	38	36

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	- 7 a.m.)
		High	Low	Average	High	Low	Average
Leq	(Average)	60	43	52	49	36	42
Lmax	(Maximum)	75	60	66	61	46	51
L50	(Median)	53	40	45	48	35	39
L90	(Background)	46	37	42	47	34	38

Computed DNL, dB	52
% Daytime Energy	94%
% Nighttime Energy	6%

GPS Coordinates	38°35'0.50"N		
GPS Coordinates	121°21'11.05"W		



# Appendix C-18 Long-Term Ambient Noise Monitoring Results - Site 2 Jesuit HS Stadium - Sacramento County, California Thursday, October 6, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	36	46	36	35
1:00 AM	36	50	36	34
2:00 AM	35	47	35	34
3:00 AM	37	46	37	36
4:00 AM	41	62	40	37
5:00 AM	46	62	46	43
6:00 AM	56	75	48	46
7:00 AM	50	69	49	48
8:00 AM	50	70	48	46
9:00 AM	46	66	44	41
10:00 AM	48	60	46	40
11:00 AM	53	72	47	42
12:00 PM	47	71	42	39
1:00 PM	47	72	43	39
2:00 PM	47	71	44	41
3:00 PM	48	67	44	40
4:00 PM	45	57	43	40
5:00 PM	51	67	48	44
6:00 PM	52	73	49	46
7:00 PM	56	78	48	46
8:00 PM	48	61	47	45
9:00 PM	45	55	44	41
10:00 PM	42	54	41	39
11:00 PM	40	54	39	38

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	56	45	50	56	35	47
Lmax	(Maximum)	78	55	67	75	46	55
L50	(Median)	49	42	46	48	35	40
L90	(Background)	48	39	42	46	34	38

Computed DNL, dB	54
% Daytime Energy	76%
% Nighttime Energy	24%

GPS Coordinates	38°35'0.50"N		
	121°21'11.05"W		



# Appendix C-19 Long-Term Ambient Noise Monitoring Results - Site 2 Jesuit HS Stadium - Sacramento County, California Friday, October 7, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	43	65	38	36
1:00 AM	37	51	36	35
2:00 AM	37	50	36	35
3:00 AM	38	48	38	36
4:00 AM	43	51	42	40
5:00 AM	43	55	43	40
6:00 AM	48	59	47	44
7:00 AM	52	64	51	50
8:00 AM	49	64	49	45
9:00 AM	48	69	44	41
10:00 AM	48	71	42	40
11:00 AM	46	68	43	39
12:00 PM	47	76	41	39
1:00 PM	47	75	42	39
2:00 PM	44	65	43	40
3:00 PM	51	75	46	43
4:00 PM	49	69	45	43
5:00 PM	46	62	45	42
6:00 PM	57	73	49	45
7:00 PM	47	61	46	44
8:00 PM	47	63	45	43
9:00 PM	47	66	46	44
10:00 PM	49	70	47	44
11:00 PM	51	67	47	44

		Statistical Summary					
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	57	44	50	51	37	46
Lmax	(Maximum)	76	61	68	70	48	57
L50	(Median)	51	41	45	47	36	42
L90	(Background)	50	39	42	44	35	39

Computed DNL, dB	53
% Daytime Energy	81%
% Nighttime Energy	19%

GPS Coordinates	38°35'0.50"N		
GPS Coordinates	121°21'11.05"W		



# Appendix C-20 Long-Term Ambient Noise Monitoring Results - Site 2 Jesuit HS Stadium - Sacramento County, California Saturday, October 8, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	44	69	39	38
1:00 AM	39	52	38	36
2:00 AM	38	55	36	35
3:00 AM	37	53	36	35
4:00 AM	38	46	37	36
5:00 AM	40	48	39	38
6:00 AM	44	56	43	40
7:00 AM	47	63	46	44
8:00 AM	47	61	47	46
9:00 AM	47	67	46	44
10:00 AM	49	69	45	43
11:00 AM	56	75	49	44
12:00 PM	54	72	47	44
1:00 PM	56	75	49	45
2:00 PM	57	75	50	45
3:00 PM	57	79	45	40
4:00 PM	47	68	42	39
5:00 PM	45	69	42	39
6:00 PM	56	73	45	41
7:00 PM	45	58	44	41
8:00 PM	46	63	45	43
9:00 PM	44	68	43	42
10:00 PM	42	59	42	40
11:00 PM	42	54	41	39

		Statistical Summary					
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	- 7 a.m.)
		High	Low	Average	High	Low	Average
Leq	(Average)	57	44	53	44	37	41
Lmax	(Maximum)	79	58	69	69	46	55
L50	(Median)	50	42	46	43	36	39
L90	(Background)	46	39	43	40	35	37

Computed DNL, dB	52
% Daytime Energy	96%
% Nighttime Energy	4%

GPS Coordinates	38°35'0.50"N		
GPS Coordinates	121°21'11.05"W		



# Appendix C-21 Long-Term Ambient Noise Monitoring Results - Site 2 Jesuit HS Stadium - Sacramento County, California Sunday, October 9, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	41	56	40	38
1:00 AM	39	51	38	37
2:00 AM	37	48	36	35
3:00 AM	36	51	36	35
4:00 AM	38	55	37	36
5:00 AM	39	51	38	37
6:00 AM	55	75	41	38
7:00 AM	46	64	44	41
8:00 AM	44	63	43	41
9:00 AM	50	71	46	43
10:00 AM	50	70	44	40
11:00 AM	46	70	41	39
12:00 PM	44	65	41	38
1:00 PM	47	68	43	39
2:00 PM	48	69	45	40
3:00 PM	49	70	46	41
4:00 PM	48	70	42	38
5:00 PM	49	69	41	37
6:00 PM	45	63	42	39
7:00 PM	44	62	42	41
8:00 PM	45	57	43	41
9:00 PM	45	64	42	40
10:00 PM	41	53	40	38
11:00 PM	41	50	40	38

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	· 7 a.m.)
		High	Low	Average	High	Low	Average
Leq	(Average)	50	44	47	55	36	46
Lmax	(Maximum)	71	57	66	75	48	54
L50	(Median)	46	41	43	41	36	38
L90	(Background)	43	37	40	38	35	37

Computed DNL, dB	53
% Daytime Energy	68%
% Nighttime Energy	32%

GPS Coordinates	38°35'0.50"N		
GPS Coordinates	121°21'11.05"W		



# Appendix C-22 Long-Term Ambient Noise Monitoring Results - Site 2 Jesuit HS Stadium - Sacramento County, California Monday, October 10, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	40	52	39	38
1:00 AM	39	55	37	36
2:00 AM	37	46	36	35
3:00 AM	38	49	37	36
4:00 AM	40	53	40	38
5:00 AM	44	51	44	42
6:00 AM	46	54	45	44
7:00 AM	50	66	49	46
8:00 AM	50	65	48	45
9:00 AM	47	67	45	42
10:00 AM	48	63	44	41
11:00 AM	52	80	40	38
12:00 PM	48	71	43	39
1:00 PM	51	72	42	40
2:00 PM				
3:00 PM				
4:00 PM				
5:00 PM				
6:00 PM				
7:00 PM				
8:00 PM				
9:00 PM				
10:00 PM				
11:00 PM				

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	52	47	50	46	37	42
Lmax	(Maximum)	80	63	69	55	46	52
L50	(Median)	49	40	45	45	36	40
L90	(Background)	46	38	41	44	35	38

Computed DNL, dB	51
% Daytime Energy	91%
% Nighttime Energy	9%

GPS Coordinates	38°35'0.50"N		
	121°21'11.05"W		



# Appendix C-23 Long-Term Ambient Noise Monitoring Results - Site 3 Jesuit HS Stadium - Sacramento County, California Friday, September 30, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM				
1:00 AM				
2:00 AM				
3:00 AM				
4:00 AM				
5:00 AM				
6:00 AM				
7:00 AM				
8:00 AM				
9:00 AM				
10:00 AM				
11:00 AM				
12:00 PM				
1:00 PM	68	90	49	41
2:00 PM	59	76	53	43
3:00 PM	67	99	61	50
4:00 PM	60	75	55	45
5:00 PM	61	79	57	47
6:00 PM	73	105	53	46
7:00 PM	56	68	49	47
8:00 PM	55	68	49	46
9:00 PM	54	69	47	44
10:00 PM	53	72	45	42
11:00 PM	49	67	41	39

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	73	54	66	53	49	51
Lmax	(Maximum)	105	68	81	72	67	69
L50	(Median)	61	47	53	45	41	43
L90	(Background)	50	41	45	42	39	41

Computed DNL, dB	65
% Daytime Energy	98%
% Nighttime Energy	2%

GPS Coordinates	38°34'58.79"N
GPS Coordinates	121°21'6.07"W



# Appendix C-24 Long-Term Ambient Noise Monitoring Results - Site 3 Jesuit HS Stadium - Sacramento County, California Saturday, October 1, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	46	72	38	35
1:00 AM	45	72	36	34
2:00 AM	44	68	35	34
3:00 AM	40	64	35	34
4:00 AM	45	67	36	34
5:00 AM	46	69	37	35
6:00 AM	50	70	41	38
7:00 AM	53	68	44	41
8:00 AM	56	71	45	41
9:00 AM	56	69	45	41
10:00 AM	58	72	51	40
11:00 AM	58	72	51	41
12:00 PM	60	76	59	45
1:00 PM	64	83	63	50
2:00 PM	64	87	60	50
3:00 PM	63	68	63	62
4:00 PM	64	83	63	46
5:00 PM	56	69	46	40
6:00 PM	56	69	46	42
7:00 PM	54	71	44	41
8:00 PM	53	68	42	39
9:00 PM	53	68	41	39
10:00 PM	52	66	40	38
11:00 PM	50	68	39	37

		Statistical Summary					
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	64	53	60	52	40	48
Lmax	(Maximum)	87	68	73	72	64	68
	(Median)	63	41	51	41	35	37
L90	(Background)	62	39	44	38	34	36

Computed DNL, dB	59
% Daytime Energy	96%
% Nighttime Energy	4%

GPS Coordinates	38°34'58.79"N
GPS Coordinates	121°21'6.07"W



# Appendix C-25 Long-Term Ambient Noise Monitoring Results - Site 3 Jesuit HS Stadium - Sacramento County, California Sunday, October 2, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	46	67	37	35
1:00 AM	45	69	35	34
2:00 AM	44	67	35	34
3:00 AM	45	64	35	34
4:00 AM	46	70	35	34
5:00 AM	46	69	36	35
6:00 AM	50	69	39	36
7:00 AM	52	68	41	38
8:00 AM	53	67	42	38
9:00 AM	55	73	44	38
10:00 AM	55	68	43	38
11:00 AM	56	72	46	38
12:00 PM	56	75	47	38
1:00 PM	56	69	48	38
2:00 PM	60	84	52	44
3:00 PM	59	76	55	47
4:00 PM	58	75	54	47
5:00 PM	56	72	52	44
6:00 PM	56	78	45	40
7:00 PM	54	71	44	41
8:00 PM	54	73	43	41
9:00 PM	52	68	42	39
10:00 PM	49	66	40	39
11:00 PM	47	67	39	38

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	- 7 a.m.)
		High	Low	Average	High	Low	Average
Leq	(Average)	60	52	56	50	44	47
Lmax	(Maximum)	84	67	72	70	64	68
L50	(Median)	55	41	46	40	35	37
L90	(Background)	47	38	41	39	34	35

Computed DNL, dB	56
% Daytime Energy	93%
% Nighttime Energy	7%

GPS Coordinates	38°34'58.79"N		
	121°21'6.07"W		



# Appendix C-26 Long-Term Ambient Noise Monitoring Results - Site 3 Jesuit HS Stadium - Sacramento County, California Monday, October 3, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	45	72	37	36
1:00 AM	43	68	36	35
2:00 AM	41	67	36	35
3:00 AM	44	66	36	35
4:00 AM	45	65	37	36
5:00 AM	49	68	40	38
6:00 AM	55	72	44	42
7:00 AM	58	70	54	44
8:00 AM	62	76	58	48
9:00 AM	69	91	55	43
10:00 AM	59	83	46	42
11:00 AM	56	81	49	41
12:00 PM	57	73	48	41
1:00 PM	57	72	48	41
2:00 PM	57	78	48	40
3:00 PM	59	70	55	45
4:00 PM	61	73	58	46
5:00 PM	61	74	57	44
6:00 PM	57	72	48	42
7:00 PM	55	67	45	42
8:00 PM	55	83	43	41
9:00 PM	51	68	42	40
10:00 PM	49	68	39	38
11:00 PM	46	65	38	36

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	- 7 a.m.)
		High	Low	Average	High	Low	Average
Leq	(Average)	69	51	60	55	41	48
Lmax	(Maximum)	91	67	75	72	65	68
L50	(Median)	58	42	50	44	36	38
L90	(Background)	48	40	43	42	35	37

Computed DNL, dB	60
% Daytime Energy	96%
% Nighttime Energy	4%

GPS Coordinates	38°34'58.79"N
GPS Coordinates	121°21'6.07"W



# Appendix C-27 Long-Term Ambient Noise Monitoring Results - Site 3 Jesuit HS Stadium - Sacramento County, California Tuesday, October 4, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	43	64	36	35
1:00 AM	43	68	35	34
2:00 AM	38	62	34	33
3:00 AM	39	63	35	34
4:00 AM	46	67	36	35
5:00 AM	49	68	40	38
6:00 AM	55	75	45	41
7:00 AM	60	73	57	46
8:00 AM	62	72	60	45
9:00 AM	59	75	50	42
10:00 AM	62	81	50	42
11:00 AM	56	70	46	39
12:00 PM	57	70	49	40
1:00 PM	56	75	48	40
2:00 PM	59	74	54	49
3:00 PM	61	71	60	47
4:00 PM	61	75	58	45
5:00 PM	60	71	58	46
6:00 PM	59	71	55	46
7:00 PM	56	69	50	45
8:00 PM	56	80	47	42
9:00 PM	52	70	43	40
10:00 PM	49	69	39	38
11:00 PM	43	65	38	36

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	· 7 a.m.)
		High	Low	Average	High	Low	Average
Leq	(Average)	62	52	59	55	38	48
Lmax	(Maximum)	81	69	73	75	62	67
L50	(Median)	60	43	52	45	34	38
L90	(Background)	49	39	44	41	33	36

Computed DNL, dB	59
% Daytime Energy	95%
% Nighttime Energy	5%

GPS Coordinates	38°34'58.79"N		
	121°21'6.07"W		



# Appendix C-28 Long-Term Ambient Noise Monitoring Results - Site 3 Jesuit HS Stadium - Sacramento County, California Wednesday, October 5, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	44	66	36	34
1:00 AM	36	55	34	33
2:00 AM	40	60	34	33
3:00 AM	44	63	35	34
4:00 AM	45	64	39	37
5:00 AM	50	67	42	39
6:00 AM	55	74	47	44
7:00 AM	60	71	56	47
8:00 AM	63	80	61	46
9:00 AM	57	70	49	43
10:00 AM	57	73	53	45
11:00 AM	57	72	47	40
12:00 PM	57	73	49	41
1:00 PM	57	70	48	40
2:00 PM	58	72	51	41
3:00 PM				
4:00 PM				
5:00 PM				
6:00 PM				
7:00 PM				
8:00 PM				
9:00 PM				
10:00 PM				
11:00 PM				

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	- 7 a.m.)
		High	Low	Average	High	Low	Average
Leq	(Average)	63	57	59	55	36	49
Lmax	(Maximum)	80	70	73	74	55	64
L50	(Median)	61	47	52	47	34	38
L90	(Background)	47	40	43	44	33	36

Computed DNL, dB	59
% Daytime Energy	94%
% Nighttime Energy	6%

GPS Coordinates	38°34'58.79"N		
GPS Coordinates	121°21'6.07"W		



# Appendix C-29 Long-Term Ambient Noise Monitoring Results - Site 3 Jesuit HS Stadium - Sacramento County, California Thursday, October 6, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM				
1:00 AM				
2:00 AM				
3:00 AM				
4:00 AM				
5:00 AM				
6:00 AM				
7:00 AM				
8:00 AM				
9:00 AM				
10:00 AM				
11:00 AM				
12:00 PM				
1:00 PM	59	71	53	43
2:00 PM	61	75	60	46
3:00 PM	59	78	55	44
4:00 PM	60	74	55	44
5:00 PM	62	84	60	48
6:00 PM	59	74	54	48
7:00 PM	56	68	51	47
8:00 PM	58	71	52	48
9:00 PM	54	71	47	43
10:00 PM	49	67	43	40
11:00 PM	46	67	41	38

		Statistical Summary					
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	62	54	59	49	46	48
Lmax	(Maximum)	84	68	74	67	67	67
L50	(Median)	60	47	54	43	41	42
L90	(Background)	48	43	46	40	38	39

Computed DNL, dB	59
% Daytime Energy	96%
% Nighttime Energy	4%

GPS Coordinates	38°34'58.79"N		
GPS Coordinates	121°21'6.07"W		



# Appendix C-30 Long-Term Ambient Noise Monitoring Results - Site 3 Jesuit HS Stadium - Sacramento County, California Friday, October 7, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	48	70	41	36
1:00 AM	43	64	37	35
2:00 AM	42	68	36	34
3:00 AM	46	65	38	36
4:00 AM	47	66	41	39
5:00 AM	50	67	44	41
6:00 AM	55	70	47	45
7:00 AM	60	72	57	50
8:00 AM	62	77	61	47
9:00 AM	58	71	52	44
10:00 AM	56	68	49	43
11:00 AM	56	70	47	43
12:00 PM	59	86	50	44
1:00 PM	57	68	50	44
2:00 PM	59	77	53	46
3:00 PM	63	73	62	53
4:00 PM	60	76	58	48
5:00 PM	59	72	54	46
6:00 PM	58	67	53	47
7:00 PM	57	82	50	46
8:00 PM	56	78	49	46
9:00 PM	53	69	47	44
10:00 PM	53	69	46	43
11:00 PM	51	67	43	41

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	63	53	59	55	42	50
Lmax	(Maximum)	86	67	74	70	64	67
L50	(Median)	62	47	53	47	36	41
L90	(Background)	53	43	46	45	34	39

Computed DNL, dB	59
% Daytime Energy	93%
% Nighttime Energy	7%

GPS Coordinates	38°34'58.79"N		
GPS Coordinates	121°21'6.07"W		



# Appendix C-31 Long-Term Ambient Noise Monitoring Results - Site 3 Jesuit HS Stadium - Sacramento County, California Saturday, October 8, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	47	67	41	38
1:00 AM	46	67	39	36
2:00 AM	43	65	36	35
3:00 AM	39	62	36	34
4:00 AM	44	65	38	35
5:00 AM	45	67	39	37
6:00 AM	50	70	42	39
7:00 AM	53	68	45	42
8:00 AM	57	77	50	43
9:00 AM	58	70	52	43
10:00 AM	58	71	54	43
11:00 AM	59	77	56	46
12:00 PM	58	74	55	46
1:00 PM	58	72	55	47
2:00 PM	60	85	56	45
3:00 PM	58	77	54	44
4:00 PM	56	68	47	41
5:00 PM	58	82	46	40
6:00 PM	57	77	48	44
7:00 PM	56	73	47	43
8:00 PM	54	67	48	44
9:00 PM	53	71	44	42
10:00 PM	53	75	42	39
11:00 PM	50	73	39	38

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	60	53	57	53	39	48
Lmax	(Maximum)	85	67	74	75	62	68
L50	(Median)	56	44	50	42	36	39
L90	(Background)	47	40	43	39	34	37

Computed DNL, dB	58
% Daytime Energy	93%
% Nighttime Energy	7%

GPS Coordinates	38°34'58.79"N		
GPS Coordinates	121°21'6.07"W		



# Appendix C-32 Long-Term Ambient Noise Monitoring Results - Site 3 Jesuit HS Stadium - Sacramento County, California Sunday, October 9, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	48	69	38	36
1:00 AM	43	64	36	35
2:00 AM	44	68	35	34
3:00 AM	42	69	35	34
4:00 AM	41	67	35	34
5:00 AM	45	68	37	35
6:00 AM	49	69	40	37
7:00 AM	53	69	41	38
8:00 AM	54	75	44	40
9:00 AM	54	69	49	43
10:00 AM	56	71	50	43
11:00 AM	58	87	47	41
12:00 PM	57	75	49	42
1:00 PM	56	69	53	45
2:00 PM	58	72	56	48
3:00 PM	57	69	54	46
4:00 PM	57	69	53	40
5:00 PM	56	70	44	39
6:00 PM	55	69	44	40
7:00 PM	53	67	44	42
8:00 PM	54	78	44	42
9:00 PM	52	77	42	39
10:00 PM	48	67	38	37
11:00 PM	43	64	38	37

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	· 7 a.m.)
		High	Low	Average	High	Low	Average
Leq	(Average)	58	52	56	49	41	45
Lmax	(Maximum)	87	67	72	69	64	67
L50	(Median)	56	41	47	40	35	37
L90	(Background)	48	38	42	37	34	35

Computed DNL, dB	56
% Daytime Energy	95%
% Nighttime Energy	5%

GPS Coordinates	38°34'58.79"N		
GPS Coordinates	121°21'6.07"W		



# Appendix C-33 Long-Term Ambient Noise Monitoring Results - Site 3 Jesuit HS Stadium - Sacramento County, California Monday, October 10, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	42	62	37	36
1:00 AM	44	67	37	35
2:00 AM	42	66	35	33
3:00 AM	40	67	36	35
4:00 AM	44	66	39	37
5:00 AM	48	67	42	41
6:00 AM	54	68	45	43
7:00 AM	60	72	56	47
8:00 AM	62	75	61	48
9:00 AM	58	70	55	45
10:00 AM	68	91	54	45
11:00 AM	57	82	46	41
12:00 PM	58	72	50	43
1:00 PM	57	74	48	42
2:00 PM				
3:00 PM				
4:00 PM				
5:00 PM				
6:00 PM				
7:00 PM				
8:00 PM				
9:00 PM				
10:00 PM				
11:00 PM				

		Statistical Summary				
	Daytim	Daytime (7 a.m 10 p.m.)			ne (10 p.m	- 7 a.m.)
	High	Low	Average	High	Low	Average
Leq (Average)	68	57	62	54	40	48
Lmax (Maximum)	91	70	76	68	62	66
L50 (Median)	61	46	53	45	35	39
L90 (Background)	48	41	44	43	33	37

Computed DNL, dB	61
% Daytime Energy	98%
% Nighttime Energy	2%

GPS Coordinates	38°34'58.79"N		
GPS Coordinates	121°21'6.07"W		



# Appendix C-34 Long-Term Ambient Noise Monitoring Results - Site 4 Jesuit HS Stadium - Sacramento County, California Friday, September 30, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM				
1:00 AM				
2:00 AM				
3:00 AM				
4:00 AM				
5:00 AM				
6:00 AM				
7:00 AM				
8:00 AM				
9:00 AM				
10:00 AM				
11:00 AM				
12:00 PM				
1:00 PM				
2:00 PM	76	101	48	40
3:00 PM	51	67	46	40
4:00 PM	50	75	41	37
5:00 PM	63	91	41	37
6:00 PM	76	106	43	40
7:00 PM	44	58	43	40
8:00 PM	44	58	43	40
9:00 PM	43	56	41	39
10:00 PM	41	54	40	38
11:00 PM	40	56	38	37

	Statistical Summary					
	Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	· 7 a.m.)
	High	Low	Average	High	Low	Average
Leq (Average)	76	43	70	41	40	41
Lmax (Maximum)	106	56	77	56	54	55
L50 (Median)	48	41	43	40	38	39
L90 (Background)	40	37	39	38	37	37

Computed DNL, dB	68
% Daytime Energy	100%
% Nighttime Energy	0%

GPS Coordinates	38°34'56.02"N		
GPS Coordinates	121°21'3.23"W		



# Appendix C-35 Long-Term Ambient Noise Monitoring Results - Site 4 Jesuit HS Stadium - Sacramento County, California Saturday, October 1, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	37	52	36	35
1:00 AM	38	53	36	35
2:00 AM	36	45	35	34
3:00 AM	35	45	35	34
4:00 AM	37	45	37	36
5:00 AM	39	48	39	37
6:00 AM	43	56	42	40
7:00 AM	49	69	44	43
8:00 AM	46	70	44	42
9:00 AM	42	59	41	40
10:00 AM	45	67	39	37
11:00 AM	49	71	40	37
12:00 PM	59	85	42	38
1:00 PM	64	92	39	38
2:00 PM	68	94	46	39
3:00 PM	43	59	41	38
4:00 PM	43	59	40	37
5:00 PM	42	54	40	38
6:00 PM	48	68	42	39
7:00 PM	45	67	42	41
8:00 PM	43	61	41	40
9:00 PM	42	52	41	40
10:00 PM	41	52	41	40
11:00 PM	41	54	40	39

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	- 7 a.m.)
		High	Low	Average	High	Low	Average
Leq	(Average)	68	42	58	43	35	39
Lmax	(Maximum)	94	52	69	56	45	50
L50	(Median)	46	39	42	42	35	38
L90	(Background)	43	37	39	40	34	36

Computed DNL, dB	56
% Daytime Energy	99%
% Nighttime Energy	1%

GPS Coordinates	38°34'56.02"N		
GPS Coordinates	121°21'3.23"W		



# Appendix C-36 Long-Term Ambient Noise Monitoring Results - Site 4 Jesuit HS Stadium - Sacramento County, California Sunday, October 2, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	39	49	39	37
1:00 AM	39	55	37	36
2:00 AM	38	46	37	36
3:00 AM	43	52	37	35
4:00 AM	40	50	39	37
5:00 AM	40	53	39	38
6:00 AM	43	62	40	38
7:00 AM	44	65	41	39
8:00 AM	41	59	38	36
9:00 AM	43	59	39	36
10:00 AM	42	56	39	37
11:00 AM	48	68	40	38
12:00 PM	56	82	44	38
1:00 PM	54	78	39	37
2:00 PM	66	90	40	36
3:00 PM	54	79	38	34
4:00 PM	51	74	40	36
5:00 PM	46	63	39	35
6:00 PM	44	62	41	37
7:00 PM	41	51	39	37
8:00 PM	41	56	40	38
9:00 PM	41	54	40	38
10:00 PM	39	48	39	38
11:00 PM	39	53	38	37

	Statistical Summary					
	Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	· 7 a.m.)
	High	Low	Average	High	Low	Average
Leq (Average)	66	41	55	43	38	40
Lmax (Maximum)	90	51	66	62	46	52
L50 (Median)	44	38	40	40	37	38
L90 (Background)	39	34	37	38	35	37

Computed DNL, dB	54
% Daytime Energy	98%
% Nighttime Energy	2%

GPS Coordinates	38°34'56.02"N		
GPS Coordinates	121°21'3.23"W		



# Appendix C-37 Long-Term Ambient Noise Monitoring Results - Site 4 Jesuit HS Stadium - Sacramento County, California Monday, October 3, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	38	50	37	35
1:00 AM	36	52	35	34
2:00 AM	35	45	35	34
3:00 AM	36	51	36	34
4:00 AM	40	57	38	37
5:00 AM	42	48	42	40
6:00 AM	46	64	44	43
7:00 AM	46	56	45	43
8:00 AM	48	67	45	42
9:00 AM	52	71	47	41
10:00 AM	48	68	41	39
11:00 AM	49	73	40	38
12:00 PM	43	68	39	37
1:00 PM	46	69	39	37
2:00 PM	48	79	40	36
3:00 PM	43	64	37	34
4:00 PM	43	64	40	36
5:00 PM	47	79	39	35
6:00 PM	43	61	40	37
7:00 PM	42	56	40	38
8:00 PM	43	61	41	39
9:00 PM	42	58	40	38
10:00 PM	40	52	39	38
11:00 PM	39	47	38	37

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	52	42	47	46	35	40
Lmax	(Maximum)	79	56	66	64	45	52
L50	(Median)	47	37	41	44	35	38
L90	(Background)	43	34	38	43	34	37

Computed DNL, dB	48
% Daytime Energy	88%
% Nighttime Energy	12%

GPS Coordinates	38°34'56.02"N		
GPS Coordinates	121°21'3.23"W		



# Appendix C-38 Long-Term Ambient Noise Monitoring Results - Site 4 Jesuit HS Stadium - Sacramento County, California Tuesday, October 4, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	37	48	36	34
1:00 AM	36	48	35	33
2:00 AM	35	48	34	33
3:00 AM	38	48	36	34
4:00 AM	40	50	39	36
5:00 AM	44	55	42	40
6:00 AM	46	60	45	44
7:00 AM	48	65	46	44
8:00 AM	46	70	44	41
9:00 AM				
10:00 AM				
11:00 AM				
12:00 PM				
1:00 PM				
2:00 PM				
3:00 PM				
4:00 PM				
5:00 PM				
6:00 PM				
7:00 PM				
8:00 PM				
9:00 PM				
10:00 PM				
11:00 PM				

	Statistical Summary					
	Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	- 7 a.m.)
	High	Low	Average	High	Low	Average
Leq (Average)	48	46	47	46	35	41
Lmax (Maximum)	70	65	68	60	48	51
L50 (Median)	46	44	45	45	34	38
L90 (Background)	44	41	42	44	33	36

Computed DNL, dB	49
% Daytime Energy	85%
% Nighttime Energy	15%

GPS Coordinates	38°34'56.02"N		
GPS Coordinates	121°21'3.23"W		



# Appendix C-39 Long-Term Ambient Noise Monitoring Results - Site 4 Jesuit HS Stadium - Sacramento County, California Wednesday, October 5, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM				
1:00 AM				
2:00 AM				
3:00 AM				
4:00 AM				
5:00 AM				
6:00 AM				
7:00 AM				
8:00 AM				
9:00 AM				
10:00 AM				
11:00 AM				
12:00 PM				
1:00 PM				
2:00 PM				
3:00 PM	43	58	40	36
4:00 PM	42	56	42	36
5:00 PM	45	68	40	36
6:00 PM	43	60	42	38
7:00 PM	42	54	41	39
8:00 PM	42	56	42	39
9:00 PM	42	56	41	38
10:00 PM	40	52	39	36
11:00 PM	39	53	36	35

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	· 7 a.m.)
		High	Low	Average	High	Low	Average
Leq	(Average)	45	42	43	40	39	40
Lmax	(Maximum)	68	54	58	53	52	52
L50	(Median)	42	40	41	39	36	38
L90	(Background)	39	36	37	36	35	36

Computed DNL, dB	47
% Daytime Energy	79%
% Nighttime Energy	21%

GPS Coordinates	38°34'56.02"N		
GPS Coordinates	121°21'3.23"W		



# Appendix C-40 Long-Term Ambient Noise Monitoring Results - Site 4 Jesuit HS Stadium - Sacramento County, California Thursday, October 6, 2022

Hour	Log	Lmay	L50	1.00
Hour	Leq	Lmax		L90
12:00 AM	34	43	34	32
1:00 AM	35	48	34	32
2:00 AM	34	44	33	32
3:00 AM	38	47	35	34
4:00 AM	41	51	40	37
5:00 AM	45	52	45	42
6:00 AM	48	65	47	45
7:00 AM	49	69	48	47
8:00 AM	47	63	47	44
9:00 AM	45	61	43	40
10:00 AM	44	63	43	39
11:00 AM	50	71	44	39
12:00 PM	50	66	46	39
1:00 PM	47	64	42	39
2:00 PM	50	70	44	39
3:00 PM	46	61	43	40
4:00 PM	44	56	43	40
5:00 PM	45	59	43	40
6:00 PM	49	63	44	42
7:00 PM	44	56	43	41
8:00 PM	45	55	44	42
9:00 PM	43	54	41	38
10:00 PM	40	55	39	37
11:00 PM	39	52	38	35

		Statistical Summary					
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	50	43	47	48	34	42
Lmax	(Maximum)	71	54	62	65	43	51
L50	(Median)	48	41	44	47	33	38
L90	(Background)	47	38	41	45	32	36

Computed DNL, dB	50
% Daytime Energy	85%
% Nighttime Energy	15%

GPS Coordinates	38°34'56.02"N
GPS Coordinates	121°21'3.23"W



# Appendix C-41 Long-Term Ambient Noise Monitoring Results - Site 4 Jesuit HS Stadium - Sacramento County, California Friday, October 7, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	43	65	36	34
1:00 AM	36	53	34	33
2:00 AM	37	53	35	33
3:00 AM	38	51	37	35
4:00 AM	42	50	42	40
5:00 AM	43	51	43	40
6:00 AM	48	61	46	44
7:00 AM	50	66	50	47
8:00 AM	49	65	47	43
9:00 AM	47	70	43	40
10:00 AM	52	73	47	42
11:00 AM	52	74	43	39
12:00 PM	45	65	41	39
1:00 PM	47	66	41	39
2:00 PM	77	102	48	40
3:00 PM	52	68	46	40
4:00 PM	46	66	42	40
5:00 PM	44	62	42	38
6:00 PM	45	62	43	40
7:00 PM	45	56	44	41
8:00 PM	44	57	42	39
9:00 PM	44	59	42	40
10:00 PM	43	55	41	40
11:00 PM	40	49	39	38

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	77	44	66	48	36	42
Lmax	(Maximum)	102	56	67	65	49	54
L50	(Median)	50	41	44	46	34	39
L90	(Background)	47	38	41	44	33	37

Computed DNL, dB	64
% Daytime Energy	100%
% Nighttime Energy	0%

GPS Coordinates	38°34'56.02"N
GPS Coordinates	121°21'3.23"W



# Appendix C-42 Long-Term Ambient Noise Monitoring Results - Site 4 Jesuit HS Stadium - Sacramento County, California Saturday, October 8, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	38	49	38	35
1:00 AM	39	55	37	35
2:00 AM	38	54	35	33
3:00 AM	36	54	35	33
4:00 AM	38	46	38	37
5:00 AM	40	47	39	38
6:00 AM	44	65	43	40
7:00 AM	47	63	46	44
8:00 AM	46	67	45	44
9:00 AM	47	70	43	41
10:00 AM	47	66	42	40
11:00 AM	44	59	40	37
12:00 PM	43	57	40	38
1:00 PM	44	59	41	38
2:00 PM	46	64	42	37
3:00 PM	49	77	41	36
4:00 PM	45	61	42	36
5:00 PM	41	57	38	35
6:00 PM	43	57	40	38
7:00 PM	42	59	40	38
8:00 PM	43	52	41	40
9:00 PM	43	69	41	40
10:00 PM	41	56	40	39
11:00 PM	41	53	40	38

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	49	41	45	44	36	40
Lmax	(Maximum)	77	52	62	65	46	53
L50	(Median)	46	38	41	43	35	38
L90	(Background)	44	35	39	40	33	36

Computed DNL, dB	48
% Daytime Energy	84%
% Nighttime Energy	16%

GPS Coordinates	38°34'56.02"N
GPS Coordinates	121°21'3.23"W



# Appendix C-43 Long-Term Ambient Noise Monitoring Results - Site 4 Jesuit HS Stadium - Sacramento County, California Sunday, October 9, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	40	52	39	37
1:00 AM	38	51	38	36
2:00 AM	36	47	36	34
3:00 AM	42	52	36	34
4:00 AM	40	54	39	37
5:00 AM	39	48	38	36
6:00 AM	42	63	40	38
7:00 AM	44	60	43	40
8:00 AM	43	58	42	40
9:00 AM	47	68	43	41
10:00 AM	47	70	43	40
11:00 AM	46	67	40	39
12:00 PM	52	77	46	40
1:00 PM	43	56	41	38
2:00 PM	43	59	41	38
3:00 PM	44	66	39	33
4:00 PM	44	71	41	35
5:00 PM	41	53	41	34
6:00 PM	43	68	41	36
7:00 PM	43	53	40	38
8:00 PM	44	58	41	38
9:00 PM	43	57	40	37
10:00 PM	41	52	39	38
11:00 PM	41	52	39	37

		Statistical Summary					
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	- 7 a.m.)
		High	Low	Average	High	Low	Average
Leq	(Average)	52	41	45	42	36	40
Lmax	(Maximum)	77	53	63	63	47	53
L50	(Median)	46	39	41	40	36	38
L90	(Background)	41	33	38	38	34	36

Computed DNL, dB	48
% Daytime Energy	85%
% Nighttime Energy	15%

GPS Coordinates	38°34'56.02"N
	121°21'3.23"W



# Appendix C-44 Long-Term Ambient Noise Monitoring Results - Site 4 Jesuit HS Stadium - Sacramento County, California Monday, October 10, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	39	51	38	36
1:00 AM	37	52	36	35
2:00 AM	36	45	35	34
3:00 AM	37	50	37	35
4:00 AM	40	51	40	38
5:00 AM	43	50	43	42
6:00 AM	46	61	45	43
7:00 AM	49	66	47	45
8:00 AM	47	64	45	43
9:00 AM	45	66	42	40
10:00 AM	46	60	42	40
11:00 AM	55	83	42	39
12:00 PM	45	73	40	38
1:00 PM	47	65	40	38
2:00 PM				
3:00 PM				
4:00 PM				
5:00 PM				
6:00 PM				
7:00 PM				
8:00 PM				
9:00 PM				
10:00 PM				
11:00 PM				

		Statistical Summary					
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	- 7 a.m.)
		High	Low	Average	High	Low	Average
Leq	(Average)	55	45	50	46	36	41
Lmax	(Maximum)	83	60	68	61	45	51
L50	(Median)	47	40	43	45	35	39
L90	(Background)	45	38	40	43	34	38

Computed DNL, dB	50
% Daytime Energy	92%
% Nighttime Energy	8%

GPS Coordinates	38°34'56.02"N
	121°21'3.23"W



# Appendix C-45 Long-Term Ambient Noise Monitoring Results - Site 5 Jesuit HS Stadium - Sacramento County, California Friday, September 30, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM				
1:00 AM				
2:00 AM				
3:00 AM				
4:00 AM				
5:00 AM				
6:00 AM				
7:00 AM				
8:00 AM				
9:00 AM				
10:00 AM				
11:00 AM				
12:00 PM				
1:00 PM				
2:00 PM	61	75	56	42
3:00 PM	66	97	61	52
4:00 PM	62	77	58	46
5:00 PM	63	84	58	48
6:00 PM	76	107	54	45
7:00 PM	58	70	49	44
8:00 PM	57	71	48	43
9:00 PM	56	71	46	41
10:00 PM	54	73	44	40
11:00 PM	51	70	39	37

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	- 7 a.m.)
		High	Low	Average	High	Low	Average
Leq	(Average)	76	56	68	54	51	53
Lmax	(Maximum)	107	70	82	73	70	71
L50	(Median)	61	46	54	44	39	41
L90	(Background)	52	41	45	40	37	38

Computed DNL, dB	67
% Daytime Energy	98%
% Nighttime Energy	2%

GPS Coordinates	38°35'0.80"N
	121°21'0.59"W



# Appendix C-46 Long-Term Ambient Noise Monitoring Results - Site 5 Jesuit HS Stadium - Sacramento County, California Saturday, October 1, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	48	74	35	32
1:00 AM	47	73	32	31
2:00 AM	46	71	33	31
3:00 AM	43	67	34	32
4:00 AM	46	69	34	32
5:00 AM	49	69	36	32
6:00 AM	51	69	38	36
7:00 AM	56	71	41	39
8:00 AM	58	74	45	39
9:00 AM	58	71	43	37
10:00 AM	60	73	55	40
11:00 AM	59	74	52	38
12:00 PM	61	83	54	42
1:00 PM	65	94	52	43
2:00 PM	65	89	53	44
3:00 PM	58	73	52	48
4:00 PM	63	92	53	46
5:00 PM	58	71	48	41
6:00 PM	58	72	48	42
7:00 PM	57	71	47	41
8:00 PM	56	71	41	38
9:00 PM	55	70	40	37
10:00 PM	55	75	41	40
11:00 PM	52	69	40	36

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	65	55	60	55	43	50
Lmax	(Maximum)	94	70	77	75	67	71
L50	(Median)	55	40	48	41	32	36
L90	(Background)	48	37	41	40	31	33

Computed DNL, dB	60
% Daytime Energy	95%
% Nighttime Energy	5%

GPS Coordinates	38°35'0.80"N
GPS Coordinates	121°21'0.59"W



# Appendix C-47 Long-Term Ambient Noise Monitoring Results - Site 5 Jesuit HS Stadium - Sacramento County, California Sunday, October 2, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	49	70	34	33
1:00 AM	48	72	38	33
2:00 AM	43	67	33	31
3:00 AM	42	67	32	32
4:00 AM	44	72	33	32
5:00 AM	46	70	35	34
6:00 AM	52	71	39	34
7:00 AM	54	70	40	36
8:00 AM	55	71	40	35
9:00 AM	57	73	46	39
10:00 AM	58	70	43	35
11:00 AM	58	79	48	37
12:00 PM	59	80	49	40
1:00 PM	58	73	49	38
2:00 PM	64	87	53	41
3:00 PM	57	73	53	43
4:00 PM	58	77	54	48
5:00 PM	61	80	55	47
6:00 PM	57	74	43	38
7:00 PM	56	73	47	38
8:00 PM	60	90	42	38
9:00 PM	54	70	39	37
10:00 PM	51	70	37	36
11:00 PM	49	71	36	34

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	· 7 a.m.)
		High	Low	Average	High	Low	Average
Leq	(Average)	64	54	59	52	42	48
Lmax	(Maximum)	90	70	76	72	67	70
L50	(Median)	55	39	47	39	32	35
L90	(Background)	48	35	39	36	31	33

Computed DNL, dB	59
% Daytime Energy	95%
% Nighttime Energy	5%

GPS Coordinates	38°35'0.80"N
GPS Coordinates	121°21'0.59"W



# Appendix C-48 Long-Term Ambient Noise Monitoring Results - Site 5 Jesuit HS Stadium - Sacramento County, California Monday, October 3, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	48	75	34	32
1:00 AM	44	68	32	31
2:00 AM	44	72	33	31
3:00 AM	45	68	34	32
4:00 AM	46	68	34	33
5:00 AM	53	71	40	36
6:00 AM	57	75	43	40
7:00 AM	60	74	53	42
8:00 AM	64	76	60	47
9:00 AM	59	72	54	42
10:00 AM	57	71	48	41
11:00 AM	58	72	47	39
12:00 PM	59	76	48	40
1:00 PM	58	73	48	40
2:00 PM	59	81	50	43
3:00 PM	61	75	56	43
4:00 PM	62	73	57	46
5:00 PM	62	74	57	44
6:00 PM	59	74	49	40
7:00 PM	58	75	47	39
8:00 PM	56	77	47	40
9:00 PM	53	71	39	38
10:00 PM	52	70	37	34
11:00 PM	48	69	34	33

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	- 7 a.m.)
		High	Low	Average	High	Low	Average
Leq	(Average)	64	53	60	57	44	51
Lmax	(Maximum)	81	71	74	75	68	71
L50	(Median)	60	39	51	43	32	36
L90	(Background)	47	38	42	40	31	34

Computed DNL, dB	60
% Daytime Energy	93%
% Nighttime Energy	7%

GPS Coordinates	38°35'0.80"N
GPS Coordinates	121°21'0.59"W



# Appendix C-49 Long-Term Ambient Noise Monitoring Results - Site 5 Jesuit HS Stadium - Sacramento County, California Tuesday, October 4, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	45	67	32	30
1:00 AM	45	70	30	29
2:00 AM	39	65	31	30
3:00 AM	43	66	34	32
4:00 AM	48	68	34	32
5:00 AM	52	70	40	35
6:00 AM	58	78	44	40
7:00 AM	63	75	60	45
8:00 AM	65	75	64	43
9:00 AM	60	75	52	41
10:00 AM	64	84	56	44
11:00 AM	61	76	54	40
12:00 PM	60	73	51	40
1:00 PM	70	89	60	41
2:00 PM	60	74	55	43
3:00 PM	62	75	60	49
4:00 PM	63	74	60	49
5:00 PM	63	73	61	51
6:00 PM	62	74	58	49
7:00 PM	60	72	57	53
8:00 PM	57	69	49	40
9:00 PM	55	73	46	39
10:00 PM	52	72	38	35
11:00 PM	46	68	39	32

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	· 7 a.m.)
		High	Low	Average	High	Low	Average
Leq	(Average)	70	55	63	58	39	51
Lmax	(Maximum)	89	69	75	78	65	69
L50	(Median)	64	46	56	44	30	36
L90	(Background)	53	39	44	40	29	33

Computed DNL, dB	63
% Daytime Energy	96%
% Nighttime Energy	4%

GPS Coordinates	38°35'0.80"N
GPS Coordinates	121°21'0.59"W



# Appendix C-50 Long-Term Ambient Noise Monitoring Results - Site 5 Jesuit HS Stadium - Sacramento County, California Wednesday, October 5, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	46	67	32	29
1:00 AM	37	62	31	30
2:00 AM	37	63	32	31
3:00 AM	44	66	35	33
4:00 AM	43	67	36	35
5:00 AM	52	69	40	38
6:00 AM	59	83	46	44
7:00 AM	63	74	58	46
8:00 AM	65	80	64	47
9:00 AM	60	74	49	40
10:00 AM	59	75	53	45
11:00 AM	59	72	48	40
12:00 PM	59	71	51	41
1:00 PM	59	75	49	39
2:00 PM	62	89	54	40
3:00 PM	63	78	61	50
4:00 PM	63	74	60	49
5:00 PM	63	79	61	50
6:00 PM	62	84	58	51
7:00 PM	61	70	58	54
8:00 PM	58	71	51	44
9:00 PM	56	74	46	42
10:00 PM	54	70	43	40
11:00 PM	46	69	40	35

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	· 7 a.m.)
		High	Low	Average	High	Low	Average
Leq	(Average)	65	56	61	59	37	52
Lmax	(Maximum)	89	70	76	83	62	68
L50	(Median)	64	46	55	46	31	37
L90	(Background)	54	39	45	44	29	35

Computed DNL, dB	61
% Daytime Energy	94%
% Nighttime Energy	6%

CDC Coordinates	38°35'0.80"N
GPS Coordinates	121°21'0.59"W



# Appendix C-51 Long-Term Ambient Noise Monitoring Results - Site 5 Jesuit HS Stadium - Sacramento County, California Thursday, October 6, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	43	72	33	31
1:00 AM	41	71	32	30
2:00 AM	43	69	32	30
3:00 AM	45	69	34	32
4:00 AM	46	69	37	34
5:00 AM	53	70	43	39
6:00 AM	59	77	47	43
7:00 AM	63	74	60	48
8:00 AM	65	74	63	45
9:00 AM	60	73	51	42
10:00 AM	60	72	55	44
11:00 AM	60	73	52	43
12:00 PM	60	75	53	42
1:00 PM	61	73	54	42
2:00 PM	63	74	61	48
3:00 PM	62	79	56	47
4:00 PM	62	74	58	44
5:00 PM	64	76	61	50
6:00 PM	62	78	58	50
7:00 PM	61	82	58	56
8:00 PM	60	73	55	46
9:00 PM	56	71	48	44
10:00 PM	53	72	43	41
11:00 PM	48	70	40	37

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	65	56	62	59	41	52
Lmax	(Maximum)	82	71	75	77	69	71
L50	(Median)	63	48	56	47	32	38
L90	(Background)	56	42	46	43	30	35

Computed DNL, dB	62
% Daytime Energy	94%
% Nighttime Energy	6%

GPS Coordinates	38°35'0.80"N
GPS Coordinates	121°21'0.59"W



# Appendix C-52 Long-Term Ambient Noise Monitoring Results - Site 5 Jesuit HS Stadium - Sacramento County, California Friday, October 7, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	48	69	41	37
1:00 AM	46	69	38	33
2:00 AM	41	67	35	32
3:00 AM	45	68	36	34
4:00 AM	46	68	38	36
5:00 AM	52	70	41	39
6:00 AM	58	72	45	42
7:00 AM	63	78	59	48
8:00 AM	65	78	64	46
9:00 AM	60	80	54	41
10:00 AM	59	71	49	40
11:00 AM	59	71	48	40
12:00 PM	60	73	53	42
1:00 PM	59	75	50	42
2:00 PM	61	73	56	45
3:00 PM	64	77	63	53
4:00 PM	63	75	60	47
5:00 PM	62	74	56	44
6:00 PM	60	71	52	44
7:00 PM	58	72	50	45
8:00 PM	57	81	47	43
9:00 PM	56	70	46	43
10:00 PM	55	71	46	41
11:00 PM	53	70	41	38

		Statistical Summary					
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	65	56	61	58	41	52
Lmax	(Maximum)	81	70	75	72	67	69
L50	(Median)	64	46	54	46	35	40
L90	(Background)	53	40	44	42	32	37

Computed DNL, dB	62
% Daytime Energy	93%
% Nighttime Energy	7%

GPS Coordinates	38°35'0.80"N
GPS Coordinates	121°21'0.59"W



# Appendix C-53 Long-Term Ambient Noise Monitoring Results - Site 5 Jesuit HS Stadium - Sacramento County, California Saturday, October 8, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	50	70	38	35
1:00 AM	48	70	36	32
2:00 AM	45	68	33	30
3:00 AM	40	65	33	31
4:00 AM	46	69	33	32
5:00 AM	47	68	37	34
6:00 AM	53	71	39	36
7:00 AM	55	74	42	40
8:00 AM	60	81	49	40
9:00 AM	61	73	54	41
10:00 AM	61	77	55	41
11:00 AM	60	73	55	43
12:00 PM	59	79	52	43
1:00 PM	57	69	53	45
2:00 PM	59	81	54	46
3:00 PM	59	75	54	46
4:00 PM	59	75	51	43
5:00 PM	59	83	49	41
6:00 PM	59	77	50	43
7:00 PM	58	74	48	42
8:00 PM	56	69	48	43
9:00 PM	56	74	43	41
10:00 PM	56	79	41	39
11:00 PM	52	77	39	39

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	61	55	59	56	40	51
Lmax	(Maximum)	83	69	76	79	65	71
L50	(Median)	55	42	50	41	33	37
L90	(Background)	46	40	42	39	30	34

Computed DNL, dB	60
% Daytime Energy	91%
% Nighttime Energy	9%

GPS Coordinates	38°35'0.80"N		
GPS Coordinates	121°21'0.59"W		



# Appendix C-54 Long-Term Ambient Noise Monitoring Results - Site 5 Jesuit HS Stadium - Sacramento County, California Sunday, October 9, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	50	68	39	38
1:00 AM	46	69	38	37
2:00 AM	47	69	38	37
3:00 AM	45	71	38	37
4:00 AM	43	71	38	33
5:00 AM	46	69	39	35
6:00 AM	52	72	39	36
7:00 AM	55	72	41	38
8:00 AM	57	70	44	39
9:00 AM	57	70	50	42
10:00 AM	59	74	52	41
11:00 AM	59	75	48	36
12:00 PM	59	80	49	37
1:00 PM	58	69	51	42
2:00 PM	58	73	54	47
3:00 PM	58	75	53	47
4:00 PM	59	74	53	43
5:00 PM	58	70	47	39
6:00 PM	57	71	43	38
7:00 PM	56	70	47	39
8:00 PM	56	77	46	40
9:00 PM	54	70	41	37
10:00 PM	50	71	36	34
11:00 PM	45	68	35	33

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	59	54	58	52	43	48
Lmax	(Maximum)	80	69	73	72	68	70
L50	(Median)	54	41	48	39	35	37
L90	(Background)	47	36	40	38	33	36

Computed DNL, dB	58
% Daytime Energy	94%
% Nighttime Energy	6%

GPS Coordinates	38°35'0.80"N
GPS Coordinates	121°21'0.59"W



# Appendix C-55 Long-Term Ambient Noise Monitoring Results - Site 5 Jesuit HS Stadium - Sacramento County, California Monday, October 10, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	44	67	34	32
1:00 AM	46	69	33	31
2:00 AM	45	69	32	31
3:00 AM	41	69	34	32
4:00 AM	45	70	37	34
5:00 AM	50	70	41	39
6:00 AM	57	73	44	41
7:00 AM	63	74	59	46
8:00 AM	65	74	64	47
9:00 AM	59	72	49	42
10:00 AM	60	72	55	49
11:00 AM	59	82	47	38
12:00 PM	59	73	51	40
1:00 PM	59	70	48	39
2:00 PM				
3:00 PM				
4:00 PM				
5:00 PM				
6:00 PM				
7:00 PM				
8:00 PM				
9:00 PM				
10:00 PM				
11:00 PM				

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	65	59	61	57	41	50
Lmax	(Maximum)	82	70	74	73	67	69
L50	(Median)	64	47	53	44	32	36
L90	(Background)	49	38	43	41	31	34

Computed DNL, dB	61
% Daytime Energy	96%
% Nighttime Energy	4%

GPS Coordinates	38°35'0.80"N		
	121°21'0.59"W		



# Appendix C-56 Long-Term Ambient Noise Monitoring Results - Site 6 Jesuit HS Stadium - Sacramento County, California Friday, September 30, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM				
1:00 AM				
2:00 AM				
3:00 AM				
4:00 AM				
5:00 AM				
6:00 AM				
7:00 AM				
8:00 AM				
9:00 AM				
10:00 AM				
11:00 AM				
12:00 PM	56	79	51	50
1:00 PM	71	98	48	46
2:00 PM	50	78	48	46
3:00 PM	51	71	49	47
4:00 PM	54	80	50	47
5:00 PM	62	90	48	46
6:00 PM	78	109	48	47
7:00 PM	49	61	48	45
8:00 PM	47	61	46	44
9:00 PM	50	76	46	44
10:00 PM	45	52	44	42
11:00 PM	43	58	40	38

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	78	47	69	45	43	44
Lmax	(Maximum)	109	61	80	58	52	55
L50	(Median)	51	46	48	44	40	42
L90	(Background)	50	44	46	42	38	40

Computed DNL, dB	67
% Daytime Energy	100%
% Nighttime Energy	0%

GPS Coordinates	38°35'5.69"N		
	121°20'57.39"W		



# Appendix C-57 Long-Term Ambient Noise Monitoring Results - Site 6 Jesuit HS Stadium - Sacramento County, California Saturday, October 1, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	40	51	38	36
1:00 AM	39	54	37	36
2:00 AM	39	60	37	35
3:00 AM	37	57	36	35
4:00 AM	37	45	37	35
5:00 AM	46	55	39	37
6:00 AM	49	68	45	43
7:00 AM	51	75	46	44
8:00 AM	53	81	51	46
9:00 AM	54	80	51	50
10:00 AM	51	60	51	50
11:00 AM	52	66	51	50
12:00 PM	61	87	51	50
1:00 PM	67	96	47	46
2:00 PM	68	93	52	47
3:00 PM	52	65	49	47
4:00 PM	50	65	48	46
5:00 PM	47	54	47	46
6:00 PM	62	92	48	47
7:00 PM	47	56	47	44
8:00 PM	45	57	44	42
9:00 PM	44	59	43	41
10:00 PM	43	54	42	41
11:00 PM	43	54	42	41

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	- 7 a.m.)
		High	Low	Average	High	Low	Average
Leq	(Average)	68	44	60	49	37	43
Lmax	(Maximum)	96	54	72	68	45	55
L50	(Median)	52	43	48	45	36	39
L90	(Background)	50	41	46	43	35	38

Computed DNL, dB	59
% Daytime Energy	99%
% Nighttime Energy	1%

GPS Coordinates	38°35'5.69"N		
	121°20'57.39"W		



# Appendix C-58 Long-Term Ambient Noise Monitoring Results - Site 6 Jesuit HS Stadium - Sacramento County, California Sunday, October 2, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	40	56	40	38
1:00 AM	40	53	38	37
2:00 AM	38	51	38	37
3:00 AM	37	51	37	36
4:00 AM	38	51	37	36
5:00 AM	41	57	39	37
6:00 AM	43	67	41	39
7:00 AM	44	58	42	41
8:00 AM	51	63	52	43
9:00 AM	56	78	52	51
10:00 AM	52	58	52	52
11:00 AM	56	85	52	51
12:00 PM	58	81	53	52
1:00 PM	56	81	47	46
2:00 PM	65	88	47	46
3:00 PM	53	72	48	46
4:00 PM	54	77	48	46
5:00 PM	54	70	48	46
6:00 PM	53	77	47	46
7:00 PM	47	59	47	42
8:00 PM	45	67	43	41
9:00 PM	43	53	41	39
10:00 PM	41	50	40	39
11:00 PM	40	54	39	38

			Statistical Summary					
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	· 7 a.m.)	
		High	Low	Average	High	Low	Average	
Leq	(Average)	65	43	56	43	37	40	
Lmax	(Maximum)	88	53	71	67	50	55	
L50	(Median)	53	41	48	41	37	39	
L90	(Background)	52	39	46	39	36	37	

Computed DNL, dB	55
% Daytime Energy	99%
% Nighttime Energy	1%

GPS Coordinates	38°35'5.69"N		
GPS Coordinates	121°20'57.39"W		



# Appendix C-59 Long-Term Ambient Noise Monitoring Results - Site 6 Jesuit HS Stadium - Sacramento County, California Monday, October 3, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	38	53	37	36
1:00 AM	38	54	37	35
2:00 AM	38	52	37	35
3:00 AM	37	46	37	36
4:00 AM	39	53	38	36
5:00 AM	43	53	43	40
6:00 AM	47	64	45	44
7:00 AM	52	62	50	45
8:00 AM	56	68	54	51
9:00 AM	55	68	53	51
10:00 AM	55	70	53	51
11:00 AM	54	74	51	51
12:00 PM	54	78	51	50
1:00 PM	50	67	47	46
2:00 PM	47	63	46	45
3:00 PM	48	65	46	45
4:00 PM	49	59	47	46
5:00 PM	48	64	47	45
6:00 PM	48	61	47	46
7:00 PM	47	59	46	43
8:00 PM	46	71	44	42
9:00 PM	43	58	42	40
10:00 PM	41	52	40	39
11:00 PM	40	52	39	38

		Statistical Summary					
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	· 7 a.m.)
		High	Low	Average	High	Low	Average
Leq	(Average)	56	43	52	47	37	41
Lmax	(Maximum)	78	58	66	64	46	53
L50	(Median)	54	42	48	45	37	39
L90	(Background)	51	40	46	44	35	38

Computed DNL, dB	52
% Daytime Energy	95%
% Nighttime Energy	5%

GPS Coordinates	38°35'5.69"N		
GPS Coordinates	121°20'57.39"W		



# Appendix C-60 Long-Term Ambient Noise Monitoring Results - Site 6 Jesuit HS Stadium - Sacramento County, California Tuesday, October 4, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	38	48	37	35
1:00 AM	37	54	36	35
2:00 AM	38	47	36	34
3:00 AM	37	45	37	35
4:00 AM	38	51	38	36
5:00 AM	47	58	42	40
6:00 AM	50	67	48	45
7:00 AM	51	69	49	47
8:00 AM	53	75	51	49
9:00 AM	52	68	51	50
10:00 AM	52	63	51	50
11:00 AM	52	64	50	50
12:00 PM	59	75	51	50
1:00 PM	49	62	48	45
2:00 PM	48	64	47	46
3:00 PM	49	63	48	46
4:00 PM	53	66	48	46
5:00 PM	50	74	48	46
6:00 PM	58	86	49	48
7:00 PM	53	65	52	50
8:00 PM	47	60	45	42
9:00 PM	43	52	42	40
10:00 PM	40	49	40	38
11:00 PM	40	52	38	36

		Statistical Summary					
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	- 7 a.m.)
		High	Low	Average	High	Low	Average
Leq (Average	)	59	43	53	50	37	44
Lmax (Maximui	n)	86	52	67	67	45	52
L50 (Median)		52	42	49	48	36	39
L90 (Backgro	und)	50	40	47	45	34	37

Computed DNL, dB	53
% Daytime Energy	94%
% Nighttime Energy	6%

GPS Coordinates	38°35'5.69"N		
GPS Coordinates	121°20'57.39"W		



# Appendix C-61 Long-Term Ambient Noise Monitoring Results - Site 6 Jesuit HS Stadium - Sacramento County, California Wednesday, October 5, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	37	47	36	34
1:00 AM	38	54	36	35
2:00 AM	38	53	37	35
3:00 AM	37	49	37	35
4:00 AM	40	50	40	38
5:00 AM	44	57	44	41
6:00 AM	49	63	48	46
7:00 AM	51	63	50	47
8:00 AM	54	75	52	50
9:00 AM	51	62	51	50
10:00 AM	52	64	51	50
11:00 AM	51	63	50	50
12:00 PM	52	68	50	50
1:00 PM	48	63	45	44
2:00 PM	49	68	46	44
3:00 PM	49	76	48	46
4:00 PM	50	72	48	46
5:00 PM	50	72	48	46
6:00 PM	51	66	50	48
7:00 PM	52	60	51	49
8:00 PM	47	58	47	44
9:00 PM	46	64	45	43
10:00 PM	43	63	42	39
11:00 PM	40	59	38	36

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	- 7 a.m.)
		High	Low	Average	High	Low	Average
Leq	(Average)	54	46	51	49	37	43
Lmax	(Maximum)	76	58	66	63	47	55
L50	(Median)	52	45	49	48	36	40
L90	(Background)	50	43	47	46	34	38

Computed DNL, dB	52
% Daytime Energy	91%
% Nighttime Energy	9%

GPS Coordinates	38°35'5.69"N		
	121°20'57.39"W		



# Appendix C-62 Long-Term Ambient Noise Monitoring Results - Site 6 Jesuit HS Stadium - Sacramento County, California Thursday, October 6, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	36	49	35	34
1:00 AM	36	48	35	34
2:00 AM	37	54	35	34
3:00 AM	38	53	37	35
4:00 AM	41	48	40	37
5:00 AM	49	57	47	43
6:00 AM	52	67	50	48
7:00 AM	51	62	51	49
8:00 AM	52	64	52	50
9:00 AM	53	62	52	51
10:00 AM	54	64	53	50
11:00 AM	52	64	51	50
12:00 PM	54	79	51	50
1:00 PM	49	64	47	46
2:00 PM	49	68	47	44
3:00 PM	48	68	46	45
4:00 PM	47	58	47	45
5:00 PM	58	88	48	46
6:00 PM	54	82	50	48
7:00 PM	52	70	51	50
8:00 PM	49	62	48	45
9:00 PM	47	71	45	43
10:00 PM	43	54	41	39
11:00 PM	41	55	39	37

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	- 7 a.m.)
		High	Low	Average	High	Low	Average
Leq	(Average)	58	47	52	52	36	45
Lmax	(Maximum)	88	58	68	67	48	54
L50	(Median)	53	45	49	50	35	40
L90	(Background)	51	43	47	48	34	38

Computed DNL, dB	53
% Daytime Energy	90%
% Nighttime Energy	10%

GPS Coordinates	38°35'5.69"N		
	121°20'57.39"W		



# Appendix C-63 Long-Term Ambient Noise Monitoring Results - Site 6 Jesuit HS Stadium - Sacramento County, California Friday, October 7, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	44	66	39	35
1:00 AM	38	54	36	34
2:00 AM	39	55	37	35
3:00 AM	38	47	38	35
4:00 AM	43	52	42	41
5:00 AM	47	56	44	41
6:00 AM	51	69	49	47
7:00 AM	53	64	52	50
8:00 AM	53	65	52	50
9:00 AM	52	71	50	49
10:00 AM	51	63	50	49
11:00 AM	52	78	50	49
12:00 PM	51	63	50	49
1:00 PM	50	64	47	45
2:00 PM	59	90	47	46
3:00 PM	59	92	48	47
4:00 PM	49	62	47	46
5:00 PM	57	88	47	45
6:00 PM	60	93	48	46
7:00 PM	49	58	48	45
8:00 PM	48	65	46	44
9:00 PM	46	60	45	43
10:00 PM	45	58	44	42
11:00 PM	43	66	42	40

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	60	46	55	51	38	45
Lmax	(Maximum)	93	58	72	69	47	58
L50	(Median)	52	45	48	49	36	41
L90	(Background)	50	43	47	47	34	39

Computed DNL, dB	55
% Daytime Energy	93%
% Nighttime Energy	7%

GPS Coordinates	38°35'5.69"N		
	121°20'57.39"W		



# Appendix C-64 Long-Term Ambient Noise Monitoring Results - Site 6 Jesuit HS Stadium - Sacramento County, California Saturday, October 8, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	41	49	41	38
1:00 AM	40	57	38	36
2:00 AM	39	56	36	35
3:00 AM	37	57	36	34
4:00 AM	38	46	38	36
5:00 AM	46	55	40	39
6:00 AM	48	67	45	43
7:00 AM	52	73	47	46
8:00 AM	51	68	51	48
9:00 AM	51	66	51	51
10:00 AM	51	63	50	50
11:00 AM	56	88	50	50
12:00 PM	53	79	51	50
1:00 PM	58	90	50	47
2:00 PM	59	79	49	46
3:00 PM	51	68	47	46
4:00 PM	49	69	47	46
5:00 PM	47	66	46	45
6:00 PM	49	61	48	47
7:00 PM	55	88	47	46
8:00 PM	47	62	46	44
9:00 PM	45	61	44	43
10:00 PM	44	67	43	41
11:00 PM	43	55	41	39

			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttim	ne (10 p.m	- 7 a.m.)
		High	Low	Average	High	Low	Average
Leq	(Average)	59	45	54	48	37	43
Lmax	(Maximum)	90	61	72	67	46	57
L50	(Median)	51	44	48	45	36	40
L90	(Background)	51	43	47	43	34	38

Computed DNL, dB	53
% Daytime Energy	94%
% Nighttime Energy	6%

GPS Coordinates	38°35'5.69"N		
	121°20'57.39"W		



# Appendix C-65 Long-Term Ambient Noise Monitoring Results - Site 6 Jesuit HS Stadium - Sacramento County, California Sunday, October 9, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	41	61	40	38
1:00 AM	39	53	38	37
2:00 AM	38	50	37	36
3:00 AM	37	55	36	35
4:00 AM	37	53	36	35
5:00 AM	46	58	38	36
6:00 AM	47	68	43	40
7:00 AM	46	65	43	41
8:00 AM	50	61	50	44
9:00 AM	52	74	51	50
10:00 AM	51	67	51	50
11:00 AM	54	82	50	50
12:00 PM	50	62	50	49
1:00 PM	48	60	46	45
2:00 PM	50	68	48	46
3:00 PM	51	69	47	46
4:00 PM	49	69	46	45
5:00 PM	47	59	46	45
6:00 PM	47	60	46	46
7:00 PM	47	55	47	43
8:00 PM	50	82	44	42
9:00 PM	46	73	42	39
10:00 PM	42	56	40	38
11:00 PM	41	51	40	38

		Statistical Summary					
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	54	46	50	47	37	42
Lmax	(Maximum)	82	55	67	68	50	56
L50	(Median)	51	42	47	43	36	39
L90	(Background)	50	39	45	40	35	37

Computed DNL, dB	51
% Daytime Energy	90%
% Nighttime Energy	10%

GPS Coordinates	38°35'5.69"N		
	121°20'57.39"W		



# Appendix C-66 Long-Term Ambient Noise Monitoring Results - Site 6 Jesuit HS Stadium - Sacramento County, California Monday, October 10, 2022

Hour	Leq	Lmax	L50	L90
12:00 AM	40	53	39	38
1:00 AM	38	53	37	36
2:00 AM	37	47	36	35
3:00 AM	38	51	38	36
4:00 AM	41	52	40	38
5:00 AM	44	49	44	43
6:00 AM	48	59	46	45
7:00 AM	52	64	50	48
8:00 AM	55	66	54	51
9:00 AM	54	70	51	50
10:00 AM	57	69	54	51
11:00 AM	56	84	50	49
12:00 PM	52	71	50	49
1:00 PM				
2:00 PM				
3:00 PM				
4:00 PM				
5:00 PM				
6:00 PM				
7:00 PM				
8:00 PM				
9:00 PM				
10:00 PM				
11:00 PM				

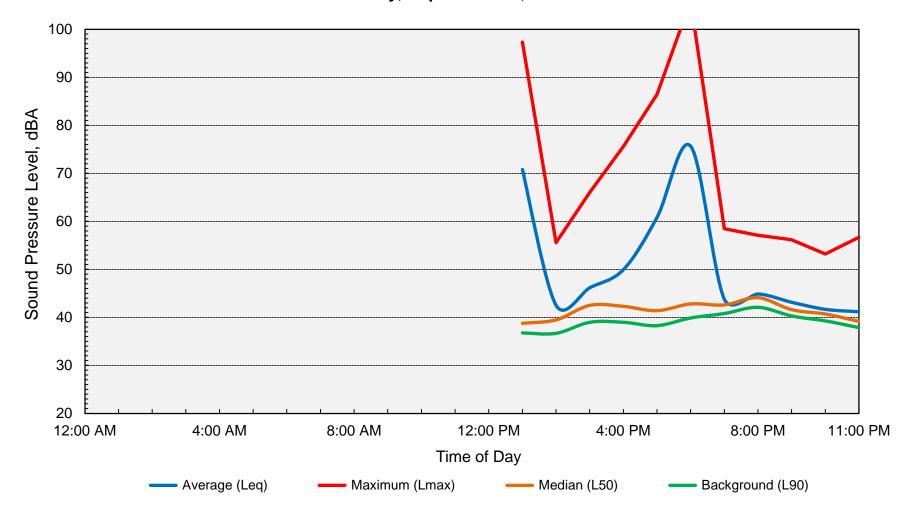
			Statistical Summary				
		Daytime (7 a.m 10 p.m.)			Nighttime (10 p.m 7 a.m.)		
		High	Low	Average	High	Low	Average
Leq	(Average)	57	52	55	48	37	43
Lmax	(Maximum)	84	64	71	59	47	52
L50	(Median)	54	50	51	46	36	40
L90	(Background)	51	48	50	45	35	39

Computed DNL, dB	54
% Daytime Energy	97%
% Nighttime Energy	3%

GPS Coordinates	38°35'5.69"N		
	121°20'57.39"W		



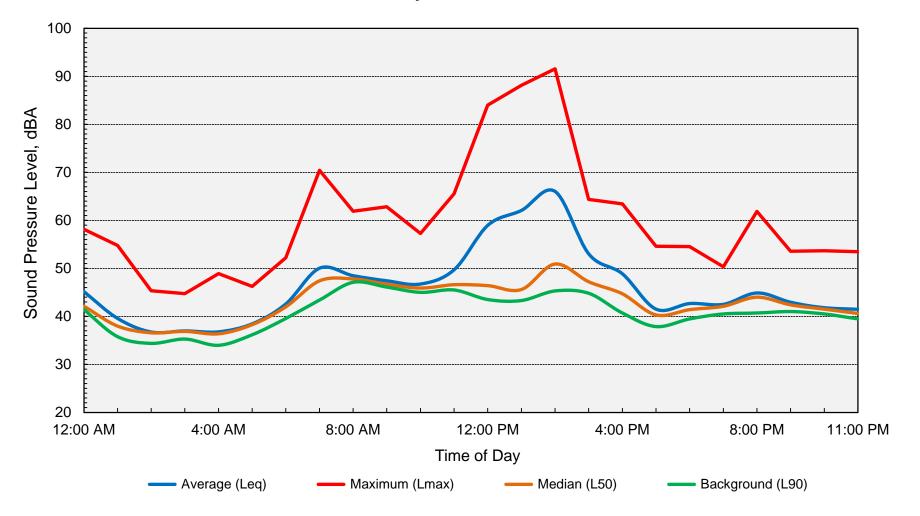
Appendix D-1
Long-Term Ambient Noise Monitoring Results - Site 1
Jesuit HS Stadium - Sacramento County, California
Friday, September 30, 2022



Computed DNL = 65 dB



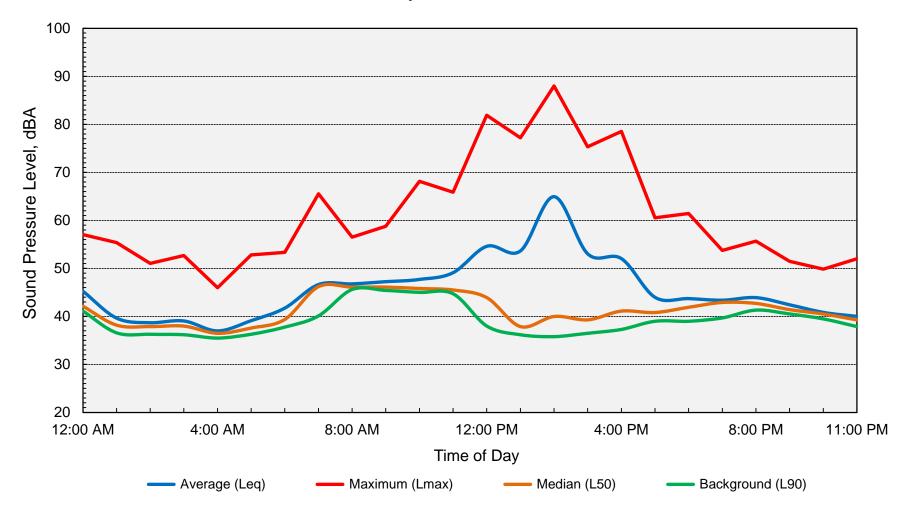
Appendix D-2
Long-Term Ambient Noise Monitoring Results - Site 1
Jesuit HS Stadium - Sacramento County, California
Saturday, October 1, 2022



Computed DNL = 55 dB



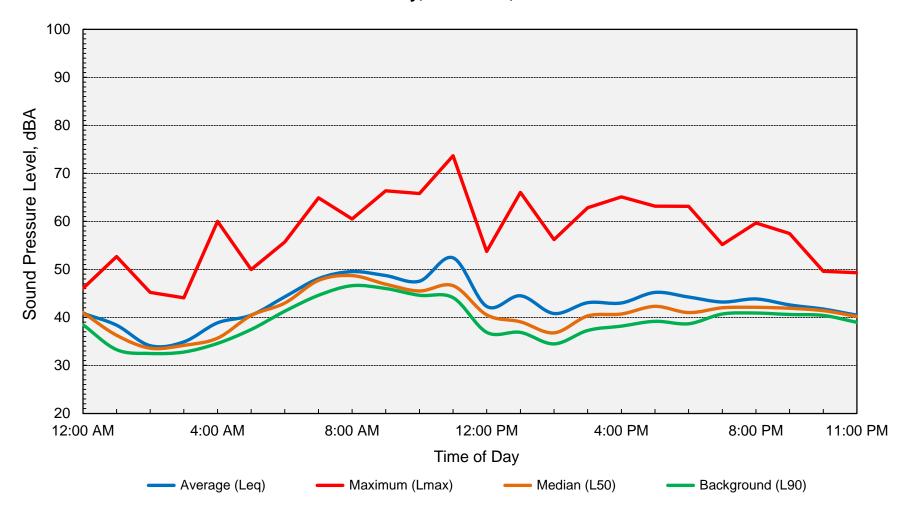
Appendix D-3
Long-Term Ambient Noise Monitoring Results - Site 1
Jesuit HS Stadium - Sacramento County, California
Sunday, October 2, 2022



Computed DNL = 54 dB



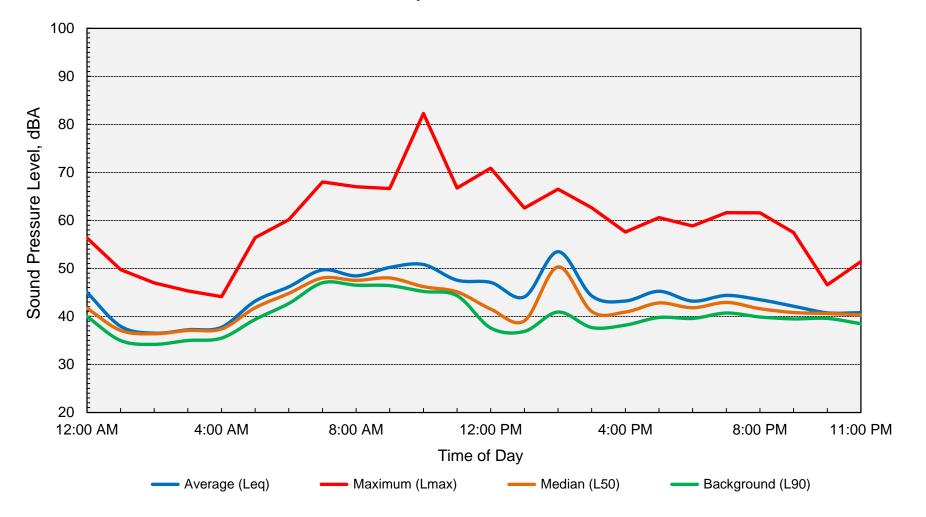
Appendix D-4
Long-Term Ambient Noise Monitoring Results - Site 1
Jesuit HS Stadium - Sacramento County, California
Monday, October 3, 2022



Computed DNL = 48 dB



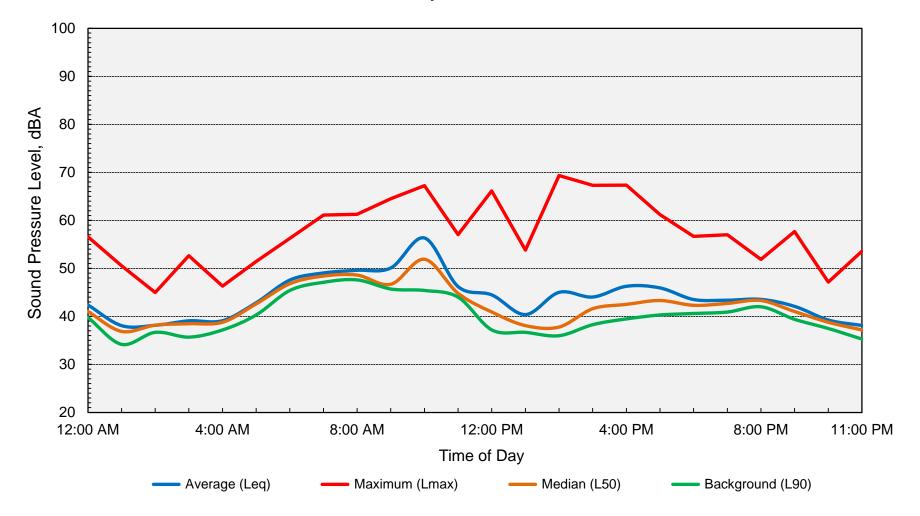
Appendix D-5
Long-Term Ambient Noise Monitoring Results - Site 1
Jesuit HS Stadium - Sacramento County, California
Tuesday, October 4, 2022



Computed DNL = 50 dB



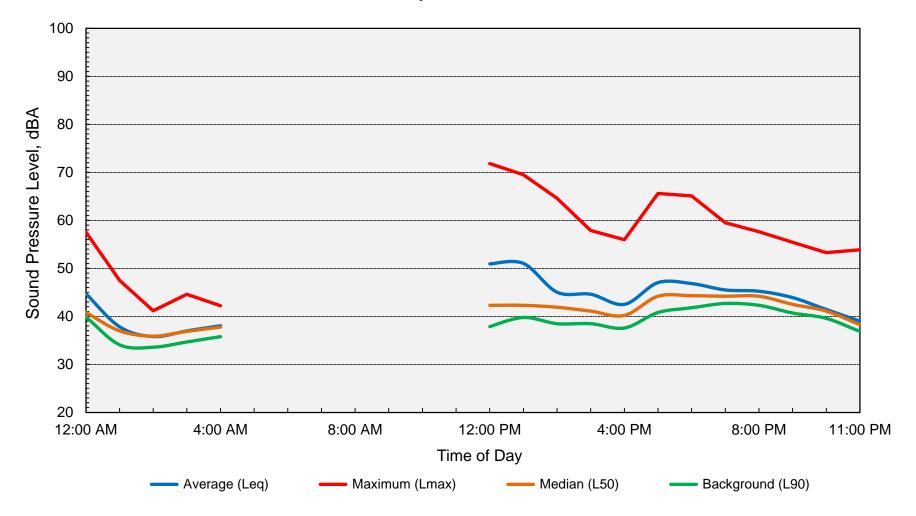
Appendix D-6
Long-Term Ambient Noise Monitoring Results - Site 1
Jesuit HS Stadium - Sacramento County, California
Wednesday, October 5, 2022



Computed DNL = 50 dB



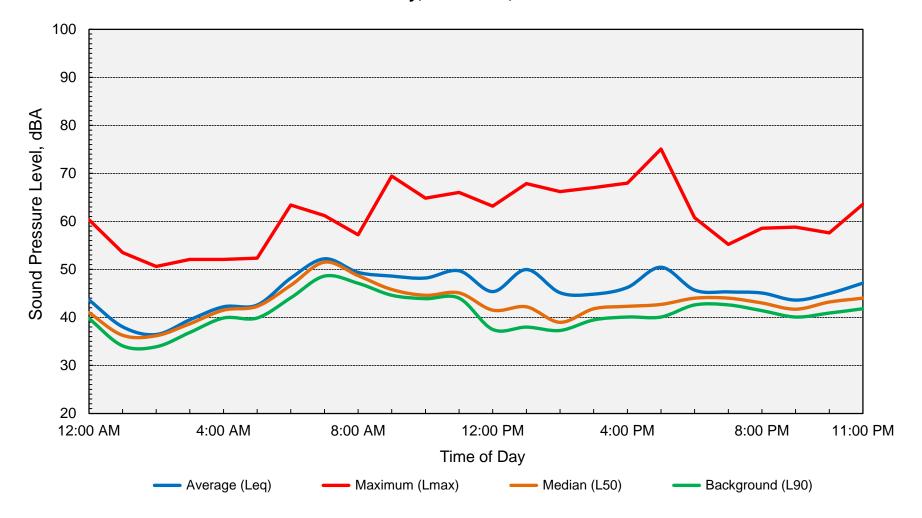
Appendix D-7
Long-Term Ambient Noise Monitoring Results - Site 1
Jesuit HS Stadium - Sacramento County, California
Thursday, October 6, 2022



Computed DNL = 49 dB



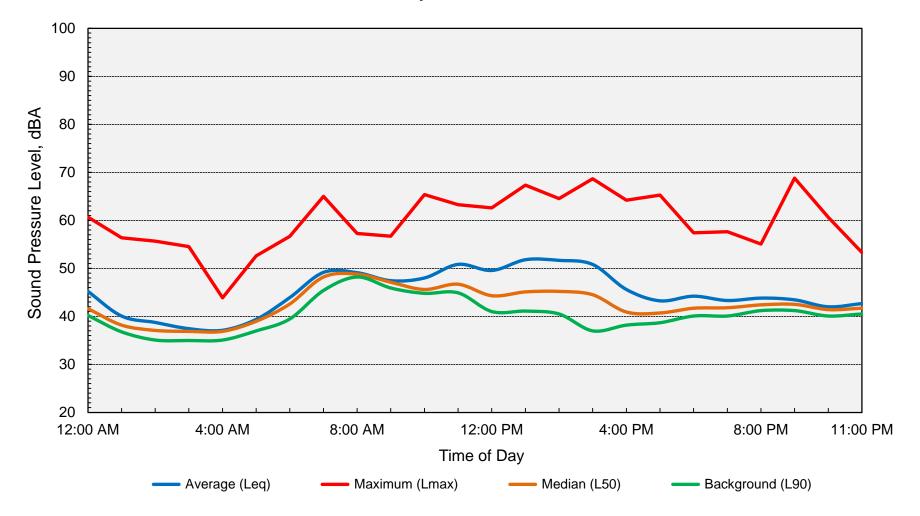
Appendix D-8
Long-Term Ambient Noise Monitoring Results - Site 1
Jesuit HS Stadium - Sacramento County, California
Friday, October 7, 2022



Computed DNL = 51 dB



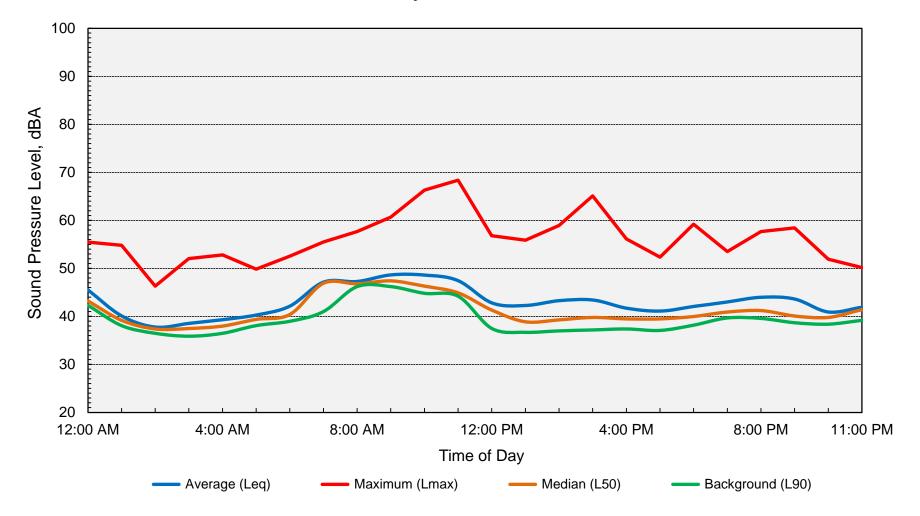
Appendix D-9
Long-Term Ambient Noise Monitoring Results - Site 1
Jesuit HS Stadium - Sacramento County, California
Saturday, October 8, 2022



Computed DNL = 50 dB



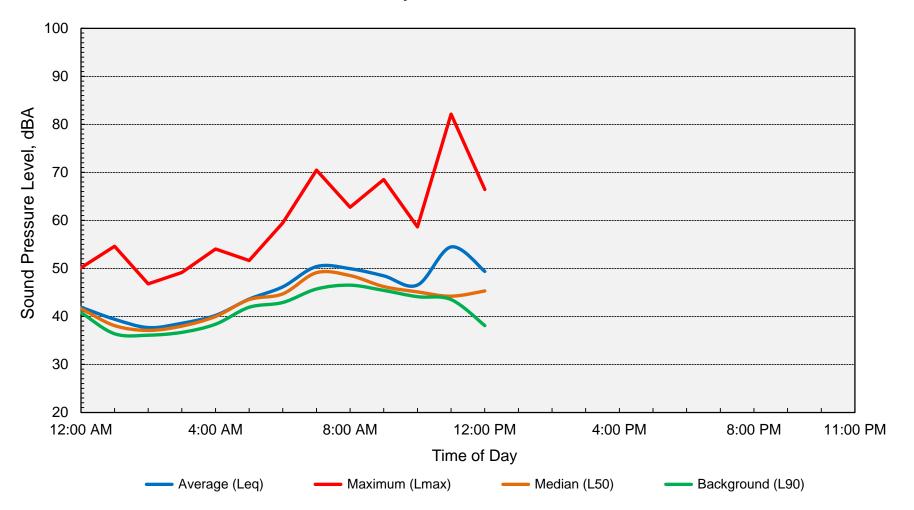
Appendix D-10
Long-Term Ambient Noise Monitoring Results - Site 1
Jesuit HS Stadium - Sacramento County, California
Sunday, October 9, 2022



Computed DNL = 49 dB



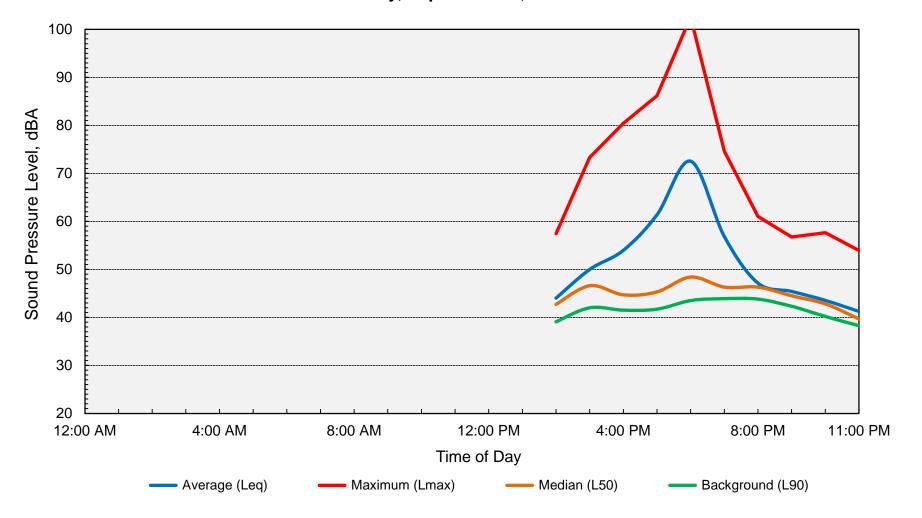
Appendix D-11
Long-Term Ambient Noise Monitoring Results - Site 1
Jesuit HS Stadium - Sacramento County, California
Monday, October 10, 2022



Computed DNL = 51 dB



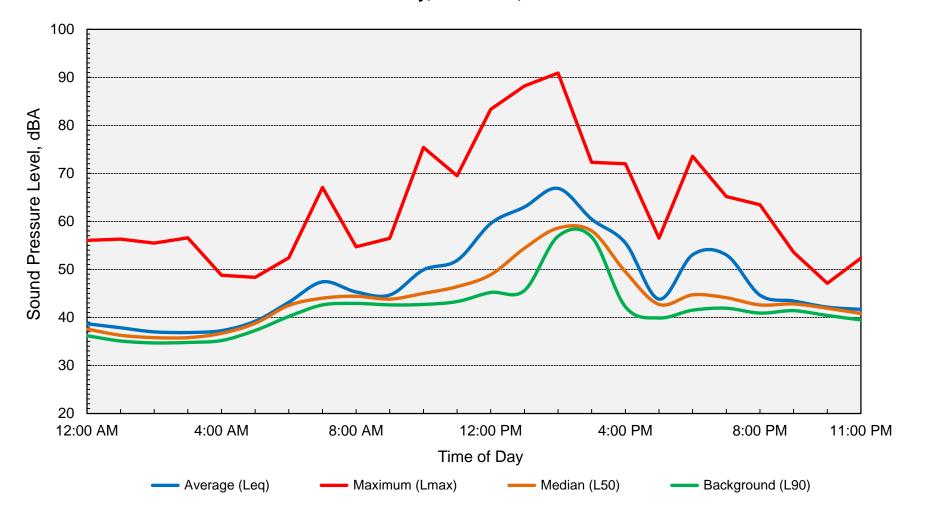
Appendix D-12
Long-Term Ambient Noise Monitoring Results - Site 2
Jesuit HS Stadium - Sacramento County, California
Friday, September 30, 2022



Computed DNL = 62 dB



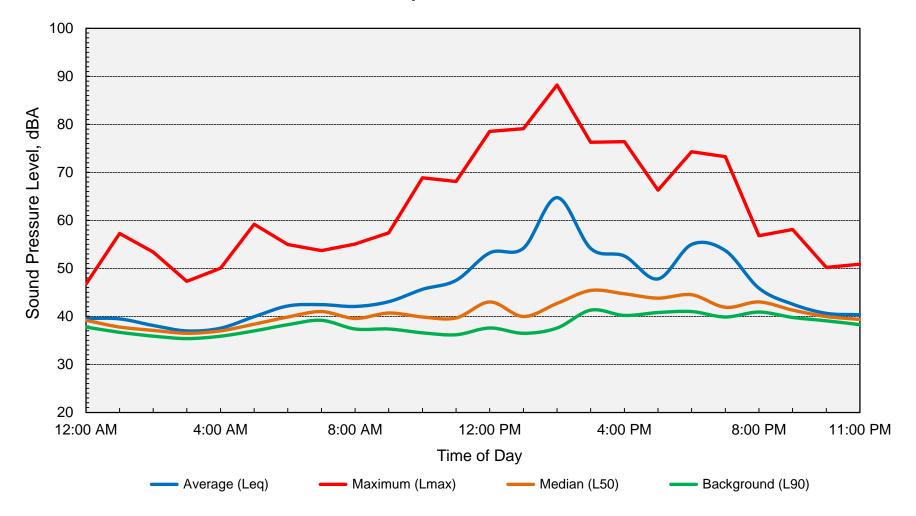
Appendix D-13
Long-Term Ambient Noise Monitoring Results - Site 2
Jesuit HS Stadium - Sacramento County, California
Saturday, October 1, 2022



Computed DNL = 57 dB



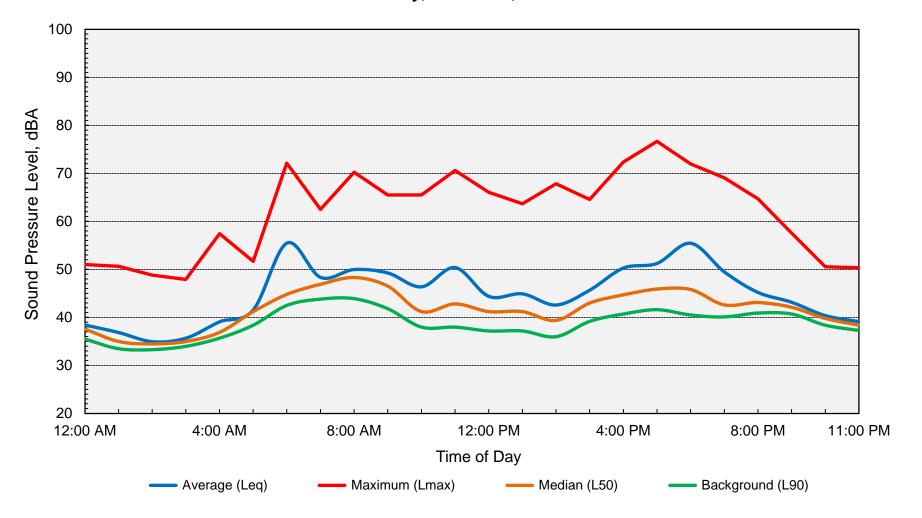
Appendix D-14
Long-Term Ambient Noise Monitoring Results - Site 2
Jesuit HS Stadium - Sacramento County, California
Sunday, October 2, 2022



Computed DNL = 54 dB



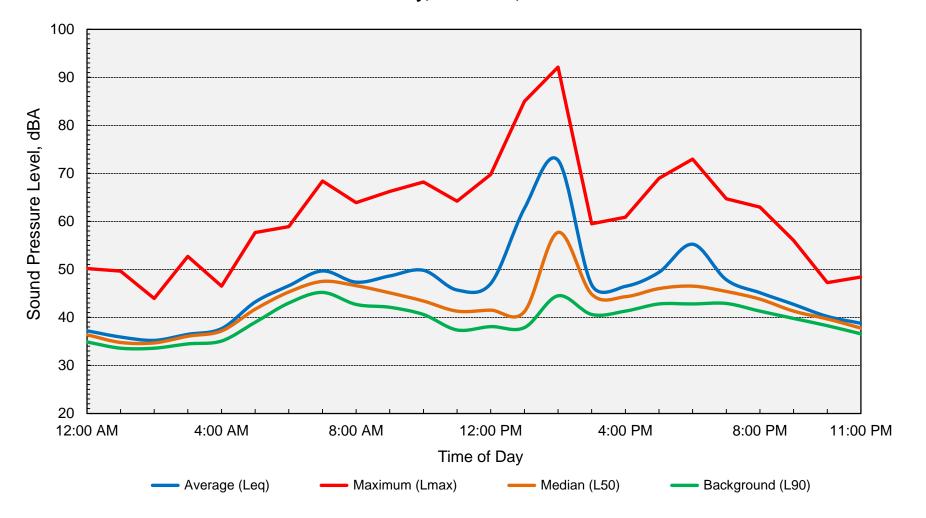
Appendix D-15
Long-Term Ambient Noise Monitoring Results - Site 2
Jesuit HS Stadium - Sacramento County, California
Monday, October 3, 2022



Computed DNL = 54 dB



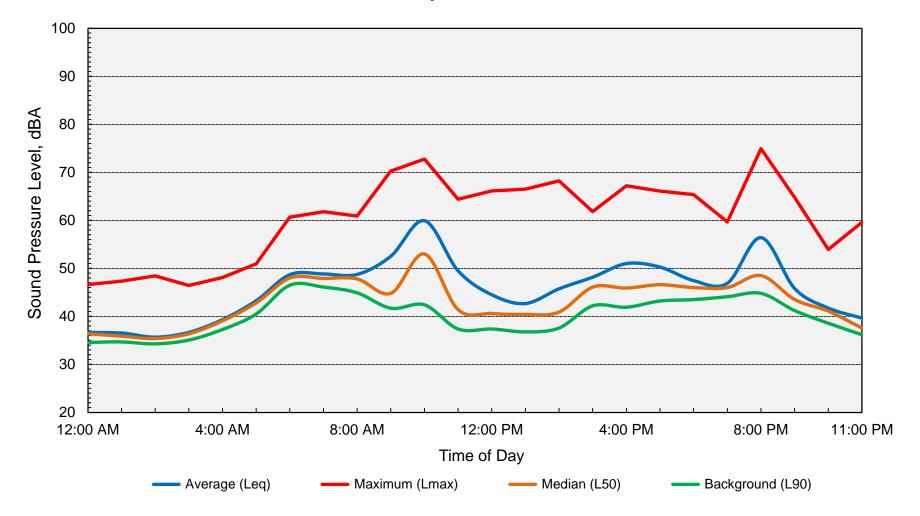
Appendix D-16
Long-Term Ambient Noise Monitoring Results - Site 2
Jesuit HS Stadium - Sacramento County, California
Tuesday, October 4, 2022



Computed DNL = 60 dB



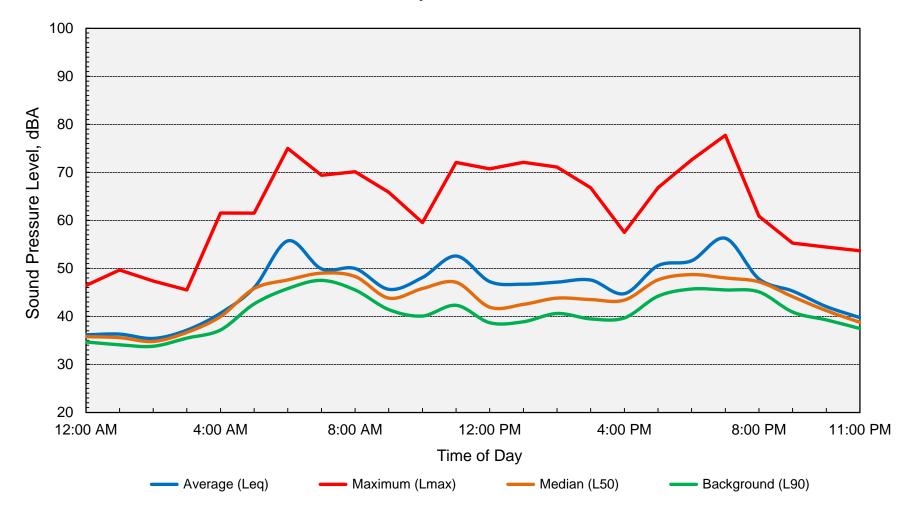
Appendix D-17
Long-Term Ambient Noise Monitoring Results - Site 2
Jesuit HS Stadium - Sacramento County, California
Wednesday, October 5, 2022



Computed DNL = 52 dB



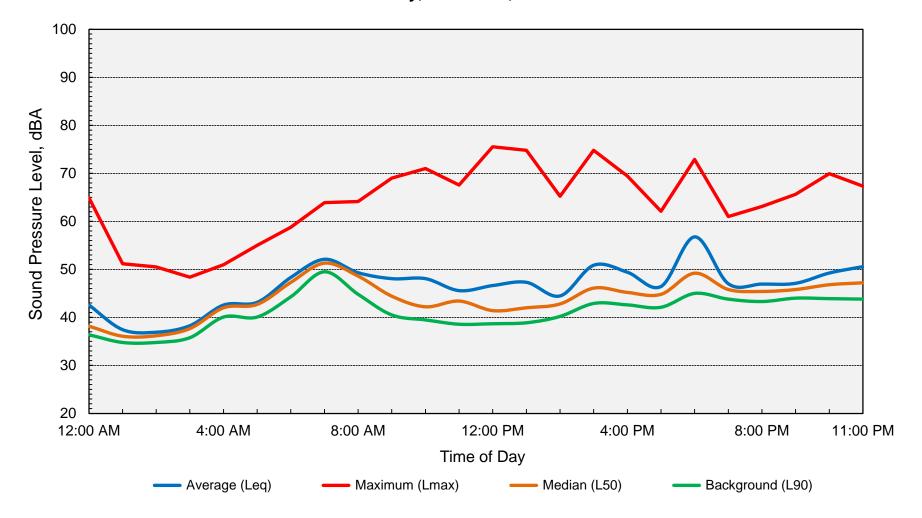
Appendix D-18
Long-Term Ambient Noise Monitoring Results - Site 2
Jesuit HS Stadium - Sacramento County, California
Thursday, October 6, 2022



Computed DNL = 54 dB



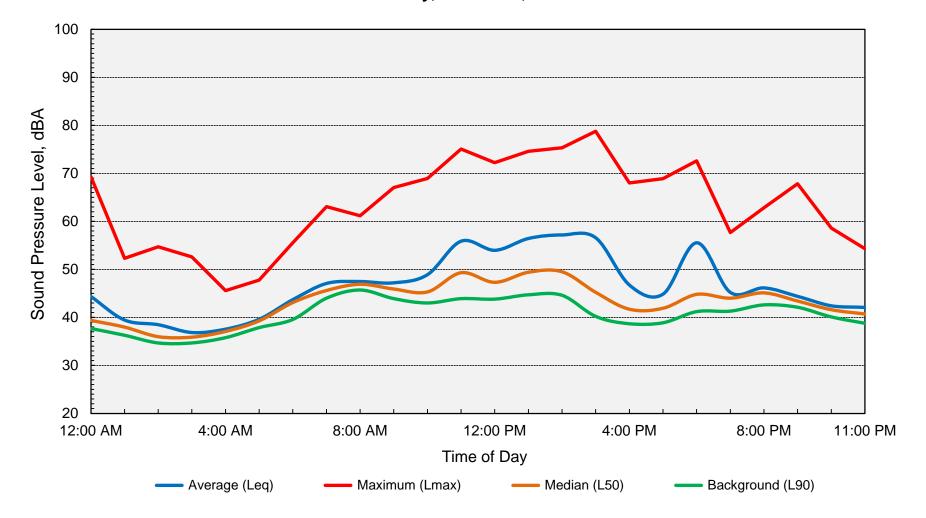
Appendix D-19
Long-Term Ambient Noise Monitoring Results - Site 2
Jesuit HS Stadium - Sacramento County, California
Friday, October 7, 2022



Computed DNL = 53 dB



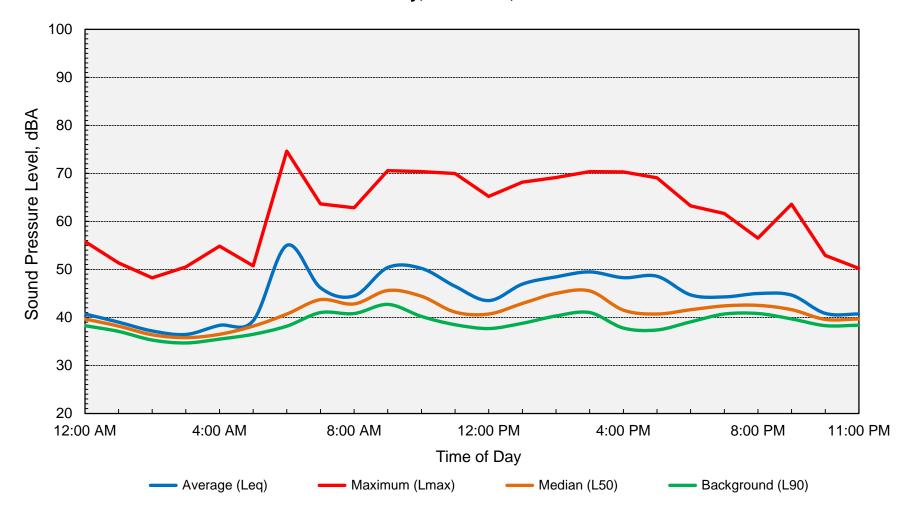
Appendix D-20
Long-Term Ambient Noise Monitoring Results - Site 2
Jesuit HS Stadium - Sacramento County, California
Saturday, October 8, 2022



Computed DNL = 52 dB



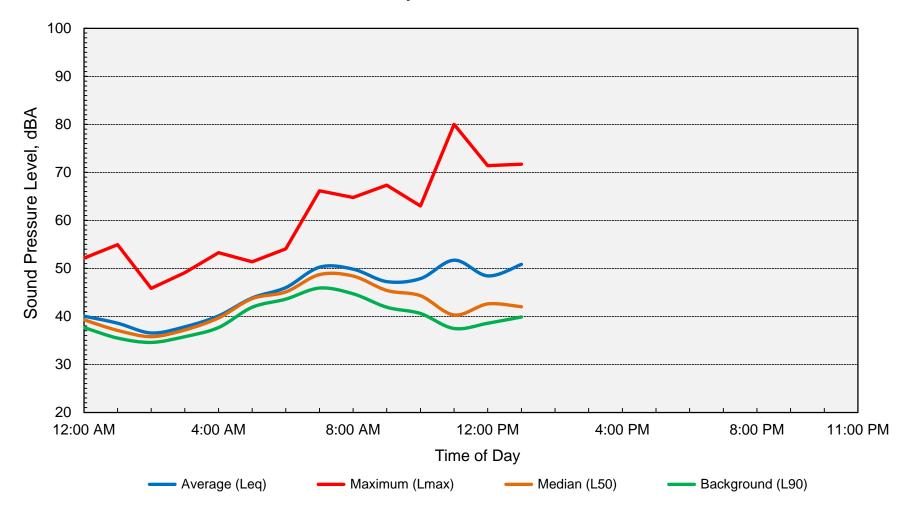
Appendix D-21
Long-Term Ambient Noise Monitoring Results - Site 2
Jesuit HS Stadium - Sacramento County, California
Sunday, October 9, 2022



Computed DNL = 53 dB



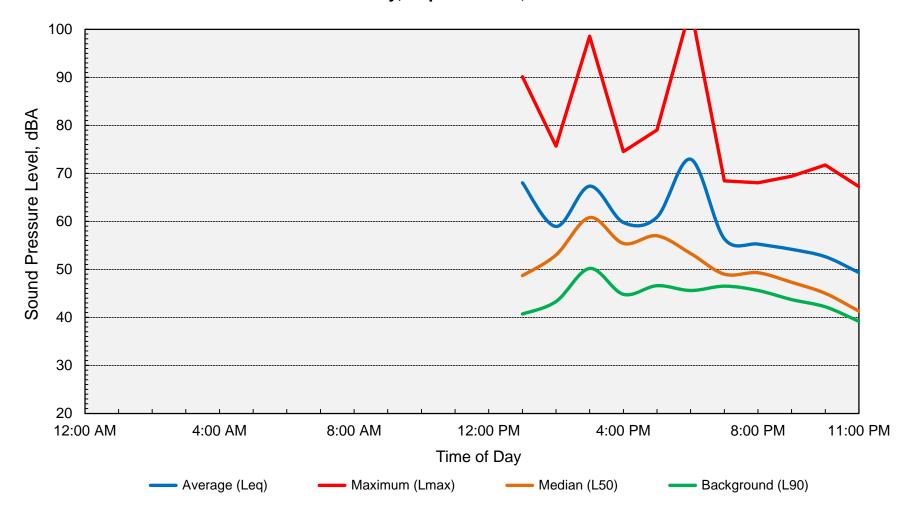
Appendix D-22
Long-Term Ambient Noise Monitoring Results - Site 2
Jesuit HS Stadium - Sacramento County, California
Monday, October 10, 2022



Computed DNL = 51 dB



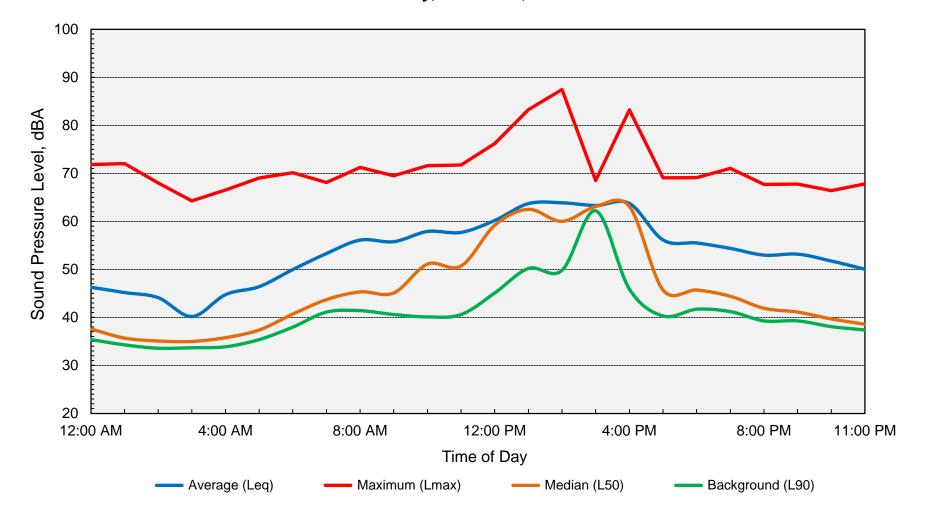
Appendix D-23
Long-Term Ambient Noise Monitoring Results - Site 3
Jesuit HS Stadium - Sacramento County, California
Friday, September 30, 2022



Computed DNL = 65 dB



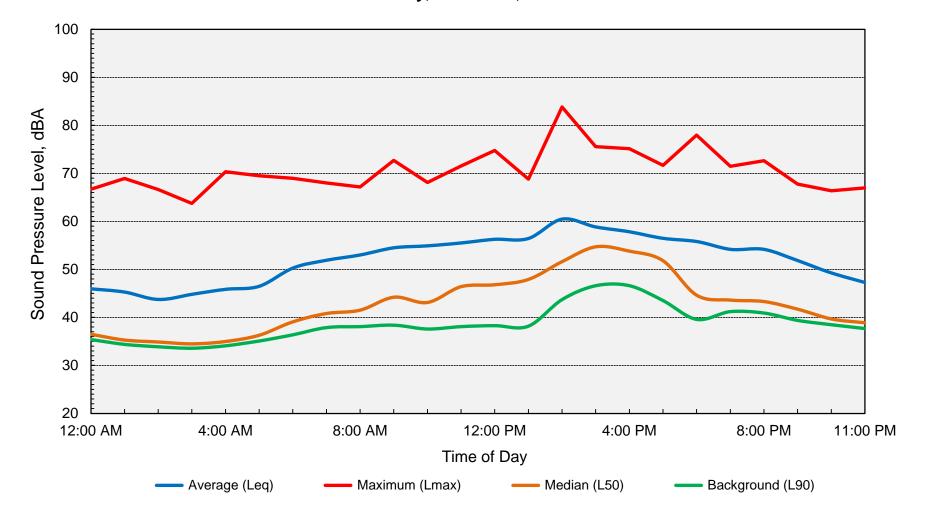
Appendix D-24
Long-Term Ambient Noise Monitoring Results - Site 3
Jesuit HS Stadium - Sacramento County, California
Saturday, October 1, 2022



Computed DNL = 59 dB



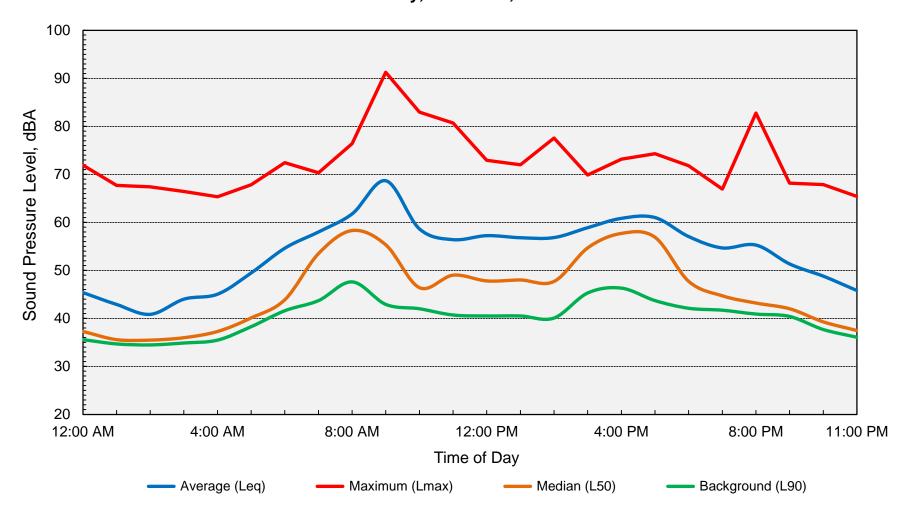
Appendix D-25
Long-Term Ambient Noise Monitoring Results - Site 3
Jesuit HS Stadium - Sacramento County, California
Sunday, October 2, 2022



Computed DNL = 56 dB



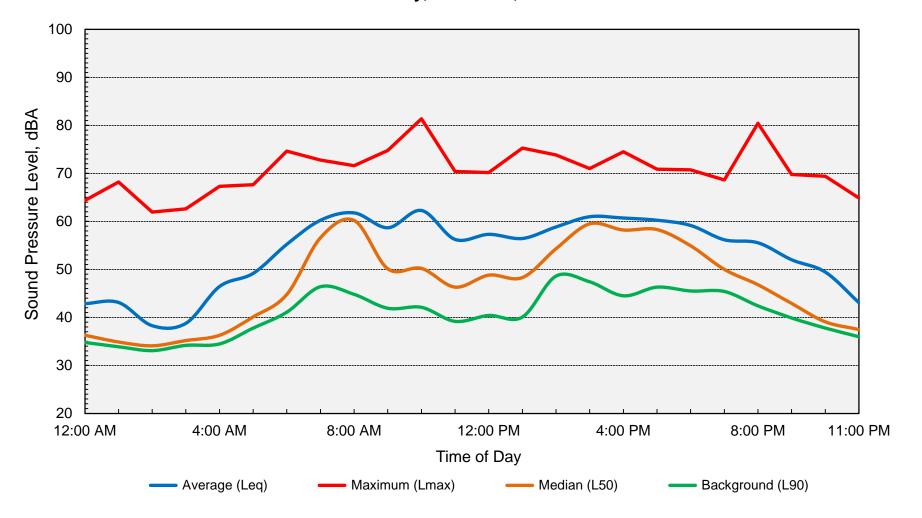
Appendix D-26
Long-Term Ambient Noise Monitoring Results - Site 3
Jesuit HS Stadium - Sacramento County, California
Monday, October 3, 2022



Computed DNL = 60 dB



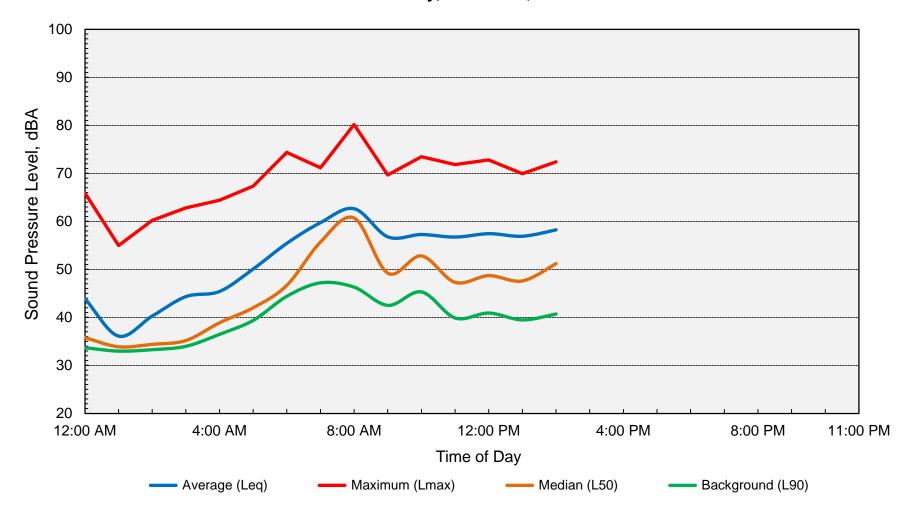
Appendix D-27
Long-Term Ambient Noise Monitoring Results - Site 3
Jesuit HS Stadium - Sacramento County, California
Tuesday, October 4, 2022



Computed DNL = 59 dB



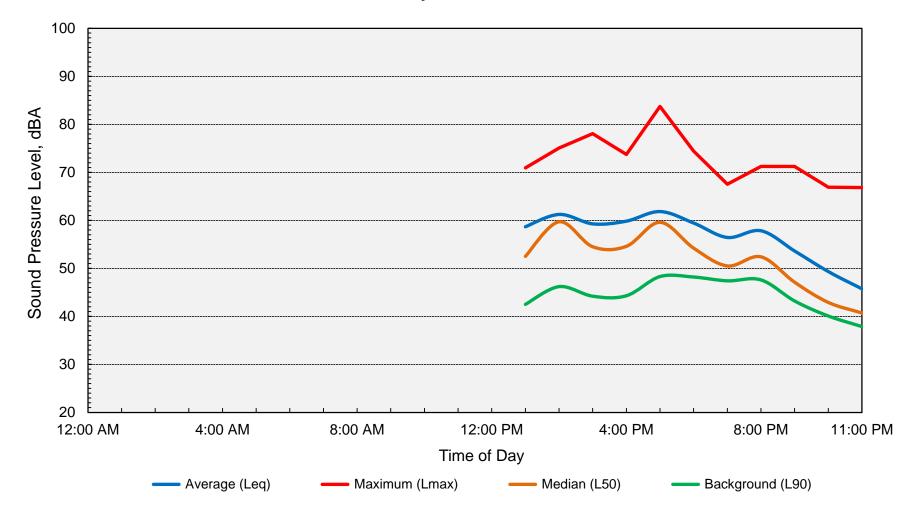
Appendix D-28
Long-Term Ambient Noise Monitoring Results - Site 3
Jesuit HS Stadium - Sacramento County, California
Wednesday, October 5, 2022



Computed DNL = 59 dB



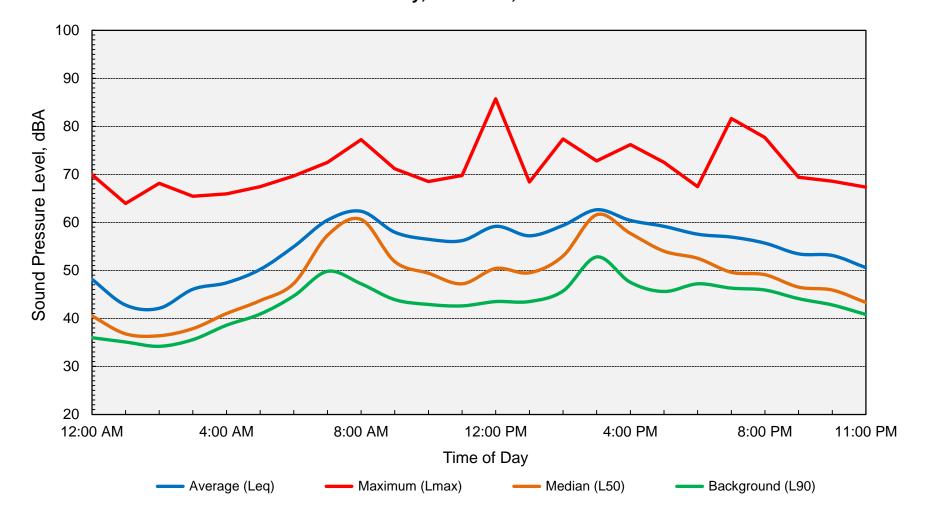
Appendix D-29
Long-Term Ambient Noise Monitoring Results - Site 3
Jesuit HS Stadium - Sacramento County, California
Thursday, October 6, 2022



Computed DNL = 59 dB



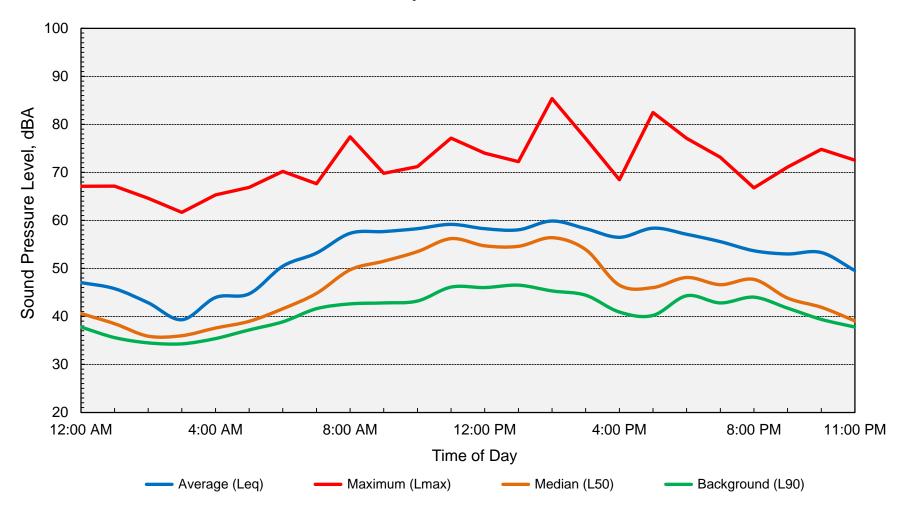
Appendix D-30
Long-Term Ambient Noise Monitoring Results - Site 3
Jesuit HS Stadium - Sacramento County, California
Friday, October 7, 2022



Computed DNL = 59 dB



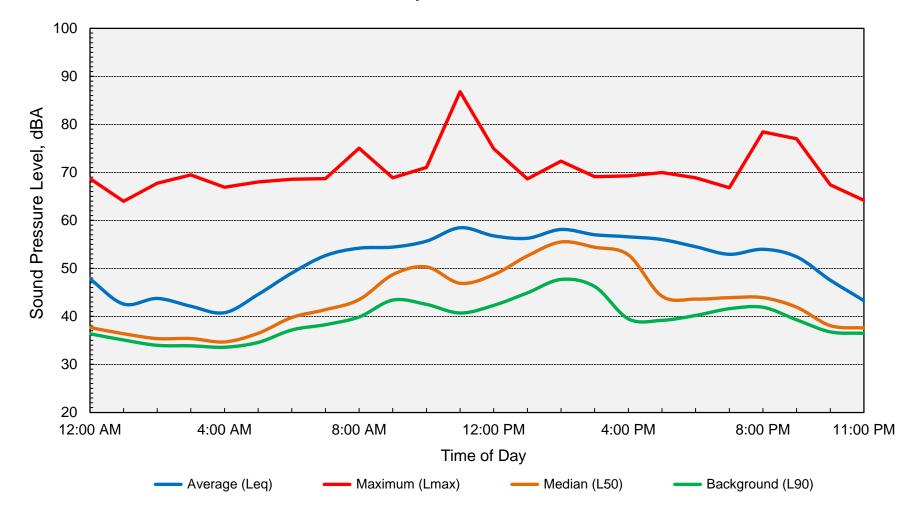
Appendix D-31
Long-Term Ambient Noise Monitoring Results - Site 3
Jesuit HS Stadium - Sacramento County, California
Saturday, October 8, 2022



Computed DNL = 58 dB



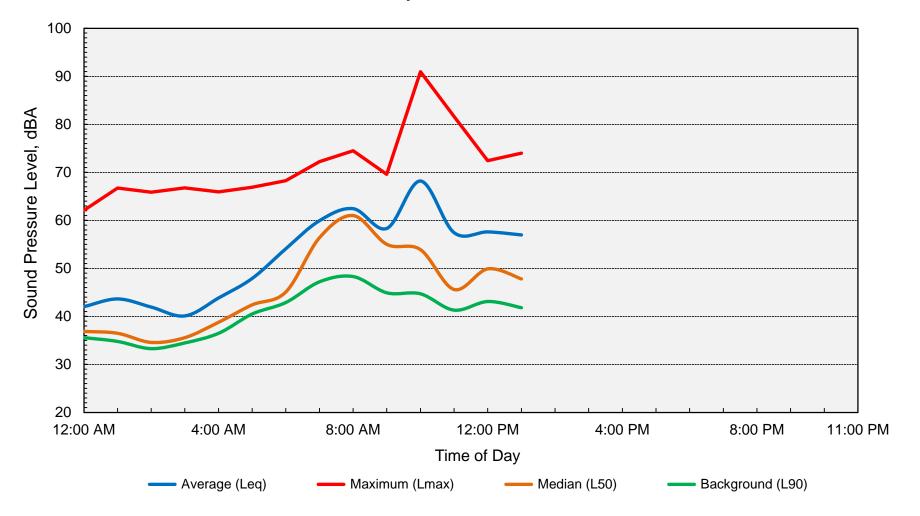
Appendix D-32
Long-Term Ambient Noise Monitoring Results - Site 3
Jesuit HS Stadium - Sacramento County, California
Sunday, October 9, 2022



Computed DNL = 56 dB



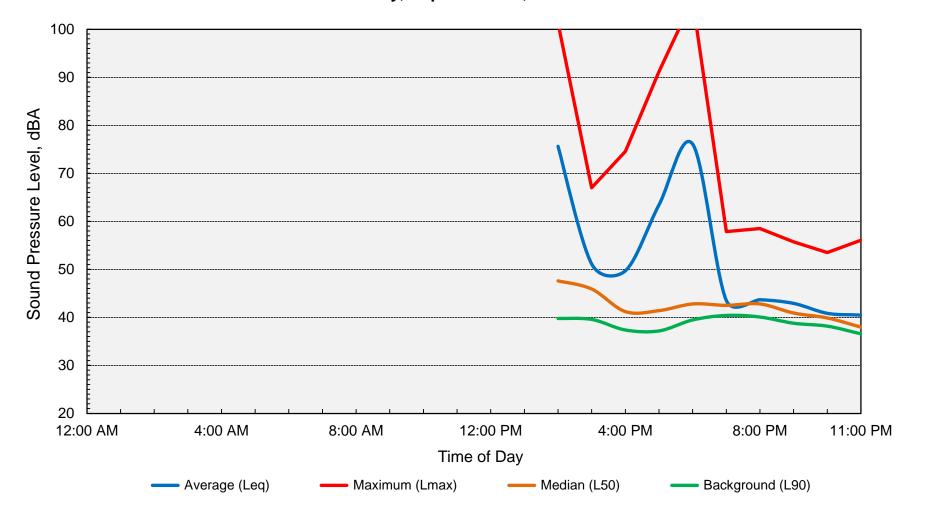
Appendix D-33
Long-Term Ambient Noise Monitoring Results - Site 3
Jesuit HS Stadium - Sacramento County, California
Monday, October 10, 2022



Computed DNL = 61 dB



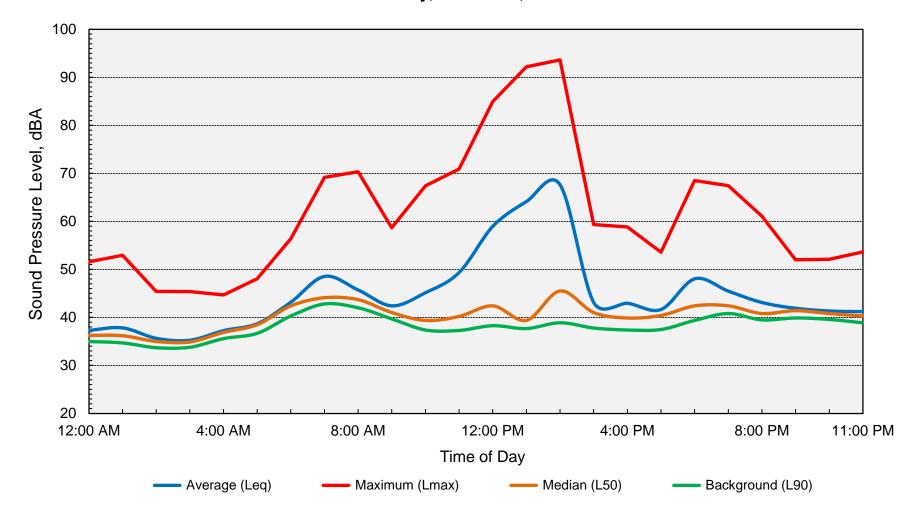
Appendix D-34
Long-Term Ambient Noise Monitoring Results - Site 4
Jesuit HS Stadium - Sacramento County, California
Friday, September 30, 2022



Computed DNL = 68 dB



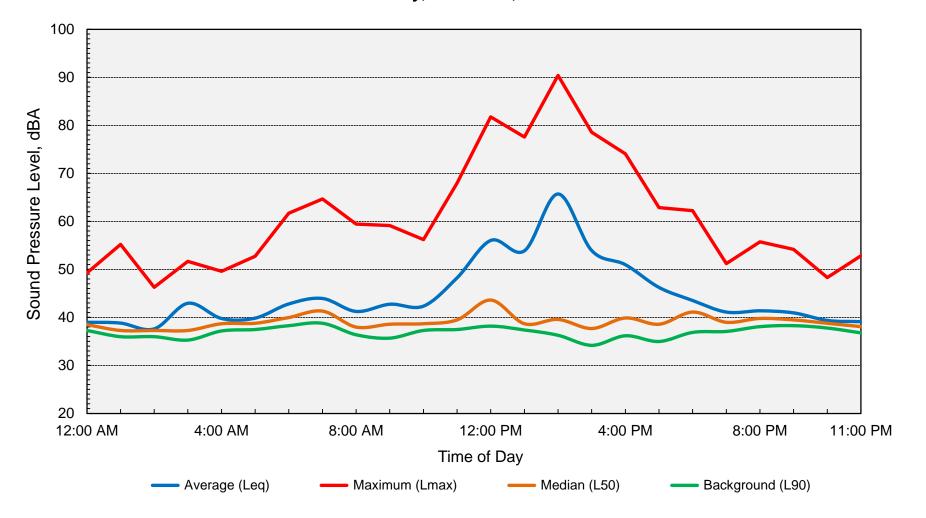
Appendix D-35
Long-Term Ambient Noise Monitoring Results - Site 4
Jesuit HS Stadium - Sacramento County, California
Saturday, October 1, 2022



Computed DNL = 56 dB



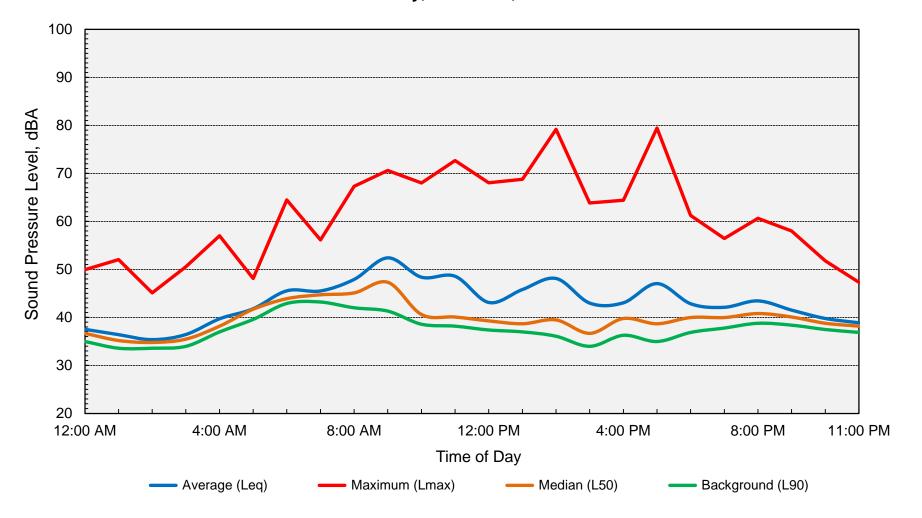
Appendix D-36
Long-Term Ambient Noise Monitoring Results - Site 4
Jesuit HS Stadium - Sacramento County, California
Sunday, October 2, 2022



Computed DNL = 54 dB



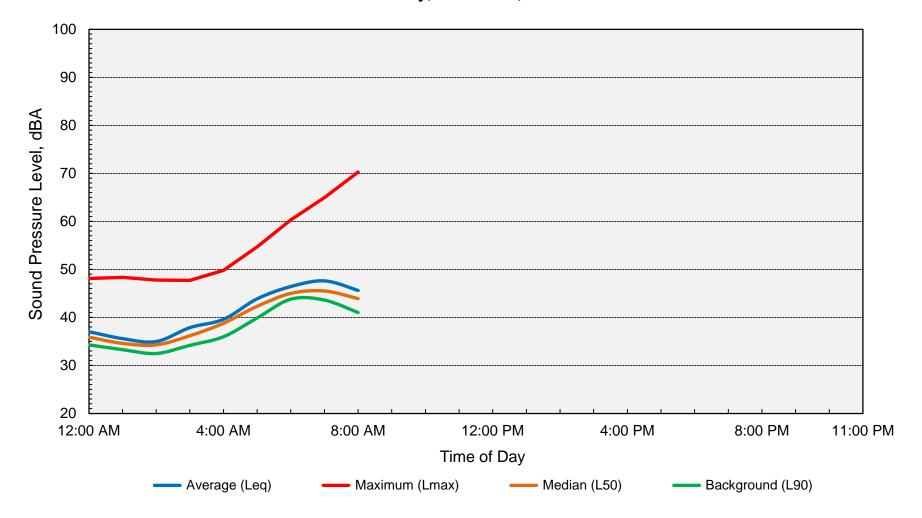
Appendix D-37
Long-Term Ambient Noise Monitoring Results - Site 4
Jesuit HS Stadium - Sacramento County, California
Monday, October 3, 2022



Computed DNL = 48 dB



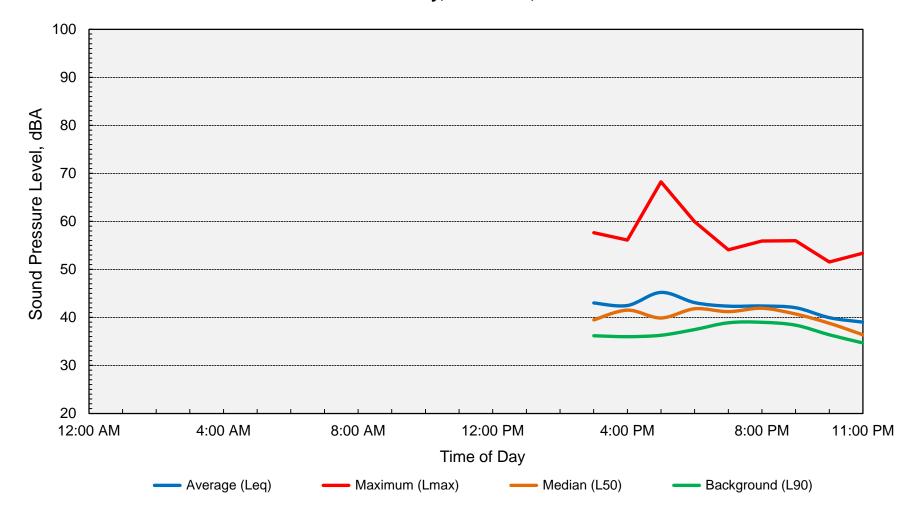
Appendix D-38
Long-Term Ambient Noise Monitoring Results - Site 4
Jesuit HS Stadium - Sacramento County, California
Tuesday, October 4, 2022



Computed DNL = 49 dB



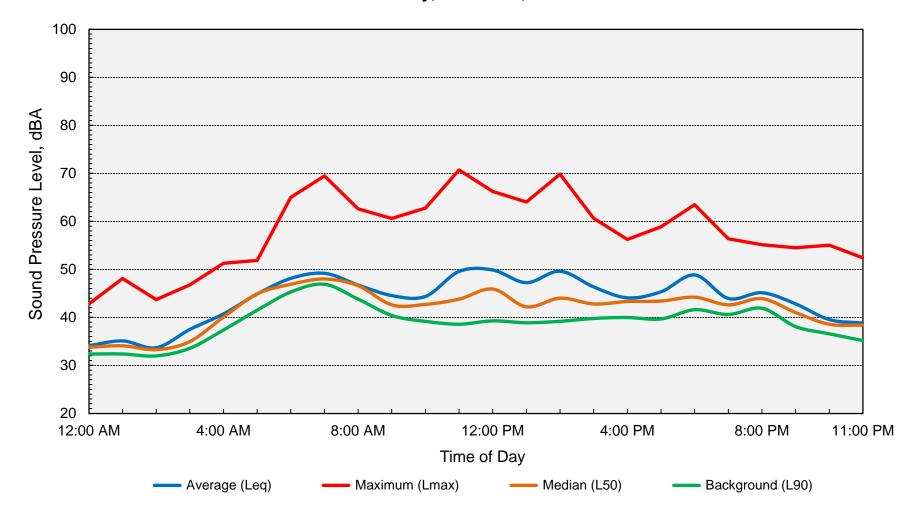
Appendix D-39
Long-Term Ambient Noise Monitoring Results - Site 4
Jesuit HS Stadium - Sacramento County, California
Wednesday, October 5, 2022



Computed DNL = 47 dB



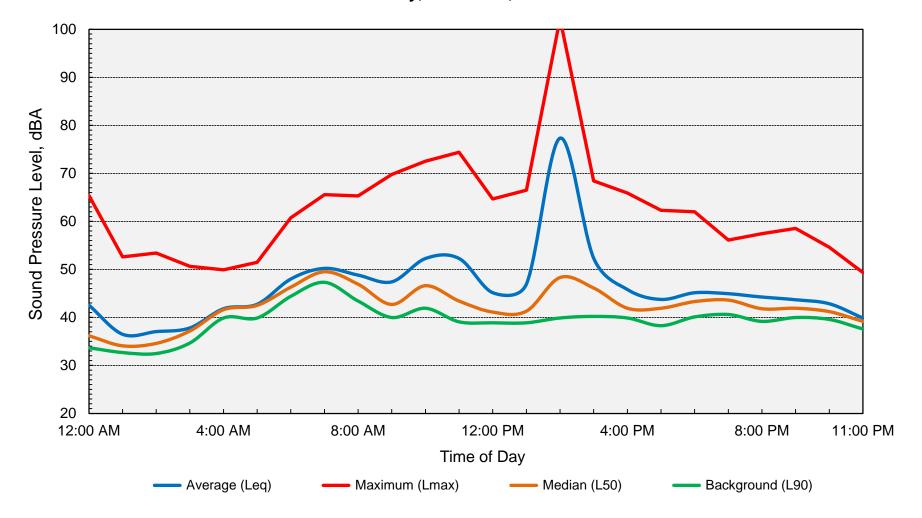
Appendix D-40
Long-Term Ambient Noise Monitoring Results - Site 4
Jesuit HS Stadium - Sacramento County, California
Thursday, October 6, 2022



Computed DNL = 50 dB



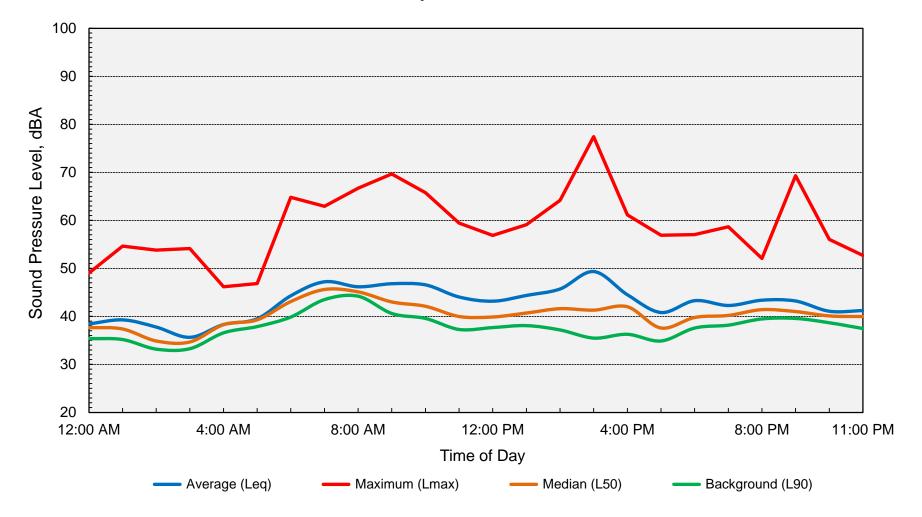
Appendix D-41
Long-Term Ambient Noise Monitoring Results - Site 4
Jesuit HS Stadium - Sacramento County, California
Friday, October 7, 2022



Computed DNL = 64 dB



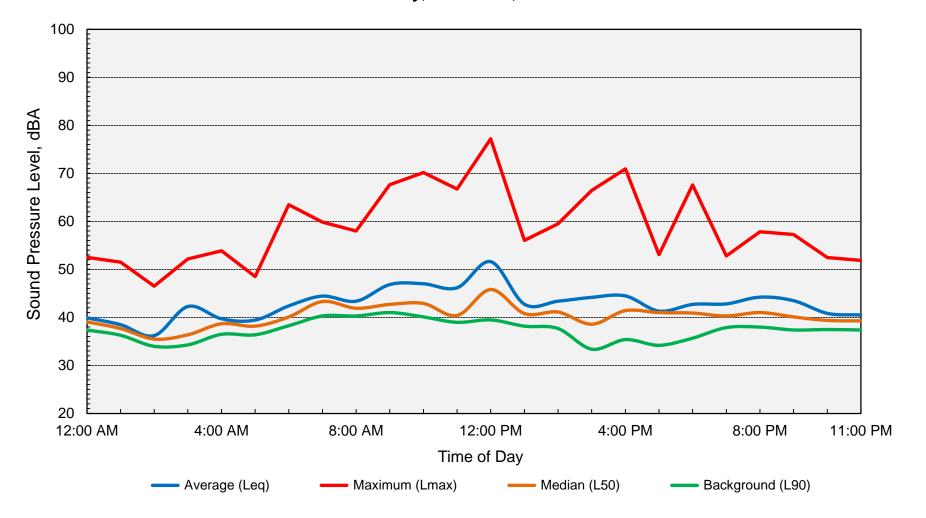
Appendix D-42
Long-Term Ambient Noise Monitoring Results - Site 4
Jesuit HS Stadium - Sacramento County, California
Saturday, October 8, 2022



Computed DNL = 48 dB



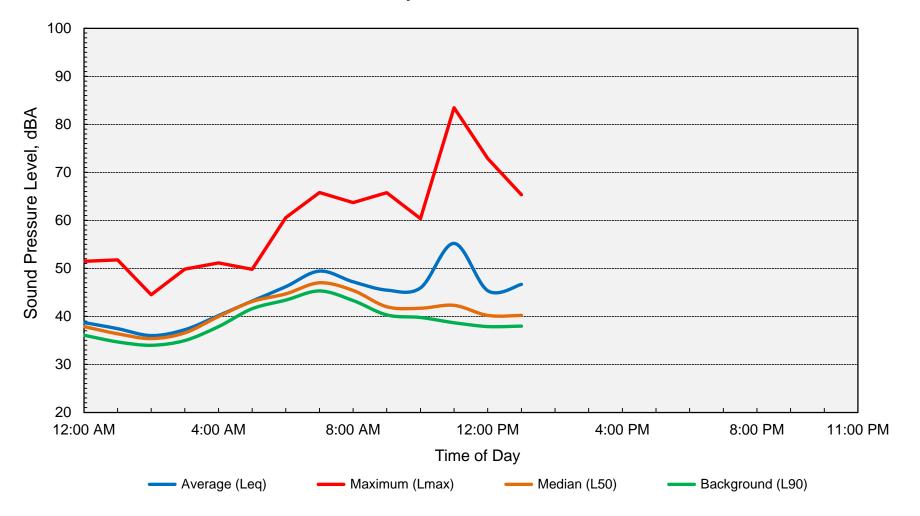
Appendix D-43
Long-Term Ambient Noise Monitoring Results - Site 4
Jesuit HS Stadium - Sacramento County, California
Sunday, October 9, 2022



Computed DNL = 48 dB



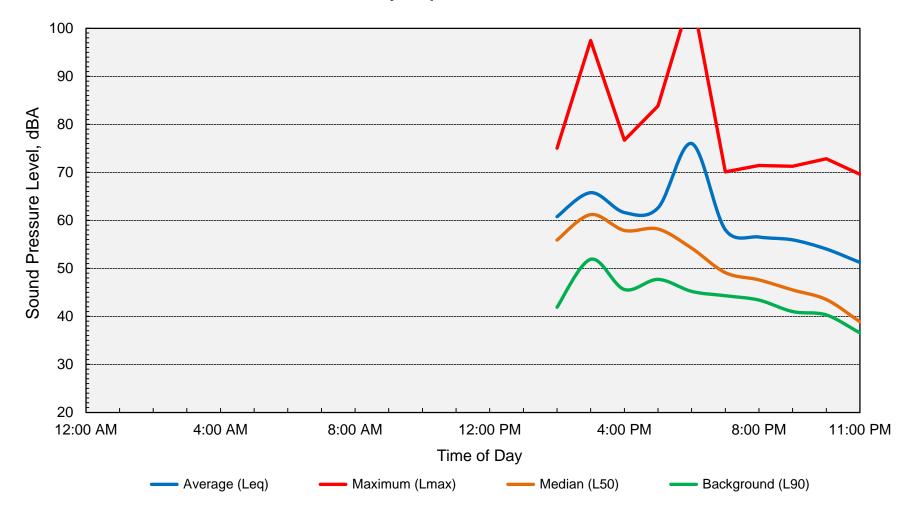
Appendix D-44
Long-Term Ambient Noise Monitoring Results - Site 4
Jesuit HS Stadium - Sacramento County, California
Monday, October 10, 2022



Computed DNL = 50 dB



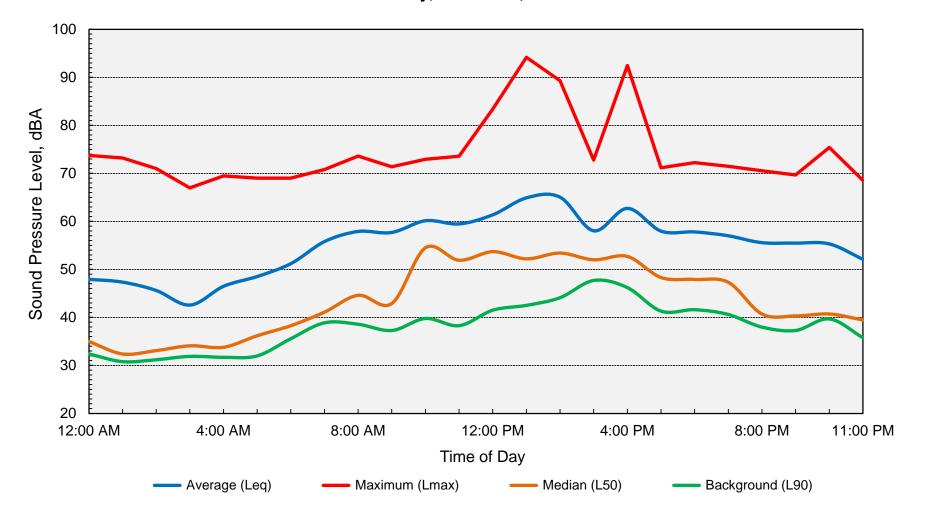
Appendix D-45
Long-Term Ambient Noise Monitoring Results - Site 5
Jesuit HS Stadium - Sacramento County, California
Friday, September 30, 2022



Computed DNL = 67 dB



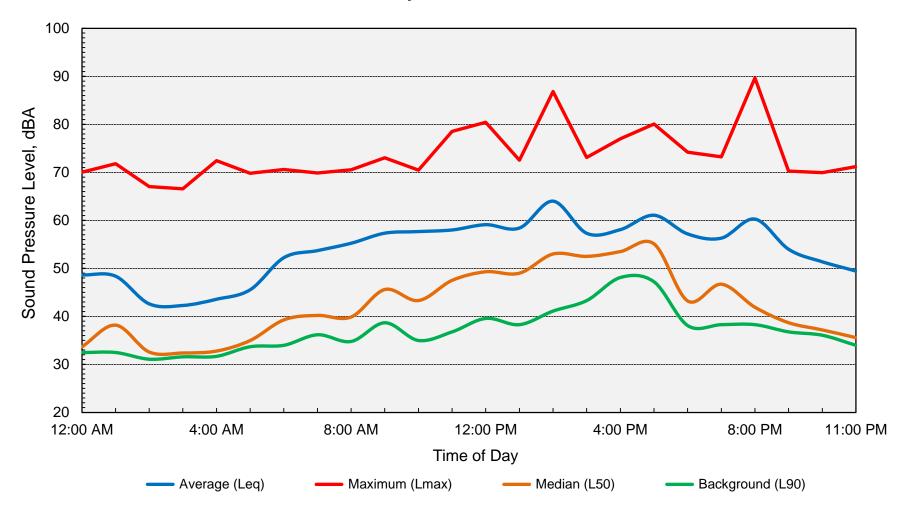
Appendix D-46
Long-Term Ambient Noise Monitoring Results - Site 5
Jesuit HS Stadium - Sacramento County, California
Saturday, October 1, 2022



Computed DNL = 60 dB



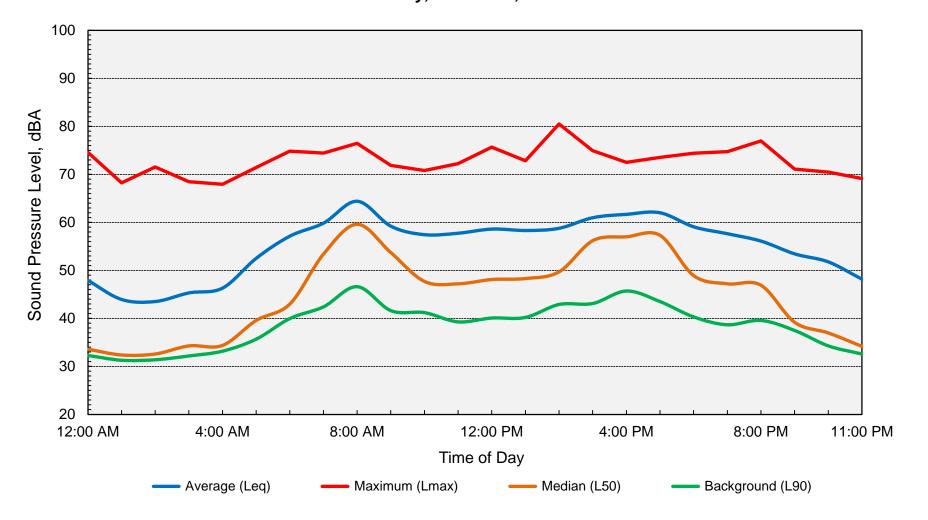
Appendix D-3
Long-Term Ambient Noise Monitoring Results - Site 5
Jesuit HS Stadium - Sacramento County, California
Sunday, October 2, 2022



Computed DNL = 59 dB



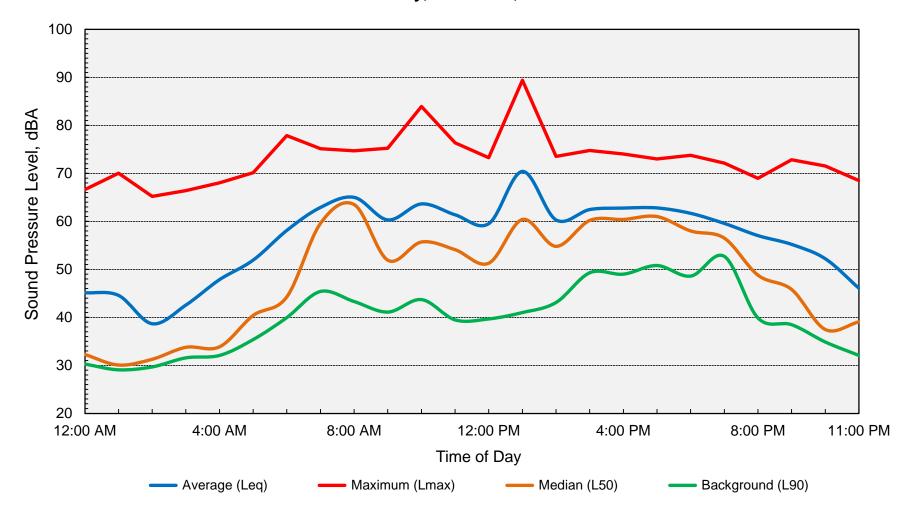
Appendix D-48
Long-Term Ambient Noise Monitoring Results - Site 5
Jesuit HS Stadium - Sacramento County, California
Monday, October 3, 2022



Computed DNL = 60 dB



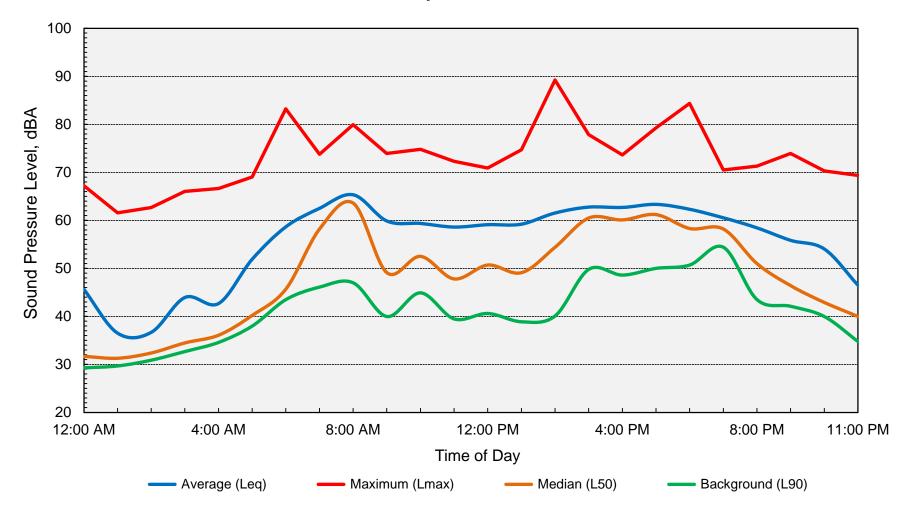
Appendix D-49
Long-Term Ambient Noise Monitoring Results - Site 5
Jesuit HS Stadium - Sacramento County, California
Tuesday, October 4, 2022



Computed DNL = 63 dB



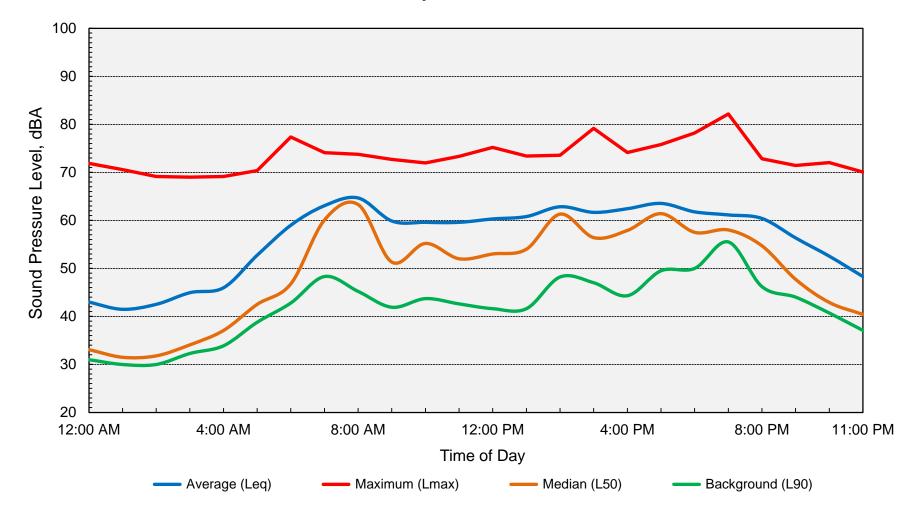
Appendix D-50
Long-Term Ambient Noise Monitoring Results - Site 5
Jesuit HS Stadium - Sacramento County, California
Wednesday, October 5, 2022



Computed DNL = 61 dB



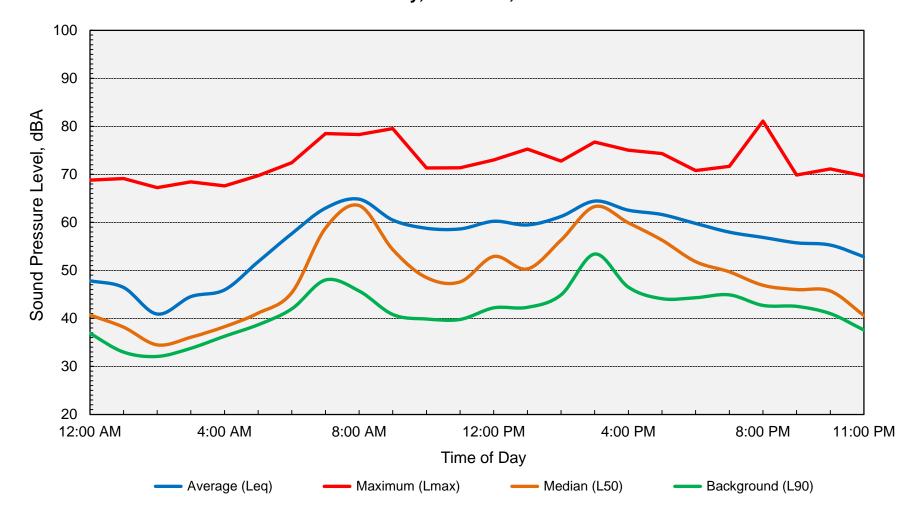
Appendix D-51
Long-Term Ambient Noise Monitoring Results - Site 5
Jesuit HS Stadium - Sacramento County, California
Thursday, October 6, 2022



Computed DNL = 62 dB



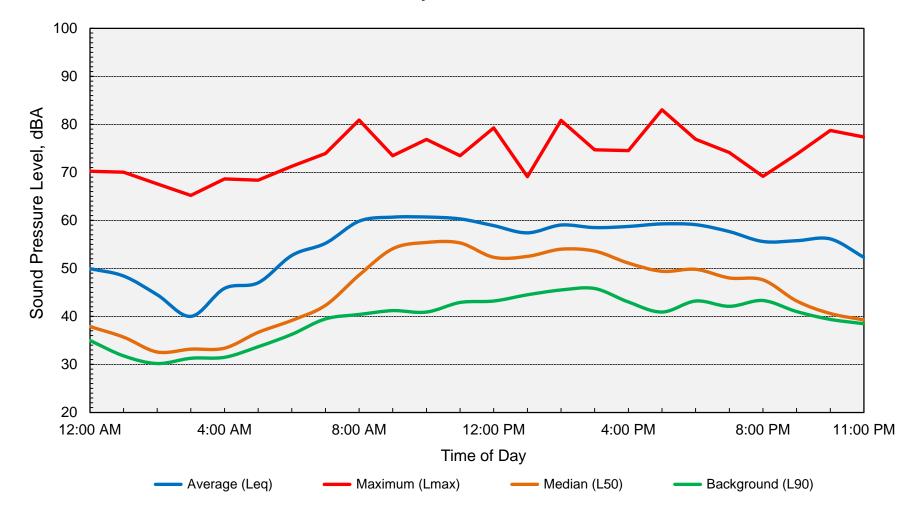
Appendix D-52
Long-Term Ambient Noise Monitoring Results - Site 5
Jesuit HS Stadium - Sacramento County, California
Friday, October 7, 2022



Computed DNL = 62 dB



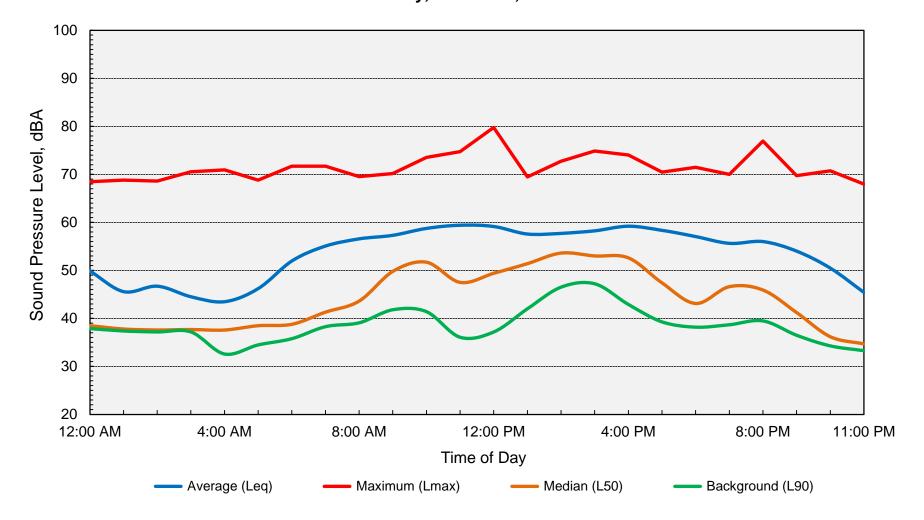
Appendix D-53
Long-Term Ambient Noise Monitoring Results - Site 5
Jesuit HS Stadium - Sacramento County, California
Saturday, October 8, 2022



Computed DNL = 60 dB



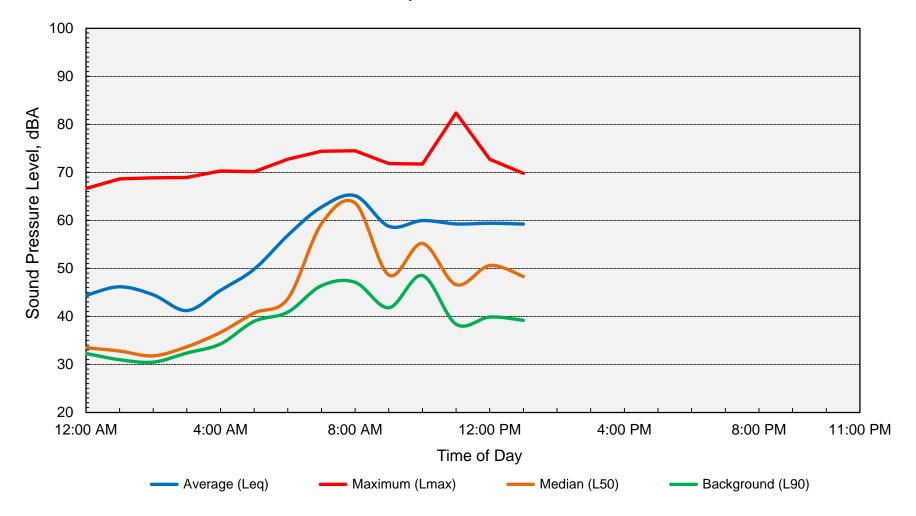
Appendix D-54
Long-Term Ambient Noise Monitoring Results - Site 5
Jesuit HS Stadium - Sacramento County, California
Sunday, October 9, 2022



Computed DNL = 58 dB



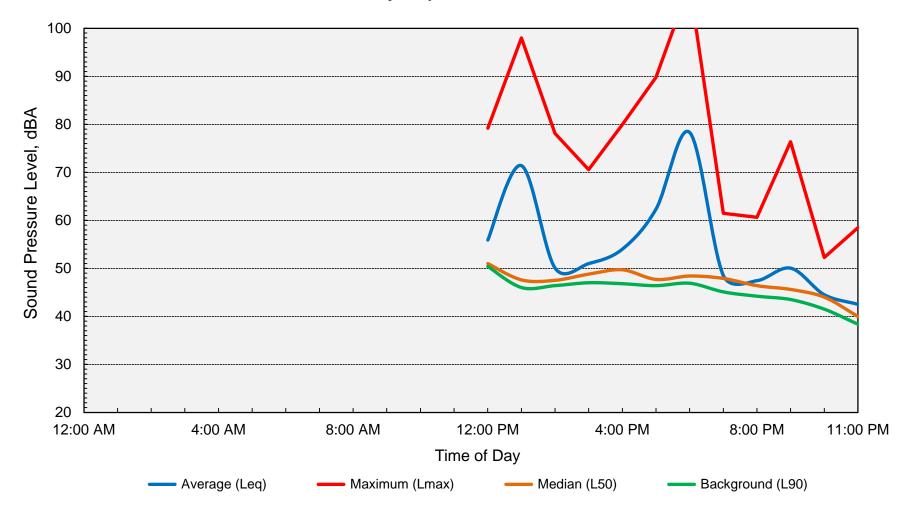
Appendix D-55
Long-Term Ambient Noise Monitoring Results - Site 5
Jesuit HS Stadium - Sacramento County, California
Monday, October 10, 2022



Computed DNL = 61 dB



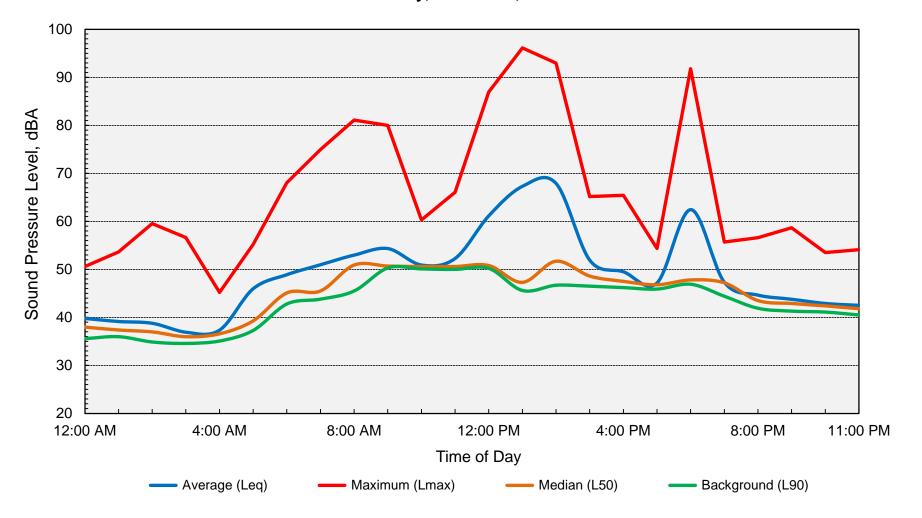
Appendix D-56
Long-Term Ambient Noise Monitoring Results - Site 6
Jesuit HS Stadium - Sacramento County, California
Friday, September 30, 2022



Computed DNL = 67 dB



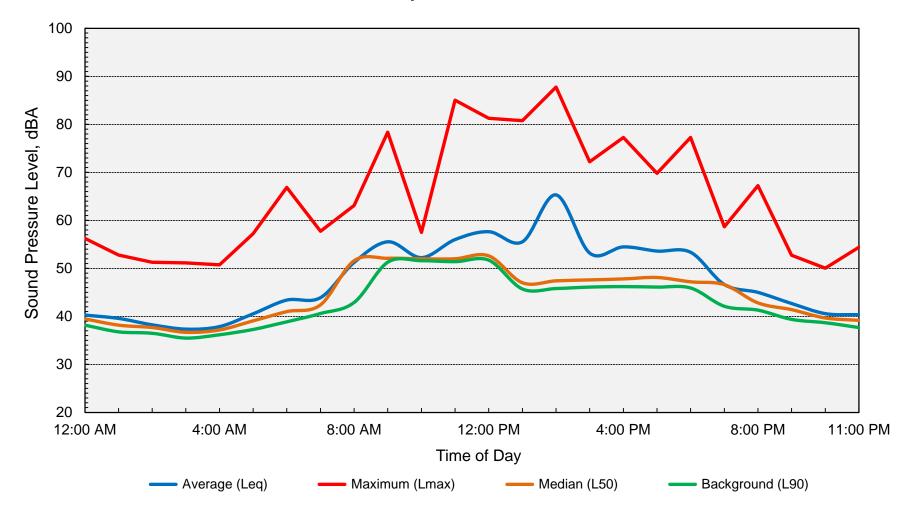
Appendix D-57
Long-Term Ambient Noise Monitoring Results - Site 6
Jesuit HS Stadium - Sacramento County, California
Saturday, October 1, 2022



Computed DNL = 59 dB



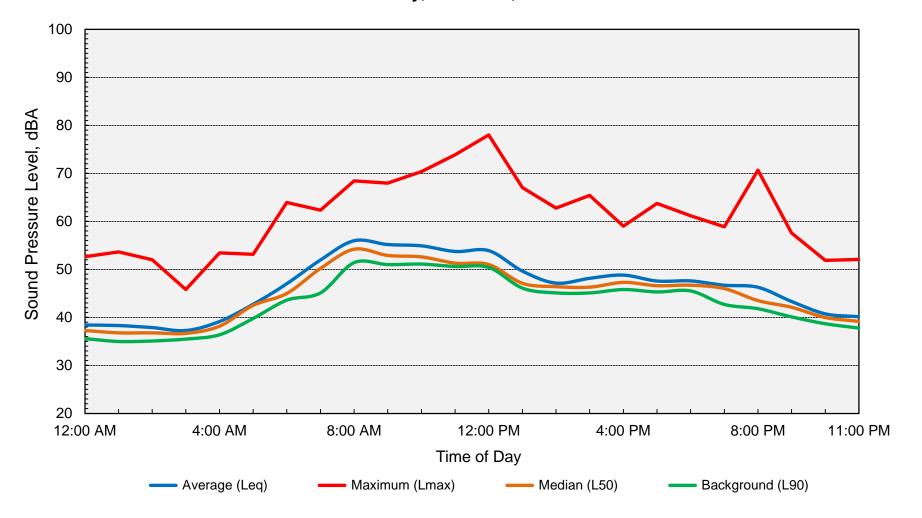
Appendix D-58
Long-Term Ambient Noise Monitoring Results - Site 6
Jesuit HS Stadium - Sacramento County, California
Sunday, October 2, 2022



Computed DNL = 55 dB



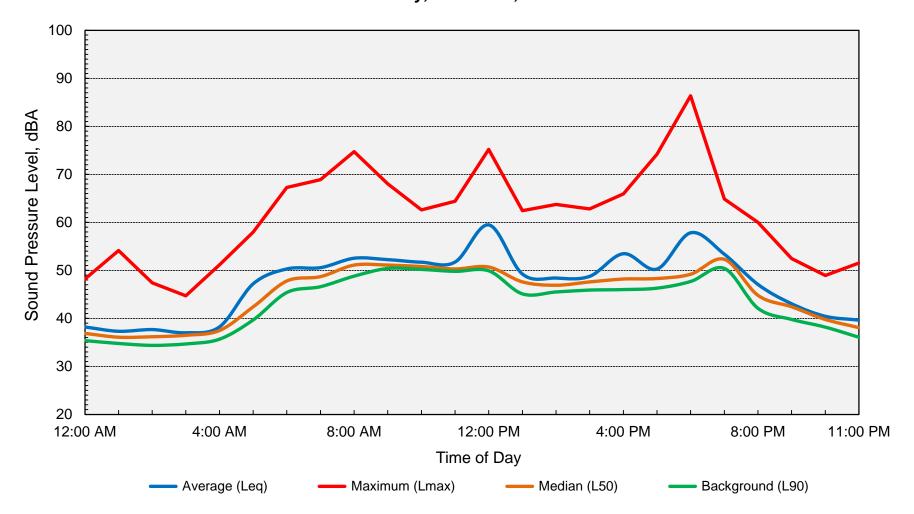
Appendix D-59
Long-Term Ambient Noise Monitoring Results - Site 6
Jesuit HS Stadium - Sacramento County, California
Monday, October 3, 2022



Computed DNL = 52 dB



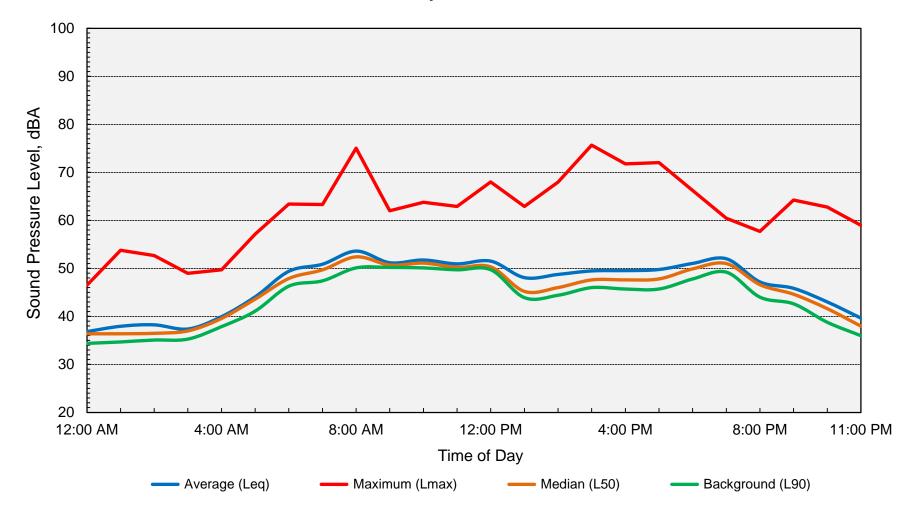
Appendix D-60
Long-Term Ambient Noise Monitoring Results - Site 6
Jesuit HS Stadium - Sacramento County, California
Tuesday, October 4, 2022



Computed DNL = 53 dB



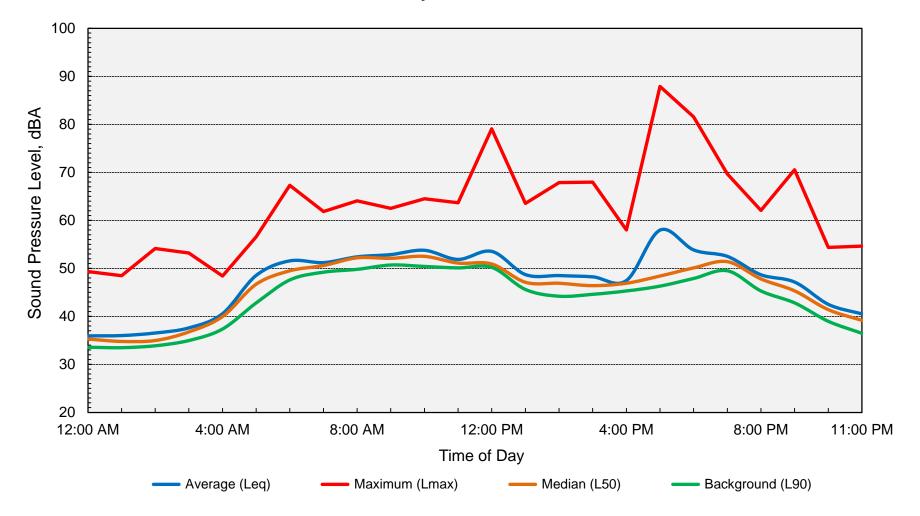
Appendix D-61
Long-Term Ambient Noise Monitoring Results - Site 6
Jesuit HS Stadium - Sacramento County, California
Wednesday, October 5, 2022



Computed DNL = 52 dB



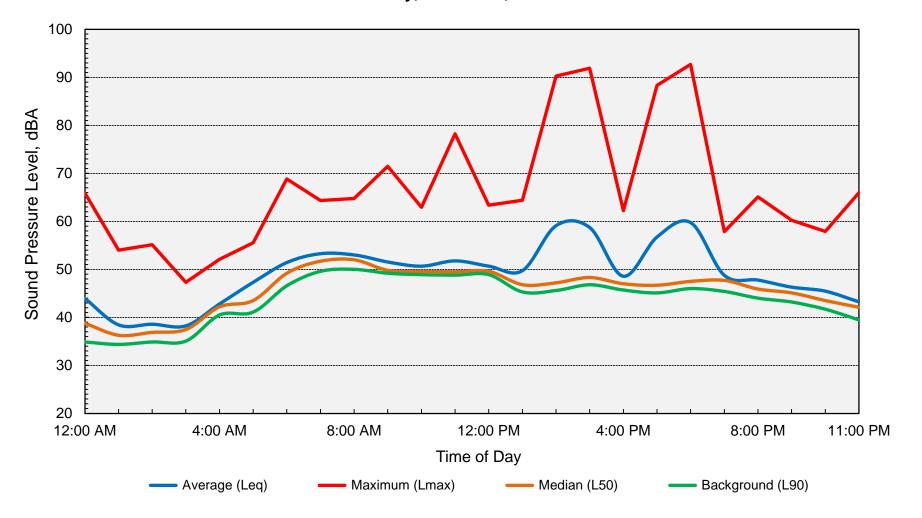
Appendix D-62
Long-Term Ambient Noise Monitoring Results - Site 6
Jesuit HS Stadium - Sacramento County, California
Thursday, October 6, 2022



Computed DNL = 53 dB



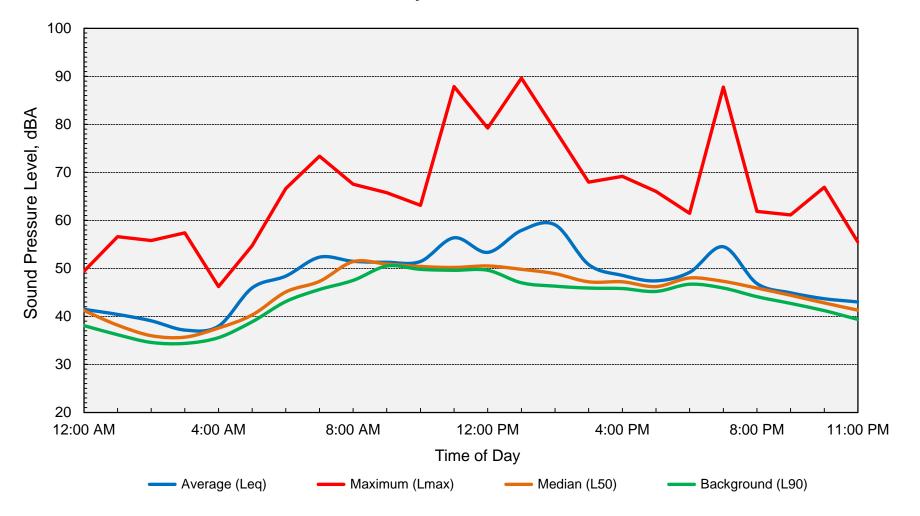
Appendix D-63
Long-Term Ambient Noise Monitoring Results - Site 6
Jesuit HS Stadium - Sacramento County, California
Friday, October 7, 2022



Computed DNL = 55 dB



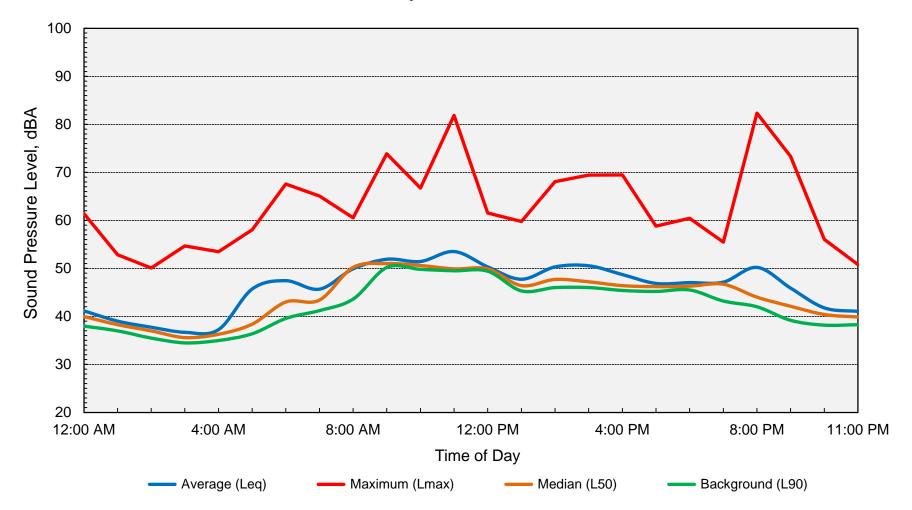
Appendix D-64
Long-Term Ambient Noise Monitoring Results - Site 6
Jesuit HS Stadium - Sacramento County, California
Saturday, October 8, 2022



Computed DNL = 53 dB



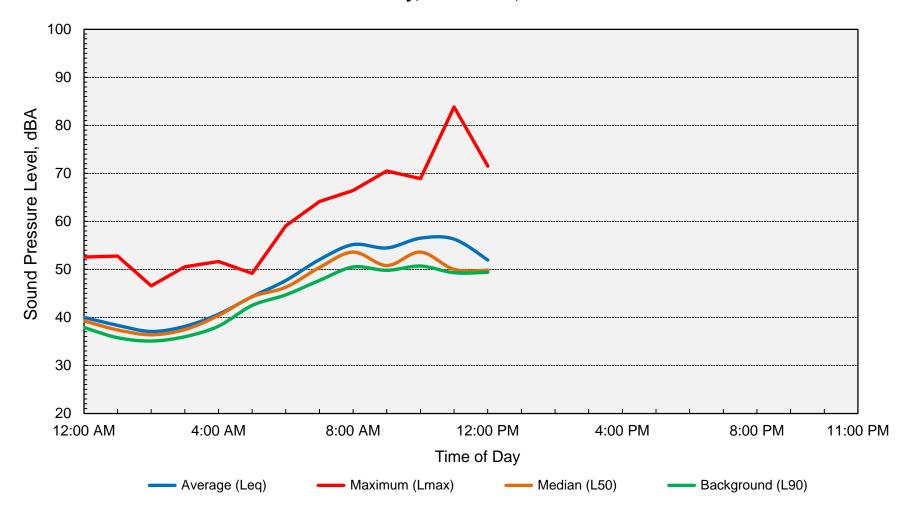
Appendix D-65
Long-Term Ambient Noise Monitoring Results - Site 6
Jesuit HS Stadium - Sacramento County, California
Sunday, October 9, 2022



Computed DNL = 51 dB



Appendix D-66
Long-Term Ambient Noise Monitoring Results - Site 6
Jesuit HS Stadium - Sacramento County, California
Monday, October 10, 2022



Computed DNL = 54 dB



## **Environmental Noise Assessment Errata**

# Jesuit High School Stadium Lights Project

Sacramento County, California

BAC Job # 2022-128

Prepared For:

## **Taylor & Wiley**

Mr. Matt Keasling 500 Capitol Mall, Suite 1150 Sacramento, CA 95814

Prepared By:

**Bollard Acoustical Consultants, Inc.** 

Paul Bollard, President

July 5, 2023





## Introduction

Jesuit High School (JHS) is located at 1200 Jacob Lane in the unincorporated community of Carmichael within Sacramento County, California. JHS is proposing to install lighting at their existing stadium to make the stadium playing field available for use during evening hours which are not currently available due to darkness.

An Environmental Noise Assessment was prepared for this project by Bollard Acoustical Consultants, Inc. (BAC), dated March 6, 2023. Following review of that assessment by AECOM, the consulting firm preparing the project's Environmental Impact Report (EIR), comments were received which triggered the requirement for the preparation of this Errata to BAC's noise assessment. The comments centered on the identification of typographical errors and the lack of a construction noise evaluation section. This Errata contains the corrections and additional information requested by AECOM.

### Corrections

#### Page 24, Paragraph 3

The increase in median noise levels resulting from the project at Site 1 should have been reported as 4 dBA L<sub>50</sub>, rather than 3 dBA L<sub>50</sub>. This correction did not result in the identification of new noise impacts at this location or affect the conclusions of the noise assessment. The corrected text is as follows:

As shown in Table 1, measured average ambient conditions during the 5 pm to 10 pm period at Site 1 were 42 dBA L50 and 60 dBA Lmax. Overlaying the football game noise levels measured between 10:50 am and 3:20 pm on October 8th onto the baseline 5-10 pm ambient noise levels measured between September 30th and October 10th indicates that the shifting of football games into the evening hours could result in increases in ambient noise levels at Site 1 of 34 dBA L50 and 5 dBA Lmax. Although the County Code noise standards are not applicable to this project and were not exceeded at this location, and although the increase in median noise levels which would occur during the evening games is not predicted to exceed the 3 dBA threshold applied to this project. As a result, noise impacts at this location are nonetheless considered to be potentially significant on the evenings when home football games are occurring (approximately 7 nights per year), due to the potential 4 dBA increase in median noise levels and 5 dBA increase in maximum noise levels which could be experienced at this location during evening football games. During evening lacrosse, soccer, and track & field events at the JHS stadium, noise generation is expected to be lower than during football games, and noise impacts, should they occur, would be less intensive.

#### Page 24, Paragraph 5

The increase in noise levels resulting from the project at Site 2 should have been identified as 8 dBA L<sub>50</sub>, rather than 3 dBA L<sub>50</sub>. This correction did not result in the identification of new noise impacts or affect the conclusions of the noise assessment. The corrected text is as follows:

Relative to baseline ambient conditions during the 5-10 pm period, football games at the JHS stadium could theoretically result in increases in median noise levels of <u>83</u> dBA L<sub>50</sub> over baseline conditions, and increases in maximum noise levels of 8 dBA <u>Lmax</u> over baseline conditions without the project. As a result, noise impacts resulting from the project at the residence located at Site 2 (and other Piccadilly Circle residences with similar noise exposure), are predicted to be significant on the evenings when home football games would occur. During evening lacrosse, soccer, and track & field events at the JHS stadium, noise generation is expected to be lower than during football games, and noise impacts, should they occur, would be less intensive.

#### Page 25, Paragraph 3

The increase in median noise levels resulting from the project at Site 3 should have been identified as 9 dBA L<sub>50</sub>, rather than 7 dBA L<sub>50</sub>. In addition, the increase in maximum noise levels resulting from the project at Site 3 should have been identified as 2 dBA L<sub>max</sub>, rather than 3 dBA L<sub>max</sub>. These corrections did not change the conclusions of the noise assessment. The corrected text is as follows:

Relative to baseline ambient conditions present during the 5-10 pm period, the Table 8 data suggests that football games at the JHS stadium could result in increases in median noise levels of 97 dBA L50 over baseline conditions, and average maximum noise level increases of 23 dBA Lmax over baseline conditions without the project. However, as noted previously, considerable noise generation from traffic on American River Drive is known to have contributed to the noise levels measured at this location during the October 8<sup>th</sup> football game, so the actual increase in ambient conditions resulting from JHS stadium activities would be lower. Nonetheless, because football games could result in increases in baseline median or maximum ambient noise level in excess of 3 dBA at this location, noise impacts resulting from the project are predicted to be potentially significant on the evenings when home football games would occur. During evening lacrosse, soccer, and track & field events at the JHS stadium, noise generation is expected to be lower than during football games, and noise impacts, should they occur, would be less intensive.

#### Page 26, Paragraph 3

The increase in median noise levels resulting from the project at Site 5 should have been identified as 5 dBA L<sub>50</sub>, rather than 4 dBA L<sub>50</sub>. This correction did not change the conclusions of the noise assessment. The corrected text is as follows:

Relative to baseline ambient conditions present during the 5-10 pm period, the Table 8 data suggests that football games at the JHS stadium could result in increases in median noise levels of 45 dBA L50 over baseline conditions, and average maximum noise level increases of 1 dBA Lmax over baseline conditions without the project. However, as noted previously, considerable noise generation from traffic on American River Drive is known to have contributed to the noise levels measured at this location during the October 8th football game. As a result, the actual increases in ambient noise levels at residences with similar noise exposure to the residence at Site 5 would likely be 3 dBA or less. Nonetheless, because football games could result in increases in baseline median ambient noise level in excess of 3 dBA at this location, noise impacts resulting from the project are predicted to be potentially significant on the evenings when home football games would occur. During evening lacrosse, soccer, and track & field events at the JHS stadium, noise generation is expected to be lower than during football games, and noise impacts, should they occur, would be less intensive.

#### Page 26, Paragraph 5

The increase in median noise levels resulting from the project at Site 6 should have been identified as 10 dBA Lmax, rather than 9 dBA Lmax. This correction did not change the conclusions of the noise assessment. The corrected text is as follows:

Relative to baseline ambient conditions present during the 5-10 pm period, the Table 8 data suggests that football games at the JHS stadium would result in increases in median noise levels of 3 dBA L50 over baseline conditions, and average maximum noise level increases of 109 dBA Lmax over baseline conditions without the project. However, as noted previously, considerable noise generation from barking dogs and lawn maintenance equipment contributed to the measured maximum noise levels. When considering noise generated by football games in isolation at this location, the increase in maximum noise levels is predicted to be less than 3 dBA Lmax. Nonetheless, because median noise levels during evening football games could exceed baseline ambient levels by 3 dBA, noise impacts resulting from the project are predicted to be potentially significant at the locations of residences on Jacobs Lane on the evenings when home football games would occur. During evening lacrosse, soccer, and track & field events at the JHS stadium, noise generation is expected to be lower than during football games, and noise impacts related to those events are similarly predicted to be less than significant.

## **Evaluation of Potential Construction Noise Impacts**

Project construction would consist of the replacement of the existing wood poles which currently support the stadium speakers with metal poles at the same locations which would continue to support the existing stadium speakers and which would also support the new stadium lights. The construction would occur between the hours of 7 am and 4 pm daily during weekdays and is anticipated to be completed within 2 weeks.

Equipment to be used for the project construction would consist of an auger, a crane, a backhoe, and a forklift. In addition, a cement mixer would deliver ready-mix concrete to the site for the installation of the bases to which the new light poles will be bolted. A concrete pump truck may also be required during project construction. Maximum noise levels for the project construction equipment at full-power operation at a distance of 50 feet are presented in Table 1 below.

Table 1
Reference Noise Levels for Construction Equipment

#	Equipment Description	Reference Maximum Noise Level at 50 Feet, L <sub>max</sub> (dB)
1	Backhoe	80
2	Concrete mixer truck	85
3	Concrete pump truck	82
4	Crane	83
5	Auger	84

Source: Federal Transit Administration Noise and Vibration Impact Assessment Manual, Table 7-1 (2018) and FHWA Roadway Construction Noise Model, 2006.

The distances from the proposed light poles to the nearest residences were scaled using Google Earth aerial imagery. Assuming standard spherical spreading of sound from the construction areas to the nearest residences (6 dBA decrease per doubling of distance), the reference levels shown in Table 1 were projected to the 6 representative residential areas shown on Figure 1. Table 2 shows the predicted maximum noise levels at each of those receptor locations. 6 representative receptor locations evaluated in the noise assessment.

Table 2
Predicted Maximum Noise Levels Generated during Project Construction

Receptor	Distance to Construction Areas (feet)	Predicted Maximum Noise Level at Receptor, L <sub>max</sub> (dB)
1	230 – 550	64 – 72
2	260 – 530	64 – 71
3	260 – 670	62 – 71
4	550 – 950	59 – 64
5	450 – 900	60 – 66
6	740 – 1,100	58 – 62
Source: BAC 2023		

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The results of a 10-day ambient noise survey (See Appendix D of March 2023 noise study), indicated that existing maximum noise levels frequently exceeded 70 dBA at the 6 representative residential receptor locations identified on Figure 1, with maximum noise levels occasionally exceeding 80 dBA at some of the monitoring sites. As a result, maximum noise levels generated by project construction are not predicted to be substantially greater than existing baseline maximum noise levels currently experienced at the nearest residential areas to the JHS stadium.

The Sacramento County Noise Ordinance exempts noise sources associated with construction provided such construction occurs between the hours of 6 am and 8 pm. Because the proposed construction activities would occur during the hours of 7 am and 4 pm, noise generated by project construction would be exempt from the provisions of the County Noise Ordinance.

Because construction noise would be short-term in duration, limited to daytime hours, exempt from the County's noise ordinance, and noise appreciably louder than existing maximum noise levels currently experienced at residences in the immediate vicinity of the JHS stadium, construction noise impacts are considered to be *less than significant*.

