

**DRAFT**

**NOISE ASSESSMENT TECHNICAL REPORT**  
for the  
**Prairie Solar Energy Project,**  
**Sidney Area of Champagne County, Illinois**

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## ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Meaning
AC	alternating current
ANSI	American National Standards Institute
CFR	Code of Federal Regulations
CNEL	community noise equivalent level
dB	decibel
dBA	A-weighted decibel
DC	direct current
gen-tie	generator tie-in
kV	kilovolt
L <sub>dn</sub>	day-night sound level
L <sub>eq</sub>	equivalent sound level
L <sub>max</sub>	maximum sound level
L <sub>min</sub>	minimum sound level
LT	long-term noise measurement location
L <sub>xx</sub>	percentile-exceeded sound levels
NSLU	noise-sensitive land use
O&M	operations and maintenance
OSHA	Occupational Safety and Health Act
PV	photovoltaic
SCADA	supervisory control and data acquisition

# **Noise Assessment Technical Report**

## **Prairie Solar Energy Project – Sidney, Illinois**

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## **1 INTRODUCTION**

### **1.1 Report Purpose and Scope**

The purpose of this technical report is to quantify the noise levels associated with operation of the proposed project, and to compare these with restrictions established under the Illinois Pollution Control Board (IPCB) regulations (35 Illinois Administrative Code Subtitle H: Noise Parts 900, 901, 910). This introductory section provides a description of the project and the project location. Section 2 describes noise-sensitive receptors, regulatory setting, and existing ambient noise levels in the project vicinity. Section 3 describes noise levels that could result with project implementation, and compares these to applicable regulations. Section 4, References Cited, includes a list of the references cited.

### **1.2 Regional and Local Setting**

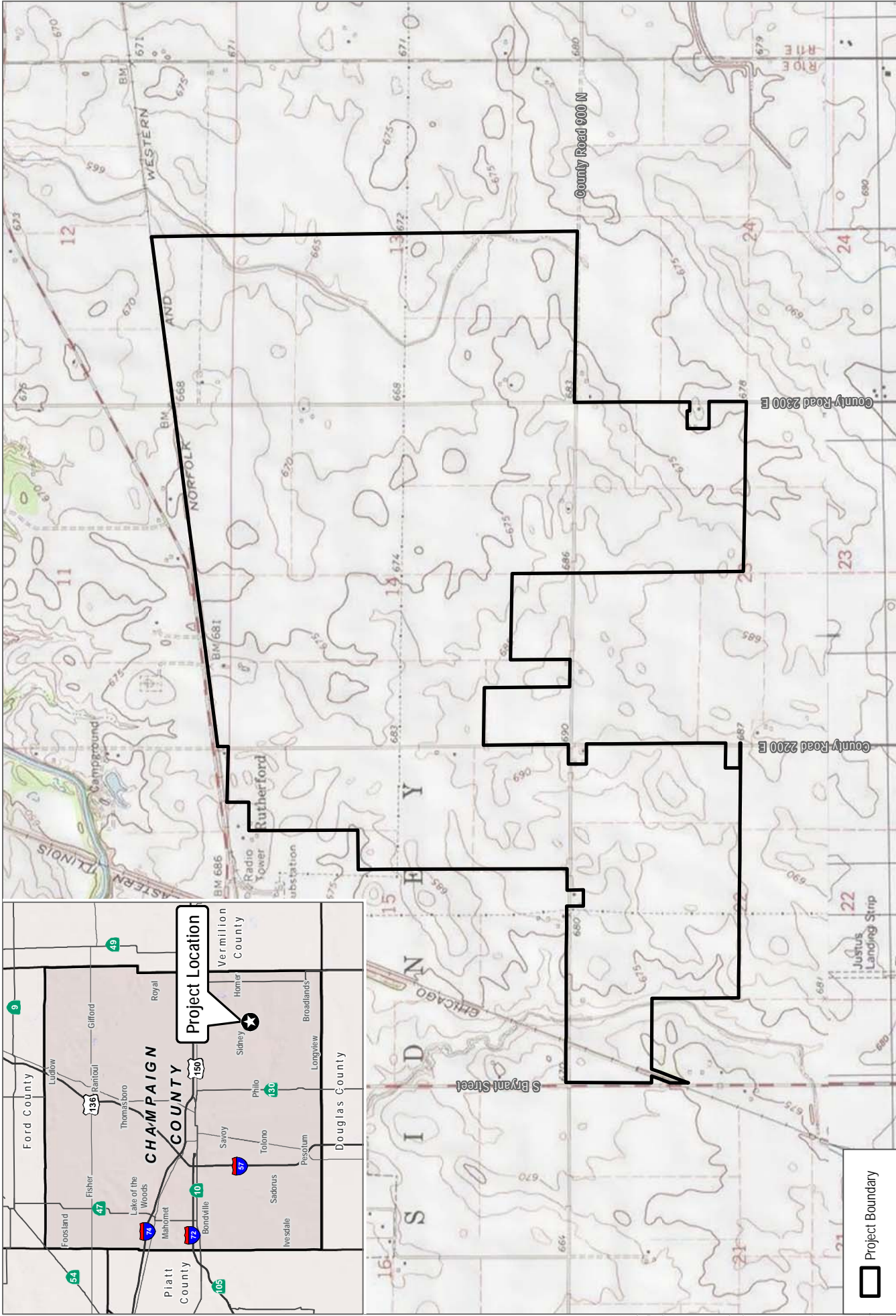
#### **1.2.1 Regional Location**

The Project site is located in Sidney Township, in northeastern Champaign County (County) Illinois (Figure 1, Project Location). The Project site is approximately 9 miles southeast of the City of Champaign and 0.25 miles southeast of the city of Sidney, and intersects the unincorporated community of Rutherford. The Project site is located east of S. Bryant Road. County Road 900 traverses the site from east to west, and County Road 2200 E. and County Road 2300 E traverse the site from north to south. The Project site is located adjacent to the city of Sidney to the northwest, and agricultural operations to the north, east, south and west. A gen-tie line would extend west approximately 1,500 feet from the Project site to the existing Ameren Illinois substation located to the northwest of the project site.

The location of the Project was selected because of its proximity to the existing Ameren Illinois transmission corridor, the site's nearby access to existing roads, and the site's excellent solar irradiance. Locally, site access to the Project would be located at five different locations along County Road 900 N, three different locations along County Road 2300 E, and one location along County Road 2200E.

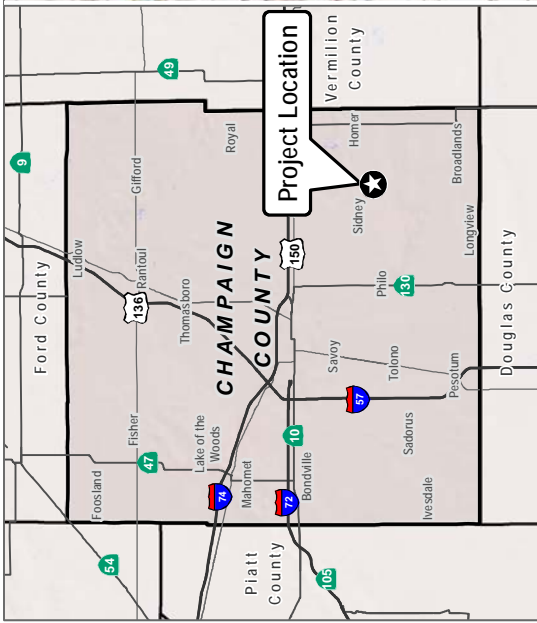
#### **1.2.2 Project Setting**

The Project site and surrounding properties are mostly composed of agricultural operations. An existing Ameren Illinois transmission line corridor exists along the northern edge of the project site, a second transmission corridor runs north to south along County Road 2200E, and two additional transmission corridors run east to west across the project site. There are scattered residential structures in the project vicinity, some of which are immediately adjacent to the project boundaries. Existing residences are depicted on report figures discussed below.



**FIGURE 1**  
**Project Location**  
 Prairie Solar Project

SOURCE: USGS 7.5-Minute Series St. Joseph Quadrangle



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### 1.3 Project Description

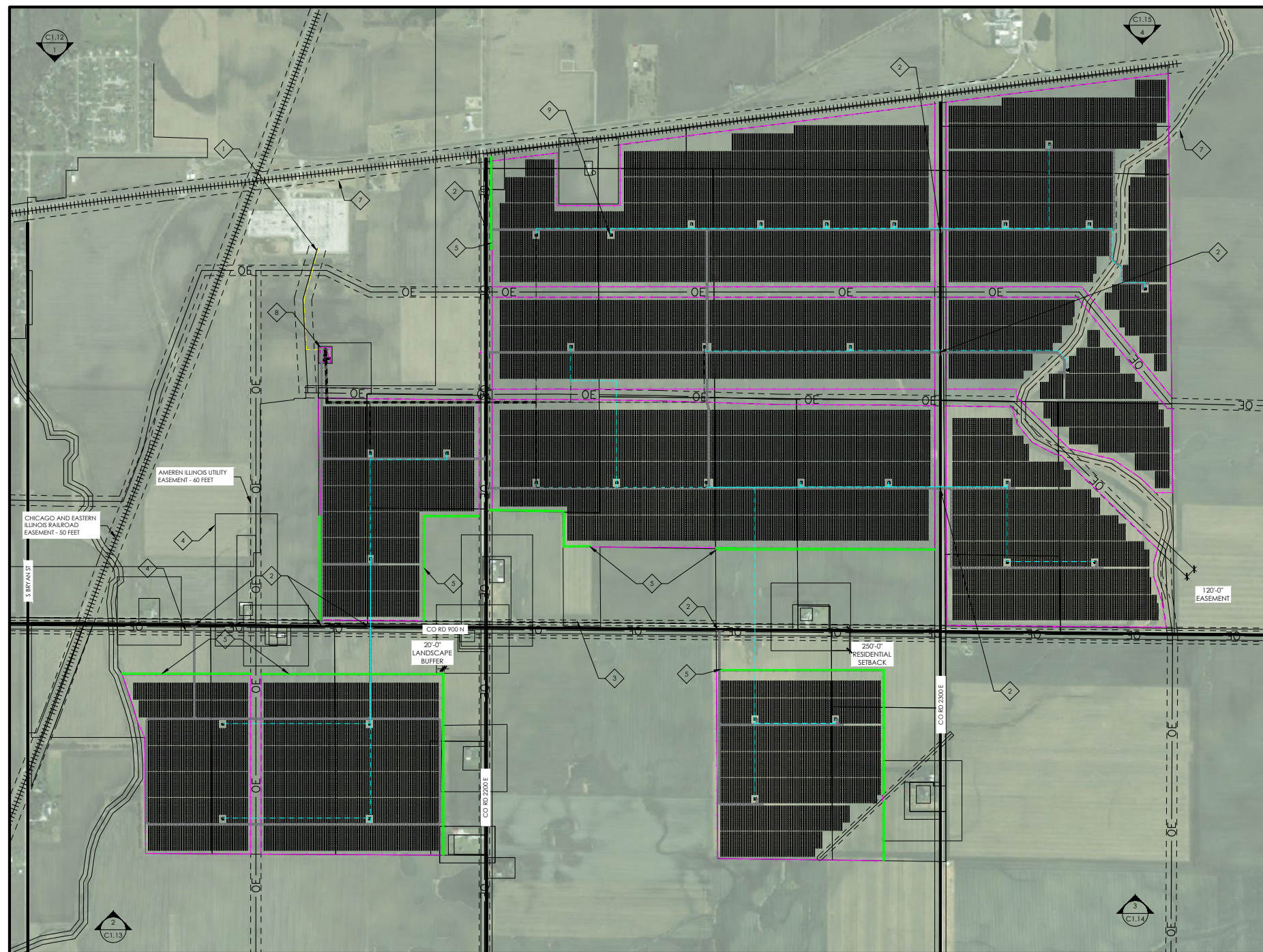
The Project includes up to a 150 MW solar power generating installation. The 1,275-acre site would house all structures, including solar panels, fixed-tilt or single-axis tracking support structures, inverters, SCADA, and interconnection facilities (on-site substation), all of which would be enclosed by a perimeter security fence. The proposed site plan is shown on Figure 2. Solar energy would be captured by PV panels mounted to a single-axis racking system. The high-efficiency commercially available PV panels convert incoming sunlight to direct current (DC) electrical energy. The panels are arranged in series to effectively increase output voltage to approximately 1,500 volts. These series chains of panels are called “strings” in industry terms and provide the basic building block of power conversion in the solar array. The strings are combined in the solar field through an above- or belowground DC collection system, and then further ganged together at the inverter stations, where the energy is converted to AC and then stepped to an intermediate voltage, typically 34.5 kV. The chosen PV panel would be polycrystalline and would be well suited for the environment due to their durability and reliability.

The racking system would be supported, when practical, by driven piers (piles) directly embedded into the ground, and would be parallel to the ground. Each rack would hold approximately 80 to 90 panels (depending on final configuration) and at its highest edge would have a maximum height up to 12 feet above grade, depending on the dimensions of the chosen panel and racking technology. The minimum clearance from the lower edge of the panel to ground level would be approximately 18 to 24 inches, pending final design. The single-axis tracking system would rotate slowly throughout the day at a range of +/- 60 degrees facing east to west to stay perpendicular to the incoming solar rays so that energy production would be optimized.

The inverter stations would be up to 12 feet in height and perform three critical functions for the solar facility: (1) collect DC power in a central location, (2) convert the DC power into AC power, and (3) convert low-voltage AC power to medium-voltage AC power. The inverter stations are typically open-air. The stations consist of DC collection equipment, utility-scale inverters, and a low-to medium-voltage transformer. The output power from the inverter stations is then fed to the AC collection system through an above- or belowground collection system. This AC collection system would deliver the electricity to the on-site substation, where the voltage would be stepped up through a transformer to the interconnection voltage.

Proposed inverters are SMA model Sunny Central 2750 (SC 2750-EV). The manufacturer/model for the low-to-medium voltage transformers has not been selected yet. Inverters and low-voltage transformers are proposed to be distributed throughout the site, on a total of 34 small concrete foundation pads. 28 of the pads would host two inverters and one transformer, while 6 of the pads would host a single inverter with transformer. The Site Plan (Figure 2) illustrates the locations of the inverter/transformer pads within the solar array fields.





**PROJECT SITE DESCRIPTION**

- TOTAL PROPERTY AREA = 1,586.44 ACRES
- TOTAL FENCED AREA = 1,139.64 ACRES
- LATITUDE = 40.017940°
- LONGITUDE = -88.044894°
- ELEVATION = 681 FT

**PROJECT DESIGN DATA**

- DC SYSTEM SIZE = 221,670.00 kW
- AC SYSTEM SIZE = 150,000.00 kW
- DC:AC RATIO = 1.478
- INTERCONNECTION VOLTAGE = 138 kV
- INTERCONNECTING UTILITY: AMEREN ILLINOIS
- DRY BULB LOW TEMP = -23 °C
- SNOW LOAD = 20 psf
- WIND SPEED = 105 mph
- SEISMIC LOAD:  $S_s = 0.237g$ ;  $S_1 = 0.096g$
- OCCUPANCY CATEGORY = I
- WIND IMPORTANCE FACTOR = 0.87
- PITCH = 21.14°
- INTER-ROW SPACING = 14.16'
- GCR = 33%

**MAJOR EQUIPMENT AND QTY.**

- MODULE: (554,175) CANADIAN SOLAR CS3W-400PB-AG-HE-400W
- INVERTER: (62) SMA SC 2750-EV-US
- TRANSFORMER: (6) 2.75MVA, (28) 5.5MVA, 34.5KV:660V
- RACKING: ATI DURATRACK V3
- EQUIPMENT 5:

**KEYNOTES**

- POINT OF INTERCONNECTION
- SITE ACCESS
- CONNECTOR TRUNK LINE EASEMENT - 35 FEET WIDE
- SETBACKS - SEE NOTES FOR DETAILS
- LANDSCAPE BUFFER - 20 FEET
- METEOROLOGICAL STATION (A, B, C, D & E) - NOT USED
- AVOIDED AREAS - CHICAGO & EASTERN ILLINOIS RAILROAD EASEMENT, AMEREN ILLINOIS UTILITY EASEMENT, JURISDICTIONAL WATER
- PROJECT SUBSTATION
- TYP: TRANSFORMER BLOCK

**LEGEND**

- PROPERTY LINE
- SETBACK
- MV CABLE
- EASEMENT
- 6" 3 STRAND BARBED WIRE CHAIN LINK FENCE  
APPROX. LENGTH = 102,682 FT.
- 20' WIDE GRAVEL ACCESS ROAD  
APPROX. AREA = 1,016,592 SQ. FT.
- LANDSCAPE BUFFER  
APPROX. AREA = 373,164 SQ. FT.
- DETENTION BASIN - NOT USED
- EXISTING ROAD
- OE OVERHEAD UTILITY LINE
- CREEK
- EXISTING STRUCTURE
- DO NOT DISTURB - NOT USED
- WETLANDS - NOT USED
- FEMA ZONE - NOT USED
- RAILROAD

**NOTES**

- THIS PLAN IS PRELIMINARY AND SUBJECT TO REVISION, NOT FOR CONSTRUCTION.
- SETBACKS:
  - A. PROPERTY LINE SETBACK TO FENCE - 26 FEET
  - B. ROAD SETBACK - 65 FEET
  - C. REAR SETBACK - 20 FEET
  - D. SIDE SETBACK - 10 FEET
  - F. RESIDENTIAL SETBACK - 250 FEET

**TABLES**

SYSTEM	ATTACHMENT	MODULE (W)		MODULE QTY	AZIMUTH	TILT	STRINGS OF 27	POWER (kW-DC)	POWER (kW-AC)	DC:AC	INVERTER
A	SINGLE-AXIS TRACKER	TBD	400	554175	180°	-	20525	221670.00	150000.00	1.48	(62) SMA SC 2750-EV-US, 2750kW



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### **On-Site Collector Substation**

The Project on-site substation would be the termination point of the collection system for 34.5 kV electricity. The output of the entire field would be passed through a final interconnection step-up transformer to convert it to the grid tie voltage at 138 kV. Additionally the Project on-site substation would host the grid intertie safety equipment and switches required to interconnect to the Ameren Illinois high-voltage substation. The footprint of the on-site substation would be approximately 300 feet by 200 feet. The Project on-site substation would consist of components up to 55 feet in height, and feeders would be overhead lines constructed with 45-foot-tall and 60-foot-tall poles for the single and double circuits, respectively.

### **Generator Tie-In Line**

The energy generated would be transmitted from the on-site step-up conversion facilities directly to the Ameren Illinois substation located to the northwest of the project site. A project gen-tie line of approximately 1,500 feet in length would be constructed from the on-site collection substation to the Ameren Illinois substation.

## **1.4 Noise Background and Terminology**

### **Fundamentals of Environmental Noise**

Vibrations, traveling as waves through air from a source, exert a force perceived by the human ear as sound. Sound pressure level (referred to as sound level) is measured on a logarithmic scale in dB that represent the fluctuation of air pressure above and below atmospheric pressure. Frequency, or pitch, is a physical characteristic of sound and is expressed in units of cycles per second or hertz. The normal frequency range of hearing for most people extends from about 20 to 20,000 hertz. Sound pressure level may be measured in octave bands; an individual octave has a range of frequencies whose upper frequency limit is twice that of its lower frequency limit. For example, the 1000 Hertz octave band contains noise energy at all frequencies from 707 to 1414 Hertz. The center frequencies of these octave bands are defined by the International Standards Organization (ISO) - 31.5 Hz, 63 Hz, 125 Hz, 250 Hz, 500 Hz, 1 kHz, 2 kHz, 4 kHz, 8 kHz, 16 kHz to divide the audible spectrum into 10 equal parts.

The human ear is more sensitive to middle and high frequencies, especially when the noise levels are quieter. As noise levels get louder, the human ear starts to hear the frequency spectrum more evenly. To accommodate for this phenomenon, a weighting system to evaluate how loud a noise level is to a human was developed. The frequency weighting, called “A” weighting, de-emphasizes the low-frequency components of the sound in a manner similar to the response of a human ear. This A-weighted sound level is called the “noise level” and is referenced in units of

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dBA. Sound level meters make this adjustment automatically, adding or subtracting an appropriate value to each of the 10 octave bands.

Since sound is measured on a logarithmic scale, a doubling of sound energy results in a 3-dBA increase in the noise level. Changes in a community noise level of less than 3 dBA are not typically noticed by the human ear; changes from 3 to 5 dBA may be noticed by some individuals who are extremely sensitive to changes in noise; a 5-dBA increase is readily noticeable (U.S. Environmental Protection Agency [EPA] 1974). The human ear perceives a 10-dBA increase in sound level as a doubling of the sound level (i.e., 65 dBA sounds twice as loud as 55 dBA to a human ear).

An individual's noise exposure occurs over a period of time; however, noise level is a measure of noise at a given instant in time. Community noise sources vary continuously, being the product of many noise sources at various distances, all of which constitute a relatively stable background or ambient noise environment. The background, or ambient, noise level gradually changes throughout a typical day, corresponding to distant noise sources such as traffic volume and changes in atmospheric conditions.

Noise levels are generally higher during the daytime and early evening when traffic (including airplanes), commercial, and industrial activity is the greatest. However, noise sources experienced during night-time hours when background levels are generally lower can be potentially more conspicuous and irritating to the receiver. To evaluate noise in a way that considers periodic fluctuations experienced throughout the day and night, a concept termed the “day-night sound level” ( $L_{dn}$ ) was developed, wherein noise measurements are weighted, added, and averaged over a 24-hour period to reflect magnitude, duration, frequency, and time of occurrence.

Different types of measurements are used to characterize the time-varying nature of sound. These measurements include the equivalent sound level ( $L_{eq}$ ), the minimum and maximum sound levels ( $L_{min}$  and  $L_{max}$ , respectively), percentile-exceeded sound level ( $L_{xx}$ ), the day-night sound level ( $L_{dn}$ ), and CNEL. The following list provides brief definitions of noise terminology used in this report:

- **Daytime hours:** 7:00 am to 10:00 pm, local time.
- **Decibel (dB)** is a unitless measure of sound on a logarithmic scale, which indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micropascals.
- **A-weighted decibel (dBA)** is an overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.

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- **Equivalent sound level** ( $L_{eq}$ ) is the constant level that, over a given time period, transmits the same amount of acoustic energy as the actual time-varying sound. Equivalent sound levels are the basis for the  $L_{dn}$  scale.
- **Highly Impulsive Sound:** either a single pressure peak or a single burst (multiple pressure peaks) for a duration usually less than one second. Examples of highly impulsive sound sources are drop forge hammer and explosive blasting.
- **Maximum sound level** ( $L_{max}$ ) is the maximum sound level measured during the measurement period.
- **Minimum sound level** ( $L_{min}$ ) is the minimum sound level measured during the measurement period.
- **Nighttime hours:** 10:00 pm to 7:00 am, local time.
- **Octave band sound pressure level:** the sound pressure level for the sound being measured contained within the specified octave band. The reference pressure is 20 micronewtons per square meter.
- **Percentile-exceeded sound level** ( $L_{xx}$ ) is the sound level exceeded X% of a specific time period.  $L_{10}$  is the sound level exceeded 10% of the time.
- **Day-Night Average Sound Level** ( $L_{dn}$ ) The  $L_{dn}$  is a 24-hour average A-weighted sound level with a 10 dB penalty added to the nighttime hours from 10:00 p.m. to 7:00 a.m. The 10 dB penalty is applied to account for increased noise sensitivity during the nighttime hours.

### Exterior Noise Distance Attenuation

Noise sources are classified in two forms: (1) point sources, such as stationary equipment or a group of construction vehicles and equipment working within a spatially limited area at a given time; and (2) line sources, such as a roadway with a large number of pass-by sources (motor vehicles). Sound generated by a point source typically diminishes (attenuates) at a rate of 6.0 dBA for each doubling of distance from the source to the receptor at acoustically “hard” sites and at a rate of 7.5 dBA for each doubling of distance from source to receptor at acoustically “soft” sites. Sound generated by a line source (i.e., a roadway) typically attenuates at a rate of 3 dBA and 4.5 dBA per doubling distance, for hard and soft sites, respectively. Sound levels can also be attenuated by man-made or natural barriers. For the purpose of a sound attenuation discussion, a hard or reflective site does not provide any excess ground-effect attenuation and is characteristic of asphalt or concrete ground surfaces, as well as very hard-packed soils. An acoustically soft or absorptive site is characteristic of unpaved loose soil or vegetated ground.

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With respect to examples of this distance-attenuation relationship for exterior noise, a 60-dBA noise level measured at 50 feet from a transformer within a paved substation site would diminish to 54 dBA at 100 feet from the source, and to 48 dBA at 200 feet from the source. This scenario is addressed by the point source attenuation for a hard site (6 dBA with each doubling of the distance). For the scenario where soft-site conditions exist between the point source and receptor, represented by a corridor of vegetation or open ground along the substation perimeter, an attenuation rate of 7.5 dBA per doubling of distance would apply; the transformer noise measured as a 60 dBA at 50 feet would diminish to 52.5 dBA at 100 feet from the source and to 45 dBA at 200 feet from the source, where soft ground with or without vegetation exists between the sound source and the receptor location.

### Health Effects of Noise

Noise is known to have a number of different adverse effects on humans. Based upon these recognized adverse effects of noise, criteria have been established to help protect the public health and safety and prevent disruption of certain human activities. These criteria are based on effects of noise on people such as hearing loss (not generally associated with community noise), communication interference, sleep interference, physiological responses, and annoyance.

## 1.5 Noise Regulation and Management

### 1.5.1 State of Illinois

#### Illinois Pollution Control Board (IPCB) regulations

**(35 Illinois Administrative Code Subtitle H: Noise Parts 900, 901, 910).**

The Illinois Pollution Control Board regulates the level of allowable noise generation on the basis of the classification of the source land use and the receiver land use. The land use classification system employed under Section 901 of Chapter 35, Subtitle H is the “Land-Based Classification Standards” [LBCS] published by the American Planning Association (APA 2001). The applicable language from Section 901 regarding land classification is provided below.

#### Section 901.101 Classification of Land According to Use

b) **Class A** land includes all land used as specified by LBCS Codes 1000 through 1340, 2410 through 2455, 5200 through 5230, 5500, 6100 through 6145, 6222, 6510 through 6530, 6568 through 6600.

d) **Class C** land includes all land used as specified by LBCS Codes 3100 through 3440, 4120 through 4180, 4210 through 4212, 4300 through 4347, 7400 through 7450, 8000 through 8500, and 9100 through 9520.

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Residences are included in LBCS codes 1000 to 1340, and are therefore considered a **Class A** land use. Agricultural land and activity are included in codes 9100 to 9520; alternative energy production facilities are included in codes 4300 to 4347. Consequently, the existing and proposed uses within the project site boundaries are considered **Class C** land uses. Under these provisions of Section 901.101, the project sound emission would be from “Class C” land and the most restrictive limits would be applied to project noise at “Class A” land. Since residences exist in the project vicinity, these receivers are afforded the most protection under Section 901, as compared to land uses defined as belonging to Class B or Class C. The pertinent noise level limitations for project-generated noise at vicinity residences is contained in Section 901.102.

### Section 901.102 Sound Emitted to Class A Land

- a) Except as elsewhere provided in this Part, no person shall cause or allow the emission of sound during daytime hours from any property-line-noise-source located on any Class A, B or C land to any receiving Class A land which exceeds any allowable octave band sound pressure level specified in the following table, when measured at any point within such receiving Class A land, provided, however, that no measurement of sound pressure levels shall be made less than 25 feet from such property-line-noise-source.

#### Daytime Limits

Octave Band Center Frequency (Hertz)	Allowable Octave Band Sound Pressure Levels (dB) of Sound Emitted to any Receiving Class A Land from Class C Land
31.5	75
63	74
125	69
250	64
500	58
1000	52
2000	47
4000	43
8000	40

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- b) Except as provided elsewhere in this Part, no person shall cause or allow the emission of sound during nighttime hours from any property-line-noise-source located on any Class A, B or C land to any receiving Class A land which exceeds any allowable octave band sound pressure level specified in the following table, when measured at any point within such receiving Class A land, provided, however, that no measurement of sound pressure levels shall be made less than 25 feet from such property-line-noise-source.

### Nighttime Limits

Octave Band Center Frequency (Hertz)	Allowable Octave Band Sound Pressure Levels (dB) of Sound Emitted to any Receiving Class A Land from Class C Land
31.5	69
63	67
125	62
250	54
500	47
1000	41
2000	36
4000	32
8000	32

### Section 901.104 Highly-Impulsive Sound

Except as provided elsewhere in this Part, no person shall cause or allow the emission of highly-impulsive sound from any property-line-noise-source located on any Class A, B, or C land to any receiving Class A or B land which exceeds the allowable A-weighted sound levels, measured with fast dynamic characteristic, specified in the following table when measured in accordance with the procedure of 35 Ill. Adm. Code 900.103 at any point within such receiving Class A or B land, provided, however, that no measurement of sound levels shall be made less than 25 feet from such property-line-noise-source.



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## Highly Impulsive Sound Limits

Allowable A-weighted Sound Levels in Decibels of Highly-Impulsive Sound Emitted from Class C to Receiving Class A	
Daytime	Nighttime
53	43

### 1.5.1 Champagne County

#### Zoning Ordinance Solar Farm Text Amendment

On August 23, 2018 the Champaign County Board approved an amendment to the zoning ordinance to allow photovoltaic solar farms on certain agricultural properties. Sub-section I of the text amendment addresses noise limitations.

#### I. Standard Conditions for Allowable Noise Level

- (1) Noise levels from any PV SOLAR FARM shall be in compliance with the applicable Illinois Pollution Control Board (IPCB) regulations (35 Illinois Administrative Code Subtitle H: Noise Parts 900, 901, 910).
- (2) The Applicant shall submit manufacturer’s sound power level characteristics and other relevant data regarding noise characteristics of proposed PV SOLAR FARM equipment necessary for a competent noise analysis.
- (3) The Applicant, through the use of a qualified professional, as part of the siting approval application process, shall appropriately demonstrate compliance with the above noise requirements as follows:
  - a. The SPECIAL USE permit application for other than a COMMUNITY PV SOLAR FARM shall include a noise analysis that includes the following:
    - (a) The pre-development 24-hour ambient background sound level shall be identified at representative locations near the site of the proposed PV SOLAR FARM.
    - (b) Computer modeling shall be used to generate the anticipated sound level resulting from the operation of the proposed PV SOLAR FARM within 1,500 feet of the proposed PV SOLAR FARM.

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- (c) Results of the ambient background sound level monitoring and the modeling of anticipated sound levels shall be clearly stated in the application and the application shall include a map of the modeled noise contours within 1,500 feet of the proposed PV SOLAR FARM.
  
- (d) The application shall also clearly state the assumptions of the computer model's construction and algorithms so that a competent and objective third party can as simply as possible verify the anticipated sound data and sound levels.

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## 2 EXISTING NOISE ENVIRONMENT

### 2.1 Noise Levels

Existing (pre-project) noise conditions present in the study area were inventoried by Dudek in September 2018. Sound-level measurements were performed using four SoftdB Piccolo Models, which are ANSI Type II. ANSI Type II sound-level meters have sufficient accuracy to be used for environmental noise evaluation. Sound level meters were operated on tri-pods at a height of 5 feet above ground level, consistent with standards for environmental noise assessment. The sound-level meters were calibrated before and after measurements using a Rion Laboratory Model NC-74 calibrator.

The four selected locations for 24-hour measurements are depicted on Figure 3 as LT1 to LT4. Each measurement site was located on an existing residential property, between the residence and adjacent roadway. A description of the measurement locations is provided below.

**Table 1 – Ambient Noise Measurement Locations**

Site	Adjacent Road	Measurement Site Description
LT1	S. Bryant Street	Closest residence to the west of the project boundaries, receiver R11 for modelling.
LT2	E. Main Street	Closest residence to the north of the project boundaries, receiver R15 for modelling.
LT3	County Rd. 2400 E	Closest residence to the east, not included in noise modelling (approximately 2500 feet from project boundary)
LT4	County Rd. 2200 E	Closest residence to the south of the project boundaries, receiver R3 for modelling.

A 24-hour measurement captures the fluctuations in sound levels throughout the daytime and overnight period, providing a good representation of the typical ambient noise conditions for these existing residential uses and the project vicinity in general. Table 2 summarizes the range of daytime and nighttime hourly average values ( $L_{eq}$ ), minimum ( $L_{min}$ ) and maximum ( $L_{max}$ ) sound levels recorded for each monitor location during the 24-hour measurement, as well as the calculated 24-hour weighted average noise level ( $L_{dn}$ ). The dates of the measurement and primary sound sources affecting the measurement are also provided in Table 5 for each long-term monitor location. Appendix A contains the field data and  $L_{dn}$  calculations regarding the noise measurement program.

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**Table 2 - Ambient Sound Level Measurement Results (dBA)**

Site	Noise Sources	Dates	Day L <sub>eq</sub> Range	Night L <sub>eq</sub> Range	L <sub>dn</sub>	L <sub>max</sub>	L <sub>min</sub>
LT1	Traffic on S. Bryant Street, harvest activity	09.26.18 – 09.27.18	60 - 65	54 - 64	66	92	46
LT2	Traffic on E. Main Street	09.26.18 – 09.27.18	67 - 73	64 - 72	74	94	33
LT3	Traffic on County Rd. 2400 E, harvesting	09.26.18 – 09.27.18	49 - 59	39 - 56	58	85	36
LT4	Traffic on County Rd. 2200 E	09.26.18 – 09.27.18	48 - 63	41-55	58	85	37

**Notes:** dBA = decibel; LT = long-term roadway noise measurement location; L<sub>eq</sub> = equivalent sound level (hourly average); L<sub>dn</sub> = day-night sound level; L<sub>max</sub> = maximum sound level; L<sub>min</sub> = minimum sound level.

The results of the ambient noise survey from long-term measurements reflect daytime noise levels that range between 48 and 63 dBA L<sub>eq</sub> in the vicinity of existing noise-sensitive receptors along the two less-travelled roadways (LT3 and LT4). Higher daytime noise levels, ranging from 60 to dBA L<sub>eq</sub> were recorded at LT1 and LT2, locations adjacent to highly-travelled roadways. The day-night average noise levels were 58 dBA L<sub>dn</sub> at LT3 and LT4, representative of areas influenced by both roadway traffic and light agricultural activity. LT1 has a day-night average of 66 dBA L<sub>dn</sub> which is reflective of moderate levels of roadway traffic along S. Bryan Street. LT2 has a day-night average of 74 dBA L<sub>dn</sub> which is reflective of heavy levels of roadway traffic along E. Main Street.

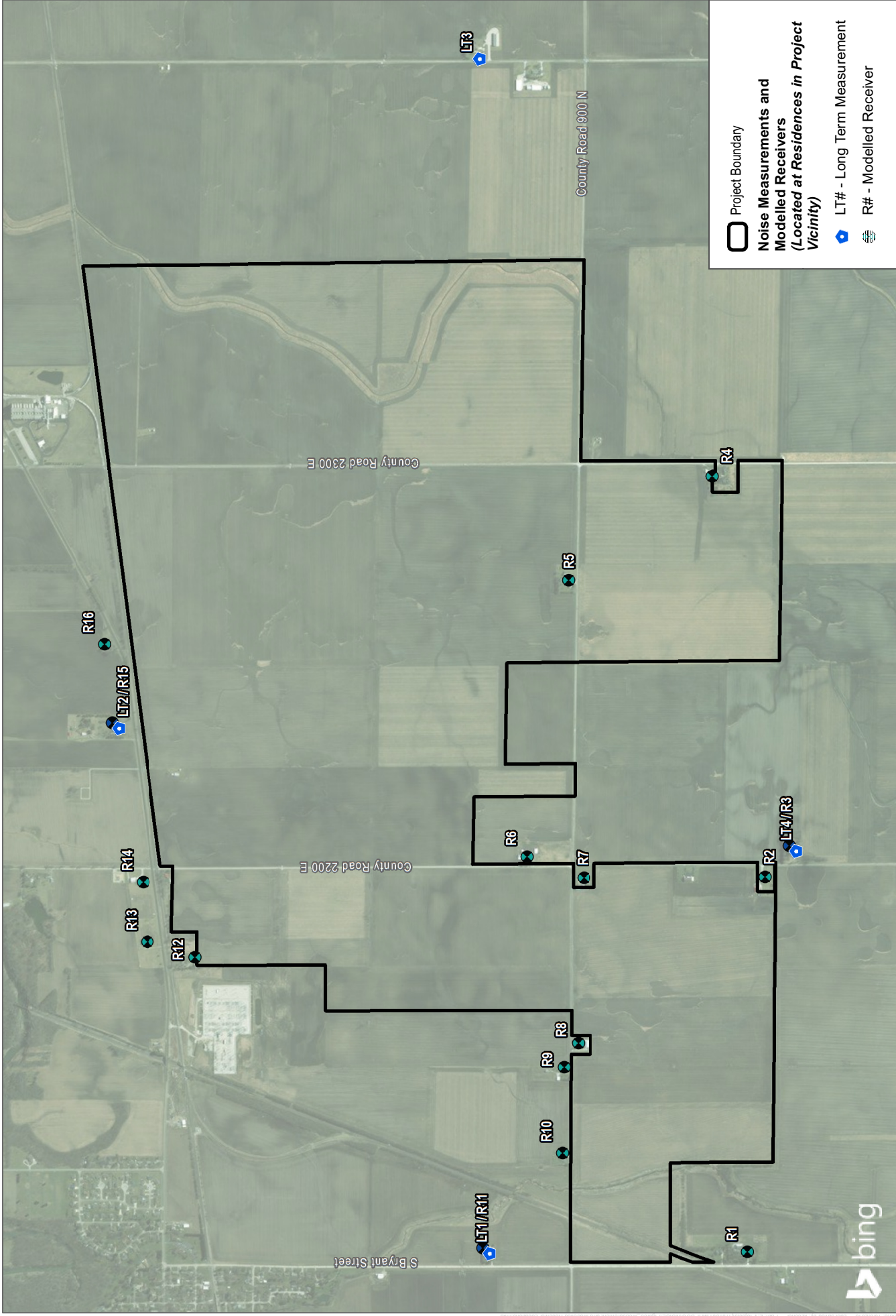
Noise measurement data and existing L<sub>dn</sub> calculation worksheets are provided in Appendix A.

## 2.2 Sensitive Receptors - Residences

Residences exist in the project vicinity, which are considered a noise sensitive land use. Residences fall under “Class A” land uses with respect to the Illinois Pollution Control Board (IPCB) regulations (35 Illinois Administrative Code Subtitle H: Noise Parts 900, 901, 910). The noise limits are more stringent at Class A lands than at Class B or Class C lands, with respect to noise emanating from activities adjacent to such residences.

Existing residences proximate to the project boundaries are illustrated on Figure 3. Each of the existing residences in the project vicinity is identified with an “R” designation on Figure 3, which denotes that project operational noise has been modelled at this “Receiver” location.

These closest residences to the project boundaries were selected for specific noise modeling, as being representative of the worst-case noise exposure levels from the proposed project.



**FIGURE 3**  
**Measurement and Modelled Receiver Locations**  
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### 3 PROJECT NOISE LEVELS

#### 3.1 Equipment Noise Source Descriptions

On-site noise sources associated with the project would include pad-mounted inverters and field transformers, and a step-up transformer in the on-site sub-station. The inverter and transformer pads would be distributed throughout the site among the PV modules; the sub-station would be located at the western edge of the array area. These improvements are illustrated on Figure 2 (Site Plan).

A description of each of the project components and noise-generating characteristics is provided below.

##### **Building Block Inverters/Solar Array Transformers**

The PV panels would be electrically connected to adjacent panels to efficiently increase the output voltage to 1,500 volts. An above- or below-ground DC collection system will deliver the electricity to an inverter station, where the electricity is converted into AC and then fed into a field transformer to achieve an intermediate voltage, typically 34.5kV. From the inverter stations an above- or below-ground AC collection system will deliver the electricity to the on-site substation, where the voltage will be stepped-up to the interconnection voltage.

The inverters and field transformers are proposed to be located on up to 34 pads located throughout the project site. The proposed string inverter is an SMA Sunny Central 2750 EV model (SC 2750-EV-US). Sound level testing by the manufacturer for model SC 2500-EV-US) indicates a sound pressure level of 64 dBA at 10 meters (33 feet). The manufacturer has not published sound level data for the SC 2750-EV-US model. However, Dudek performed field testing of an installed SC 2750-EV-US inverter and concluded that it has a sound pressure rating of 62 dBA at 10 meters (2 dBA lower than the published data for the SC 2500-EV-US). The Dudek measurements evidence the SC 2750-EV-US would not have a sound level greater than the published sound level for the SC 2500-EV-US. Nonetheless, in order to be conservative, the initial noise assessment was performed using the published sound level results for the SC 2500-EV-US (64 dBA at 33 feet).

SMA does offer a sound reduction kit for the SC2xxx-EV-US. Testing of the sound reduction kit indicates the sound level would be reduced from 64 to 58.7 dBA at 10 meters (33 feet). Based on the initial assessment results, the applicant proposes to use the sound reduction kits on all inverters. A second assessment was performed using a sound rating of 58.7 dBA at 33 feet for every inverter, which represents the proposed scenario to equip each inverter with the sound reduction kit.

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According to *National Electric Manufacturers Association (NEMA) Standards Publication No. TR 20- 2014 – Dry Type Transformers for General Applications* (NEMA 2014), noise level limits are specified for equivalent winding kilovolt-amperes ranges and cooling systems. 67 dBA is the highest acceptable noise level at 1 foot from transformers for the capacity expected to be necessary for the field transformers; at five feet the sound level for the field transformers would be 53 dBA.

### Step-up Transformer (at Substations)

The output from the solar field would be passed through a final interconnection step-up transformer at the sub-station to convert it to the grid tie voltage at 138-kV. A typical step-up transformer that might be used for the sub-stations has a sound rating of 60 dB at 5 feet based on National Electric Manufacturers Association ratings for the size of transformer anticipated to be used.

### 3.2 Octave-Band Sound Levels Conversion to dBA

Unfortunately SMA and other inverter manufacturers do not provide sound level data broken into octave band frequencies. The sound test data from SMA for their inverters is included in Appendix B, and demonstrates that sound level values are reported only as single value A-weighted decibels. Transformer sound data is also only available as single value A-weighted decibel levels.

The single value dBA sound pressure level is derived by adding an adjustment factor to each octave band, and then summing the energy (sound pressure) from each octave band into a single value (using logarithmic addition). The adjustments per octave band level from ISO are provided in the table below.

**Table 3 – Octave Band Adjustments for A-Weighted Spectrum**

Octave-band frequencies, Hz With dB Adjustments per Band									
Band	31.5	63	125	250	500	1000	2000	4000	8000
dB Adjustment	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1

If we use the maximum allowable sound pressure per octave band as specified in Section 901.102, and apply the above A-weighting adjustments, we arrive at a single value dBA pressure level. Since inverter and transformer noise levels are reported in dBA pressure levels, dBA becomes the most appropriate/practical metric to use for sound level compliance evaluation. Appendix C provides worksheets for the conversion into single value dBA pressure levels of the daytime and nighttime noise



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limits from Class C lands to Class A lands (which the regulation expresses according to octave band pressure levels).

Applying the A-weighting conversion to the limits in Section 901.102 results in the limits expressed as single value dBA pressure levels, in Table 4.

**Table 4 – Section 109.102 Class C to Class A Land Use Noise Limits Converted to dBA**

Applicable Time Period	Limit
Daytime	60.7 dBA
Nighttime	51.2 dBA

Highly impulsive sounds, characterized by a spike of sound occurring with less than one second duration, can be highly annoying. Because of this potential annoyance, a separate (lower) limit is established in Section 109.103 for highly impulsive sound sources, expressed as a dBA pressure level (no conversion required). The highly impulsive sound level limits are a useful reference in comparing the appropriateness of the conversion of Section 109.102 limits into dBA limits.

**Table 5 – Section 109.103 Highly Impulsive Sound Limits**

Allowable A-weighted Sound Levels in Decibels of Highly-Impulsive Sound Emitted from Class C to Receiving Class A	
Daytime	Nighttime
53	43

In many community noise ordinances, a penalty of 5 dB is added to highly impulsive sound sources (which is the equivalent of enforcing a sound limit 5 dBA lower than for non-impulsive sound sources). In comparing the converted noise limits from Section 109.102 with the Section 109.103 highly impulsive noise source limits, there is a difference of 8 dBA between the non-impulsive and impulsive sound source limits. This suggests that the converted non-impulsive limits are more conservative than the octave-band based restrictions native to Section 109.103.

In this analysis, compliance with restrictions found in Section 109.102 is on the basis of the converted, single value dBA pressure level for daytime and nighttime.

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### 3.3 Equipment Noise Levels at Existing Sensitive Receptors

Figure 3 depicts the existing residences within 1500 feet of the project boundaries, which were also selected for modeling of operational noise levels from on-site operations. The existing residences are represented by an “R” designation on Figure 3. The analysis of project operational noise levels also included calculation of composite noise levels at a distance of 1500 feet from each of the project boundaries (i.e, north, south, west upper and lower portions, and east upper and lower portions).

The provided site plan and noise specifications for the noise-generating equipment anticipated to be used was utilized to model the operational noise from the proposed solar project. The resulting project operational noise level at the identified proximate noise sensitive receivers was modeled based upon the published sound level for each piece of equipment, standard outdoor distance attenuation rates for point sources and hard-site conditions applied to the distance between each equipment location and the receiver locations, and the logarithmic sum of individual equipment noise levels at each of the separate receivers.

As described in Section 1.4, outdoor attenuation at an acoustically hard site is characterized by a 6 dBA loss with each doubling of distance from source to receiver, whereas the rate at an acoustically soft site is a loss of 7.5 dBA for each doubling of distance. Using the hard site attenuation rate for the project is conservative (over-estimates sound levels at receivers) because ground surface within the facility and between the facility and receivers is likely to be covered in vegetation or tilled earth. Calculated noise levels at receivers are therefore considered conservative and worst-case.

Sound attenuation due to distance, for a point source (which is applicable to each piece of equipment in the proposed solar facility) under hard site conditions is calculated with the equation:

$$SPL_1 = SPL_2 - 20\log(D_2/D_1)$$

Where:

- SPL<sub>1</sub> is the calculated sound pressure level (in dB) at specified distance [D<sub>2</sub>]
- SPL<sub>2</sub> is a known (measured) sound pressure level at a known distance [D<sub>1</sub>]
- D<sub>1</sub> is distance from source to measured sound pressure level
- D<sub>2</sub> is distance from source to location of calculated sound pressure level

Sound levels are expressed in decibels, which are a logarithmic function. The formula to add one sound level (LA) to another sound level (LB) expressed in dB is:

$$LA + LB = 10\log_{10} (10^{LA/10} + 10^{LB/10}) \text{ dB}$$

Applying the above equations, and based upon supplied sound energy levels for each piece equipment proposed throughout the project, the composite noise level from the operation of the total equipment inventory was assessed at each of the existing residential locations within 1500

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feet of the project boundaries. Excel spreadsheets were constructed to calculate the distance from the location of each identified inverter and transformer within the project to each residence in the project vicinity. Another excel spreadsheet was then created for each residence and other modeling points, which applies the equations described above. Appendix C contains the modelling spreadsheets. The spreadsheet for each receiver indicates the distance from equipment components to the receiver, the individual sound pressure level for each piece of equipment at that receiver, and the sum of all equipment sound levels at that receiver.

The noise levels from all the noted equipment were combined and calculated at each of the receptor locations, assuming no shielding would be present (i.e., an absence of structures, barriers, or berms between the equipment locations and the receptor locations). The inverter containers would each provide some shielding between certain equipment noise sources and selected receptors, but this shielding effect was ignored to provide a conservative assessment of total operational noise levels at each receptor. For this analysis, noise reduction kits were not included in the modelling. The results of the operation noise analysis are presented in Table 7, with no inverter noise reduction kits.

**Table 7 - Project Operational Noise Level Summary for Existing Sensitive Receptors**

Receptor ID	Predicted Noise Level (dBA Leq)	Limit Daytime (dBA Leq)	Limit Exceeded?	Limit Nighttime (dBA Leq)	Limit Exceeded?
R1	35	61	NO	51	NO
R2	39		NO		NO
R3	38		NO		NO
R4	40		NO		NO
R5	43		NO		NO
R6	43		NO		NO
R7	42		NO		NO
R8	41		NO		NO
R9	40		NO		NO
R10	38		NO		NO
R11	36		NO		NO
R12	44		NO		NO
R13	41		NO		NO
R14	42		NO		NO
R15	42		NO		NO
R16	42		NO		NO
East Extent Upper	39	NO	NO		
East Extent Lower	39	NO	NO		
Northern Extent	38	NO	NO		
West Extent Upper	38	NO	NO		
West Extent Lower	35	NO	NO		
Southern Extent	37	NO	NO		

Notes: dBA = A-weighted decibel; Leq = equivalent sound level over a given period.

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As illustrated in Table 7, the one-hour average sound levels would range up to approximately 44 dBA  $L_{eq}$  at the worst-case receptor (R12). This would be the highest combined operational level for all equipment at any receptor location. The facility would almost exclusively operate during daytime hours, when sunlight is available. However, at certain times of the year, the sun would rise before 7 AM, and inverters could therefore operate for a portion of the nighttime period. Nonetheless, operational noise levels would be no greater than 44 dBA  $L_{eq}$  at the worst-case receptor, which is 7 dBA lower than even the more restrictive night-time limit.

Modelling points were also placed at 1500 feet from each of the project boundaries. These points are identified as “DIRECTION extent” in Table 7. Operational sound levels at 1500 feet from the solar plant boundaries would range from 35 to 39 dBA  $L_{eq}$ . These sound levels would fall well below the daytime range of dBA  $L_{eq}$  values recorded at all four of the ambient noise measurement sites.

### **3.3.1 Operation Noise Levels With Inverter Noise Reduction Kits**

As indicated above, SMA offers a sound reduction kit for the SC2xxx-EV-US. Testing of the sound reduction kit indicates the sound level would be reduced from 64 to 58.7 dBA at 10 meters (33 feet). A second operational noise assessment was therefore performed using a sound rating of 58.7 dBA at 33 feet for every inverter, which represents the proposed scenario to equip each inverter with the sound reduction kit.

Excel spreadsheets were again created for each residence and other modeling points, which applies the equations described previously. Appendix C contains the modelling spreadsheets. The spreadsheet for each receiver indicates the distance from equipment components to the receiver, the individual sound pressure level for each piece of equipment at that receiver, and the sum of all equipment sound levels at that receiver.

The noise levels from all the noted equipment were combined and calculated at each of the receptor locations, assuming no shielding would be present (i.e., an absence of structures, barriers, or berms between the equipment locations and the receptor locations). The inverter containers would each provide some shielding between certain equipment noise sources and selected receptors, but this shielding effect was ignored to provide a conservative assessment of total operational noise levels at each receptor. For this analysis, noise reduction kits were not included in the modelling. The results of the operation noise analysis are presented in Table 8, with each inverter being equipped with a manufacturer noise reduction kit.

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**Table 8 - Project Operational Noise Level Summary for Existing Sensitive Receptors**

Receptor ID	Predicted Noise Level (dBA Leq)	Limit Daytime (dBA Leq)	Limit Exceeded?	Limit Nighttime (dBA Leq)	Limit Exceeded?
R1	30	61	NO	51	NO
R2	34		NO		NO
R3	33		NO		NO
R4	34		NO		NO
R5	37		NO		NO
R6	38		NO		NO
R7	36		NO		NO
R8	36		NO		NO
R9	35		NO		NO
R10	33		NO		NO
R11	31		NO		NO
R12	38		NO		NO
R13	36		NO		NO
R14	37		NO		NO
R15	37		NO		NO
R16	36		NO		NO
East Extent Upper	33	NO	NO		
East Extent Lower	34	NO	NO		
Northern Extent	33	NO	NO		
West Extent Upper	31	NO	NO		
West Extent Lower	33	NO	NO		
Southern Extent	30	NO	NO		

Notes: dBA = A-weighted decibel; L<sub>eq</sub> = equivalent sound level over a given period.

As illustrated in Table 8, the one-hour average operational sound levels with inverter noise reduction kits would range up to approximately 38 dBA L<sub>eq</sub> at the worst-case receptor (R12). This would be the highest combined operational level for all equipment at any receptor location. The facility would almost exclusively operate during daytime hours, when sunlight is available. However, at certain times of the year, the sun would rise before 7 AM, and inverters could therefore operate for a portion of the nighttime period. Nonetheless, operational noise levels would be no greater than 38 dBA L<sub>eq</sub> at the worst-case receptor, which is 13 dBA lower than even the more restrictive night-time limit.

Modelling points were also placed at 1500 feet from each of the project boundaries. These points are identified as “DIRECTION extent” in Table 7. Operational sound levels including the inverter noise reduction kits at 1500 feet from the solar plant boundaries would range from 30 to 34 dBA L<sub>eq</sub>. These sound levels would fall well below the daytime range of dBA L<sub>eq</sub> values recorded at all four of the ambient noise measurement sites.

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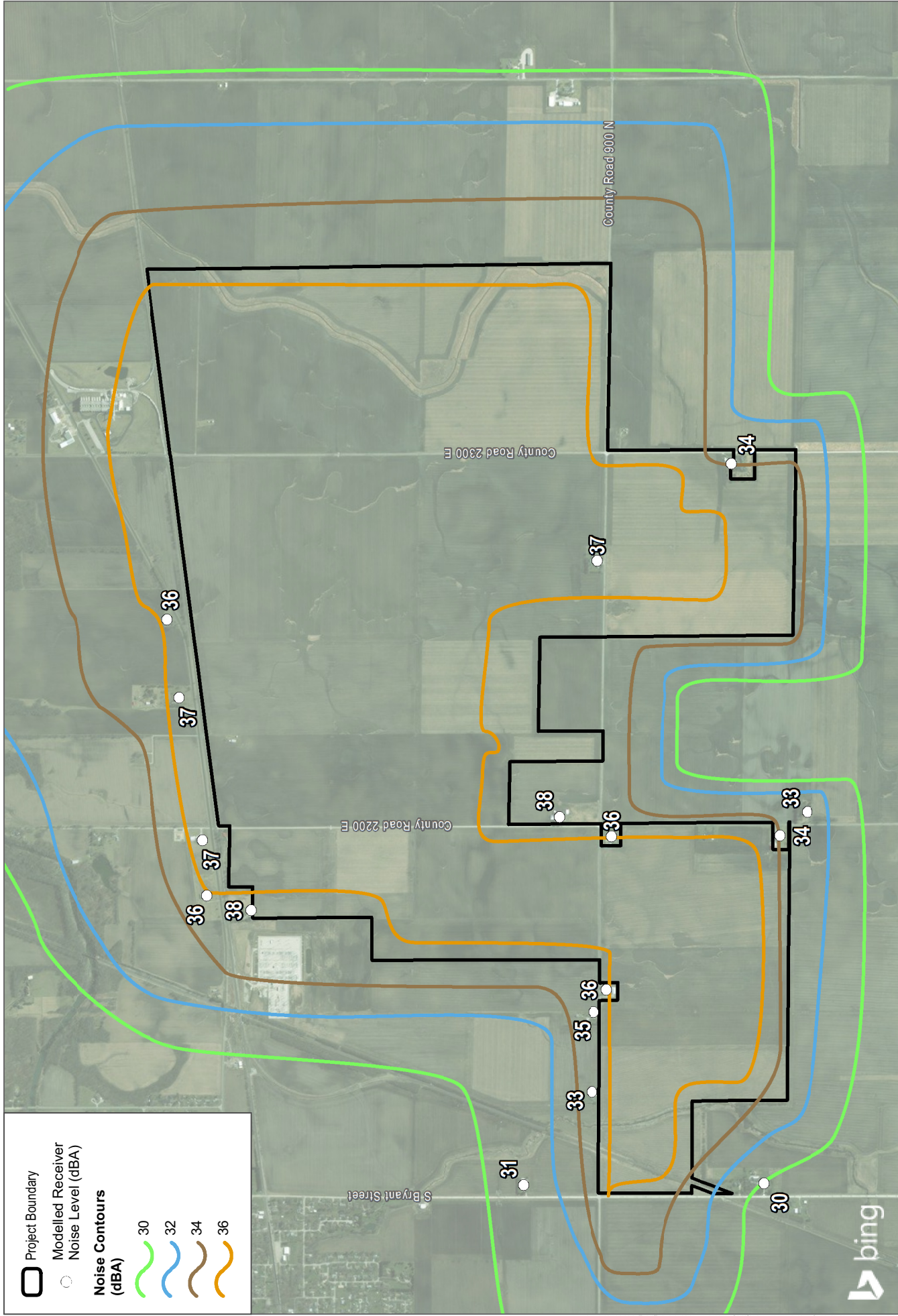
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Figure 4 provides the noise contours from facility operation, extending out to 1500 feet from the facility boundaries. These illustrated noise contours apply to operational noise levels with the proposed inverter sound reduction kits installed on each and every inverter.

### **3.3.1 Conclusion**

Predicted sound levels from the proposed Prairie Solar facility would fall well below limits specified under 35 Illinois Administrative Code Subtitle H: Noise Parts 900, 901, 910, with conversion of these octave-band based limits to single value dBA pressure levels. Reference to the highly intrusive sound limits in Section 901.103 which are expressed in dBA provides confidence the Section 901.102 limits converted to dBA sound pressure limits are appropriate and reasonable, and probably represent more stringent restrictions with regard to allowable sound levels. The proposed Prairie Solar project would therefore comply with noise restrictions applicable to the project.

The applicant proposes to equip each and every inverter with a sound reduction kit from the manufacturer. The assessment of operational noise with the inverters equipped with this sound reduction kit concludes that operational sound levels would be less than 39 dBA  $L_{eq}$  at all existing residences within 1500 feet of the project site. A final analysis would be provided with “the building plan set to the ELUC for Zoning Certification approval”.



**FIGURE 4**  
**Noise Contours**  
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SOURCE: BING



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SMA. 2017. *White Paper BU-U-019: Sunny Central Sound Power Measurements on SC xxxx (-US) central inverters*. May 19, 2016.

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**APPENDIX A**  
*Noise Measurement Data*

&

*LDN Calculations*

Piccolo #8007 -Site LTI

Rec 1 to 24		Slow Response		dB A weighting		2.0 dB resolution stats														
Date	hh:mm:ss	Leq	Period	Leq	SEL	Lmax	Lmin	L1%	L5%	L10%	L50%	L90%	L95%	L99%	Lmedian	Lmean	StdDev	L2%	L8%	L25%
9/26/2018	8:54	1.0	hour	65.2	100.8	91.8	53.1	69	63	57	55	55	55	53	57	58.2	4.52	73	65	59
9/26/2018	9:54	1.0	hour	61.9	97.5	84.1	53.1	65	61	55	53	53	53	53	55	57.1	3.99	71	63	59
9/26/2018	10:54	1.0	hour	62.4	98	85.2	52.5	67	61	55	55	55	55	53	55	57.1	4.06	71	63	57
9/26/2018	11:54	1.0	hour	62.7	98.3	92.5	53.4	63	59	55	55	55	55	53	55	56.3	3.47	69	61	57
9/26/2018	12:54	1.0	hour	61.8	97.4	87.7	51.3	65	61	55	53	53	53	51	55	55.7	4.12	71	61	55
9/26/2018	13:54	1.0	hour	62.1	97.7	86.8	49.2	67	61	51	51	51	51	49	49	53.6	5.16	71	63	53
9/26/2018	14:54	1.0	hour	61.6	97.2	82.6	49.9	67	63	53	51	51	51	51	53	54.4	5.23	71	65	55
9/26/2018	15:54	1.0	hour	62.4	98	80.8	49.2	69	65	53	51	51	51	49	53	54.7	5.79	71	65	55
9/26/2018	16:54	1.0	hour	62.1	97.7	81.6	47.9	69	63	53	51	51	51	49	53	54.7	5.54	71	65	55
9/26/2018	17:54	1.0	hour	61.5	97.1	80.1	49.2	67	61	53	51	51	51	49	53	54.6	5.13	71	63	55
9/26/2018	18:54	1.0	hour	62.6	98.2	83.8	51.5	67	63	55	53	53	53	51	55	56.8	4.73	71	65	57
9/26/2018	19:54	1.0	hour	60.3	95.9	78.6	53.8	61	59	57	55	55	55	53	57	56.9	2.98	69	59	57
9/26/2018	20:54	1.0	hour	59.7	95.3	79.5	53.2	61	59	57	55	55	55	53	57	56.9	2.52	65	59	57
9/26/2018	21:54	1.0	hour	59.8	95.4	77.9	52.8	63	59	57	53	53	53	53	57	56.5	3.16	67	61	57
9/26/2018	22:54	1.0	hour	57	92.6	78.8	52.2	65	57	55	53	53	53	53	55	54.7	2.14	61	57	55
9/26/2018	23:54	1.0	hour	58.9	94.5	80.6	52.6	63	57	55	53	53	53	53	55	55.3	3.06	65	61	55
9/26/2018	0:54	1.0	hour	53.7	89.3	62.7	49.5	55	53	53	51	51	51	49	53	52.4	1.58	57	53	53
9/26/2018	1:54	1.0	hour	56.4	92	77.7	49.3	57	53	51	51	51	51	49	51	52.4	2.89	63	55	53
9/27/2018	2:54	1.0	hour	59.4	95	79.9	46.6	63	57	51	49	49	49	49	51	52.2	4.72	69	59	53
9/27/2018	3:54	1.0	hour	54.2	89.8	75.8	47	53	53	51	49	49	49	49	51	51.1	2.41	59	53	51
9/27/2018	4:54	1.0	hour	60.3	95.9	83.3	45.9	61	57	51	49	49	49	49	51	52.6	4.59	69	59	53
9/27/2018	5:54	1.0	hour	62.7	98.3	87.2	46.8	67	61	51	47	47	47	47	51	52.8	6.18	73	63	55
9/27/2018	6:54	1.0	hour	63.9	99.5	83.2	45.8	71	65	51	49	47	47	47	51	54.3	6.85	75	67	57
9/27/2018	7:54	1.0	hour	63.4	99	84.7	46.3	69	63	51	47	47	47	47	51	53	6.81	73	65	55

Piccolo #1200 - Site LT2

Number	Start Date	Start Time	Duration	SPL Time Weight	LN% Freq Weight	LAeq	LAmx	LAmin	LAE	LApeak	L1%	L5%	L10%	L50%	L90%	L95%	L99%
1	9/26/2018	9:00:00 AM	60.00	Slow	dB	65.7	89.6	38.9	101.3	106.6	77.7	72.2	67.8	52.8	47.3	46	43.4
2	9/26/2018	10:00:00 AM	60.00	Slow	dB	69.5	91.5	40.2	105.1	104.5	84.1	72.5	66.2	55.1	48.2	46.4	44.6
3	9/26/2018	11:00:00 AM	60.00	Slow	dB	71.7	93.5	41.5	107.3	106.2	84.6	79	71.1	52.7	46.3	45.2	43.4
4	9/26/2018	12:00:00 PM	60.00	Slow	dB	69.2	86.4	38.9	104.8	103.7	82.8	76.4	70.7	51.7	44.7	43.6	41.7
5	9/26/2018	1:00:00 PM	60.00	Slow	dB	71.2	93.8	35.8	106.8	106.6	83.5	79.7	72.1	50.1	41.7	40.3	38.3
6	9/26/2018	2:00:00 PM	60.00	Slow	dB	68.8	88.4	35	104.4	102.4	81.9	75.2	71.2	49.3	41	39.4	37.5
7	9/26/2018	3:00:00 PM	60.00	Slow	dB	69.2	88.6	33.5	104.8	103.8	81.3	77.5	72	49.3	40.2	37.9	35.4
8	9/26/2018	4:00:00 PM	60.00	Slow	dB	67.1	88.7	37.1	102.7	104.8	79.3	73.4	71	50.4	41.1	39.9	38.2
9	9/26/2018	5:00:00 PM	60.00	Slow	dB	67.6	88.8	33.7	103.2	107.1	79.7	73.7	71.4	52.1	41	39.3	35.4
10	9/26/2018	6:00:00 PM	60.00	Slow	dB	68.8	89.4	33.9	104.4	106	80.3	75.8	72.4	52.7	40.4	38.2	35.6
11	9/26/2018	7:00:00 PM	60.00	Slow	dB	69.5	89.1	33.3	105.1	103.7	83.8	73.6	69.5	48.9	38.5	36.5	34.8
12	9/26/2018	8:00:00 PM	60.00	Slow	dB	62.4	84.7	42.1	98	100.1	74.8	69.6	63	53	46.3	45.3	43.7
13	9/26/2018	9:00:00 PM	60.00	Slow	dB	71.7	89.7	50.2	107.3	104	87.3	71.2	61.2	54.7	53.1	52.3	51.2
14	9/26/2018	10:00:00 PM	60.00	Slow	dB	67.9	89.8	51.7	103.5	103	82.8	67.1	59.4	54.3	53.4	53.2	52.8
15	9/26/2018	11:00:00 PM	60.00	Slow	dB	65.6	84.9	51	101.2	98.3	80	65.5	55.7	53.3	52.6	52.4	51.9
16	9/26/2018	12:00:00 PM	60.00	Slow	dB	72	91.4	49.7	107.6	105	86.6	65.8	55.1	52.4	51.4	51.1	50.6
17	9/26/2018	1:00:00 AM	60.00	Slow	dB	63.7	83.5	48.5	99.3	99.5	78	61	52.9	51.3	50.6	50.4	50
18	9/27/2018	2:00:00 AM	60.00	Slow	dB	64.2	84.8	46.8	99.8	102.3	75.1	70.6	67.5	52.3	49.8	49.5	48.6
19	9/27/2018	3:00:00 AM	60.00	Slow	dB	69.1	96.6	45	104.7	111.4	75.5	56.8	52.7	49.1	48.1	47.8	47.1
20	9/27/2018	4:00:00 AM	60.00	Slow	dB	67.2	91.6	43.3	102.8	107.5	81.4	60.4	53	49.8	47.4	46.8	45.6
21	9/27/2018	5:00:00 AM	60.00	Slow	dB	67.7	87.2	42.7	103.3	107.6	80.3	76	68	52.5	47.6	46.1	45
22	9/27/2018	6:00:00 AM	60.00	Slow	dB	66.1	88	41.5	101.7	102.5	77.7	74.1	70.5	48.8	43.8	42.7	42
23	9/27/2018	7:00:00 AM	60.00	Slow	dB	69.6	90.5	42.5	105.2	107.5	81.1	76.3	73.8	53	45.7	45.1	44.4
24	9/27/2018	8:00:00 AM	60.00	Slow	dB	72.5	93.2	40.3	108.1	111.8	84.4	79.1	74.1	48.9	44.2	43.5	42.6

Piccolo #1008 - Site LT3

Rec 109 to 133 Slow Response

dBA weighting 2.0 dB resolution stats

Date hh:mm:ss	Leq	LeqPeriod	SEL	Lmax	Lmin	L1%	L5%	L10%	L50%	L90%	L95%	L99%	Lmedian	Lmean	StdDev	L2%	L8%	L25%	
9/26/2018 8:30	1.0 hour		57.6	93.2	79.9	43.1	69	59	55	47	45	45	43	47	48.9	4.89	65	55	51
9/26/2018 9:30	1.0 hour		55.8	91.4	82.7	45.1	65	55	53	49	47	45	45	49	49.4	3.71	59	53	51
9/26/2018 10:30	1.0 hour		58	93.6	81.3	44.6	69	59	55	49	47	45	45	49	50.5	4.53	65	57	53
9/26/2018 11:30	1.0 hour		56.4	92	79	43.1	69	57	53	47	45	45	43	47	48.4	4.48	63	53	49
9/26/2018 12:30	1.0 hour		56.6	92.2	77.7	43	69	57	53	47	45	43	43	47	48	4.69	65	53	49
9/26/2018 13:30	1.0 hour		58.7	94.3	83	40.7	71	59	53	47	43	43	41	47	47.6	5.57	67	55	49
9/26/2018 14:30	1.0 hour		58.5	94.1	84.9	39.9	71	57	49	43	41	41	39	43	44.7	5.56	65	51	45
9/26/2018 15:30	1.0 hour		59.3	94.9	83	39.9	73	59	53	45	41	41	39	45	45.8	6.19	69	55	47
9/26/2018 16:30	1.0 hour		56	91.6	81.7	40.6	69	53	49	43	41	41	39	43	45.2	5.19	63	51	47
9/26/2018 17:30	1.0 hour		52.6	88.2	81	39.7	59	47	45	43	41	41	39	43	43.1	3.43	53	45	43
9/26/2018 18:30	1.0 hour		55.4	91	82.1	41.8	65	51	47	43	43	41	41	43	44.9	4.16	59	49	45
9/26/2018 19:30	1.0 hour		53	88.6	79.3	43.2	61	51	47	45	43	43	43	45	45.1	3.56	57	49	45
9/26/2018 20:30	1.0 hour		48.8	84.4	75.7	43.3	55	45	45	45	43	43	43	45	45	2.12	51	45	45
9/26/2018 21:30	1.0 hour		49.8	85.4	68.7	43.3	61	55	45	45	43	43	43	45	45	3.64	59	49	45
9/26/2018 22:30	1.0 hour		47.5	83.1	67.5	41.9	57	51	45	43	43	41	41	43	43.9	3	55	47	43
9/26/2018 23:30	1.0 hour		49.8	85.4	73.4	41.3	59	57	53	43	41	41	41	43	44.2	4.86	57	55	45
9/26/2018 0:30	1.0 hour		46	81.6	65.8	39.9	57	51	43	41	39	39	39	41	41.9	3.28	53	45	41
9/26/2018 1:30	1.0 hour		48.4	84	72.9	39.7	61	49	45	39	39	39	39	39	40.7	4.08	57	47	41
9/27/2018 2:30	1.0 hour		48.1	83.7	73.2	38.9	59	49	43	39	39	39	39	39	40.6	4.09	57	43	41
9/27/2018 3:30	1.0 hour		39.2	74.8	42.8	37.7	41	39	39	39	37	37	37	39	38.4	0.98	39	39	39
9/27/2018 4:30	1.0 hour		50.7	86.3	76.5	37.7	63	53	49	39	37	37	37	39	40.9	5.56	59	51	41
9/27/2018 5:30	1.0 hour		48.7	84.3	74.5	36	59	49	41	37	37	37	37	37	38.8	4.5	57	43	39
9/27/2018 6:30	1.0 hour		55.9	91.5	80.6	37.2	67	53	49	43	39	37	37	43	43.4	5.52	61	51	45
9/27/2018 7:30	1.0 hour		56	91.6	81	36.8	67	57	53	43	39	37	37	43	44.3	6.27	61	53	47

Piccolo #11 - Site LT4

Rec 3 to 26		2.0 dB resolution stats																
Slow Response		dBa weighting					L50% to L99%											
Date	hh:mm:ss	SEL	Lmax	Lmin	L1%	L5%	L10%	L50%	L90%	L95%	L99%	Lmedian	Lmean	StdDev	L2%	L8%	L25%	
Leq	Period																	
9/26/2018	8:40	60.4	96	72.6	45.7	67	65	63	57	51	49	47	57	57.1	4.61	67	63	61
9/26/2018	9:40	62.9	98.5	74.8	48.5	69	67	65	59	55	53	49	59	59.8	4.43	69	67	63
9/26/2018	10:40	60.5	96.1	78	44.9	67	65	63	57	49	49	45	57	56.7	5.05	67	63	61
9/26/2018	11:40	55.1	90.7	75.2	44.5	63	59	57	49	45	45	45	49	50.7	4.86	61	59	53
9/26/2018	12:40	55.5	91.1	76.6	44.5	63	61	59	49	45	45	45	49	50.2	5.3	63	59	53
9/26/2018	13:40	53.9	89.5	77.1	43.5	63	59	55	49	45	45	43	49	49.4	4.54	61	57	51
9/26/2018	14:40	47.5	83.1	60.9	42.3	53	51	49	45	43	43	43	45	45.6	2.58	53	49	47
9/26/2018	15:40	51.4	87	70.6	42.7	59	57	53	47	43	43	43	47	47.9	4.07	59	55	51
9/26/2018	16:40	53.1	88.7	81.5	41.3	59	55	53	47	43	41	41	47	47.2	4.15	57	53	49
9/26/2018	17:40	48.7	84.3	70.7	40.2	57	51	51	43	41	41	39	43	44.6	4.11	53	51	47
9/26/2018	18:40	54.4	90	73	42.1	63	55	53	51	51	51	47	51	51.9	2.35	59	53	53
9/26/2018	19:40	53.3	88.9	56.1	45.3	53	53	53	53	51	51	47	53	52.2	1.21	53	53	53
9/26/2018	20:40	53.1	88.7	64.8	47.9	55	53	53	53	51	51	49	53	52.1	1.25	55	53	53
9/26/2018	21:40	54	89.6	70.7	43.9	65	57	53	51	49	49	47	51	51.2	2.86	61	55	51
9/26/2018	22:40	54.2	89.8	83.4	40.5	63	57	51	47	43	41	41	47	47.2	4.33	61	53	49
9/26/2018	23:40	49	84.6	70.6	40.4	59	51	51	43	39	39	39	43	44.4	4.33	55	51	47
9/26/2018	0:40	45.1	80.7	69.7	39.2	51	47	45	39	39	39	39	39	41.1	3.05	47	45	43
9/26/2018	1:40	42	77.6	61.8	39.2	51	43	39	39	39	39	39	39	39.5	2.12	49	41	39
9/27/2018	2:40	49	84.6	73	37.6	61	53	47	39	37	37	37	39	40.7	4.97	57	49	41
9/27/2018	3:40	40.9	76.5	52.9	37.5	49	45	43	37	37	37	37	37	38.2	2.88	49	43	37
9/27/2018	4:40	47.6	83.2	73.9	37.5	59	49	45	39	37	37	37	39	40.2	4.59	55	47	41
9/27/2018	5:40	50.3	85.9	81.5	37.5	57	49	47	37	37	37	37	37	39.9	4.78	55	47	41
9/27/2018	6:40	55	90.6	85.4	37.3	61	49	45	37	37	37	37	37	39.4	4.67	53	45	39
9/27/2018	7:40	51.1	86.7	83	37.5	49	47	45	41	37	37	37	41	41.1	3.43	47	45	43

Leq	Time	Adjustment				
58.9	Midnight	10	68.9	68.9		
53.7	1	10	63.7	63.7		
56.4	2	10	66.4	66.4		
59.4	3	10	69.4	69.4		
54.2	4	10	64.2	64.2		
60.3	5	10	70.3	70.3		
62.7	6	10	72.7	72.7		
63.9	7am		63.9	63.9		
63.4	8		63.4	63.4		
65.2	9		65.2	65.2		
61.9	10		61.9	61.9		
62.4	11		62.4	62.4		
62.7	noon		62.7	62.7		
61.8	1		61.8	61.8		
62.1	2		62.1	62.1		
61.6	3		61.6	61.6		
62.4	4		62.4	62.4		
62.1	5		62.1	62.1		
61.5	6		61.5	61.5		
62.6	7	5	67.6	62.6		
60.3	8	5	65.3	60.3		
59.7	9	5	64.7	59.7		
59.8	10	10	69.8	69.8		
57	11	10	67	67		
			66.4	66.0		
			CNEL	LDN		



Leq	Time	Adjustment				
72	Midnight	10	82	82		
63.7	1	10	73.7	73.7		
64.2	2	10	74.2	74.2		
69.1	3	10	79.1	79.1		
67.2	4	10	77.2	77.2		
67.7	5	10	77.7	77.7		
66.1	6	10	76.1	76.1		
69.6	7am		69.6	69.6		
72.5	8		72.5	72.5		
65.7	9		65.7	65.7		
69.5	10		69.5	69.5		
71.7	11		71.7	71.7		
69.2	noon		69.2	69.2		
71.2	1		71.2	71.2		
68.8	2		68.8	68.8		
69.2	3		69.2	69.2		
67.1	4		67.1	67.1		
67.6	5		67.6	67.6		
68.8	6		68.8	68.8		
69.5	7	5	74.5	69.5		
62.4	8	5	67.4	62.4		
71.7	9	5	76.7	71.7		
67.9	10	10	77.9	77.9		
65.6	11	10	75.6	75.6		
			74.8	74.5		
			CNEL	LDN		

Leq	Time	Adjustment				
46	Midnight	10	56	56		
48.4	1	10	58.4	58.4		
48.1	2	10	58.1	58.1		
39.2	3	10	49.2	49.2		
50.7	4	10	60.7	60.7		
48.7	5	10	58.7	58.7		
55.9	6	10	65.9	65.9		
56	7am		56	56		
57.6	8		57.6	57.6		
55.8	9		55.8	55.8		
58	10		58	58		
56.4	11		56.4	56.4		
56.6	noon		56.6	56.6		
58.7	1		58.7	58.7		
58.5	2		58.5	58.5		
59.3	3		59.3	59.3		
56	4		56	56		
52.6	5		52.6	52.6		
55.4	6		55.4	55.4		
53	7	5	58	53		
48.8	8	5	53.8	48.8		
49.8	9	5	54.8	49.8		
47.5	10	10	57.5	57.5		
49.8	11	10	59.8	59.8		
			58.4	58.1		
			CNEL	LDN		

Leq	Time	Adjustment				
45.1	Midnight	10	55.1	55.1		
42	1	10	52	52		
49	2	10	59	59		
40.9	3	10	50.9	50.9		
47.6	4	10	57.6	57.6		
50.3	5	10	60.3	60.3		
55	6	10	65	65		
51.1	7am		51.1	51.1		
60.4	8		60.4	60.4		
62.9	9		62.9	62.9		
60.5	10		60.5	60.5		
55.1	11		55.1	55.1		
55.5	noon		55.5	55.5		
53.9	1		53.9	53.9		
47.5	2		47.5	47.5		
51.4	3		51.4	51.4		
53.1	4		53.1	53.1		
48.7	5		48.7	48.7		
54.4	6		54.4	54.4		
53.3	7	5	58.3	53.3		
53.1	8	5	58.1	53.1		
54	9	5	59	54		
54.2	10	10	64.2	64.2		
49	11	10	59	59		
			58.7	58.3		
			CNEL	LDN		

# **APPENDIX B**

*Octave Band to A-Weighted Spectrum*

*Worksheets*

**A-WEIGHTING SPECTRUM CONVERSION**

This spreadsheet takes unweighted octave-band sound pressure levels and applies the A-weighting correction values, then gives the overall dBA level.

Section 901.102 Sound Emitted to Class A Land from Class C Limits: DAYTIME

	Octave-band frequencies, Hz									Overall (Linear)
Octave-band level:	31.5	63	125	250	500	1000	2000	4000	8000	
	75	74	69	64	58	52	47	43	40	78.3

	Octave-band frequencies, Hz								
A-weighted correction:	31.5	63	125	250	500	1000	2000	4000	8000
	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1

	Octave-band frequencies, Hz									Overall (dBA)
Sound Level, dBA	31.5	63	125	250	500	1000	2000	4000	8000	
	35.6	47.8	52.9	55.4	54.8	52.0	48.2	44.0	38.9	60.7

DAYTIME LIMIT expressed in dBA: **60.7**

**A-WEIGHTING SPECTRUM CONVERSION**

This spreadsheet takes unweighted octave-band sound pressure levels and applies the A-weighting correction values, then gives the overall dBA level.

Section 901.102 Sound Emitted to Class A Land from Class C Limits: NIGHTTIME

	Octave-band frequencies, Hz									Overall (Linear)
Octave-band level:	31.5	63	125	250	500	1000	2000	4000	8000	
	69	67	62	54	47	41	36	32	32	71.7

	Octave-band frequencies, Hz								
A-weighted correction:	31.5	63	125	250	500	1000	2000	4000	8000
	-39.4	-26.2	-16.1	-8.6	-3.2	0.0	1.2	1.0	-1.1

	Octave-band frequencies, Hz									Overall (dBA)
Sound Level, dBA	31.5	63	125	250	500	1000	2000	4000	8000	
	29.6	40.8	45.9	45.4	43.8	41.0	37.2	33.0	30.9	51.2

NIGHTTIME LIMIT expressed in dBA: **51.2**

# **APPENDIX C**

## *Inverter Sound Testing Data*



# White Paper BU-U-019: Sunny Central

## Sound Power Measurements on SC xxxx (-US) central inverters

Performed by:

SMA Solar Technology AG - Sonnenallee 1 - 34266 Niestetal, Germany - EMC Environment Laboratory (EMV- und Umweltlabor)

### Summing up of the Situation

Measurements were taken for one central inverter each of the models SC 2200 and SC 2500-EV. The sound power measurements were performed in accordance with the DIN EN ISO 9614-2:12/1996 standard, "Determination of sound power levels of noise sources using sound intensity".

The measurements were taken under nominal operating conditions for the inverters, with all inverter fans operating at maximum speed.

### Inspection Reference According to EN ISO 3744:2011-02

EN ISO 3744 is used as the basis for determining the noise emissions of the unit under test according to EN ISO 12001:05-2007.

As part of the acoustics, it includes the determination of the sound level of noise sources using the enveloping surface method of accuracy class 2 for essentially free field conditions over a reflective plane. Measurements must be carried out in compliance with IEC 551 and DIN EN 45645-1 according to DIN EN ISO 3744. To position the measurement instruments, the enclosure of the unit under test is considered a main radiation area.

### Inspection Reference According to EN ISO 9614-2:2010-11

The sound level is determined according to DIN EN ISO 9614-2 "Determination of sound power levels of noise sources using sound intensity", Part 2: "Measurement by scanning".

This measurement procedure keeps interference on the measurement result caused by noises from the environment to a minimum.

### Type of Test / Thresholds and Requirements:

Type of Test / Thresholds and Requirements:	Sound level measurement according to DIN EN ISO 3744:2011-02 and DIN EN ISO 9614-2:2010-11 of sinusoidal, irregularly shaped, transient signals. Classification of ambient conditions in compliance with the German Noise Control Guidelines (TA Lärm). (according to Section 2)
<b>Result:</b>	<b>The requirements were fulfilled.</b>





## Result of Measurements

The following rating levels can be determined from the sound power measurements performed:

Inverter type	Sound power level mean value $L_{WA}$
SC 1850-US	94
SC 2200 & SC 2200-US	94
SC 2500-EV & SC 2500-EV-US	92

The following tables show the selected distances from the inverter and their corresponding sound pressure levels  $L_{pA}$  in dB(A) at nominal AC power.

Distance	SC 1850-US	SC 2200 (-US)	SC 2500-EV (-US)
1 m	79	79	77
10 m	66	66	64
20 m	60	60	58
30 m	56	56	55
40 m	54	54	52
50 m	52	52	50
60 m	50	50	49
70 m	49	49	47
80 m	48	48	46
90 m	47	47	45
100 m	46	46	44

### Information:

The detailed test report may be requested from SMA Solar Technology AG if necessary.

# Noise Reduction Kit

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For SC2xxx(-EV)(-US)

# 1 Description

The main noise emitting parts of SC2xxx inverter generation are the stack (inverter bridge) with its 3 kHz switching frequency, the main fan of the cooling system and the sine wave choke.

To reduce the noise level of SC2xxx inverter generation (SC 1850-US, SC 2200-US, SC 2500-EV-US, SC 2750-EV-US, SC 2200, SC 2500-EV and SC 2750-EV) additional noise baffles will be installed at the air inlet and at the exhaust. The noise baffle is equipped with cellofoam to reduce the noise level of the inverter.

Please note: This technical documentation is based on the current status of the predevelopment noise reduction kit version. All stated data in this document are subject to be changed related to the final Serial Version of the Noise Reduction Kit. The intention of the document is to provide an overview of the current status and the concept design.

## 1.1 Mechanical Design

### 1.1.1 Environmental Conditions

Ambient temperature range	-40°C to +60°C
Humidity	0 to 95 % Humidity up to 100% must be possible for more than 2 month a year.
UV resistance	DIN EN ISO 11507 (Type 1 / Method A)
Snow load carrying capacity	2400 N/m <sup>2</sup>
Environmental conditions according to EN 60721-3-4	4K4H (with temperature range from Point 3.2), 4Z1, 4Z5, 4Z7, 4B2, 4C1, 4S4, 4M3
Environmental conditions according to EN 60721-3-2	2M2 - Without fall- and drop-test

### 1.1.2 Material noise reduction kit

Material of the Components	
Sheet metal parts	If not otherwise specified: EN 10346-DX51D+Z275-N-A alternativ material: EN 10346-DX51D+Z275-M-A-C EN 10346-DX51D+AZ150-A-C
Foam Material	Cello HR 290/71 alternative: HR 290/0

### 1.1.3 Corrosion Protection

Corrosion Protection	
Sheet metal parts	Pregalvanised steel
Standard Parts	If not otherwise specified:external parts: DIN EN ISO 9227 SS white rust 120 h / red rust 360 h - CrVI-free internal parts: DIN EN ISO 9227 SS white rust 72 h / red rust 144 h - CrVI-free

### 1.1.4 Drawings

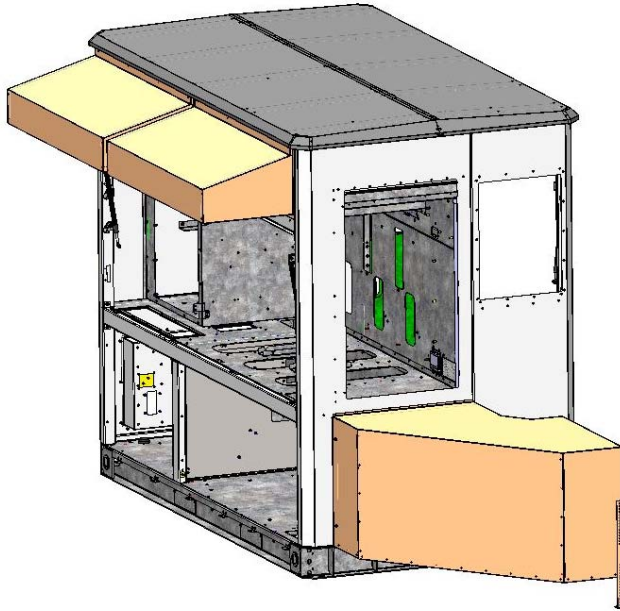


Figure 1) Concept overview noise reduction kit mounted

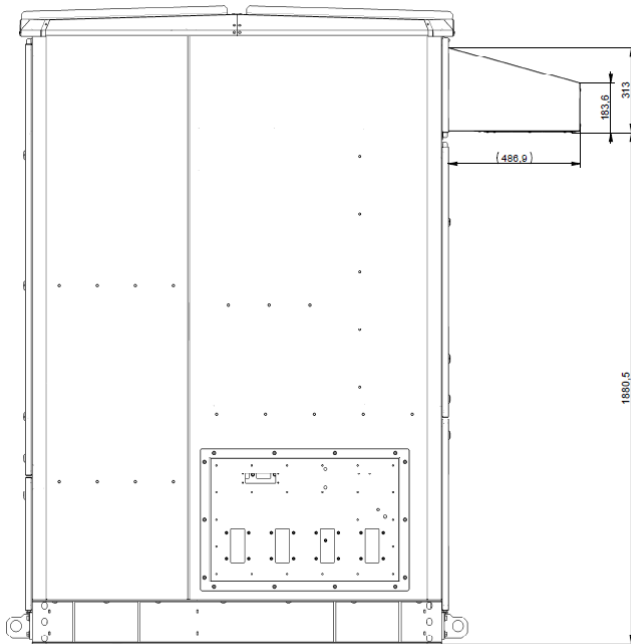
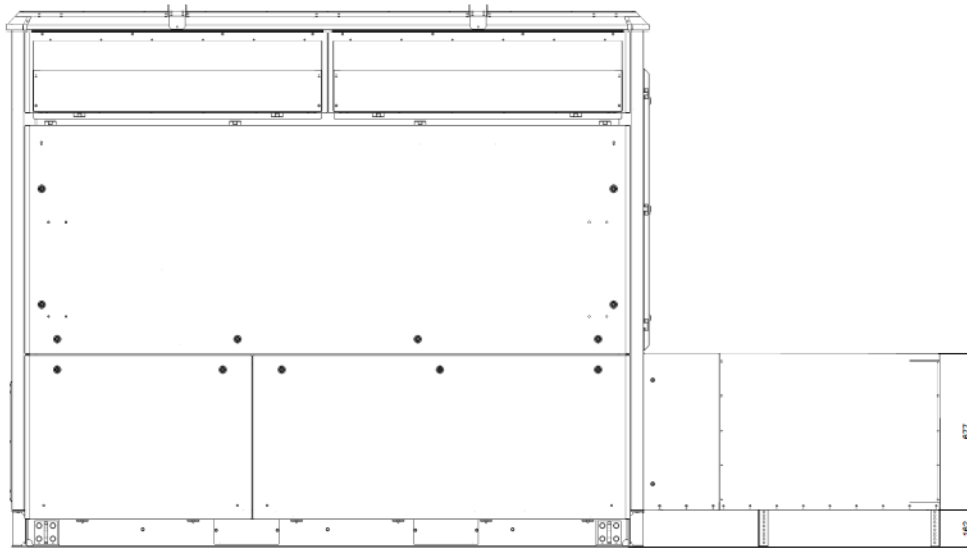


Figure 2) Air inlet noise reduction kit, side view



↑ A

Figure 3) Exhaust noise reduction kit, back side

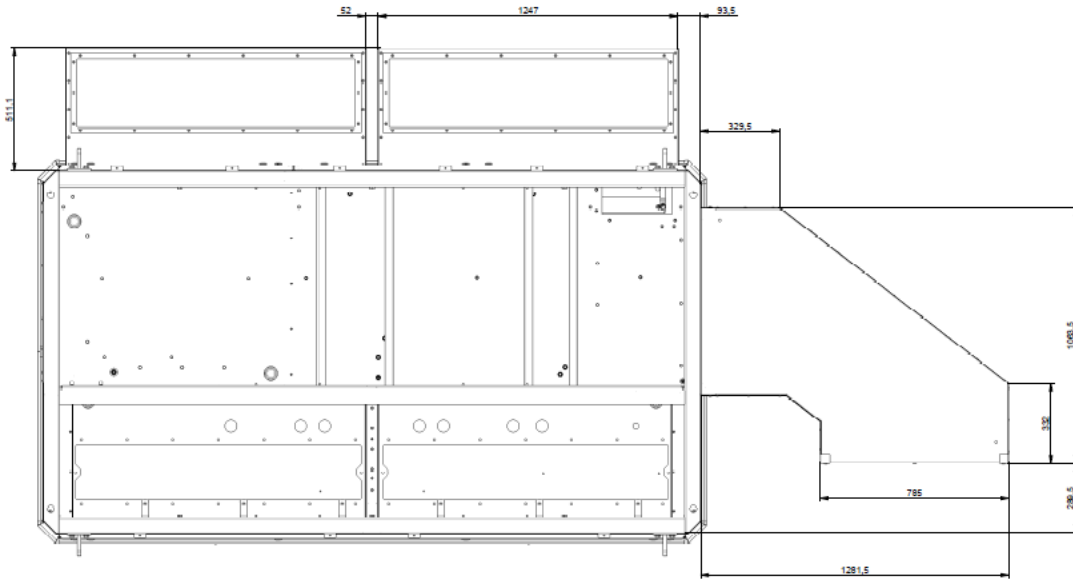


Figure 4) Exhaust noise reduction kit, top view

## 2 Noise tests

Preliminary sound level measurement according to DIN EN ISO 3744:2011-02 and DIN EN ISO 9614-2:2010-11 have been conducted

The measurements have been compared with the standard measurements without the noise reduction kit. The two measurements have shown a reduction of the soundpower value ( $L_{wa}$ ) of 94 dB(A) to 89.35 dB(A). The sound pressure level in 10m distance has been reduced by 5.3 dB(A) from 64 dB(A) to 58.7 dB(A).

# **APPENDIX D**

## *On-Site Operational Noise Calculation Worksheets*



**Grid Calculations for Solar Inverter / Transformer Arrays**

Project: Prairie Solar  
 Constructor: Prairie Solar LLC  
 P/N: 11078

Calculates distances from various adjacent points (sensitive receivers) to inverter/transformer pads or energy storage containers etc.

Grid: Cartesian coordinate system with (0,0) at the Intersection of S. Bryant Street and County Rd 900 N.

**INPUT**

Pad #	x	y	Pad #	x	y	Pad #	x	y	Pad #	x	y
1	2,250	-2,220	11	9,900	1,700	21	7,800	3,300	31	6,780	4,550
2	4,050	-2,220	12	8,925	1,700	22	9,525	3,300	32	5,880	4,550
3	2,250	-1,200	13	7,800	1,700	23	12,075	3,000	33	4,620	4,700
4	4,050	-1,200	14	6,780	1,700	24	12,900	4,000	34	11,850	5,650
5	8,475	-1,950	15	5,880	1,700	25	12,300	4,700	SUB	3,450	3,150
6	8,475	-1,050	16	4,050	800	26	11,325	4,700			
7	9,300	-1,050	17	4,860	2,000	27	9,900	4,700			
8	11,400	800	18	4,050	2,000	28	9,225	4,700			
9	12,340	800	19	4,620	3,300	29	8,475	4,700			
10	11,400	1,700	20	6,300	3,300	30	7,650	4,700			

Receiver Locations		
	x	y
R1	190	-2,360
R2	5,100	-2,530
R3	5,475	-2,960
R4	10,440	-1,845
R5	9,035	75
R6	5,400	580
R7	5,125	-155
R8	2,920	-70
R9	2,625	95
R10	1,450	65
R11	100	1,100
R12	4,045	5,015
R13	4,265	5,685
R14	5,050	5,685
R15	7,100	6,065
R16	8,205	6,245
East E. Up	14,700	3,000
East E. low	11,400	-1,250
North E	8,275	7,900
South E	7,275	-4,100
West E. Up	1,850	3,000
West E. Low	-150	-1,250

**OUTPUT**

R1

<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>
1	2,065	11	10,525	21	9,484	31	9,549
2	3,863	12	9,632	22	10,917	32	8,951
3	2,364	13	8,625	23	13,038	33	8,335
4	4,031	14	7,740	24	14,212	34	14,146
5	8,295	15	6,990	25	14,018	SUB	6,402
6	8,388	16	4,989	26	13,185		
7	9,204	17	6,389	27	12,005		
8	11,647	18	5,823	28	11,466		
9	12,554	19	7,188	29	10,885		
10	11,923	20	8,329	30	10,271		

R2

<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>
1	2,867	11	6,398	21	6,425	31	7,277
2	1,095	12	5,703	22	7,319	32	7,123
3	3,145	13	5,018	23	8,901	33	7,246
4	1,695	14	4,551	24	10,173	34	10,605
5	3,424	15	4,301	25	10,204	SUB	5,915
6	3,685	16	3,492	26	9,541		
7	4,453	17	4,536	27	8,678		
8	7,126	18	4,650	28	8,324		
9	7,969	19	5,850	29	7,979		
10	7,588	20	5,952	30	7,667		

R3

<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>
1	3,309	11	6,426	21	6,678	31	7,623
2	1,606	12	5,798	22	7,456	32	7,521
3	3,674	13	5,208	23	8,893	33	7,708
4	2,265	14	4,839	24	10,177	34	10,713
5	3,165	15	4,678	25	10,259	SUB	6,437

<b>6</b>	3,556	<b>16</b>	4,021	<b>26</b>	9,638		
<b>7</b>	4,275	<b>17</b>	4,998	<b>27</b>	8,846		
<b>8</b>	7,017	<b>18</b>	5,161	<b>28</b>	8,529		
<b>9</b>	7,827	<b>19</b>	6,318	<b>29</b>	8,227		
<b>10</b>	7,538	<b>20</b>	6,314	<b>30</b>	7,963		

R4

<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>
<b>1</b>	8,199	<b>11</b>	3,586	<b>21</b>	5,783	<b>31</b>	7,368
<b>2</b>	6,401	<b>12</b>	3,855	<b>22</b>	5,226	<b>32</b>	7,854
<b>3</b>	8,215	<b>13</b>	4,420	<b>23</b>	5,113	<b>33</b>	8,758
<b>4</b>	6,422	<b>14</b>	5,095	<b>24</b>	6,342	<b>34</b>	7,626
<b>5</b>	1,968	<b>15</b>	5,776	<b>25</b>	6,804	<b>SUB</b>	8,591
<b>6</b>	2,120	<b>16</b>	6,916	<b>26</b>	6,605		
<b>7</b>	1,390	<b>17</b>	6,776	<b>27</b>	6,567		
<b>8</b>	2,814	<b>18</b>	7,458	<b>28</b>	6,657		
<b>9</b>	3,257	<b>19</b>	7,768	<b>29</b>	6,834		
<b>10</b>	3,673	<b>20</b>	6,604	<b>30</b>	7,115		

R5

<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>
<b>1</b>	7,163	<b>11</b>	1,841	<b>21</b>	3,453	<b>31</b>	5,011
<b>2</b>	5,488	<b>12</b>	1,629	<b>22</b>	3,262	<b>32</b>	5,475
<b>3</b>	6,904	<b>13</b>	2,041	<b>23</b>	4,219	<b>33</b>	6,394
<b>4</b>	5,145	<b>14</b>	2,780	<b>24</b>	5,509	<b>34</b>	6,245
<b>5</b>	2,101	<b>15</b>	3,549	<b>25</b>	5,661	<b>SUB</b>	6,376
<b>6</b>	1,257	<b>16</b>	5,037	<b>26</b>	5,161		
<b>7</b>	1,156	<b>17</b>	4,597	<b>27</b>	4,705		
<b>8</b>	2,474	<b>18</b>	5,344	<b>28</b>	4,629		
<b>9</b>	3,384	<b>19</b>	5,467	<b>29</b>	4,659		
<b>10</b>	2,869	<b>20</b>	4,229	<b>30</b>	4,828		

R6

<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>
<b>1</b>	4,215	<b>11</b>	4,637	<b>21</b>	3,627	<b>31</b>	4,203
<b>2</b>	3,108	<b>12</b>	3,699	<b>22</b>	4,941	<b>32</b>	3,999

<b>3</b>	3,618	<b>13</b>	2,648	<b>23</b>	7,100	<b>33</b>	4,193
<b>4</b>	2,234	<b>14</b>	1,777	<b>24</b>	8,243	<b>34</b>	8,204
<b>5</b>	3,982	<b>15</b>	1,219	<b>25</b>	8,036	<b>SUB</b>	3,226
<b>6</b>	3,480	<b>16</b>	1,368	<b>26</b>	7,217		
<b>7</b>	4,227	<b>17</b>	1,519	<b>27</b>	6,101		
<b>8</b>	6,004	<b>18</b>	1,959	<b>28</b>	5,622		
<b>9</b>	6,943	<b>19</b>	2,830	<b>29</b>	5,141		
<b>10</b>	6,104	<b>20</b>	2,865	<b>30</b>	4,694		

R7

<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>
<b>1</b>	3,540	<b>11</b>	5,123	<b>21</b>	4,370	<b>31</b>	4,988
<b>2</b>	2,328	<b>12</b>	4,229	<b>22</b>	5,594	<b>32</b>	4,765
<b>3</b>	3,059	<b>13</b>	3,255	<b>23</b>	7,633	<b>33</b>	4,881
<b>4</b>	1,499	<b>14</b>	2,486	<b>24</b>	8,816	<b>34</b>	8,884
<b>5</b>	3,801	<b>15</b>	2,003	<b>25</b>	8,663	<b>SUB</b>	3,705
<b>6</b>	3,467	<b>16</b>	1,438	<b>26</b>	7,875		
<b>7</b>	4,270	<b>17</b>	2,171	<b>27</b>	6,810		
<b>8</b>	6,347	<b>18</b>	2,408	<b>28</b>	6,355		
<b>9</b>	7,278	<b>19</b>	3,492	<b>29</b>	5,899		
<b>10</b>	6,543	<b>20</b>	3,649	<b>30</b>	5,472		

R8

<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>
<b>1</b>	2,252	<b>11</b>	7,201	<b>21</b>	5,931	<b>31</b>	6,020
<b>2</b>	2,429	<b>12</b>	6,260	<b>22</b>	7,415	<b>32</b>	5,487
<b>3</b>	1,314	<b>13</b>	5,191	<b>23</b>	9,656	<b>33</b>	5,064
<b>4</b>	1,598	<b>14</b>	4,246	<b>24</b>	10,778	<b>34</b>	10,605
<b>5</b>	5,865	<b>15</b>	3,449	<b>25</b>	10,523	<b>SUB</b>	3,263
<b>6</b>	5,641	<b>16</b>	1,426	<b>26</b>	9,664		
<b>7</b>	6,455	<b>17</b>	2,837	<b>27</b>	8,454		
<b>8</b>	8,525	<b>18</b>	2,358	<b>28</b>	7,906		
<b>9</b>	9,460	<b>19</b>	3,775	<b>29</b>	7,322		
<b>10</b>	8,663	<b>20</b>	4,773	<b>30</b>	6,718		

R9

<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>
<b>1</b>	2,345	<b>11</b>	7,450	<b>21</b>	6,087	<b>31</b>	6,092

<b>2</b>	2,718	<b>12</b>	6,501	<b>22</b>	7,608	<b>32</b>	5,517
<b>3</b>	1,348	<b>13</b>	5,418	<b>23</b>	9,886	<b>33</b>	5,019
<b>4</b>	1,926	<b>14</b>	4,454	<b>24</b>	10,992	<b>34</b>	10,768
<b>5</b>	6,197	<b>15</b>	3,629	<b>25</b>	10,715	<b>SUB</b>	3,164
<b>6</b>	5,961	<b>16</b>	1,590	<b>26</b>	9,844		
<b>7</b>	6,772	<b>17</b>	2,937	<b>27</b>	8,610		
<b>8</b>	8,803	<b>18</b>	2,379	<b>28</b>	8,048		
<b>9</b>	9,741	<b>19</b>	3,775	<b>29</b>	7,445		
<b>10</b>	8,921	<b>20</b>	4,876	<b>30</b>	6,816		

R10

<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>
<b>1</b>	2,421	<b>11</b>	8,607	<b>21</b>	7,127	<b>31</b>	6,966
<b>2</b>	3,461	<b>12</b>	7,652	<b>22</b>	8,699	<b>32</b>	6,304
<b>3</b>	1,497	<b>13</b>	6,557	<b>23</b>	11,023	<b>33</b>	5,615
<b>4</b>	2,891	<b>14</b>	5,575	<b>24</b>	12,107	<b>34</b>	11,805
<b>5</b>	7,308	<b>15</b>	4,722	<b>25</b>	11,799	<b>SUB</b>	3,677
<b>6</b>	7,113	<b>16</b>	2,702	<b>26</b>	10,909		
<b>7</b>	7,929	<b>17</b>	3,921	<b>27</b>	9,638		
<b>8</b>	9,977	<b>18</b>	3,241	<b>28</b>	9,052		
<b>9</b>	10,915	<b>19</b>	4,529	<b>29</b>	8,416		
<b>10</b>	10,083	<b>20</b>	5,830	<b>30</b>	7,741		

R11

<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>	<b>Pad #</b>	<b>Dist</b>
<b>1</b>	3,955	<b>11</b>	9,818	<b>21</b>	8,008	<b>31</b>	7,518
<b>2</b>	5,160	<b>12</b>	8,845	<b>22</b>	9,678	<b>32</b>	6,731
<b>3</b>	3,148	<b>13</b>	7,723	<b>23</b>	12,125	<b>33</b>	5,778
<b>4</b>	4,571	<b>14</b>	6,707	<b>24</b>	13,124	<b>34</b>	12,600
<b>5</b>	8,913	<b>15</b>	5,811	<b>25</b>	12,720	<b>SUB</b>	3,927
<b>6</b>	8,647	<b>16</b>	3,961	<b>26</b>	11,788		
<b>7</b>	9,448	<b>17</b>	4,844	<b>27</b>	10,440		
<b>8</b>	11,304	<b>18</b>	4,051	<b>28</b>	9,809		
<b>9</b>	12,244	<b>19</b>	5,027	<b>29</b>	9,116		
<b>10</b>	11,316	<b>20</b>	6,579	<b>30</b>	8,364		

R12

Pad #	Dist		Pad #	Dist		Pad #	Dist		Pad #	Dist
1	7,454		11	6,728		21	4,128		31	2,774
2	7,235		12	5,899		22	5,742		32	1,893
3	6,469		13	5,009		23	8,279		33	656
4	6,215		14	4,298		24	8,913		34	7,831
5	8,254		15	3,789		25	8,261		SUB	1,958
6	7,511		16	4,215		26	7,287			
7	8,025		17	3,123		27	5,863			
8	8,477		18	3,015		28	5,190			
9	9,304		19	1,809		29	4,441			
10	8,068		20	2,833		30	3,619			

R13

Pad #	Dist		Pad #	Dist		Pad #	Dist		Pad #	Dist
1	8,158		11	6,902		21	4,264		31	2,759
2	7,908		12	6,132		22	5,775		32	1,974
3	7,174		13	5,327		23	8,259		33	1,047
4	6,888		14	4,712		24	8,798		34	7,585
5	8,719		15	4,300		25	8,095		SUB	2,663
6	7,943		16	4,890		26	7,128			
7	8,409		17	3,733		27	5,720			
8	8,647		18	3,691		28	5,057			
9	9,438		19	2,411		29	4,324			
10	8,172		20	3,135		30	3,525			

R14

Pad #	Dist		Pad #	Dist		Pad #	Dist		Pad #	Dist
1	8,386		11	6,277		21	3,640		31	2,069
2	7,968		12	5,558		22	5,071		32	1,406
3	7,433		13	4,842		23	7,521		33	1,075
4	6,957		14	4,344		24	8,029		34	6,800
5	8,368		15	4,071		25	7,317		SUB	2,998

<b>6</b>	7,556		<b>16</b>	4,986		<b>26</b>	6,352		
<b>7</b>	7,964		<b>17</b>	3,690		<b>27</b>	4,949		
<b>8</b>	8,012		<b>18</b>	3,818		<b>28</b>	4,290		
<b>9</b>	8,775		<b>19</b>	2,423		<b>29</b>	3,564		
<b>10</b>	7,497		<b>20</b>	2,693		<b>30</b>	2,780		

R15

<b>Pad #</b>	<b>Dist</b>		<b>Pad #</b>	<b>Dist</b>		<b>Pad #</b>	<b>Dist</b>		<b>Pad #</b>	<b>Dist</b>
<b>1</b>	9,600		<b>11</b>	5,186		<b>21</b>	2,852		<b>31</b>	1,548
<b>2</b>	8,829		<b>12</b>	4,731		<b>22</b>	3,678		<b>32</b>	1,945
<b>3</b>	8,735		<b>13</b>	4,421		<b>23</b>	5,843		<b>33</b>	2,831
<b>4</b>	7,879		<b>14</b>	4,377		<b>24</b>	6,157		<b>34</b>	4,768
<b>5</b>	8,132		<b>15</b>	4,532		<b>25</b>	5,376		<b>SUB</b>	4,671
<b>6</b>	7,247		<b>16</b>	6,085		<b>26</b>	4,440			
<b>7</b>	7,447		<b>17</b>	4,641		<b>27</b>	3,115			
<b>8</b>	6,798		<b>18</b>	5,082		<b>28</b>	2,526			
<b>9</b>	7,428		<b>19</b>	3,714		<b>29</b>	1,937			
<b>10</b>	6,127		<b>20</b>	2,878		<b>30</b>	1,472			

R16

<b>Pad #</b>	<b>Dist</b>		<b>Pad #</b>	<b>Dist</b>		<b>Pad #</b>	<b>Dist</b>		<b>Pad #</b>	<b>Dist</b>
<b>1</b>	10,350		<b>11</b>	4,851		<b>21</b>	2,973		<b>31</b>	2,214
<b>2</b>	9,430		<b>12</b>	4,602		<b>22</b>	3,227		<b>32</b>	2,877
<b>3</b>	9,534		<b>13</b>	4,563		<b>23</b>	5,050		<b>33</b>	3,904
<b>4</b>	8,526		<b>14</b>	4,763		<b>24</b>	5,204		<b>34</b>	3,693
<b>5</b>	8,199		<b>15</b>	5,105		<b>25</b>	4,377		<b>SUB</b>	5,674
<b>6</b>	7,300		<b>16</b>	6,849		<b>26</b>	3,482			
<b>7</b>	7,377		<b>17</b>	5,405		<b>27</b>	2,293			
<b>8</b>	6,313		<b>18</b>	5,940		<b>28</b>	1,851			
<b>9</b>	6,837		<b>19</b>	4,640		<b>29</b>	1,568			
<b>10</b>	5,556		<b>20</b>	3,507		<b>30</b>	1,642			

East Extent - Upper

<b>Pad #</b>	<b>Dist</b>		<b>Pad #</b>	<b>Dist</b>		<b>Pad #</b>	<b>Dist</b>		<b>Pad #</b>	<b>Dist</b>
<b>1</b>	13,500		<b>11</b>	4,973		<b>21</b>	6,907		<b>31</b>	8,070
<b>2</b>	11,860		<b>12</b>	5,920		<b>22</b>	5,184		<b>32</b>	8,955



<b>3</b>	13,139		<b>13</b>	7,021		<b>23</b>	2,625		<b>33</b>	10,222
<b>4</b>	11,448		<b>14</b>	8,026		<b>24</b>	2,059		<b>34</b>	3,892
<b>5</b>	7,953		<b>15</b>	8,915		<b>25</b>	2,941		<b>SUB</b>	11,251
<b>6</b>	7,427		<b>16</b>	10,875		<b>26</b>	3,779			
<b>7</b>	6,750		<b>17</b>	9,891		<b>27</b>	5,092			
<b>8</b>	3,966		<b>18</b>	10,697		<b>28</b>	5,733			
<b>9</b>	3,226		<b>19</b>	10,084		<b>29</b>	6,453			
<b>10</b>	3,547		<b>20</b>	8,405		<b>30</b>	7,252			

East Extent - Lower

<b>Pad #</b>	<b>Dist</b>		<b>Pad #</b>	<b>Dist</b>		<b>Pad #</b>	<b>Dist</b>		<b>Pad #</b>	<b>Dist</b>
<b>1</b>	9,201		<b>11</b>	3,309		<b>21</b>	5,802		<b>31</b>	7,415
<b>2</b>	7,414		<b>12</b>	3,851		<b>22</b>	4,921		<b>32</b>	8,007
<b>3</b>	9,150		<b>13</b>	4,654		<b>23</b>	4,303		<b>33</b>	9,021
<b>4</b>	7,350		<b>14</b>	5,482		<b>24</b>	5,460		<b>34</b>	6,915
<b>5</b>	3,008		<b>15</b>	6,259		<b>25</b>	6,018		<b>SUB</b>	9,086
<b>6</b>	2,932		<b>16</b>	7,631		<b>26</b>	5,950			
<b>7</b>	2,110		<b>17</b>	7,303		<b>27</b>	6,136			
<b>8</b>	2,050		<b>18</b>	8,036		<b>28</b>	6,335			
<b>9</b>	2,255		<b>19</b>	8,165		<b>29</b>	6,630			
<b>10</b>	2,950		<b>20</b>	6,835		<b>30</b>	7,033			

Northern Extent

<b>Pad #</b>	<b>Dist</b>		<b>Pad #</b>	<b>Dist</b>		<b>Pad #</b>	<b>Dist</b>		<b>Pad #</b>	<b>Dist</b>
<b>1</b>	11,778		<b>11</b>	6,409		<b>21</b>	4,624		<b>31</b>	3,668
<b>2</b>	10,967		<b>12</b>	6,234		<b>22</b>	4,767		<b>32</b>	4,118
<b>3</b>	10,914		<b>13</b>	6,218		<b>23</b>	6,201		<b>33</b>	4,858
<b>4</b>	10,033		<b>14</b>	6,378		<b>24</b>	6,050		<b>34</b>	4,224
<b>5</b>	9,852		<b>15</b>	6,647		<b>25</b>	5,142		<b>SUB</b>	6,771
<b>6</b>	8,952		<b>16</b>	8,262		<b>26</b>	4,421			
<b>7</b>	9,009		<b>17</b>	6,817		<b>27</b>	3,589			
<b>8</b>	7,757		<b>18</b>	7,257		<b>28</b>	3,338			
<b>9</b>	8,181		<b>19</b>	5,875		<b>29</b>	3,206			
<b>10</b>	6,943		<b>20</b>	5,006		<b>30</b>	3,260			

Southern Extent

<b>Pad #</b>	<b>Dist</b>		<b>Pad #</b>	<b>Dist</b>		<b>Pad #</b>	<b>Dist</b>		<b>Pad #</b>	<b>Dist</b>
<b>1</b>	5,365		<b>11</b>	6,366		<b>21</b>	7,419		<b>31</b>	8,664



Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	64	33	1	2065	35.9	28.1
	Transformer (pad mounted)	53	5	1	2065	52.3	0.7
2	Inverter	64	33	1	3863	41.4	22.6
	Transformer (pad mounted)	53	5	1	3863	57.8	0.0
3	Inverter	64	33	1	2364	37.1	26.9
	Transformer (pad mounted)	53	5	1	2364	53.5	0.0
4	Inverter	64	33	1	4031	41.7	22.3
	Transformer (pad mounted)	53	5	1	4031	58.1	0.0
5	Inverter	64	33	2	8295	48.0	19.0
	Transformer (pad mounted)	53	5	1	8295	64.4	0.0
6	Inverter	64	33	1	8388	48.1	15.9
	Transformer (pad mounted)	53	5	1	8388	64.5	0.0
7	Inverter	64	33	1	9204	48.9	15.1
	Transformer (pad mounted)	53	5	1	9204	65.3	0.0
8	Inverter	64	33	2	11647	51.0	16.1
	Transformer (pad mounted)	53	5	1	11647	67.3	0.0
9	Inverter	64	33	2	12554	51.6	15.4
	Transformer (pad mounted)	53	5	1	12554	68.0	0.0
10	Inverter	64	33	2	11923	51.2	15.9
	Transformer (pad mounted)	53	5	1	11923	67.5	0.0
11	Inverter	64	33	2	10525	50.1	16.9
	Transformer (pad mounted)	53	5	1	10525	66.5	0.0
12	Inverter	64	33	2	9632	49.3	17.7
	Transformer (pad mounted)	53	5	1	9632	65.7	0.0
13	Inverter	64	33	2	8625	48.3	18.7
	Transformer (pad mounted)	53	5	1	8625	64.7	0.0
14	Inverter	64	33	2	7740	47.4	19.6
	Transformer (pad mounted)	53	5	1	7740	63.8	0.0
15	Inverter	64	33	2	6990	46.5	20.5
	Transformer (pad mounted)	53	5	1	6990	62.9	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	64	33	2	4989	43.6	23.4
	Transformer (pad mounted)	53	5	1	4989	60.0	0.0
17	Inverter	64	33	2	6389	45.7	21.3
	Transformer (pad mounted)	53	5	1	6389	62.1	0.0
18	Inverter	64	33	2	5823	44.9	22.1
	Transformer (pad mounted)	53	5	1	5823	61.3	0.0
19	Inverter	64	33	2	7188	46.8	20.2
	Transformer (pad mounted)	53	5	1	7188	63.2	0.0
20	Inverter	64	33	2	8329	48.0	19.0
	Transformer (pad mounted)	53	5	1	8329	64.4	0.0
21	Inverter	64	33	2	9484	49.2	17.8
	Transformer (pad mounted)	53	5	1	9484	65.6	0.0
22	Inverter	64	33	2	10917	50.4	16.6
	Transformer (pad mounted)	53	5	1	10917	66.8	0.0
23	Inverter	64	33	2	13038	51.9	15.1
	Transformer (pad mounted)	53	5	1	13038	68.3	0.0
24	Inverter	64	33	2	14212	52.7	14.3
	Transformer (pad mounted)	53	5	1	14212	69.1	0.0
25	Inverter	64	33	2	14018	52.6	14.4
	Transformer (pad mounted)	53	5	1	14018	69.0	0.0
26	Inverter	64	33	2	13185	52.0	15.0
	Transformer (pad mounted)	53	5	1	13185	68.4	0.0
27	Inverter	64	33	2	12005	51.2	15.8
	Transformer (pad mounted)	53	5	1	12005	67.6	0.0
28	Inverter	64	33	2	11466	50.8	16.2
	Transformer (pad mounted)	53	5	1	11466	67.2	0.0
29	Inverter	64	33	2	10885	50.4	16.6
	Transformer (pad mounted)	53	5	1	10885	66.8	0.0
30	Inverter	64	33	2	10271	49.9	17.1
	Transformer (pad mounted)	53	5	1	10271	66.3	0.0
31	Inverter	64	33	2	9549	49.2	17.8

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	9549	0.0
32	Inverter	64		33	2	8951	18.3
	Transformer (pad mounted)	53		5	1	8951	0.0
33	Inverter	64		33	2	8335	19.0
	Transformer (pad mounted)	53		5	1	8335	0.0
34	Inverter	64		33	2	14146	14.4
	Transformer (pad mounted)	53		5	1	14146	0.0
	Substation Stepup Transformer	60		5	1	6402	0.0
<b>Total</b>							<b>35.4 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	64	33	1	2867	38.8	25.2
	Transformer (pad mounted)	53	5	1	2867	55.2	0.0
2	Inverter	64	33	1	1095	30.4	33.6
	Transformer (pad mounted)	53	5	1	1095	46.8	6.2
3	Inverter	64	33	1	3145	39.6	24.4
	Transformer (pad mounted)	53	5	1	3145	56.0	0.0
4	Inverter	64	33	1	1695	34.2	29.8
	Transformer (pad mounted)	53	5	1	1695	50.6	2.4
5	Inverter	64	33	2	3424	40.3	26.7
	Transformer (pad mounted)	53	5	1	3424	56.7	0.0
6	Inverter	64	33	1	3685	41.0	23.0
	Transformer (pad mounted)	53	5	1	3685	57.3	0.0
7	Inverter	64	33	1	4453	42.6	21.4
	Transformer (pad mounted)	53	5	1	4453	59.0	0.0
8	Inverter	64	33	2	7126	46.7	20.3
	Transformer (pad mounted)	53	5	1	7126	63.1	0.0
9	Inverter	64	33	2	7969	47.7	19.4
	Transformer (pad mounted)	53	5	1	7969	64.0	0.0
10	Inverter	64	33	2	7588	47.2	19.8
	Transformer (pad mounted)	53	5	1	7588	63.6	0.0
11	Inverter	64	33	2	6398	45.8	21.3
	Transformer (pad mounted)	53	5	1	6398	62.1	0.0
12	Inverter	64	33	2	5703	44.8	22.3
	Transformer (pad mounted)	53	5	1	5703	61.1	0.0
13	Inverter	64	33	2	5018	43.6	23.4
	Transformer (pad mounted)	53	5	1	5018	60.0	0.0
14	Inverter	64	33	2	4551	42.8	24.2
	Transformer (pad mounted)	53	5	1	4551	59.2	0.0
15	Inverter	64	33	2	4301	42.3	24.7
	Transformer (pad mounted)	53	5	1	4301	58.7	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	64	33	2	3492	40.5	26.5
	Transformer (pad mounted)	53	5	1	3492	56.9	0.0
17	Inverter	64	33	2	4536	42.8	24.2
	Transformer (pad mounted)	53	5	1	4536	59.2	0.0
18	Inverter	64	33	2	4650	43.0	24.0
	Transformer (pad mounted)	53	5	1	4650	59.4	0.0
19	Inverter	64	33	2	5850	45.0	22.0
	Transformer (pad mounted)	53	5	1	5850	61.4	0.0
20	Inverter	64	33	2	5952	45.1	21.9
	Transformer (pad mounted)	53	5	1	5952	61.5	0.0
21	Inverter	64	33	2	6425	45.8	21.2
	Transformer (pad mounted)	53	5	1	6425	62.2	0.0
22	Inverter	64	33	2	7319	46.9	20.1
	Transformer (pad mounted)	53	5	1	7319	63.3	0.0
23	Inverter	64	33	2	8901	48.6	18.4
	Transformer (pad mounted)	53	5	1	8901	65.0	0.0
24	Inverter	64	33	2	10173	49.8	17.2
	Transformer (pad mounted)	53	5	1	10173	66.2	0.0
25	Inverter	64	33	2	10204	49.8	17.2
	Transformer (pad mounted)	53	5	1	10204	66.2	0.0
26	Inverter	64	33	2	9541	49.2	17.8
	Transformer (pad mounted)	53	5	1	9541	65.6	0.0
27	Inverter	64	33	2	8678	48.4	18.6
	Transformer (pad mounted)	53	5	1	8678	64.8	0.0
28	Inverter	64	33	2	8324	48.0	19.0
	Transformer (pad mounted)	53	5	1	8324	64.4	0.0
29	Inverter	64	33	2	7979	47.7	19.3
	Transformer (pad mounted)	53	5	1	7979	64.1	0.0
30	Inverter	64	33	2	7667	47.3	19.7
	Transformer (pad mounted)	53	5	1	7667	63.7	0.0
31	Inverter	64	33	2	7277	46.9	20.1

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	7277	63.3
32	Inverter	64		33	2	7123	46.7
	Transformer (pad mounted)	53		5	1	7123	63.1
33	Inverter	64		33	2	7246	46.8
	Transformer (pad mounted)	53		5	1	7246	63.2
34	Inverter	64		33	2	10605	50.1
	Transformer (pad mounted)	53		5	1	10605	66.5
	Substation Stepup Transformer	60		5	1	5915	61.5
<b>Total</b>							<b>39.3 dBA Leq</b>



Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	64	33	1	3309	40.0	24.0
	Transformer (pad mounted)	53	5	1	3309	56.4	0.0
2	Inverter	64	33	1	1606	33.7	30.3
	Transformer (pad mounted)	53	5	1	1606	50.1	2.9
3	Inverter	64	33	1	3674	40.9	23.1
	Transformer (pad mounted)	53	5	1	3674	57.3	0.0
4	Inverter	64	33	1	2265	36.7	27.3
	Transformer (pad mounted)	53	5	1	2265	53.1	0.0
5	Inverter	64	33	2	3165	39.6	27.4
	Transformer (pad mounted)	53	5	1	3165	56.0	0.0
6	Inverter	64	33	1	3556	40.6	23.4
	Transformer (pad mounted)	53	5	1	3556	57.0	0.0
7	Inverter	64	33	1	4275	42.2	21.8
	Transformer (pad mounted)	53	5	1	4275	58.6	0.0
8	Inverter	64	33	2	7017	46.6	20.5
	Transformer (pad mounted)	53	5	1	7017	62.9	0.0
9	Inverter	64	33	2	7827	47.5	19.5
	Transformer (pad mounted)	53	5	1	7827	63.9	0.0
10	Inverter	64	33	2	7538	47.2	19.8
	Transformer (pad mounted)	53	5	1	7538	63.6	0.0
11	Inverter	64	33	2	6426	45.8	21.2
	Transformer (pad mounted)	53	5	1	6426	62.2	0.0
12	Inverter	64	33	2	5798	44.9	22.1
	Transformer (pad mounted)	53	5	1	5798	61.3	0.0
13	Inverter	64	33	2	5208	44.0	23.0
	Transformer (pad mounted)	53	5	1	5208	60.4	0.0
14	Inverter	64	33	2	4839	43.3	23.7
	Transformer (pad mounted)	53	5	1	4839	59.7	0.0
15	Inverter	64	33	2	4678	43.0	24.0
	Transformer (pad mounted)	53	5	1	4678	59.4	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	64	33	2	4021	41.7	25.3
	Transformer (pad mounted)	53	5	1	4021	58.1	0.0
17	Inverter	64	33	2	4998	43.6	23.4
	Transformer (pad mounted)	53	5	1	4998	60.0	0.0
18	Inverter	64	33	2	5161	43.9	23.1
	Transformer (pad mounted)	53	5	1	5161	60.3	0.0
19	Inverter	64	33	2	6318	45.6	21.4
	Transformer (pad mounted)	53	5	1	6318	62.0	0.0
20	Inverter	64	33	2	6314	45.6	21.4
	Transformer (pad mounted)	53	5	1	6314	62.0	0.0
21	Inverter	64	33	2	6678	46.1	20.9
	Transformer (pad mounted)	53	5	1	6678	62.5	0.0
22	Inverter	64	33	2	7456	47.1	19.9
	Transformer (pad mounted)	53	5	1	7456	63.5	0.0
23	Inverter	64	33	2	8893	48.6	18.4
	Transformer (pad mounted)	53	5	1	8893	65.0	0.0
24	Inverter	64	33	2	10177	49.8	17.2
	Transformer (pad mounted)	53	5	1	10177	66.2	0.0
25	Inverter	64	33	2	10259	49.9	17.2
	Transformer (pad mounted)	53	5	1	10259	66.2	0.0
26	Inverter	64	33	2	9638	49.3	17.7
	Transformer (pad mounted)	53	5	1	9638	65.7	0.0
27	Inverter	64	33	2	8846	48.6	18.4
	Transformer (pad mounted)	53	5	1	8846	65.0	0.0
28	Inverter	64	33	2	8529	48.2	18.8
	Transformer (pad mounted)	53	5	1	8529	64.6	0.0
29	Inverter	64	33	2	8227	47.9	19.1
	Transformer (pad mounted)	53	5	1	8227	64.3	0.0
30	Inverter	64	33	2	7963	47.7	19.4
	Transformer (pad mounted)	53	5	1	7963	64.0	0.0
31	Inverter	64	33	2	7623	47.3	19.7

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	7623	63.7
32	Inverter	64		33	2	7521	47.2
	Transformer (pad mounted)	53		5	1	7521	63.5
33	Inverter	64		33	2	7708	47.4
	Transformer (pad mounted)	53		5	1	7708	63.8
34	Inverter	64		33	2	10713	50.2
	Transformer (pad mounted)	53		5	1	10713	66.6
	Substation Stepup Transformer	60		5	1	6437	62.2
<b>Total</b>							<b>38.1 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	64	33	1	8199	47.9	16.1
	Transformer (pad mounted)	53	5	1	8199	64.3	0.0
2	Inverter	64	33	1	6401	45.8	18.2
	Transformer (pad mounted)	53	5	1	6401	62.1	0.0
3	Inverter	64	33	1	8215	47.9	16.1
	Transformer (pad mounted)	53	5	1	8215	64.3	0.0
4	Inverter	64	33	1	6422	45.8	18.2
	Transformer (pad mounted)	53	5	1	6422	62.2	0.0
5	Inverter	64	33	2	1968	35.5	31.5
	Transformer (pad mounted)	53	5	1	1968	51.9	1.1
6	Inverter	64	33	1	2120	36.2	27.8
	Transformer (pad mounted)	53	5	1	2120	52.5	0.5
7	Inverter	64	33	1	1390	32.5	31.5
	Transformer (pad mounted)	53	5	1	1390	48.9	4.1
8	Inverter	64	33	2	2814	38.6	28.4
	Transformer (pad mounted)	53	5	1	2814	55.0	0.0
9	Inverter	64	33	2	3257	39.9	27.1
	Transformer (pad mounted)	53	5	1	3257	56.3	0.0
10	Inverter	64	33	2	3673	40.9	26.1
	Transformer (pad mounted)	53	5	1	3673	57.3	0.0
11	Inverter	64	33	2	3586	40.7	26.3
	Transformer (pad mounted)	53	5	1	3586	57.1	0.0
12	Inverter	64	33	2	3855	41.4	25.7
	Transformer (pad mounted)	53	5	1	3855	57.7	0.0
13	Inverter	64	33	2	4420	42.5	24.5
	Transformer (pad mounted)	53	5	1	4420	58.9	0.0
14	Inverter	64	33	2	5095	43.8	23.2
	Transformer (pad mounted)	53	5	1	5095	60.2	0.0
15	Inverter	64	33	2	5776	44.9	22.1
	Transformer (pad mounted)	53	5	1	5776	61.3	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	64	33	2	6916	46.4	20.6
	Transformer (pad mounted)	53	5	1	6916	62.8	0.0
17	Inverter	64	33	2	6776	46.2	20.8
	Transformer (pad mounted)	53	5	1	6776	62.6	0.0
18	Inverter	64	33	2	7458	47.1	19.9
	Transformer (pad mounted)	53	5	1	7458	63.5	0.0
19	Inverter	64	33	2	7768	47.4	19.6
	Transformer (pad mounted)	53	5	1	7768	63.8	0.0
20	Inverter	64	33	2	6604	46.0	21.0
	Transformer (pad mounted)	53	5	1	6604	62.4	0.0
21	Inverter	64	33	2	5783	44.9	22.1
	Transformer (pad mounted)	53	5	1	5783	61.3	0.0
22	Inverter	64	33	2	5226	44.0	23.0
	Transformer (pad mounted)	53	5	1	5226	60.4	0.0
23	Inverter	64	33	2	5113	43.8	23.2
	Transformer (pad mounted)	53	5	1	5113	60.2	0.0
24	Inverter	64	33	2	6342	45.7	21.3
	Transformer (pad mounted)	53	5	1	6342	62.1	0.0
25	Inverter	64	33	2	6804	46.3	20.7
	Transformer (pad mounted)	53	5	1	6804	62.7	0.0
26	Inverter	64	33	2	6605	46.0	21.0
	Transformer (pad mounted)	53	5	1	6605	62.4	0.0
27	Inverter	64	33	2	6567	46.0	21.0
	Transformer (pad mounted)	53	5	1	6567	62.4	0.0
28	Inverter	64	33	2	6657	46.1	20.9
	Transformer (pad mounted)	53	5	1	6657	62.5	0.0
29	Inverter	64	33	2	6834	46.3	20.7
	Transformer (pad mounted)	53	5	1	6834	62.7	0.0
30	Inverter	64	33	2	7115	46.7	20.3
	Transformer (pad mounted)	53	5	1	7115	63.1	0.0
31	Inverter	64	33	2	7368	47.0	20.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	7368	63.4
32	Inverter	64		33	2	7854	47.5
	Transformer (pad mounted)	53		5	1	7854	63.9
33	Inverter	64		33	2	8758	48.5
	Transformer (pad mounted)	53		5	1	8758	64.9
34	Inverter	64		33	2	7626	47.3
	Transformer (pad mounted)	53		5	1	7626	63.7
	Substation Stepup Transformer	60		5	1	8591	64.7
<b>Total</b>							<b>39.6 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	64	33	1	7163	46.7	17.3
	Transformer (pad mounted)	53	5	1	7163	63.1	0.0
2	Inverter	64	33	1	5488	44.4	19.6
	Transformer (pad mounted)	53	5	1	5488	60.8	0.0
3	Inverter	64	33	1	6904	46.4	17.6
	Transformer (pad mounted)	53	5	1	6904	62.8	0.0
4	Inverter	64	33	1	5145	43.9	20.1
	Transformer (pad mounted)	53	5	1	5145	60.2	0.0
5	Inverter	64	33	2	2101	36.1	30.9
	Transformer (pad mounted)	53	5	1	2101	52.5	0.5
6	Inverter	64	33	1	1257	31.6	32.4
	Transformer (pad mounted)	53	5	1	1257	48.0	5.0
7	Inverter	64	33	1	1156	30.9	33.1
	Transformer (pad mounted)	53	5	1	1156	47.3	5.7
8	Inverter	64	33	2	2474	37.5	29.5
	Transformer (pad mounted)	53	5	1	2474	53.9	0.0
9	Inverter	64	33	2	3384	40.2	26.8
	Transformer (pad mounted)	53	5	1	3384	56.6	0.0
10	Inverter	64	33	2	2869	38.8	28.2
	Transformer (pad mounted)	53	5	1	2869	55.2	0.0
11	Inverter	64	33	2	1841	34.9	32.1
	Transformer (pad mounted)	53	5	1	1841	51.3	1.7
12	Inverter	64	33	2	1629	33.9	33.1
	Transformer (pad mounted)	53	5	1	1629	50.3	2.7
13	Inverter	64	33	2	2041	35.8	31.2
	Transformer (pad mounted)	53	5	1	2041	52.2	0.8
14	Inverter	64	33	2	2780	38.5	28.5
	Transformer (pad mounted)	53	5	1	2780	54.9	0.0
15	Inverter	64	33	2	3549	40.6	26.4
	Transformer (pad mounted)	53	5	1	3549	57.0	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	64	33	2	5037	43.7	23.3
	Transformer (pad mounted)	53	5	1	5037	60.1	0.0
17	Inverter	64	33	2	4597	42.9	24.1
	Transformer (pad mounted)	53	5	1	4597	59.3	0.0
18	Inverter	64	33	2	5344	44.2	22.8
	Transformer (pad mounted)	53	5	1	5344	60.6	0.0
19	Inverter	64	33	2	5467	44.4	22.6
	Transformer (pad mounted)	53	5	1	5467	60.8	0.0
20	Inverter	64	33	2	4229	42.2	24.9
	Transformer (pad mounted)	53	5	1	4229	58.5	0.0
21	Inverter	64	33	2	3453	40.4	26.6
	Transformer (pad mounted)	53	5	1	3453	56.8	0.0
22	Inverter	64	33	2	3262	39.9	27.1
	Transformer (pad mounted)	53	5	1	3262	56.3	0.0
23	Inverter	64	33	2	4219	42.1	24.9
	Transformer (pad mounted)	53	5	1	4219	58.5	0.0
24	Inverter	64	33	2	5509	44.5	22.6
	Transformer (pad mounted)	53	5	1	5509	60.8	0.0
25	Inverter	64	33	2	5661	44.7	22.3
	Transformer (pad mounted)	53	5	1	5661	61.1	0.0
26	Inverter	64	33	2	5161	43.9	23.1
	Transformer (pad mounted)	53	5	1	5161	60.3	0.0
27	Inverter	64	33	2	4705	43.1	23.9
	Transformer (pad mounted)	53	5	1	4705	59.5	0.0
28	Inverter	64	33	2	4629	42.9	24.1
	Transformer (pad mounted)	53	5	1	4629	59.3	0.0
29	Inverter	64	33	2	4659	43.0	24.0
	Transformer (pad mounted)	53	5	1	4659	59.4	0.0
30	Inverter	64	33	2	4828	43.3	23.7
	Transformer (pad mounted)	53	5	1	4828	59.7	0.0
31	Inverter	64	33	2	5011	43.6	23.4



Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	5011	0.0
32	Inverter	64		33	2	5475	22.6
	Transformer (pad mounted)	53		5	1	5475	0.0
33	Inverter	64		33	2	6394	21.3
	Transformer (pad mounted)	53		5	1	6394	0.0
34	Inverter	64		33	2	6245	21.5
	Transformer (pad mounted)	53		5	1	6245	0.0
	Substation Stepup Transformer	60		5	1	6376	0.0
<b>Total</b>							<b>42.6 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	64	33	1	4215	42.1	21.9
	Transformer (pad mounted)	53	5	1	4215	58.5	0.0
2	Inverter	64	33	1	3108	39.5	24.5
	Transformer (pad mounted)	53	5	1	3108	55.9	0.0
3	Inverter	64	33	1	3618	40.8	23.2
	Transformer (pad mounted)	53	5	1	3618	57.2	0.0
4	Inverter	64	33	1	2234	36.6	27.4
	Transformer (pad mounted)	53	5	1	2234	53.0	0.0
5	Inverter	64	33	2	3982	41.6	25.4
	Transformer (pad mounted)	53	5	1	3982	58.0	0.0
6	Inverter	64	33	1	3480	40.5	23.5
	Transformer (pad mounted)	53	5	1	3480	56.9	0.0
7	Inverter	64	33	1	4227	42.2	21.8
	Transformer (pad mounted)	53	5	1	4227	58.5	0.0
8	Inverter	64	33	2	6004	45.2	21.8
	Transformer (pad mounted)	53	5	1	6004	61.6	0.0
9	Inverter	64	33	2	6943	46.5	20.5
	Transformer (pad mounted)	53	5	1	6943	62.9	0.0
10	Inverter	64	33	2	6104	45.3	21.7
	Transformer (pad mounted)	53	5	1	6104	61.7	0.0
11	Inverter	64	33	2	4637	43.0	24.1
	Transformer (pad mounted)	53	5	1	4637	59.3	0.0
12	Inverter	64	33	2	3699	41.0	26.0
	Transformer (pad mounted)	53	5	1	3699	57.4	0.0
13	Inverter	64	33	2	2648	38.1	28.9
	Transformer (pad mounted)	53	5	1	2648	54.5	0.0
14	Inverter	64	33	2	1777	34.6	32.4
	Transformer (pad mounted)	53	5	1	1777	51.0	2.0
15	Inverter	64	33	2	1219	31.3	35.7
	Transformer (pad mounted)	53	5	1	1219	47.7	5.3

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	64	33	2	1368	32.4	34.7
	Transformer (pad mounted)	53	5	1	1368	48.7	4.3
17	Inverter	64	33	2	1519	33.3	33.7
	Transformer (pad mounted)	53	5	1	1519	49.7	3.3
18	Inverter	64	33	2	1959	35.5	31.5
	Transformer (pad mounted)	53	5	1	1959	51.9	1.1
19	Inverter	64	33	2	2830	38.7	28.3
	Transformer (pad mounted)	53	5	1	2830	55.1	0.0
20	Inverter	64	33	2	2865	38.8	28.2
	Transformer (pad mounted)	53	5	1	2865	55.2	0.0
21	Inverter	64	33	2	3627	40.8	26.2
	Transformer (pad mounted)	53	5	1	3627	57.2	0.0
22	Inverter	64	33	2	4941	43.5	23.5
	Transformer (pad mounted)	53	5	1	4941	59.9	0.0
23	Inverter	64	33	2	7100	46.7	20.4
	Transformer (pad mounted)	53	5	1	7100	63.0	0.0
24	Inverter	64	33	2	8243	48.0	19.1
	Transformer (pad mounted)	53	5	1	8243	64.3	0.0
25	Inverter	64	33	2	8036	47.7	19.3
	Transformer (pad mounted)	53	5	1	8036	64.1	0.0
26	Inverter	64	33	2	7217	46.8	20.2
	Transformer (pad mounted)	53	5	1	7217	63.2	0.0
27	Inverter	64	33	2	6101	45.3	21.7
	Transformer (pad mounted)	53	5	1	6101	61.7	0.0
28	Inverter	64	33	2	5622	44.6	22.4
	Transformer (pad mounted)	53	5	1	5622	61.0	0.0
29	Inverter	64	33	2	5141	43.9	23.2
	Transformer (pad mounted)	53	5	1	5141	60.2	0.0
30	Inverter	64	33	2	4694	43.1	23.9
	Transformer (pad mounted)	53	5	1	4694	59.5	0.0
31	Inverter	64	33	2	4203	42.1	24.9

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	4203	58.5
32	Inverter	64		33	2	3999	41.7
	Transformer (pad mounted)	53		5	1	3999	58.1
33	Inverter	64		33	2	4193	42.1
	Transformer (pad mounted)	53		5	1	4193	58.5
34	Inverter	64		33	2	8204	47.9
	Transformer (pad mounted)	53		5	1	8204	64.3
	Substation Stepup Transformer	60		5	1	3226	56.2
<b>Total</b>							<b>43.0 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	64	33	1	3540	40.6	23.4
	Transformer (pad mounted)	53	5	1	3540	57.0	0.0
2	Inverter	64	33	1	2328	37.0	27.0
	Transformer (pad mounted)	53	5	1	2328	53.4	0.0
3	Inverter	64	33	1	3059	39.3	24.7
	Transformer (pad mounted)	53	5	1	3059	55.7	0.0
4	Inverter	64	33	1	1499	33.1	30.9
	Transformer (pad mounted)	53	5	1	1499	49.5	3.5
5	Inverter	64	33	2	3801	41.2	25.8
	Transformer (pad mounted)	53	5	1	3801	57.6	0.0
6	Inverter	64	33	1	3467	40.4	23.6
	Transformer (pad mounted)	53	5	1	3467	56.8	0.0
7	Inverter	64	33	1	4270	42.2	21.8
	Transformer (pad mounted)	53	5	1	4270	58.6	0.0
8	Inverter	64	33	2	6347	45.7	21.3
	Transformer (pad mounted)	53	5	1	6347	62.1	0.0
9	Inverter	64	33	2	7278	46.9	20.1
	Transformer (pad mounted)	53	5	1	7278	63.3	0.0
10	Inverter	64	33	2	6543	45.9	21.1
	Transformer (pad mounted)	53	5	1	6543	62.3	0.0
11	Inverter	64	33	2	5123	43.8	23.2
	Transformer (pad mounted)	53	5	1	5123	60.2	0.0
12	Inverter	64	33	2	4229	42.2	24.9
	Transformer (pad mounted)	53	5	1	4229	58.5	0.0
13	Inverter	64	33	2	3255	39.9	27.1
	Transformer (pad mounted)	53	5	1	3255	56.3	0.0
14	Inverter	64	33	2	2486	37.5	29.5
	Transformer (pad mounted)	53	5	1	2486	53.9	0.0
15	Inverter	64	33	2	2003	35.7	31.3
	Transformer (pad mounted)	53	5	1	2003	52.1	0.9

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	64	33	2	1438	32.8	34.2
	Transformer (pad mounted)	53	5	1	1438	49.2	3.8
17	Inverter	64	33	2	2171	36.4	30.6
	Transformer (pad mounted)	53	5	1	2171	52.8	0.2
18	Inverter	64	33	2	2408	37.3	29.7
	Transformer (pad mounted)	53	5	1	2408	53.7	0.0
19	Inverter	64	33	2	3492	40.5	26.5
	Transformer (pad mounted)	53	5	1	3492	56.9	0.0
20	Inverter	64	33	2	3649	40.9	26.1
	Transformer (pad mounted)	53	5	1	3649	57.3	0.0
21	Inverter	64	33	2	4370	42.4	24.6
	Transformer (pad mounted)	53	5	1	4370	58.8	0.0
22	Inverter	64	33	2	5594	44.6	22.4
	Transformer (pad mounted)	53	5	1	5594	61.0	0.0
23	Inverter	64	33	2	7633	47.3	19.7
	Transformer (pad mounted)	53	5	1	7633	63.7	0.0
24	Inverter	64	33	2	8816	48.5	18.5
	Transformer (pad mounted)	53	5	1	8816	64.9	0.0
25	Inverter	64	33	2	8663	48.4	18.6
	Transformer (pad mounted)	53	5	1	8663	64.8	0.0
26	Inverter	64	33	2	7875	47.6	19.5
	Transformer (pad mounted)	53	5	1	7875	63.9	0.0
27	Inverter	64	33	2	6810	46.3	20.7
	Transformer (pad mounted)	53	5	1	6810	62.7	0.0
28	Inverter	64	33	2	6355	45.7	21.3
	Transformer (pad mounted)	53	5	1	6355	62.1	0.0
29	Inverter	64	33	2	5899	45.0	22.0
	Transformer (pad mounted)	53	5	1	5899	61.4	0.0
30	Inverter	64	33	2	5472	44.4	22.6
	Transformer (pad mounted)	53	5	1	5472	60.8	0.0
31	Inverter	64	33	2	4988	43.6	23.4

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	4988	60.0
32	Inverter	64		33	2	4765	43.2
	Transformer (pad mounted)	53		5	1	4765	59.6
33	Inverter	64		33	2	4881	43.4
	Transformer (pad mounted)	53		5	1	4881	59.8
34	Inverter	64		33	2	8884	48.6
	Transformer (pad mounted)	53		5	1	8884	65.0
	Substation Stepup Transformer	60		5	1	3705	57.4
<b>Total</b>							<b>41.6 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	64	33	1	2252	36.7	27.3
	Transformer (pad mounted)	53	5	1	2252	53.1	0.0
2	Inverter	64	33	1	2429	37.3	26.7
	Transformer (pad mounted)	53	5	1	2429	53.7	0.0
3	Inverter	64	33	1	1314	32.0	32.0
	Transformer (pad mounted)	53	5	1	1314	48.4	4.6
4	Inverter	64	33	1	1598	33.7	30.3
	Transformer (pad mounted)	53	5	1	1598	50.1	2.9
5	Inverter	64	33	2	5865	45.0	22.0
	Transformer (pad mounted)	53	5	1	5865	61.4	0.0
6	Inverter	64	33	1	5641	44.7	19.3
	Transformer (pad mounted)	53	5	1	5641	61.0	0.0
7	Inverter	64	33	1	6455	45.8	18.2
	Transformer (pad mounted)	53	5	1	6455	62.2	0.0
8	Inverter	64	33	2	8525	48.2	18.8
	Transformer (pad mounted)	53	5	1	8525	64.6	0.0
9	Inverter	64	33	2	9460	49.1	17.9
	Transformer (pad mounted)	53	5	1	9460	65.5	0.0
10	Inverter	64	33	2	8663	48.4	18.6
	Transformer (pad mounted)	53	5	1	8663	64.8	0.0
11	Inverter	64	33	2	7201	46.8	20.2
	Transformer (pad mounted)	53	5	1	7201	63.2	0.0
12	Inverter	64	33	2	6260	45.6	21.4
	Transformer (pad mounted)	53	5	1	6260	62.0	0.0
13	Inverter	64	33	2	5191	43.9	23.1
	Transformer (pad mounted)	53	5	1	5191	60.3	0.0
14	Inverter	64	33	2	4246	42.2	24.8
	Transformer (pad mounted)	53	5	1	4246	58.6	0.0
15	Inverter	64	33	2	3449	40.4	26.6
	Transformer (pad mounted)	53	5	1	3449	56.8	0.0



Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	64	33	2	1426	32.7	34.3
	Transformer (pad mounted)	53	5	1	1426	49.1	3.9
17	Inverter	64	33	2	2837	38.7	28.3
	Transformer (pad mounted)	53	5	1	2837	55.1	0.0
18	Inverter	64	33	2	2358	37.1	29.9
	Transformer (pad mounted)	53	5	1	2358	53.5	0.0
19	Inverter	64	33	2	3775	41.2	25.8
	Transformer (pad mounted)	53	5	1	3775	57.6	0.0
20	Inverter	64	33	2	4773	43.2	23.8
	Transformer (pad mounted)	53	5	1	4773	59.6	0.0
21	Inverter	64	33	2	5931	45.1	21.9
	Transformer (pad mounted)	53	5	1	5931	61.5	0.0
22	Inverter	64	33	2	7415	47.0	20.0
	Transformer (pad mounted)	53	5	1	7415	63.4	0.0
23	Inverter	64	33	2	9656	49.3	17.7
	Transformer (pad mounted)	53	5	1	9656	65.7	0.0
24	Inverter	64	33	2	10778	50.3	16.7
	Transformer (pad mounted)	53	5	1	10778	66.7	0.0
25	Inverter	64	33	2	10523	50.1	16.9
	Transformer (pad mounted)	53	5	1	10523	66.5	0.0
26	Inverter	64	33	2	9664	49.3	17.7
	Transformer (pad mounted)	53	5	1	9664	65.7	0.0
27	Inverter	64	33	2	8454	48.2	18.8
	Transformer (pad mounted)	53	5	1	8454	64.6	0.0
28	Inverter	64	33	2	7906	47.6	19.4
	Transformer (pad mounted)	53	5	1	7906	64.0	0.0
29	Inverter	64	33	2	7322	46.9	20.1
	Transformer (pad mounted)	53	5	1	7322	63.3	0.0
30	Inverter	64	33	2	6718	46.2	20.8
	Transformer (pad mounted)	53	5	1	6718	62.6	0.0
31	Inverter	64	33	2	6020	45.2	21.8

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	6020	61.6
32	Inverter	64		33	2	5487	44.4
	Transformer (pad mounted)	53		5	1	5487	60.8
33	Inverter	64		33	2	5064	43.7
	Transformer (pad mounted)	53		5	1	5064	60.1
34	Inverter	64		33	2	10605	50.1
	Transformer (pad mounted)	53		5	1	10605	66.5
	Substation Stepup Transformer	60		5	1	3263	56.3
<b>Total</b>							<b>40.7 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	64	33	1	2345	37.0	27.0
	Transformer (pad mounted)	53	5	1	2345	53.4	0.0
2	Inverter	64	33	1	2718	38.3	25.7
	Transformer (pad mounted)	53	5	1	2718	54.7	0.0
3	Inverter	64	33	1	1348	32.2	31.8
	Transformer (pad mounted)	53	5	1	1348	48.6	4.4
4	Inverter	64	33	1	1926	35.3	28.7
	Transformer (pad mounted)	53	5	1	1926	51.7	1.3
5	Inverter	64	33	2	6197	45.5	21.5
	Transformer (pad mounted)	53	5	1	6197	61.9	0.0
6	Inverter	64	33	1	5961	45.1	18.9
	Transformer (pad mounted)	53	5	1	5961	61.5	0.0
7	Inverter	64	33	1	6772	46.2	17.8
	Transformer (pad mounted)	53	5	1	6772	62.6	0.0
8	Inverter	64	33	2	8803	48.5	18.5
	Transformer (pad mounted)	53	5	1	8803	64.9	0.0
9	Inverter	64	33	2	9741	49.4	17.6
	Transformer (pad mounted)	53	5	1	9741	65.8	0.0
10	Inverter	64	33	2	8921	48.6	18.4
	Transformer (pad mounted)	53	5	1	8921	65.0	0.0
11	Inverter	64	33	2	7450	47.1	19.9
	Transformer (pad mounted)	53	5	1	7450	63.5	0.0
12	Inverter	64	33	2	6501	45.9	21.1
	Transformer (pad mounted)	53	5	1	6501	62.3	0.0
13	Inverter	64	33	2	5418	44.3	22.7
	Transformer (pad mounted)	53	5	1	5418	60.7	0.0
14	Inverter	64	33	2	4454	42.6	24.4
	Transformer (pad mounted)	53	5	1	4454	59.0	0.0
15	Inverter	64	33	2	3629	40.8	26.2
	Transformer (pad mounted)	53	5	1	3629	57.2	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	64	33	2	1590	33.7	33.4
	Transformer (pad mounted)	53	5	1	1590	50.0	3.0
17	Inverter	64	33	2	2937	39.0	28.0
	Transformer (pad mounted)	53	5	1	2937	55.4	0.0
18	Inverter	64	33	2	2379	37.2	29.9
	Transformer (pad mounted)	53	5	1	2379	53.5	0.0
19	Inverter	64	33	2	3775	41.2	25.8
	Transformer (pad mounted)	53	5	1	3775	57.6	0.0
20	Inverter	64	33	2	4876	43.4	23.6
	Transformer (pad mounted)	53	5	1	4876	59.8	0.0
21	Inverter	64	33	2	6087	45.3	21.7
	Transformer (pad mounted)	53	5	1	6087	61.7	0.0
22	Inverter	64	33	2	7608	47.3	19.8
	Transformer (pad mounted)	53	5	1	7608	63.6	0.0
23	Inverter	64	33	2	9886	49.5	17.5
	Transformer (pad mounted)	53	5	1	9886	65.9	0.0
24	Inverter	64	33	2	10992	50.5	16.6
	Transformer (pad mounted)	53	5	1	10992	66.8	0.0
25	Inverter	64	33	2	10715	50.2	16.8
	Transformer (pad mounted)	53	5	1	10715	66.6	0.0
26	Inverter	64	33	2	9844	49.5	17.5
	Transformer (pad mounted)	53	5	1	9844	65.9	0.0
27	Inverter	64	33	2	8610	48.3	18.7
	Transformer (pad mounted)	53	5	1	8610	64.7	0.0
28	Inverter	64	33	2	8048	47.7	19.3
	Transformer (pad mounted)	53	5	1	8048	64.1	0.0
29	Inverter	64	33	2	7445	47.1	19.9
	Transformer (pad mounted)	53	5	1	7445	63.5	0.0
30	Inverter	64	33	2	6816	46.3	20.7
	Transformer (pad mounted)	53	5	1	6816	62.7	0.0
31	Inverter	64	33	2	6092	45.3	21.7

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	6092	0.0
32	Inverter	64		33	2	5517	22.5
	Transformer (pad mounted)	53		5	1	5517	0.0
33	Inverter	64		33	2	5019	23.4
	Transformer (pad mounted)	53		5	1	5019	0.0
34	Inverter	64		33	2	10768	16.7
	Transformer (pad mounted)	53		5	1	10768	0.0
	Substation Stepup Transformer	60		5	1	3164	4.0
<b>Total</b>							<b>40.2 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	64	33	1	2421	37.3	26.7
	Transformer (pad mounted)	53	5	1	2421	53.7	0.0
2	Inverter	64	33	1	3461	40.4	23.6
	Transformer (pad mounted)	53	5	1	3461	56.8	0.0
3	Inverter	64	33	1	1497	33.1	30.9
	Transformer (pad mounted)	53	5	1	1497	49.5	3.5
4	Inverter	64	33	1	2891	38.9	25.1
	Transformer (pad mounted)	53	5	1	2891	55.2	0.0
5	Inverter	64	33	2	7308	46.9	20.1
	Transformer (pad mounted)	53	5	1	7308	63.3	0.0
6	Inverter	64	33	1	7113	46.7	17.3
	Transformer (pad mounted)	53	5	1	7113	63.1	0.0
7	Inverter	64	33	1	7929	47.6	16.4
	Transformer (pad mounted)	53	5	1	7929	64.0	0.0
8	Inverter	64	33	2	9977	49.6	17.4
	Transformer (pad mounted)	53	5	1	9977	66.0	0.0
9	Inverter	64	33	2	10915	50.4	16.6
	Transformer (pad mounted)	53	5	1	10915	66.8	0.0
10	Inverter	64	33	2	10083	49.7	17.3
	Transformer (pad mounted)	53	5	1	10083	66.1	0.0
11	Inverter	64	33	2	8607	48.3	18.7
	Transformer (pad mounted)	53	5	1	8607	64.7	0.0
12	Inverter	64	33	2	7652	47.3	19.7
	Transformer (pad mounted)	53	5	1	7652	63.7	0.0
13	Inverter	64	33	2	6557	46.0	21.0
	Transformer (pad mounted)	53	5	1	6557	62.4	0.0
14	Inverter	64	33	2	5575	44.6	22.5
	Transformer (pad mounted)	53	5	1	5575	60.9	0.0
15	Inverter	64	33	2	4722	43.1	23.9
	Transformer (pad mounted)	53	5	1	4722	59.5	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	64	33	2	2702	38.3	28.7
	Transformer (pad mounted)	53	5	1	2702	54.7	0.0
17	Inverter	64	33	2	3921	41.5	25.5
	Transformer (pad mounted)	53	5	1	3921	57.9	0.0
18	Inverter	64	33	2	3241	39.8	27.2
	Transformer (pad mounted)	53	5	1	3241	56.2	0.0
19	Inverter	64	33	2	4529	42.8	24.3
	Transformer (pad mounted)	53	5	1	4529	59.1	0.0
20	Inverter	64	33	2	5830	44.9	22.1
	Transformer (pad mounted)	53	5	1	5830	61.3	0.0
21	Inverter	64	33	2	7127	46.7	20.3
	Transformer (pad mounted)	53	5	1	7127	63.1	0.0
22	Inverter	64	33	2	8699	48.4	18.6
	Transformer (pad mounted)	53	5	1	8699	64.8	0.0
23	Inverter	64	33	2	11023	50.5	16.5
	Transformer (pad mounted)	53	5	1	11023	66.9	0.0
24	Inverter	64	33	2	12107	51.3	15.7
	Transformer (pad mounted)	53	5	1	12107	67.7	0.0
25	Inverter	64	33	2	11799	51.1	15.9
	Transformer (pad mounted)	53	5	1	11799	67.5	0.0
26	Inverter	64	33	2	10909	50.4	16.6
	Transformer (pad mounted)	53	5	1	10909	66.8	0.0
27	Inverter	64	33	2	9638	49.3	17.7
	Transformer (pad mounted)	53	5	1	9638	65.7	0.0
28	Inverter	64	33	2	9052	48.8	18.2
	Transformer (pad mounted)	53	5	1	9052	65.2	0.0
29	Inverter	64	33	2	8416	48.1	18.9
	Transformer (pad mounted)	53	5	1	8416	64.5	0.0
30	Inverter	64	33	2	7741	47.4	19.6
	Transformer (pad mounted)	53	5	1	7741	63.8	0.0
31	Inverter	64	33	2	6966	46.5	20.5

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	6966	0.0
32	Inverter	64		33	2	6304	21.4
	Transformer (pad mounted)	53		5	1	6304	0.0
33	Inverter	64		33	2	5615	22.4
	Transformer (pad mounted)	53		5	1	5615	0.0
34	Inverter	64		33	2	11805	15.9
	Transformer (pad mounted)	53		5	1	11805	0.0
	Substation Stepup Transformer	60		5	1	3677	2.7
<b>Total</b>							<b>38.1 dBA Leq</b>



Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	64	33	1	3955	41.6	22.4
	Transformer (pad mounted)	53	5	1	3955	58.0	0.0
2	Inverter	64	33	1	5160	43.9	20.1
	Transformer (pad mounted)	53	5	1	5160	60.3	0.0
3	Inverter	64	33	1	3148	39.6	24.4
	Transformer (pad mounted)	53	5	1	3148	56.0	0.0
4	Inverter	64	33	1	4571	42.8	21.2
	Transformer (pad mounted)	53	5	1	4571	59.2	0.0
5	Inverter	64	33	2	8913	48.6	18.4
	Transformer (pad mounted)	53	5	1	8913	65.0	0.0
6	Inverter	64	33	1	8647	48.4	15.6
	Transformer (pad mounted)	53	5	1	8647	64.8	0.0
7	Inverter	64	33	1	9448	49.1	14.9
	Transformer (pad mounted)	53	5	1	9448	65.5	0.0
8	Inverter	64	33	2	11304	50.7	16.3
	Transformer (pad mounted)	53	5	1	11304	67.1	0.0
9	Inverter	64	33	2	12244	51.4	15.6
	Transformer (pad mounted)	53	5	1	12244	67.8	0.0
10	Inverter	64	33	2	11316	50.7	16.3
	Transformer (pad mounted)	53	5	1	11316	67.1	0.0
11	Inverter	64	33	2	9818	49.5	17.5
	Transformer (pad mounted)	53	5	1	9818	65.9	0.0
12	Inverter	64	33	2	8845	48.6	18.4
	Transformer (pad mounted)	53	5	1	8845	65.0	0.0
13	Inverter	64	33	2	7723	47.4	19.6
	Transformer (pad mounted)	53	5	1	7723	63.8	0.0
14	Inverter	64	33	2	6707	46.2	20.9
	Transformer (pad mounted)	53	5	1	6707	62.6	0.0
15	Inverter	64	33	2	5811	44.9	22.1
	Transformer (pad mounted)	53	5	1	5811	61.3	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	64	33	2	3961	41.6	25.4
	Transformer (pad mounted)	53	5	1	3961	58.0	0.0
17	Inverter	64	33	2	4844	43.3	23.7
	Transformer (pad mounted)	53	5	1	4844	59.7	0.0
18	Inverter	64	33	2	4051	41.8	25.2
	Transformer (pad mounted)	53	5	1	4051	58.2	0.0
19	Inverter	64	33	2	5027	43.7	23.4
	Transformer (pad mounted)	53	5	1	5027	60.0	0.0
20	Inverter	64	33	2	6579	46.0	21.0
	Transformer (pad mounted)	53	5	1	6579	62.4	0.0
21	Inverter	64	33	2	8008	47.7	19.3
	Transformer (pad mounted)	53	5	1	8008	64.1	0.0
22	Inverter	64	33	2	9678	49.3	17.7
	Transformer (pad mounted)	53	5	1	9678	65.7	0.0
23	Inverter	64	33	2	12125	51.3	15.7
	Transformer (pad mounted)	53	5	1	12125	67.7	0.0
24	Inverter	64	33	2	13124	52.0	15.0
	Transformer (pad mounted)	53	5	1	13124	68.4	0.0
25	Inverter	64	33	2	12720	51.7	15.3
	Transformer (pad mounted)	53	5	1	12720	68.1	0.0
26	Inverter	64	33	2	11788	51.1	16.0
	Transformer (pad mounted)	53	5	1	11788	67.4	0.0
27	Inverter	64	33	2	10440	50.0	17.0
	Transformer (pad mounted)	53	5	1	10440	66.4	0.0
28	Inverter	64	33	2	9809	49.5	17.5
	Transformer (pad mounted)	53	5	1	9809	65.9	0.0
29	Inverter	64	33	2	9116	48.8	18.2
	Transformer (pad mounted)	53	5	1	9116	65.2	0.0
30	Inverter	64	33	2	8364	48.1	18.9
	Transformer (pad mounted)	53	5	1	8364	64.5	0.0
31	Inverter	64	33	2	7518	47.2	19.9

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	7518	63.5
32	Inverter	64		33	2	6731	46.2
	Transformer (pad mounted)	53		5	1	6731	62.6
33	Inverter	64		33	2	5778	44.9
	Transformer (pad mounted)	53		5	1	5778	61.3
34	Inverter	64		33	2	12600	51.6
	Transformer (pad mounted)	53		5	1	12600	68.0
	Substation Stepup Transformer	60		5	1	3927	57.9
<b>Total</b>							<b>35.7 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	64		33	1	7454	16.9
	Transformer (pad mounted)	53		5	1	7454	0.0
2	Inverter	64		33	1	7235	17.2
	Transformer (pad mounted)	53		5	1	7235	0.0
3	Inverter	64		33	1	6469	18.2
	Transformer (pad mounted)	53		5	1	6469	0.0
4	Inverter	64		33	1	6215	18.5
	Transformer (pad mounted)	53		5	1	6215	0.0
5	Inverter	64		33	2	8254	19.0
	Transformer (pad mounted)	53		5	1	8254	0.0
6	Inverter	64		33	1	7511	16.9
	Transformer (pad mounted)	53		5	1	7511	0.0
7	Inverter	64		33	1	8025	16.3
	Transformer (pad mounted)	53		5	1	8025	0.0
8	Inverter	64		33	2	8477	18.8
	Transformer (pad mounted)	53		5	1	8477	0.0
9	Inverter	64		33	2	9304	18.0
	Transformer (pad mounted)	53		5	1	9304	0.0
10	Inverter	64		33	2	8068	19.2
	Transformer (pad mounted)	53		5	1	8068	0.0
11	Inverter	64		33	2	6728	20.8
	Transformer (pad mounted)	53		5	1	6728	0.0
12	Inverter	64		33	2	5899	22.0
	Transformer (pad mounted)	53		5	1	5899	0.0
13	Inverter	64		33	2	5009	23.4
	Transformer (pad mounted)	53		5	1	5009	0.0
14	Inverter	64		33	2	4298	24.7
	Transformer (pad mounted)	53		5	1	4298	0.0
15	Inverter	64		33	2	3789	25.8
	Transformer (pad mounted)	53		5	1	3789	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	64	33	2	4215	42.1	24.9
	Transformer (pad mounted)	53	5	1	4215	58.5	0.0
17	Inverter	64	33	2	3123	39.5	27.5
	Transformer (pad mounted)	53	5	1	3123	55.9	0.0
18	Inverter	64	33	2	3015	39.2	27.8
	Transformer (pad mounted)	53	5	1	3015	55.6	0.0
19	Inverter	64	33	2	1809	34.8	32.2
	Transformer (pad mounted)	53	5	1	1809	51.2	1.8
20	Inverter	64	33	2	2833	38.7	28.3
	Transformer (pad mounted)	53	5	1	2833	55.1	0.0
21	Inverter	64	33	2	4128	41.9	25.1
	Transformer (pad mounted)	53	5	1	4128	58.3	0.0
22	Inverter	64	33	2	5742	44.8	22.2
	Transformer (pad mounted)	53	5	1	5742	61.2	0.0
23	Inverter	64	33	2	8279	48.0	19.0
	Transformer (pad mounted)	53	5	1	8279	64.4	0.0
24	Inverter	64	33	2	8913	48.6	18.4
	Transformer (pad mounted)	53	5	1	8913	65.0	0.0
25	Inverter	64	33	2	8261	48.0	19.0
	Transformer (pad mounted)	53	5	1	8261	64.4	0.0
26	Inverter	64	33	2	7287	46.9	20.1
	Transformer (pad mounted)	53	5	1	7287	63.3	0.0
27	Inverter	64	33	2	5863	45.0	22.0
	Transformer (pad mounted)	53	5	1	5863	61.4	0.0
28	Inverter	64	33	2	5190	43.9	23.1
	Transformer (pad mounted)	53	5	1	5190	60.3	0.0
29	Inverter	64	33	2	4441	42.6	24.4
	Transformer (pad mounted)	53	5	1	4441	59.0	0.0
30	Inverter	64	33	2	3619	40.8	26.2
	Transformer (pad mounted)	53	5	1	3619	57.2	0.0
31	Inverter	64	33	2	2774	38.5	28.5

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	2774	54.9	0.0
32	Inverter	64		33	1893	35.2	31.8
	Transformer (pad mounted)	53		5	1893	51.6	1.4
33	Inverter	64		33	656	26.0	41.0
	Transformer (pad mounted)	53		5	656	42.4	10.6
34	Inverter	64		33	7831	47.5	19.5
	Transformer (pad mounted)	53		5	7831	63.9	0.0
	Substation Stepup Transformer	60		5	1958	51.9	8.1
<b>Total</b>							<b>43.5 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	64	33	1	8158	47.9	16.1
	Transformer (pad mounted)	53	5	1	8158	64.3	0.0
2	Inverter	64	33	1	7908	47.6	16.4
	Transformer (pad mounted)	53	5	1	7908	64.0	0.0
3	Inverter	64	33	1	7174	46.7	17.3
	Transformer (pad mounted)	53	5	1	7174	63.1	0.0
4	Inverter	64	33	1	6888	46.4	17.6
	Transformer (pad mounted)	53	5	1	6888	62.8	0.0
5	Inverter	64	33	2	8719	48.4	18.6
	Transformer (pad mounted)	53	5	1	8719	64.8	0.0
6	Inverter	64	33	1	7943	47.6	16.4
	Transformer (pad mounted)	53	5	1	7943	64.0	0.0
7	Inverter	64	33	1	8409	48.1	15.9
	Transformer (pad mounted)	53	5	1	8409	64.5	0.0
8	Inverter	64	33	2	8647	48.4	18.6
	Transformer (pad mounted)	53	5	1	8647	64.8	0.0
9	Inverter	64	33	2	9438	49.1	17.9
	Transformer (pad mounted)	53	5	1	9438	65.5	0.0
10	Inverter	64	33	2	8172	47.9	19.1
	Transformer (pad mounted)	53	5	1	8172	64.3	0.0
11	Inverter	64	33	2	6902	46.4	20.6
	Transformer (pad mounted)	53	5	1	6902	62.8	0.0
12	Inverter	64	33	2	6132	45.4	21.6
	Transformer (pad mounted)	53	5	1	6132	61.8	0.0
13	Inverter	64	33	2	5327	44.2	22.9
	Transformer (pad mounted)	53	5	1	5327	60.6	0.0
14	Inverter	64	33	2	4712	43.1	23.9
	Transformer (pad mounted)	53	5	1	4712	59.5	0.0
15	Inverter	64	33	2	4300	42.3	24.7
	Transformer (pad mounted)	53	5	1	4300	58.7	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	64	33	2	4890	43.4	23.6
	Transformer (pad mounted)	53	5	1	4890	59.8	0.0
17	Inverter	64	33	2	3733	41.1	25.9
	Transformer (pad mounted)	53	5	1	3733	57.5	0.0
18	Inverter	64	33	2	3691	41.0	26.0
	Transformer (pad mounted)	53	5	1	3691	57.4	0.0
19	Inverter	64	33	2	2411	37.3	29.7
	Transformer (pad mounted)	53	5	1	2411	53.7	0.0
20	Inverter	64	33	2	3135	39.6	27.5
	Transformer (pad mounted)	53	5	1	3135	55.9	0.0
21	Inverter	64	33	2	4264	42.2	24.8
	Transformer (pad mounted)	53	5	1	4264	58.6	0.0
22	Inverter	64	33	2	5775	44.9	22.1
	Transformer (pad mounted)	53	5	1	5775	61.3	0.0
23	Inverter	64	33	2	8259	48.0	19.0
	Transformer (pad mounted)	53	5	1	8259	64.4	0.0
24	Inverter	64	33	2	8798	48.5	18.5
	Transformer (pad mounted)	53	5	1	8798	64.9	0.0
25	Inverter	64	33	2	8095	47.8	19.2
	Transformer (pad mounted)	53	5	1	8095	64.2	0.0
26	Inverter	64	33	2	7128	46.7	20.3
	Transformer (pad mounted)	53	5	1	7128	63.1	0.0
27	Inverter	64	33	2	5720	44.8	22.2
	Transformer (pad mounted)	53	5	1	5720	61.2	0.0
28	Inverter	64	33	2	5057	43.7	23.3
	Transformer (pad mounted)	53	5	1	5057	60.1	0.0
29	Inverter	64	33	2	4324	42.3	24.7
	Transformer (pad mounted)	53	5	1	4324	58.7	0.0
30	Inverter	64	33	2	3525	40.6	26.4
	Transformer (pad mounted)	53	5	1	3525	57.0	0.0
31	Inverter	64	33	2	2759	38.4	28.6



Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	2759	0.0
32	Inverter	64		33	2	1974	31.5
	Transformer (pad mounted)	53		5	1	1974	1.1
33	Inverter	64		33	2	1047	37.0
	Transformer (pad mounted)	53		5	1	1047	6.6
34	Inverter	64		33	2	7585	19.8
	Transformer (pad mounted)	53		5	1	7585	0.0
	Substation Stepup Transformer	60		5	1	2663	5.5
<b>Total</b>							<b>41.2 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	64	33	1	8386	48.1	15.9
	Transformer (pad mounted)	53	5	1	8386	64.5	0.0
2	Inverter	64	33	1	7968	47.7	16.3
	Transformer (pad mounted)	53	5	1	7968	64.0	0.0
3	Inverter	64	33	1	7433	47.1	16.9
	Transformer (pad mounted)	53	5	1	7433	63.4	0.0
4	Inverter	64	33	1	6957	46.5	17.5
	Transformer (pad mounted)	53	5	1	6957	62.9	0.0
5	Inverter	64	33	2	8368	48.1	18.9
	Transformer (pad mounted)	53	5	1	8368	64.5	0.0
6	Inverter	64	33	1	7556	47.2	16.8
	Transformer (pad mounted)	53	5	1	7556	63.6	0.0
7	Inverter	64	33	1	7964	47.7	16.3
	Transformer (pad mounted)	53	5	1	7964	64.0	0.0
8	Inverter	64	33	2	8012	47.7	19.3
	Transformer (pad mounted)	53	5	1	8012	64.1	0.0
9	Inverter	64	33	2	8775	48.5	18.5
	Transformer (pad mounted)	53	5	1	8775	64.9	0.0
10	Inverter	64	33	2	7497	47.1	19.9
	Transformer (pad mounted)	53	5	1	7497	63.5	0.0
11	Inverter	64	33	2	6277	45.6	21.4
	Transformer (pad mounted)	53	5	1	6277	62.0	0.0
12	Inverter	64	33	2	5558	44.5	22.5
	Transformer (pad mounted)	53	5	1	5558	60.9	0.0
13	Inverter	64	33	2	4842	43.3	23.7
	Transformer (pad mounted)	53	5	1	4842	59.7	0.0
14	Inverter	64	33	2	4344	42.4	24.6
	Transformer (pad mounted)	53	5	1	4344	58.8	0.0
15	Inverter	64	33	2	4071	41.8	25.2
	Transformer (pad mounted)	53	5	1	4071	58.2	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	64	33	2	4986	43.6	23.4
	Transformer (pad mounted)	53	5	1	4986	60.0	0.0
17	Inverter	64	33	2	3690	41.0	26.0
	Transformer (pad mounted)	53	5	1	3690	57.4	0.0
18	Inverter	64	33	2	3818	41.3	25.7
	Transformer (pad mounted)	53	5	1	3818	57.7	0.0
19	Inverter	64	33	2	2423	37.3	29.7
	Transformer (pad mounted)	53	5	1	2423	53.7	0.0
20	Inverter	64	33	2	2693	38.2	28.8
	Transformer (pad mounted)	53	5	1	2693	54.6	0.0
21	Inverter	64	33	2	3640	40.9	26.2
	Transformer (pad mounted)	53	5	1	3640	57.2	0.0
22	Inverter	64	33	2	5071	43.7	23.3
	Transformer (pad mounted)	53	5	1	5071	60.1	0.0
23	Inverter	64	33	2	7521	47.2	19.9
	Transformer (pad mounted)	53	5	1	7521	63.5	0.0
24	Inverter	64	33	2	8029	47.7	19.3
	Transformer (pad mounted)	53	5	1	8029	64.1	0.0
25	Inverter	64	33	2	7317	46.9	20.1
	Transformer (pad mounted)	53	5	1	7317	63.3	0.0
26	Inverter	64	33	2	6352	45.7	21.3
	Transformer (pad mounted)	53	5	1	6352	62.1	0.0
27	Inverter	64	33	2	4949	43.5	23.5
	Transformer (pad mounted)	53	5	1	4949	59.9	0.0
28	Inverter	64	33	2	4290	42.3	24.7
	Transformer (pad mounted)	53	5	1	4290	58.7	0.0
29	Inverter	64	33	2	3564	40.7	26.3
	Transformer (pad mounted)	53	5	1	3564	57.1	0.0
30	Inverter	64	33	2	2780	38.5	28.5
	Transformer (pad mounted)	53	5	1	2780	54.9	0.0
31	Inverter	64	33	2	2069	35.9	31.1

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	2069	52.3
32	Inverter	64		33	2	1406	34.4
	Transformer (pad mounted)	53		5	1	1406	49.0
33	Inverter	64		33	2	1075	30.3
	Transformer (pad mounted)	53		5	1	1075	46.6
34	Inverter	64		33	2	6800	46.3
	Transformer (pad mounted)	53		5	1	6800	62.7
	Substation Stepup Transformer	60		5	1	2998	55.6
<b>Total</b>							<b>42.1 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	64	33	1	9600	49.3	14.7
	Transformer (pad mounted)	53	5	1	9600	65.7	0.0
2	Inverter	64	33	1	8829	48.5	15.5
	Transformer (pad mounted)	53	5	1	8829	64.9	0.0
3	Inverter	64	33	1	8735	48.5	15.5
	Transformer (pad mounted)	53	5	1	8735	64.8	0.0
4	Inverter	64	33	1	7879	47.6	16.4
	Transformer (pad mounted)	53	5	1	7879	64.0	0.0
5	Inverter	64	33	2	8132	47.8	19.2
	Transformer (pad mounted)	53	5	1	8132	64.2	0.0
6	Inverter	64	33	1	7247	46.8	17.2
	Transformer (pad mounted)	53	5	1	7247	63.2	0.0
7	Inverter	64	33	1	7447	47.1	16.9
	Transformer (pad mounted)	53	5	1	7447	63.5	0.0
8	Inverter	64	33	2	6798	46.3	20.7
	Transformer (pad mounted)	53	5	1	6798	62.7	0.0
9	Inverter	64	33	2	7428	47.0	20.0
	Transformer (pad mounted)	53	5	1	7428	63.4	0.0
10	Inverter	64	33	2	6127	45.4	21.6
	Transformer (pad mounted)	53	5	1	6127	61.8	0.0
11	Inverter	64	33	2	5186	43.9	23.1
	Transformer (pad mounted)	53	5	1	5186	60.3	0.0
12	Inverter	64	33	2	4731	43.1	23.9
	Transformer (pad mounted)	53	5	1	4731	59.5	0.0
13	Inverter	64	33	2	4421	42.5	24.5
	Transformer (pad mounted)	53	5	1	4421	58.9	0.0
14	Inverter	64	33	2	4377	42.5	24.6
	Transformer (pad mounted)	53	5	1	4377	58.8	0.0
15	Inverter	64	33	2	4532	42.8	24.3
	Transformer (pad mounted)	53	5	1	4532	59.1	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	64	33	2	6085	45.3	21.7
	Transformer (pad mounted)	53	5	1	6085	61.7	0.0
17	Inverter	64	33	2	4641	43.0	24.0
	Transformer (pad mounted)	53	5	1	4641	59.4	0.0
18	Inverter	64	33	2	5082	43.8	23.3
	Transformer (pad mounted)	53	5	1	5082	60.1	0.0
19	Inverter	64	33	2	3714	41.0	26.0
	Transformer (pad mounted)	53	5	1	3714	57.4	0.0
20	Inverter	64	33	2	2878	38.8	28.2
	Transformer (pad mounted)	53	5	1	2878	55.2	0.0
21	Inverter	64	33	2	2852	38.7	28.3
	Transformer (pad mounted)	53	5	1	2852	55.1	0.0
22	Inverter	64	33	2	3678	40.9	26.1
	Transformer (pad mounted)	53	5	1	3678	57.3	0.0
23	Inverter	64	33	2	5843	45.0	22.0
	Transformer (pad mounted)	53	5	1	5843	61.4	0.0
24	Inverter	64	33	2	6157	45.4	21.6
	Transformer (pad mounted)	53	5	1	6157	61.8	0.0
25	Inverter	64	33	2	5376	44.2	22.8
	Transformer (pad mounted)	53	5	1	5376	60.6	0.0
26	Inverter	64	33	2	4440	42.6	24.4
	Transformer (pad mounted)	53	5	1	4440	59.0	0.0
27	Inverter	64	33	2	3115	39.5	27.5
	Transformer (pad mounted)	53	5	1	3115	55.9	0.0
28	Inverter	64	33	2	2526	37.7	29.3
	Transformer (pad mounted)	53	5	1	2526	54.1	0.0
29	Inverter	64	33	2	1937	35.4	31.6
	Transformer (pad mounted)	53	5	1	1937	51.8	1.2
30	Inverter	64	33	2	1472	33.0	34.0
	Transformer (pad mounted)	53	5	1	1472	49.4	3.6
31	Inverter	64	33	2	1548	33.4	33.6

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq	
	Transformer (pad mounted)	53		5	1548	49.8	3.2	
32	Inverter	64		33	1945	35.4	31.6	
	Transformer (pad mounted)	53		5	1945	51.8	1.2	
33	Inverter	64		33	2831	38.7	28.3	
	Transformer (pad mounted)	53		5	2831	55.1	0.0	
34	Inverter	64		33	4768	43.2	23.8	
	Transformer (pad mounted)	53		5	4768	59.6	0.0	
	Substation Stepup Transformer	60		5	4671	59.4	0.6	
<b>Total</b>								<b>41.9 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Source Reference	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	64	33	33	1	10350	49.9	14.1
	Transformer (pad mounted)	53	5	5	1	10350	66.3	0.0
2	Inverter	64	33	33	1	9430	49.1	14.9
	Transformer (pad mounted)	53	5	5	1	9430	65.5	0.0
3	Inverter	64	33	33	1	9534	49.2	14.8
	Transformer (pad mounted)	53	5	5	1	9534	65.6	0.0
4	Inverter	64	33	33	1	8526	48.2	15.8
	Transformer (pad mounted)	53	5	5	1	8526	64.6	0.0
5	Inverter	64	33	33	2	8199	47.9	19.1
	Transformer (pad mounted)	53	5	5	1	8199	64.3	0.0
6	Inverter	64	33	33	1	7300	46.9	17.1
	Transformer (pad mounted)	53	5	5	1	7300	63.3	0.0
7	Inverter	64	33	33	1	7377	47.0	17.0
	Transformer (pad mounted)	53	5	5	1	7377	63.4	0.0
8	Inverter	64	33	33	2	6313	45.6	21.4
	Transformer (pad mounted)	53	5	5	1	6313	62.0	0.0
9	Inverter	64	33	33	2	6837	46.3	20.7
	Transformer (pad mounted)	53	5	5	1	6837	62.7	0.0
10	Inverter	64	33	33	2	5556	44.5	22.5
	Transformer (pad mounted)	53	5	5	1	5556	60.9	0.0
11	Inverter	64	33	33	2	4851	43.3	23.7
	Transformer (pad mounted)	53	5	5	1	4851	59.7	0.0
12	Inverter	64	33	33	2	4602	42.9	24.1
	Transformer (pad mounted)	53	5	5	1	4602	59.3	0.0
13	Inverter	64	33	33	2	4563	42.8	24.2
	Transformer (pad mounted)	53	5	5	1	4563	59.2	0.0
14	Inverter	64	33	33	2	4763	43.2	23.8
	Transformer (pad mounted)	53	5	5	1	4763	59.6	0.0
15	Inverter	64	33	33	2	5105	43.8	23.2
	Transformer (pad mounted)	53	5	5	1	5105	60.2	0.0



Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	64	33	2	6849	46.3	20.7
	Transformer (pad mounted)	53	5	1	6849	62.7	0.0
17	Inverter	64	33	2	5405	44.3	22.7
	Transformer (pad mounted)	53	5	1	5405	60.7	0.0
18	Inverter	64	33	2	5940	45.1	21.9
	Transformer (pad mounted)	53	5	1	5940	61.5	0.0
19	Inverter	64	33	2	4640	43.0	24.1
	Transformer (pad mounted)	53	5	1	4640	59.4	0.0
20	Inverter	64	33	2	3507	40.5	26.5
	Transformer (pad mounted)	53	5	1	3507	56.9	0.0
21	Inverter	64	33	2	2973	39.1	27.9
	Transformer (pad mounted)	53	5	1	2973	55.5	0.0
22	Inverter	64	33	2	3227	39.8	27.2
	Transformer (pad mounted)	53	5	1	3227	56.2	0.0
23	Inverter	64	33	2	5050	43.7	23.3
	Transformer (pad mounted)	53	5	1	5050	60.1	0.0
24	Inverter	64	33	2	5204	44.0	23.1
	Transformer (pad mounted)	53	5	1	5204	60.3	0.0
25	Inverter	64	33	2	4377	42.5	24.6
	Transformer (pad mounted)	53	5	1	4377	58.8	0.0
26	Inverter	64	33	2	3482	40.5	26.5
	Transformer (pad mounted)	53	5	1	3482	56.9	0.0
27	Inverter	64	33	2	2293	36.8	30.2
	Transformer (pad mounted)	53	5	1	2293	53.2	0.0
28	Inverter	64	33	2	1851	35.0	32.0
	Transformer (pad mounted)	53	5	1	1851	51.4	1.6
29	Inverter	64	33	2	1568	33.5	33.5
	Transformer (pad mounted)	53	5	1	1568	49.9	3.1
30	Inverter	64	33	2	1642	33.9	33.1
	Transformer (pad mounted)	53	5	1	1642	50.3	2.7
31	Inverter	64	33	2	2214	36.5	30.5

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	2214	52.9	0.1
32	Inverter	64		33	2877	38.8	28.2
	Transformer (pad mounted)	53		5	2877	55.2	0.0
33	Inverter	64		33	3904	41.5	25.6
	Transformer (pad mounted)	53		5	3904	57.9	0.0
34	Inverter	64		33	3693	41.0	26.0
	Transformer (pad mounted)	53		5	3693	57.4	0.0
	Substation Stepup Transformer	60		5	5674	61.1	0.0
<b>Total</b>							<b>41.7 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	64	33	1	13500	52.2	11.8
	Transformer (pad mounted)	53	5	1	13500	68.6	0.0
2	Inverter	64	33	1	11860	51.1	12.9
	Transformer (pad mounted)	53	5	1	11860	67.5	0.0
3	Inverter	64	33	1	13139	52.0	12.0
	Transformer (pad mounted)	53	5	1	13139	68.4	0.0
4	Inverter	64	33	1	11448	50.8	13.2
	Transformer (pad mounted)	53	5	1	11448	67.2	0.0
5	Inverter	64	33	2	7953	47.6	19.4
	Transformer (pad mounted)	53	5	1	7953	64.0	0.0
6	Inverter	64	33	1	7427	47.0	17.0
	Transformer (pad mounted)	53	5	1	7427	63.4	0.0
7	Inverter	64	33	1	6750	46.2	17.8
	Transformer (pad mounted)	53	5	1	6750	62.6	0.0
8	Inverter	64	33	2	3966	41.6	25.4
	Transformer (pad mounted)	53	5	1	3966	58.0	0.0
9	Inverter	64	33	2	3226	39.8	27.2
	Transformer (pad mounted)	53	5	1	3226	56.2	0.0
10	Inverter	64	33	2	3547	40.6	26.4
	Transformer (pad mounted)	53	5	1	3547	57.0	0.0
11	Inverter	64	33	2	4973	43.6	23.4
	Transformer (pad mounted)	53	5	1	4973	60.0	0.0
12	Inverter	64	33	2	5920	45.1	21.9
	Transformer (pad mounted)	53	5	1	5920	61.5	0.0
13	Inverter	64	33	2	7021	46.6	20.5
	Transformer (pad mounted)	53	5	1	7021	62.9	0.0
14	Inverter	64	33	2	8026	47.7	19.3
	Transformer (pad mounted)	53	5	1	8026	64.1	0.0
15	Inverter	64	33	2	8915	48.6	18.4
	Transformer (pad mounted)	53	5	1	8915	65.0	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	64	33	2	10875	50.4	16.7
	Transformer (pad mounted)	53	5	1	10875	66.7	0.0
17	Inverter	64	33	2	9891	49.5	17.5
	Transformer (pad mounted)	53	5	1	9891	65.9	0.0
18	Inverter	64	33	2	10697	50.2	16.8
	Transformer (pad mounted)	53	5	1	10697	66.6	0.0
19	Inverter	64	33	2	10084	49.7	17.3
	Transformer (pad mounted)	53	5	1	10084	66.1	0.0
20	Inverter	64	33	2	8405	48.1	18.9
	Transformer (pad mounted)	53	5	1	8405	64.5	0.0
21	Inverter	64	33	2	6907	46.4	20.6
	Transformer (pad mounted)	53	5	1	6907	62.8	0.0
22	Inverter	64	33	2	5184	43.9	23.1
	Transformer (pad mounted)	53	5	1	5184	60.3	0.0
23	Inverter	64	33	2	2625	38.0	29.0
	Transformer (pad mounted)	53	5	1	2625	54.4	0.0
24	Inverter	64	33	2	2059	35.9	31.1
	Transformer (pad mounted)	53	5	1	2059	52.3	0.7
25	Inverter	64	33	2	2941	39.0	28.0
	Transformer (pad mounted)	53	5	1	2941	55.4	0.0
26	Inverter	64	33	2	3779	41.2	25.8
	Transformer (pad mounted)	53	5	1	3779	57.6	0.0
27	Inverter	64	33	2	5092	43.8	23.2
	Transformer (pad mounted)	53	5	1	5092	60.2	0.0
28	Inverter	64	33	2	5733	44.8	22.2
	Transformer (pad mounted)	53	5	1	5733	61.2	0.0
29	Inverter	64	33	2	6453	45.8	21.2
	Transformer (pad mounted)	53	5	1	6453	62.2	0.0
30	Inverter	64	33	2	7252	46.8	20.2
	Transformer (pad mounted)	53	5	1	7252	63.2	0.0
31	Inverter	64	33	2	8070	47.8	19.2

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	8070	64.2
32	Inverter	64		33	2	8955	48.7
	Transformer (pad mounted)	53		5	1	8955	65.1
33	Inverter	64		33	2	10222	49.8
	Transformer (pad mounted)	53		5	1	10222	66.2
34	Inverter	64		33	2	3892	41.4
	Transformer (pad mounted)	53		5	1	3892	57.8
	Substation Stepup Transformer	60		5	1	11251	67.0
<b>Total</b>							<b>38.5 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	64	33	1	9201	48.9	15.1
	Transformer (pad mounted)	53	5	1	9201	65.3	0.0
2	Inverter	64	33	1	7414	47.0	17.0
	Transformer (pad mounted)	53	5	1	7414	63.4	0.0
3	Inverter	64	33	1	9150	48.9	15.1
	Transformer (pad mounted)	53	5	1	9150	65.2	0.0
4	Inverter	64	33	1	7350	47.0	17.0
	Transformer (pad mounted)	53	5	1	7350	63.3	0.0
5	Inverter	64	33	2	3008	39.2	27.8
	Transformer (pad mounted)	53	5	1	3008	55.6	0.0
6	Inverter	64	33	1	2932	39.0	25.0
	Transformer (pad mounted)	53	5	1	2932	55.4	0.0
7	Inverter	64	33	1	2110	36.1	27.9
	Transformer (pad mounted)	53	5	1	2110	52.5	0.5
8	Inverter	64	33	2	2050	35.9	31.1
	Transformer (pad mounted)	53	5	1	2050	52.3	0.7
9	Inverter	64	33	2	2255	36.7	30.3
	Transformer (pad mounted)	53	5	1	2255	53.1	0.0
10	Inverter	64	33	2	2950	39.0	28.0
	Transformer (pad mounted)	53	5	1	2950	55.4	0.0
11	Inverter	64	33	2	3309	40.0	27.0
	Transformer (pad mounted)	53	5	1	3309	56.4	0.0
12	Inverter	64	33	2	3851	41.3	25.7
	Transformer (pad mounted)	53	5	1	3851	57.7	0.0
13	Inverter	64	33	2	4654	43.0	24.0
	Transformer (pad mounted)	53	5	1	4654	59.4	0.0
14	Inverter	64	33	2	5482	44.4	22.6
	Transformer (pad mounted)	53	5	1	5482	60.8	0.0
15	Inverter	64	33	2	6259	45.6	21.5
	Transformer (pad mounted)	53	5	1	6259	62.0	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	64	33	2	7631	47.3	19.7
	Transformer (pad mounted)	53	5	1	7631	63.7	0.0
17	Inverter	64	33	2	7303	46.9	20.1
	Transformer (pad mounted)	53	5	1	7303	63.3	0.0
18	Inverter	64	33	2	8036	47.7	19.3
	Transformer (pad mounted)	53	5	1	8036	64.1	0.0
19	Inverter	64	33	2	8165	47.9	19.1
	Transformer (pad mounted)	53	5	1	8165	64.3	0.0
20	Inverter	64	33	2	6835	46.3	20.7
	Transformer (pad mounted)	53	5	1	6835	62.7	0.0
21	Inverter	64	33	2	5802	44.9	22.1
	Transformer (pad mounted)	53	5	1	5802	61.3	0.0
22	Inverter	64	33	2	4921	43.5	23.5
	Transformer (pad mounted)	53	5	1	4921	59.9	0.0
23	Inverter	64	33	2	4303	42.3	24.7
	Transformer (pad mounted)	53	5	1	4303	58.7	0.0
24	Inverter	64	33	2	5460	44.4	22.6
	Transformer (pad mounted)	53	5	1	5460	60.8	0.0
25	Inverter	64	33	2	6018	45.2	21.8
	Transformer (pad mounted)	53	5	1	6018	61.6	0.0
26	Inverter	64	33	2	5950	45.1	21.9
	Transformer (pad mounted)	53	5	1	5950	61.5	0.0
27	Inverter	64	33	2	6136	45.4	21.6
	Transformer (pad mounted)	53	5	1	6136	61.8	0.0
28	Inverter	64	33	2	6335	45.7	21.3
	Transformer (pad mounted)	53	5	1	6335	62.1	0.0
29	Inverter	64	33	2	6630	46.1	21.0
	Transformer (pad mounted)	53	5	1	6630	62.5	0.0
30	Inverter	64	33	2	7033	46.6	20.4
	Transformer (pad mounted)	53	5	1	7033	63.0	0.0
31	Inverter	64	33	2	7415	47.0	20.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq	
	Transformer (pad mounted)	53		5	7415	63.4	0.0	
32	Inverter	64		33	8007	47.7	19.3	
	Transformer (pad mounted)	53		5	8007	64.1	0.0	
33	Inverter	64		33	9021	48.7	18.3	
	Transformer (pad mounted)	53		5	9021	65.1	0.0	
34	Inverter	64		33	6915	46.4	20.6	
	Transformer (pad mounted)	53		5	6915	62.8	0.0	
	Substation Stepup Transformer	60		5	9086	65.2	0.0	
<b>Total</b>								<b>39.4 dBA Leq</b>



Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	64	33	1	11778	51.1	12.9
	Transformer (pad mounted)	53	5	1	11778	67.4	0.0
2	Inverter	64	33	1	10967	50.4	13.6
	Transformer (pad mounted)	53	5	1	10967	66.8	0.0
3	Inverter	64	33	1	10914	50.4	13.6
	Transformer (pad mounted)	53	5	1	10914	66.8	0.0
4	Inverter	64	33	1	10033	49.7	14.3
	Transformer (pad mounted)	53	5	1	10033	66.0	0.0
5	Inverter	64	33	2	9852	49.5	17.5
	Transformer (pad mounted)	53	5	1	9852	65.9	0.0
6	Inverter	64	33	1	8952	48.7	15.3
	Transformer (pad mounted)	53	5	1	8952	65.1	0.0
7	Inverter	64	33	1	9009	48.7	15.3
	Transformer (pad mounted)	53	5	1	9009	65.1	0.0
8	Inverter	64	33	2	7757	47.4	19.6
	Transformer (pad mounted)	53	5	1	7757	63.8	0.0
9	Inverter	64	33	2	8181	47.9	19.1
	Transformer (pad mounted)	53	5	1	8181	64.3	0.0
10	Inverter	64	33	2	6943	46.5	20.5
	Transformer (pad mounted)	53	5	1	6943	62.9	0.0
11	Inverter	64	33	2	6409	45.8	21.2
	Transformer (pad mounted)	53	5	1	6409	62.2	0.0
12	Inverter	64	33	2	6234	45.5	21.5
	Transformer (pad mounted)	53	5	1	6234	61.9	0.0
13	Inverter	64	33	2	6218	45.5	21.5
	Transformer (pad mounted)	53	5	1	6218	61.9	0.0
14	Inverter	64	33	2	6378	45.7	21.3
	Transformer (pad mounted)	53	5	1	6378	62.1	0.0
15	Inverter	64	33	2	6647	46.1	20.9
	Transformer (pad mounted)	53	5	1	6647	62.5	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	64	33	2	8262	48.0	19.0
	Transformer (pad mounted)	53	5	1	8262	64.4	0.0
17	Inverter	64	33	2	6817	46.3	20.7
	Transformer (pad mounted)	53	5	1	6817	62.7	0.0
18	Inverter	64	33	2	7257	46.8	20.2
	Transformer (pad mounted)	53	5	1	7257	63.2	0.0
19	Inverter	64	33	2	5875	45.0	22.0
	Transformer (pad mounted)	53	5	1	5875	61.4	0.0
20	Inverter	64	33	2	5006	43.6	23.4
	Transformer (pad mounted)	53	5	1	5006	60.0	0.0
21	Inverter	64	33	2	4624	42.9	24.1
	Transformer (pad mounted)	53	5	1	4624	59.3	0.0
22	Inverter	64	33	2	4767	43.2	23.8
	Transformer (pad mounted)	53	5	1	4767	59.6	0.0
23	Inverter	64	33	2	6201	45.5	21.5
	Transformer (pad mounted)	53	5	1	6201	61.9	0.0
24	Inverter	64	33	2	6050	45.3	21.7
	Transformer (pad mounted)	53	5	1	6050	61.7	0.0
25	Inverter	64	33	2	5142	43.9	23.2
	Transformer (pad mounted)	53	5	1	5142	60.2	0.0
26	Inverter	64	33	2	4421	42.5	24.5
	Transformer (pad mounted)	53	5	1	4421	58.9	0.0
27	Inverter	64	33	2	3589	40.7	26.3
	Transformer (pad mounted)	53	5	1	3589	57.1	0.0
28	Inverter	64	33	2	3338	40.1	26.9
	Transformer (pad mounted)	53	5	1	3338	56.5	0.0
29	Inverter	64	33	2	3206	39.7	27.3
	Transformer (pad mounted)	53	5	1	3206	56.1	0.0
30	Inverter	64	33	2	3260	39.9	27.1
	Transformer (pad mounted)	53	5	1	3260	56.3	0.0
31	Inverter	64	33	2	3668	40.9	26.1

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	3668	57.3
32	Inverter	64		33	2	4118	41.9
	Transformer (pad mounted)	53		5	1	4118	58.3
33	Inverter	64		33	2	4858	43.4
	Transformer (pad mounted)	53		5	1	4858	59.7
34	Inverter	64		33	2	4224	42.1
	Transformer (pad mounted)	53		5	1	4224	58.5
	Substation Stepup Transformer	60		5	1	6771	62.6
<b>Total</b>							<b>38.1 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	64	33	1	5365	44.2	19.8
	Transformer (pad mounted)	53	5	1	5365	60.6	0.0
2	Inverter	64	33	1	3733	41.1	22.9
	Transformer (pad mounted)	53	5	1	3733	57.5	0.0
3	Inverter	64	33	1	5802	44.9	19.1
	Transformer (pad mounted)	53	5	1	5802	61.3	0.0
4	Inverter	64	33	1	4337	42.4	21.6
	Transformer (pad mounted)	53	5	1	4337	58.8	0.0
5	Inverter	64	33	2	2462	37.5	29.6
	Transformer (pad mounted)	53	5	1	2462	53.8	0.0
6	Inverter	64	33	1	3278	39.9	24.1
	Transformer (pad mounted)	53	5	1	3278	56.3	0.0
7	Inverter	64	33	1	3661	40.9	23.1
	Transformer (pad mounted)	53	5	1	3661	57.3	0.0
8	Inverter	64	33	2	6405	45.8	21.3
	Transformer (pad mounted)	53	5	1	6405	62.2	0.0
9	Inverter	64	33	2	7047	46.6	20.4
	Transformer (pad mounted)	53	5	1	7047	63.0	0.0
10	Inverter	64	33	2	7117	46.7	20.3
	Transformer (pad mounted)	53	5	1	7117	63.1	0.0
11	Inverter	64	33	2	6366	45.7	21.3
	Transformer (pad mounted)	53	5	1	6366	62.1	0.0
12	Inverter	64	33	2	6030	45.2	21.8
	Transformer (pad mounted)	53	5	1	6030	61.6	0.0
13	Inverter	64	33	2	5824	44.9	22.1
	Transformer (pad mounted)	53	5	1	5824	61.3	0.0
14	Inverter	64	33	2	5821	44.9	22.1
	Transformer (pad mounted)	53	5	1	5821	61.3	0.0
15	Inverter	64	33	2	5965	45.1	21.9
	Transformer (pad mounted)	53	5	1	5965	61.5	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference		Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
			Distance Feet	Reference				
16	Inverter	64	33	2	5866	45.0	22.0	
	Transformer (pad mounted)	53	5	1	5866	61.4	0.0	
17	Inverter	64	33	2	6561	46.0	21.0	
	Transformer (pad mounted)	53	5	1	6561	62.4	0.0	
18	Inverter	64	33	2	6900	46.4	20.6	
	Transformer (pad mounted)	53	5	1	6900	62.8	0.0	
19	Inverter	64	33	2	7862	47.5	19.5	
	Transformer (pad mounted)	53	5	1	7862	63.9	0.0	
20	Inverter	64	33	2	7464	47.1	19.9	
	Transformer (pad mounted)	53	5	1	7464	63.5	0.0	
21	Inverter	64	33	2	7419	47.0	20.0	
	Transformer (pad mounted)	53	5	1	7419	63.4	0.0	
22	Inverter	64	33	2	7735	47.4	19.6	
	Transformer (pad mounted)	53	5	1	7735	63.8	0.0	
23	Inverter	64	33	2	8570	48.3	18.7	
	Transformer (pad mounted)	53	5	1	8570	64.7	0.0	
24	Inverter	64	33	2	9862	49.5	17.5	
	Transformer (pad mounted)	53	5	1	9862	65.9	0.0	
25	Inverter	64	33	2	10134	49.7	17.3	
	Transformer (pad mounted)	53	5	1	10134	66.1	0.0	
26	Inverter	64	33	2	9687	49.4	17.7	
	Transformer (pad mounted)	53	5	1	9687	65.7	0.0	
27	Inverter	64	33	2	9183	48.9	18.1	
	Transformer (pad mounted)	53	5	1	9183	65.3	0.0	
28	Inverter	64	33	2	9013	48.7	18.3	
	Transformer (pad mounted)	53	5	1	9013	65.1	0.0	
29	Inverter	64	33	2	8881	48.6	18.4	
	Transformer (pad mounted)	53	5	1	8881	65.0	0.0	
30	Inverter	64	33	2	8808	48.5	18.5	
	Transformer (pad mounted)	53	5	1	8808	64.9	0.0	
31	Inverter	64	33	2	8664	48.4	18.6	

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	8664	64.8
32	Inverter	64		33	2	8762	48.5
	Transformer (pad mounted)	53		5	1	8762	64.9
33	Inverter	64		33	2	9192	48.9
	Transformer (pad mounted)	53		5	1	9192	65.3
34	Inverter	64		33	2	10770	50.3
	Transformer (pad mounted)	53		5	1	10770	66.7
	Substation Stepup Transformer	60		5	1	8197	64.3
<b>Total</b>							<b>36.6 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	64	33	1	5235	44.0	20.0
	Transformer (pad mounted)	53	5	1	5235	60.4	0.0
2	Inverter	64	33	1	5665	44.7	19.3
	Transformer (pad mounted)	53	5	1	5665	61.1	0.0
3	Inverter	64	33	1	4219	42.1	21.9
	Transformer (pad mounted)	53	5	1	4219	58.5	0.0
4	Inverter	64	33	1	4741	43.1	20.9
	Transformer (pad mounted)	53	5	1	4741	59.5	0.0
5	Inverter	64	33	2	8270	48.0	19.0
	Transformer (pad mounted)	53	5	1	8270	64.4	0.0
6	Inverter	64	33	1	7765	47.4	16.6
	Transformer (pad mounted)	53	5	1	7765	63.8	0.0
7	Inverter	64	33	1	8480	48.2	15.8
	Transformer (pad mounted)	53	5	1	8480	64.6	0.0
8	Inverter	64	33	2	9800	49.5	17.6
	Transformer (pad mounted)	53	5	1	9800	65.8	0.0
9	Inverter	64	33	2	10718	50.2	16.8
	Transformer (pad mounted)	53	5	1	10718	66.6	0.0
10	Inverter	64	33	2	9638	49.3	17.7
	Transformer (pad mounted)	53	5	1	9638	65.7	0.0
11	Inverter	64	33	2	8154	47.9	19.2
	Transformer (pad mounted)	53	5	1	8154	64.2	0.0
12	Inverter	64	33	2	7193	46.8	20.2
	Transformer (pad mounted)	53	5	1	7193	63.2	0.0
13	Inverter	64	33	2	6090	45.3	21.7
	Transformer (pad mounted)	53	5	1	6090	61.7	0.0
14	Inverter	64	33	2	5099	43.8	23.2
	Transformer (pad mounted)	53	5	1	5099	60.2	0.0
15	Inverter	64	33	2	4234	42.2	24.8
	Transformer (pad mounted)	53	5	1	4234	58.6	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	64	33	2	3111	39.5	27.5
	Transformer (pad mounted)	53	5	1	3111	55.9	0.0
17	Inverter	64	33	2	3172	39.7	27.4
	Transformer (pad mounted)	53	5	1	3172	56.0	0.0
18	Inverter	64	33	2	2417	37.3	29.7
	Transformer (pad mounted)	53	5	1	2417	53.7	0.0
19	Inverter	64	33	2	2786	38.5	28.5
	Transformer (pad mounted)	53	5	1	2786	54.9	0.0
20	Inverter	64	33	2	4460	42.6	24.4
	Transformer (pad mounted)	53	5	1	4460	59.0	0.0
21	Inverter	64	33	2	5958	45.1	21.9
	Transformer (pad mounted)	53	5	1	5958	61.5	0.0
22	Inverter	64	33	2	7681	47.3	19.7
	Transformer (pad mounted)	53	5	1	7681	63.7	0.0
23	Inverter	64	33	2	10225	49.8	17.2
	Transformer (pad mounted)	53	5	1	10225	66.2	0.0
24	Inverter	64	33	2	11095	50.5	16.5
	Transformer (pad mounted)	53	5	1	11095	66.9	0.0
25	Inverter	64	33	2	10587	50.1	16.9
	Transformer (pad mounted)	53	5	1	10587	66.5	0.0
26	Inverter	64	33	2	9626	49.3	17.7
	Transformer (pad mounted)	53	5	1	9626	65.7	0.0
27	Inverter	64	33	2	8228	47.9	19.1
	Transformer (pad mounted)	53	5	1	8228	64.3	0.0
28	Inverter	64	33	2	7568	47.2	19.8
	Transformer (pad mounted)	53	5	1	7568	63.6	0.0
29	Inverter	64	33	2	6840	46.3	20.7
	Transformer (pad mounted)	53	5	1	6840	62.7	0.0
30	Inverter	64	33	2	6044	45.3	21.8
	Transformer (pad mounted)	53	5	1	6044	61.6	0.0
31	Inverter	64	33	2	5168	43.9	23.1



Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	5168	60.3
32	Inverter	64		33	2	4318	42.3
	Transformer (pad mounted)	53		5	1	4318	58.7
33	Inverter	64		33	2	3250	39.9
	Transformer (pad mounted)	53		5	1	3250	56.3
34	Inverter	64		33	2	10345	49.9
	Transformer (pad mounted)	53		5	1	10345	66.3
	Substation Stepup Transformer	60		5	1	1607	50.1
<b>Total</b>							<b>38.2 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	64	33	1	2589	37.9	26.1
	Transformer (pad mounted)	53	5	1	2589	54.3	0.0
2	Inverter	64	33	1	4311	42.3	21.7
	Transformer (pad mounted)	53	5	1	4311	58.7	0.0
3	Inverter	64	33	1	2401	37.2	26.8
	Transformer (pad mounted)	53	5	1	2401	53.6	0.0
4	Inverter	64	33	1	4200	42.1	21.9
	Transformer (pad mounted)	53	5	1	4200	58.5	0.0
5	Inverter	64	33	2	8653	48.4	18.6
	Transformer (pad mounted)	53	5	1	8653	64.8	0.0
6	Inverter	64	33	1	8627	48.3	15.7
	Transformer (pad mounted)	53	5	1	8627	64.7	0.0
7	Inverter	64	33	1	9452	49.1	14.9
	Transformer (pad mounted)	53	5	1	9452	65.5	0.0
8	Inverter	64	33	2	11731	51.0	16.0
	Transformer (pad mounted)	53	5	1	11731	67.4	0.0
9	Inverter	64	33	2	12657	51.7	15.3
	Transformer (pad mounted)	53	5	1	12657	68.1	0.0
10	Inverter	64	33	2	11921	51.2	15.9
	Transformer (pad mounted)	53	5	1	11921	67.5	0.0
11	Inverter	64	33	2	10474	50.0	17.0
	Transformer (pad mounted)	53	5	1	10474	66.4	0.0
12	Inverter	64	33	2	9542	49.2	17.8
	Transformer (pad mounted)	53	5	1	9542	65.6	0.0
13	Inverter	64	33	2	8480	48.2	18.8
	Transformer (pad mounted)	53	5	1	8480	64.6	0.0
14	Inverter	64	33	2	7532	47.2	19.8
	Transformer (pad mounted)	53	5	1	7532	63.6	0.0
15	Inverter	64	33	2	6713	46.2	20.8
	Transformer (pad mounted)	53	5	1	6713	62.6	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	64	33	2	4674	43.0	24.0
	Transformer (pad mounted)	53	5	1	4674	59.4	0.0
17	Inverter	64	33	2	5972	45.2	21.9
	Transformer (pad mounted)	53	5	1	5972	61.5	0.0
18	Inverter	64	33	2	5311	44.1	22.9
	Transformer (pad mounted)	53	5	1	5311	60.5	0.0
19	Inverter	64	33	2	6592	46.0	21.0
	Transformer (pad mounted)	53	5	1	6592	62.4	0.0
20	Inverter	64	33	2	7893	47.6	19.4
	Transformer (pad mounted)	53	5	1	7893	64.0	0.0
21	Inverter	64	33	2	9160	48.9	18.1
	Transformer (pad mounted)	53	5	1	9160	65.3	0.0
22	Inverter	64	33	2	10691	50.2	16.8
	Transformer (pad mounted)	53	5	1	10691	66.6	0.0
23	Inverter	64	33	2	12943	51.9	15.1
	Transformer (pad mounted)	53	5	1	12943	68.3	0.0
24	Inverter	64	33	2	14066	52.6	14.4
	Transformer (pad mounted)	53	5	1	14066	69.0	0.0
25	Inverter	64	33	2	13799	52.4	14.6
	Transformer (pad mounted)	53	5	1	13799	68.8	0.0
26	Inverter	64	33	2	12926	51.9	15.2
	Transformer (pad mounted)	53	5	1	12926	68.2	0.0
27	Inverter	64	33	2	11679	51.0	16.0
	Transformer (pad mounted)	53	5	1	11679	67.4	0.0
28	Inverter	64	33	2	11104	50.5	16.5
	Transformer (pad mounted)	53	5	1	11104	66.9	0.0
29	Inverter	64	33	2	10478	50.0	17.0
	Transformer (pad mounted)	53	5	1	10478	66.4	0.0
30	Inverter	64	33	2	9810	49.5	17.5
	Transformer (pad mounted)	53	5	1	9810	65.9	0.0
31	Inverter	64	33	2	9037	48.8	18.3

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	9037	65.1
32	Inverter	64		33	2	8367	48.1
	Transformer (pad mounted)	53		5	1	8367	64.5
33	Inverter	64		33	2	7626	47.3
	Transformer (pad mounted)	53		5	1	7626	63.7
34	Inverter	64		33	2	13842	52.5
	Transformer (pad mounted)	53		5	1	13842	68.8
	Substation Stepup Transformer	60		5	1	5685	61.1
<b>Total</b>							<b>35.3 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	58.7	33	1	2065	35.9	22.8
	Transformer (pad mounted)	53	5	1	2065	52.3	0.7
2	Inverter	58.7	33	1	3863	41.4	17.3
	Transformer (pad mounted)	53	5	1	3863	57.8	0.0
3	Inverter	58.7	33	1	2364	37.1	21.6
	Transformer (pad mounted)	53	5	1	2364	53.5	0.0
4	Inverter	58.7	33	1	4031	41.7	17.0
	Transformer (pad mounted)	53	5	1	4031	58.1	0.0
5	Inverter	58.7	33	2	8295	48.0	13.7
	Transformer (pad mounted)	53	5	1	8295	64.4	0.0
6	Inverter	58.7	33	1	8388	48.1	10.6
	Transformer (pad mounted)	53	5	1	8388	64.5	0.0
7	Inverter	58.7	33	1	9204	48.9	9.8
	Transformer (pad mounted)	53	5	1	9204	65.3	0.0
8	Inverter	58.7	33	2	11647	51.0	10.8
	Transformer (pad mounted)	53	5	1	11647	67.3	0.0
9	Inverter	58.7	33	2	12554	51.6	10.1
	Transformer (pad mounted)	53	5	1	12554	68.0	0.0
10	Inverter	58.7	33	2	11923	51.2	10.6
	Transformer (pad mounted)	53	5	1	11923	67.5	0.0
11	Inverter	58.7	33	2	10525	50.1	11.6
	Transformer (pad mounted)	53	5	1	10525	66.5	0.0
12	Inverter	58.7	33	2	9632	49.3	12.4
	Transformer (pad mounted)	53	5	1	9632	65.7	0.0
13	Inverter	58.7	33	2	8625	48.3	13.4
	Transformer (pad mounted)	53	5	1	8625	64.7	0.0
14	Inverter	58.7	33	2	7740	47.4	14.3
	Transformer (pad mounted)	53	5	1	7740	63.8	0.0
15	Inverter	58.7	33	2	6990	46.5	15.2
	Transformer (pad mounted)	53	5	1	6990	62.9	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	58.7	33	2	4989	43.6	18.1
	Transformer (pad mounted)	53	5	1	4989	60.0	0.0
17	Inverter	58.7	33	2	6389	45.7	16.0
	Transformer (pad mounted)	53	5	1	6389	62.1	0.0
18	Inverter	58.7	33	2	5823	44.9	16.8
	Transformer (pad mounted)	53	5	1	5823	61.3	0.0
19	Inverter	58.7	33	2	7188	46.8	14.9
	Transformer (pad mounted)	53	5	1	7188	63.2	0.0
20	Inverter	58.7	33	2	8329	48.0	13.7
	Transformer (pad mounted)	53	5	1	8329	64.4	0.0
21	Inverter	58.7	33	2	9484	49.2	12.5
	Transformer (pad mounted)	53	5	1	9484	65.6	0.0
22	Inverter	58.7	33	2	10917	50.4	11.3
	Transformer (pad mounted)	53	5	1	10917	66.8	0.0
23	Inverter	58.7	33	2	13038	51.9	9.8
	Transformer (pad mounted)	53	5	1	13038	68.3	0.0
24	Inverter	58.7	33	2	14212	52.7	9.0
	Transformer (pad mounted)	53	5	1	14212	69.1	0.0
25	Inverter	58.7	33	2	14018	52.6	9.1
	Transformer (pad mounted)	53	5	1	14018	69.0	0.0
26	Inverter	58.7	33	2	13185	52.0	9.7
	Transformer (pad mounted)	53	5	1	13185	68.4	0.0
27	Inverter	58.7	33	2	12005	51.2	10.5
	Transformer (pad mounted)	53	5	1	12005	67.6	0.0
28	Inverter	58.7	33	2	11466	50.8	10.9
	Transformer (pad mounted)	53	5	1	11466	67.2	0.0
29	Inverter	58.7	33	2	10885	50.4	11.3
	Transformer (pad mounted)	53	5	1	10885	66.8	0.0
30	Inverter	58.7	33	2	10271	49.9	11.8
	Transformer (pad mounted)	53	5	1	10271	66.3	0.0
31	Inverter	58.7	33	2	9549	49.2	12.5

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	9549	65.6
32	Inverter	58.7		33	2	8951	48.7
	Transformer (pad mounted)	53		5	1	8951	65.1
33	Inverter	58.7		33	2	8335	48.0
	Transformer (pad mounted)	53		5	1	8335	64.4
34	Inverter	58.7		33	2	14146	52.6
	Transformer (pad mounted)	53		5	1	14146	69.0
	Substation Stepup Transformer	60		5	1	6402	62.1
<b>Total</b>							<b>30.2 dBA Leq</b>

Group #	Source	Source Noise		Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
		Level dBA Leq	Reference Distance Feet					
1	Inverter	58.7	33	33	1	2867	38.8	19.9
	Transformer (pad mounted)	53	5	5	1	2867	55.2	0.0
2	Inverter	58.7	33	33	1	1095	30.4	28.3
	Transformer (pad mounted)	53	5	5	1	1095	46.8	6.2
3	Inverter	58.7	33	33	1	3145	39.6	19.1
	Transformer (pad mounted)	53	5	5	1	3145	56.0	0.0
4	Inverter	58.7	33	33	1	1695	34.2	24.5
	Transformer (pad mounted)	53	5	5	1	1695	50.6	2.4
5	Inverter	58.7	33	33	2	3424	40.3	21.4
	Transformer (pad mounted)	53	5	5	1	3424	56.7	0.0
6	Inverter	58.7	33	33	1	3685	41.0	17.7
	Transformer (pad mounted)	53	5	5	1	3685	57.3	0.0
7	Inverter	58.7	33	33	1	4453	42.6	16.1
	Transformer (pad mounted)	53	5	5	1	4453	59.0	0.0
8	Inverter	58.7	33	33	2	7126	46.7	15.0
	Transformer (pad mounted)	53	5	5	1	7126	63.1	0.0
9	Inverter	58.7	33	33	2	7969	47.7	14.1
	Transformer (pad mounted)	53	5	5	1	7969	64.0	0.0
10	Inverter	58.7	33	33	2	7588	47.2	14.5
	Transformer (pad mounted)	53	5	5	1	7588	63.6	0.0
11	Inverter	58.7	33	33	2	6398	45.8	16.0
	Transformer (pad mounted)	53	5	5	1	6398	62.1	0.0
12	Inverter	58.7	33	33	2	5703	44.8	17.0
	Transformer (pad mounted)	53	5	5	1	5703	61.1	0.0
13	Inverter	58.7	33	33	2	5018	43.6	18.1
	Transformer (pad mounted)	53	5	5	1	5018	60.0	0.0
14	Inverter	58.7	33	33	2	4551	42.8	18.9
	Transformer (pad mounted)	53	5	5	1	4551	59.2	0.0
15	Inverter	58.7	33	33	2	4301	42.3	19.4
	Transformer (pad mounted)	53	5	5	1	4301	58.7	0.0



Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	58.7	33	2	3492	40.5	21.2
	Transformer (pad mounted)	53	5	1	3492	56.9	0.0
17	Inverter	58.7	33	2	4536	42.8	18.9
	Transformer (pad mounted)	53	5	1	4536	59.2	0.0
18	Inverter	58.7	33	2	4650	43.0	18.7
	Transformer (pad mounted)	53	5	1	4650	59.4	0.0
19	Inverter	58.7	33	2	5850	45.0	16.7
	Transformer (pad mounted)	53	5	1	5850	61.4	0.0
20	Inverter	58.7	33	2	5952	45.1	16.6
	Transformer (pad mounted)	53	5	1	5952	61.5	0.0
21	Inverter	58.7	33	2	6425	45.8	15.9
	Transformer (pad mounted)	53	5	1	6425	62.2	0.0
22	Inverter	58.7	33	2	7319	46.9	14.8
	Transformer (pad mounted)	53	5	1	7319	63.3	0.0
23	Inverter	58.7	33	2	8901	48.6	13.1
	Transformer (pad mounted)	53	5	1	8901	65.0	0.0
24	Inverter	58.7	33	2	10173	49.8	11.9
	Transformer (pad mounted)	53	5	1	10173	66.2	0.0
25	Inverter	58.7	33	2	10204	49.8	11.9
	Transformer (pad mounted)	53	5	1	10204	66.2	0.0
26	Inverter	58.7	33	2	9541	49.2	12.5
	Transformer (pad mounted)	53	5	1	9541	65.6	0.0
27	Inverter	58.7	33	2	8678	48.4	13.3
	Transformer (pad mounted)	53	5	1	8678	64.8	0.0
28	Inverter	58.7	33	2	8324	48.0	13.7
	Transformer (pad mounted)	53	5	1	8324	64.4	0.0
29	Inverter	58.7	33	2	7979	47.7	14.0
	Transformer (pad mounted)	53	5	1	7979	64.1	0.0
30	Inverter	58.7	33	2	7667	47.3	14.4
	Transformer (pad mounted)	53	5	1	7667	63.7	0.0
31	Inverter	58.7	33	2	7277	46.9	14.8

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Scenario: Receiver R2 With Inverter Sound Reduction Kit

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq	
	Transformer (pad mounted)	53		5	1	7277	63.3	
32	Inverter	58.7		33	2	7123	46.7	
	Transformer (pad mounted)	53		5	1	7123	63.1	
33	Inverter	58.7		33	2	7246	46.8	
	Transformer (pad mounted)	53		5	1	7246	63.2	
34	Inverter	58.7		33	2	10605	50.1	
	Transformer (pad mounted)	53		5	1	10605	66.5	
	Substation Stepup Transformer	60		5	1	5915	61.5	
<b>Total</b>							<b>34.0</b>	<b>dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	58.7	33	1	3309	40.0	18.7
	Transformer (pad mounted)	53	5	1	3309	56.4	0.0
2	Inverter	58.7	33	1	1606	33.7	25.0
	Transformer (pad mounted)	53	5	1	1606	50.1	2.9
3	Inverter	58.7	33	1	3674	40.9	17.8
	Transformer (pad mounted)	53	5	1	3674	57.3	0.0
4	Inverter	58.7	33	1	2265	36.7	22.0
	Transformer (pad mounted)	53	5	1	2265	53.1	0.0
5	Inverter	58.7	33	2	3165	39.6	22.1
	Transformer (pad mounted)	53	5	1	3165	56.0	0.0
6	Inverter	58.7	33	1	3556	40.6	18.1
	Transformer (pad mounted)	53	5	1	3556	57.0	0.0
7	Inverter	58.7	33	1	4275	42.2	16.5
	Transformer (pad mounted)	53	5	1	4275	58.6	0.0
8	Inverter	58.7	33	2	7017	46.6	15.2
	Transformer (pad mounted)	53	5	1	7017	62.9	0.0
9	Inverter	58.7	33	2	7827	47.5	14.2
	Transformer (pad mounted)	53	5	1	7827	63.9	0.0
10	Inverter	58.7	33	2	7538	47.2	14.5
	Transformer (pad mounted)	53	5	1	7538	63.6	0.0
11	Inverter	58.7	33	2	6426	45.8	15.9
	Transformer (pad mounted)	53	5	1	6426	62.2	0.0
12	Inverter	58.7	33	2	5798	44.9	16.8
	Transformer (pad mounted)	53	5	1	5798	61.3	0.0
13	Inverter	58.7	33	2	5208	44.0	17.7
	Transformer (pad mounted)	53	5	1	5208	60.4	0.0
14	Inverter	58.7	33	2	4839	43.3	18.4
	Transformer (pad mounted)	53	5	1	4839	59.7	0.0
15	Inverter	58.7	33	2	4678	43.0	18.7
	Transformer (pad mounted)	53	5	1	4678	59.4	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	58.7	33	2	4021	41.7	20.0
	Transformer (pad mounted)	53	5	1	4021	58.1	0.0
17	Inverter	58.7	33	2	4998	43.6	18.1
	Transformer (pad mounted)	53	5	1	4998	60.0	0.0
18	Inverter	58.7	33	2	5161	43.9	17.8
	Transformer (pad mounted)	53	5	1	5161	60.3	0.0
19	Inverter	58.7	33	2	6318	45.6	16.1
	Transformer (pad mounted)	53	5	1	6318	62.0	0.0
20	Inverter	58.7	33	2	6314	45.6	16.1
	Transformer (pad mounted)	53	5	1	6314	62.0	0.0
21	Inverter	58.7	33	2	6678	46.1	15.6
	Transformer (pad mounted)	53	5	1	6678	62.5	0.0
22	Inverter	58.7	33	2	7456	47.1	14.6
	Transformer (pad mounted)	53	5	1	7456	63.5	0.0
23	Inverter	58.7	33	2	8893	48.6	13.1
	Transformer (pad mounted)	53	5	1	8893	65.0	0.0
24	Inverter	58.7	33	2	10177	49.8	11.9
	Transformer (pad mounted)	53	5	1	10177	66.2	0.0
25	Inverter	58.7	33	2	10259	49.9	11.9
	Transformer (pad mounted)	53	5	1	10259	66.2	0.0
26	Inverter	58.7	33	2	9638	49.3	12.4
	Transformer (pad mounted)	53	5	1	9638	65.7	0.0
27	Inverter	58.7	33	2	8846	48.6	13.1
	Transformer (pad mounted)	53	5	1	8846	65.0	0.0
28	Inverter	58.7	33	2	8529	48.2	13.5
	Transformer (pad mounted)	53	5	1	8529	64.6	0.0
29	Inverter	58.7	33	2	8227	47.9	13.8
	Transformer (pad mounted)	53	5	1	8227	64.3	0.0
30	Inverter	58.7	33	2	7963	47.7	14.1
	Transformer (pad mounted)	53	5	1	7963	64.0	0.0
31	Inverter	58.7	33	2	7623	47.3	14.4

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Scenario: Receiver R3

With Inverter Sound Reduction Kit

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	7623	63.7
32	Inverter	58.7		33	2	7521	47.2
	Transformer (pad mounted)	53		5	1	7521	63.5
33	Inverter	58.7		33	2	7708	47.4
	Transformer (pad mounted)	53		5	1	7708	63.8
34	Inverter	58.7		33	2	10713	50.2
	Transformer (pad mounted)	53		5	1	10713	66.6
	Substation Stepup Transformer	60		5	1	6437	62.2
<b>Total</b>							<b>32.8 dBA Leq</b>

Group #	Source	Source Noise		Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
		Level dBA Leq	Reference Distance Feet					
1	Inverter	58.7	33	33	1	8199	47.9	10.8
	Transformer (pad mounted)	53	5	5	1	8199	64.3	0.0
2	Inverter	58.7	33	33	1	6401	45.8	12.9
	Transformer (pad mounted)	53	5	5	1	6401	62.1	0.0
3	Inverter	58.7	33	33	1	8215	47.9	10.8
	Transformer (pad mounted)	53	5	5	1	8215	64.3	0.0
4	Inverter	58.7	33	33	1	6422	45.8	12.9
	Transformer (pad mounted)	53	5	5	1	6422	62.2	0.0
5	Inverter	58.7	33	33	2	1968	35.5	26.2
	Transformer (pad mounted)	53	5	5	1	1968	51.9	1.1
6	Inverter	58.7	33	33	1	2120	36.2	22.5
	Transformer (pad mounted)	53	5	5	1	2120	52.5	0.5
7	Inverter	58.7	33	33	1	1390	32.5	26.2
	Transformer (pad mounted)	53	5	5	1	1390	48.9	4.1
8	Inverter	58.7	33	33	2	2814	38.6	23.1
	Transformer (pad mounted)	53	5	5	1	2814	55.0	0.0
9	Inverter	58.7	33	33	2	3257	39.9	21.8
	Transformer (pad mounted)	53	5	5	1	3257	56.3	0.0
10	Inverter	58.7	33	33	2	3673	40.9	20.8
	Transformer (pad mounted)	53	5	5	1	3673	57.3	0.0
11	Inverter	58.7	33	33	2	3586	40.7	21.0
	Transformer (pad mounted)	53	5	5	1	3586	57.1	0.0
12	Inverter	58.7	33	33	2	3855	41.4	20.4
	Transformer (pad mounted)	53	5	5	1	3855	57.7	0.0
13	Inverter	58.7	33	33	2	4420	42.5	19.2
	Transformer (pad mounted)	53	5	5	1	4420	58.9	0.0
14	Inverter	58.7	33	33	2	5095	43.8	17.9
	Transformer (pad mounted)	53	5	5	1	5095	60.2	0.0
15	Inverter	58.7	33	33	2	5776	44.9	16.8
	Transformer (pad mounted)	53	5	5	1	5776	61.3	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	58.7	33	2	6916	46.4	15.3
	Transformer (pad mounted)	53	5	1	6916	62.8	0.0
17	Inverter	58.7	33	2	6776	46.2	15.5
	Transformer (pad mounted)	53	5	1	6776	62.6	0.0
18	Inverter	58.7	33	2	7458	47.1	14.6
	Transformer (pad mounted)	53	5	1	7458	63.5	0.0
19	Inverter	58.7	33	2	7768	47.4	14.3
	Transformer (pad mounted)	53	5	1	7768	63.8	0.0
20	Inverter	58.7	33	2	6604	46.0	15.7
	Transformer (pad mounted)	53	5	1	6604	62.4	0.0
21	Inverter	58.7	33	2	5783	44.9	16.8
	Transformer (pad mounted)	53	5	1	5783	61.3	0.0
22	Inverter	58.7	33	2	5226	44.0	17.7
	Transformer (pad mounted)	53	5	1	5226	60.4	0.0
23	Inverter	58.7	33	2	5113	43.8	17.9
	Transformer (pad mounted)	53	5	1	5113	60.2	0.0
24	Inverter	58.7	33	2	6342	45.7	16.0
	Transformer (pad mounted)	53	5	1	6342	62.1	0.0
25	Inverter	58.7	33	2	6804	46.3	15.4
	Transformer (pad mounted)	53	5	1	6804	62.7	0.0
26	Inverter	58.7	33	2	6605	46.0	15.7
	Transformer (pad mounted)	53	5	1	6605	62.4	0.0
27	Inverter	58.7	33	2	6567	46.0	15.7
	Transformer (pad mounted)	53	5	1	6567	62.4	0.0
28	Inverter	58.7	33	2	6657	46.1	15.6
	Transformer (pad mounted)	53	5	1	6657	62.5	0.0
29	Inverter	58.7	33	2	6834	46.3	15.4
	Transformer (pad mounted)	53	5	1	6834	62.7	0.0
30	Inverter	58.7	33	2	7115	46.7	15.0
	Transformer (pad mounted)	53	5	1	7115	63.1	0.0
31	Inverter	58.7	33	2	7368	47.0	14.7

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	7368	63.4
32	Inverter	58.7		33	2	7854	47.5
	Transformer (pad mounted)	53		5	1	7854	63.9
33	Inverter	58.7		33	2	8758	48.5
	Transformer (pad mounted)	53		5	1	8758	64.9
34	Inverter	58.7		33	2	7626	47.3
	Transformer (pad mounted)	53		5	1	7626	63.7
	Substation Stepup Transformer	60		5	1	8591	64.7
<b>Total</b>							<b>34.3 dBA Leq</b>



Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	58.7	33	1	7163	46.7	12.0
	Transformer (pad mounted)	53	5	1	7163	63.1	0.0
2	Inverter	58.7	33	1	5488	44.4	14.3
	Transformer (pad mounted)	53	5	1	5488	60.8	0.0
3	Inverter	58.7	33	1	6904	46.4	12.3
	Transformer (pad mounted)	53	5	1	6904	62.8	0.0
4	Inverter	58.7	33	1	5145	43.9	14.8
	Transformer (pad mounted)	53	5	1	5145	60.2	0.0
5	Inverter	58.7	33	2	2101	36.1	25.6
	Transformer (pad mounted)	53	5	1	2101	52.5	0.5
6	Inverter	58.7	33	1	1257	31.6	27.1
	Transformer (pad mounted)	53	5	1	1257	48.0	5.0
7	Inverter	58.7	33	1	1156	30.9	27.8
	Transformer (pad mounted)	53	5	1	1156	47.3	5.7
8	Inverter	58.7	33	2	2474	37.5	24.2
	Transformer (pad mounted)	53	5	1	2474	53.9	0.0
9	Inverter	58.7	33	2	3384	40.2	21.5
	Transformer (pad mounted)	53	5	1	3384	56.6	0.0
10	Inverter	58.7	33	2	2869	38.8	22.9
	Transformer (pad mounted)	53	5	1	2869	55.2	0.0
11	Inverter	58.7	33	2	1841	34.9	26.8
	Transformer (pad mounted)	53	5	1	1841	51.3	1.7
12	Inverter	58.7	33	2	1629	33.9	27.8
	Transformer (pad mounted)	53	5	1	1629	50.3	2.7
13	Inverter	58.7	33	2	2041	35.8	25.9
	Transformer (pad mounted)	53	5	1	2041	52.2	0.8
14	Inverter	58.7	33	2	2780	38.5	23.2
	Transformer (pad mounted)	53	5	1	2780	54.9	0.0
15	Inverter	58.7	33	2	3549	40.6	21.1
	Transformer (pad mounted)	53	5	1	3549	57.0	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	58.7	33	2	5037	43.7	18.0
	Transformer (pad mounted)	53	5	1	5037	60.1	0.0
17	Inverter	58.7	33	2	4597	42.9	18.8
	Transformer (pad mounted)	53	5	1	4597	59.3	0.0
18	Inverter	58.7	33	2	5344	44.2	17.5
	Transformer (pad mounted)	53	5	1	5344	60.6	0.0
19	Inverter	58.7	33	2	5467	44.4	17.3
	Transformer (pad mounted)	53	5	1	5467	60.8	0.0
20	Inverter	58.7	33	2	4229	42.2	19.6
	Transformer (pad mounted)	53	5	1	4229	58.5	0.0
21	Inverter	58.7	33	2	3453	40.4	21.3
	Transformer (pad mounted)	53	5	1	3453	56.8	0.0
22	Inverter	58.7	33	2	3262	39.9	21.8
	Transformer (pad mounted)	53	5	1	3262	56.3	0.0
23	Inverter	58.7	33	2	4219	42.1	19.6
	Transformer (pad mounted)	53	5	1	4219	58.5	0.0
24	Inverter	58.7	33	2	5509	44.5	17.3
	Transformer (pad mounted)	53	5	1	5509	60.8	0.0
25	Inverter	58.7	33	2	5661	44.7	17.0
	Transformer (pad mounted)	53	5	1	5661	61.1	0.0
26	Inverter	58.7	33	2	5161	43.9	17.8
	Transformer (pad mounted)	53	5	1	5161	60.3	0.0
27	Inverter	58.7	33	2	4705	43.1	18.6
	Transformer (pad mounted)	53	5	1	4705	59.5	0.0
28	Inverter	58.7	33	2	4629	42.9	18.8
	Transformer (pad mounted)	53	5	1	4629	59.3	0.0
29	Inverter	58.7	33	2	4659	43.0	18.7
	Transformer (pad mounted)	53	5	1	4659	59.4	0.0
30	Inverter	58.7	33	2	4828	43.3	18.4
	Transformer (pad mounted)	53	5	1	4828	59.7	0.0
31	Inverter	58.7	33	2	5011	43.6	18.1

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	5011	60.0
32	Inverter	58.7		33	2	5475	44.4
	Transformer (pad mounted)	53		5	1	5475	60.8
33	Inverter	58.7		33	2	6394	45.7
	Transformer (pad mounted)	53		5	1	6394	62.1
34	Inverter	58.7		33	2	6245	45.5
	Transformer (pad mounted)	53		5	1	6245	61.9
	Substation Stepup Transformer	60		5	1	6376	62.1
<b>Total</b>							<b>37.3 dBA Leq</b>

Group #	Source	Source Noise		Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
		Reference Distance Feet	Level dBA Leq				
1	Inverter	58.7	33	1	4215	42.1	16.6
	Transformer (pad mounted)	53	5	1	4215	58.5	0.0
2	Inverter	58.7	33	1	3108	39.5	19.2
	Transformer (pad mounted)	53	5	1	3108	55.9	0.0
3	Inverter	58.7	33	1	3618	40.8	17.9
	Transformer (pad mounted)	53	5	1	3618	57.2	0.0
4	Inverter	58.7	33	1	2234	36.6	22.1
	Transformer (pad mounted)	53	5	1	2234	53.0	0.0
5	Inverter	58.7	33	2	3982	41.6	20.1
	Transformer (pad mounted)	53	5	1	3982	58.0	0.0
6	Inverter	58.7	33	1	3480	40.5	18.2
	Transformer (pad mounted)	53	5	1	3480	56.9	0.0
7	Inverter	58.7	33	1	4227	42.2	16.5
	Transformer (pad mounted)	53	5	1	4227	58.5	0.0
8	Inverter	58.7	33	2	6004	45.2	16.5
	Transformer (pad mounted)	53	5	1	6004	61.6	0.0
9	Inverter	58.7	33	2	6943	46.5	15.2
	Transformer (pad mounted)	53	5	1	6943	62.9	0.0
10	Inverter	58.7	33	2	6104	45.3	16.4
	Transformer (pad mounted)	53	5	1	6104	61.7	0.0
11	Inverter	58.7	33	2	4637	43.0	18.8
	Transformer (pad mounted)	53	5	1	4637	59.3	0.0
12	Inverter	58.7	33	2	3699	41.0	20.7
	Transformer (pad mounted)	53	5	1	3699	57.4	0.0
13	Inverter	58.7	33	2	2648	38.1	23.6
	Transformer (pad mounted)	53	5	1	2648	54.5	0.0
14	Inverter	58.7	33	2	1777	34.6	27.1
	Transformer (pad mounted)	53	5	1	1777	51.0	2.0
15	Inverter	58.7	33	2	1219	31.3	30.4
	Transformer (pad mounted)	53	5	1	1219	47.7	5.3

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	58.7	33	2	1368	32.4	29.4
	Transformer (pad mounted)	53	5	1	1368	48.7	4.3
17	Inverter	58.7	33	2	1519	33.3	28.4
	Transformer (pad mounted)	53	5	1	1519	49.7	3.3
18	Inverter	58.7	33	2	1959	35.5	26.2
	Transformer (pad mounted)	53	5	1	1959	51.9	1.1
19	Inverter	58.7	33	2	2830	38.7	23.0
	Transformer (pad mounted)	53	5	1	2830	55.1	0.0
20	Inverter	58.7	33	2	2865	38.8	22.9
	Transformer (pad mounted)	53	5	1	2865	55.2	0.0
21	Inverter	58.7	33	2	3627	40.8	20.9
	Transformer (pad mounted)	53	5	1	3627	57.2	0.0
22	Inverter	58.7	33	2	4941	43.5	18.2
	Transformer (pad mounted)	53	5	1	4941	59.9	0.0
23	Inverter	58.7	33	2	7100	46.7	15.1
	Transformer (pad mounted)	53	5	1	7100	63.0	0.0
24	Inverter	58.7	33	2	8243	48.0	13.8
	Transformer (pad mounted)	53	5	1	8243	64.3	0.0
25	Inverter	58.7	33	2	8036	47.7	14.0
	Transformer (pad mounted)	53	5	1	8036	64.1	0.0
26	Inverter	58.7	33	2	7217	46.8	14.9
	Transformer (pad mounted)	53	5	1	7217	63.2	0.0
27	Inverter	58.7	33	2	6101	45.3	16.4
	Transformer (pad mounted)	53	5	1	6101	61.7	0.0
28	Inverter	58.7	33	2	5622	44.6	17.1
	Transformer (pad mounted)	53	5	1	5622	61.0	0.0
29	Inverter	58.7	33	2	5141	43.9	17.9
	Transformer (pad mounted)	53	5	1	5141	60.2	0.0
30	Inverter	58.7	33	2	4694	43.1	18.6
	Transformer (pad mounted)	53	5	1	4694	59.5	0.0
31	Inverter	58.7	33	2	4203	42.1	19.6

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	4203	58.5
32	Inverter	58.7		33	2	3999	41.7
	Transformer (pad mounted)	53		5	1	3999	58.1
33	Inverter	58.7		33	2	4193	42.1
	Transformer (pad mounted)	53		5	1	4193	58.5
34	Inverter	58.7		33	2	8204	47.9
	Transformer (pad mounted)	53		5	1	8204	64.3
	Substation Stepup Transformer	60		5	1	3226	56.2
<b>Total</b>							<b>37.8 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	58.7	33	1	3540	40.6	18.1
	Transformer (pad mounted)	53	5	1	3540	57.0	0.0
2	Inverter	58.7	33	1	2328	37.0	21.7
	Transformer (pad mounted)	53	5	1	2328	53.4	0.0
3	Inverter	58.7	33	1	3059	39.3	19.4
	Transformer (pad mounted)	53	5	1	3059	55.7	0.0
4	Inverter	58.7	33	1	1499	33.1	25.6
	Transformer (pad mounted)	53	5	1	1499	49.5	3.5
5	Inverter	58.7	33	2	3801	41.2	20.5
	Transformer (pad mounted)	53	5	1	3801	57.6	0.0
6	Inverter	58.7	33	1	3467	40.4	18.3
	Transformer (pad mounted)	53	5	1	3467	56.8	0.0
7	Inverter	58.7	33	1	4270	42.2	16.5
	Transformer (pad mounted)	53	5	1	4270	58.6	0.0
8	Inverter	58.7	33	2	6347	45.7	16.0
	Transformer (pad mounted)	53	5	1	6347	62.1	0.0
9	Inverter	58.7	33	2	7278	46.9	14.8
	Transformer (pad mounted)	53	5	1	7278	63.3	0.0
10	Inverter	58.7	33	2	6543	45.9	15.8
	Transformer (pad mounted)	53	5	1	6543	62.3	0.0
11	Inverter	58.7	33	2	5123	43.8	17.9
	Transformer (pad mounted)	53	5	1	5123	60.2	0.0
12	Inverter	58.7	33	2	4229	42.2	19.6
	Transformer (pad mounted)	53	5	1	4229	58.5	0.0
13	Inverter	58.7	33	2	3255	39.9	21.8
	Transformer (pad mounted)	53	5	1	3255	56.3	0.0
14	Inverter	58.7	33	2	2486	37.5	24.2
	Transformer (pad mounted)	53	5	1	2486	53.9	0.0
15	Inverter	58.7	33	2	2003	35.7	26.0
	Transformer (pad mounted)	53	5	1	2003	52.1	0.9

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	58.7	33	2	1438	32.8	28.9
	Transformer (pad mounted)	53	5	1	1438	49.2	3.8
17	Inverter	58.7	33	2	2171	36.4	25.3
	Transformer (pad mounted)	53	5	1	2171	52.8	0.2
18	Inverter	58.7	33	2	2408	37.3	24.4
	Transformer (pad mounted)	53	5	1	2408	53.7	0.0
19	Inverter	58.7	33	2	3492	40.5	21.2
	Transformer (pad mounted)	53	5	1	3492	56.9	0.0
20	Inverter	58.7	33	2	3649	40.9	20.8
	Transformer (pad mounted)	53	5	1	3649	57.3	0.0
21	Inverter	58.7	33	2	4370	42.4	19.3
	Transformer (pad mounted)	53	5	1	4370	58.8	0.0
22	Inverter	58.7	33	2	5594	44.6	17.1
	Transformer (pad mounted)	53	5	1	5594	61.0	0.0
23	Inverter	58.7	33	2	7633	47.3	14.4
	Transformer (pad mounted)	53	5	1	7633	63.7	0.0
24	Inverter	58.7	33	2	8816	48.5	13.2
	Transformer (pad mounted)	53	5	1	8816	64.9	0.0
25	Inverter	58.7	33	2	8663	48.4	13.3
	Transformer (pad mounted)	53	5	1	8663	64.8	0.0
26	Inverter	58.7	33	2	7875	47.6	14.2
	Transformer (pad mounted)	53	5	1	7875	63.9	0.0
27	Inverter	58.7	33	2	6810	46.3	15.4
	Transformer (pad mounted)	53	5	1	6810	62.7	0.0
28	Inverter	58.7	33	2	6355	45.7	16.0
	Transformer (pad mounted)	53	5	1	6355	62.1	0.0
29	Inverter	58.7	33	2	5899	45.0	16.7
	Transformer (pad mounted)	53	5	1	5899	61.4	0.0
30	Inverter	58.7	33	2	5472	44.4	17.3
	Transformer (pad mounted)	53	5	1	5472	60.8	0.0
31	Inverter	58.7	33	2	4988	43.6	18.1



Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	4988	60.0
32	Inverter	58.7		33	2	4765	43.2
	Transformer (pad mounted)	53		5	1	4765	59.6
33	Inverter	58.7		33	2	4881	43.4
	Transformer (pad mounted)	53		5	1	4881	59.8
34	Inverter	58.7		33	2	8884	48.6
	Transformer (pad mounted)	53		5	1	8884	65.0
	Substation Stepup Transformer	60		5	1	3705	57.4
<b>Total</b>							<b>36.3 dBA Leq</b>

Group #	Source	Source Noise		Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
		Level dBA Leq	Reference Distance Feet					
1	Inverter	58.7	33	33	1	2252	36.7	22.0
	Transformer (pad mounted)	53	5	5	1	2252	53.1	0.0
2	Inverter	58.7	33	33	1	2429	37.3	21.4
	Transformer (pad mounted)	53	5	5	1	2429	53.7	0.0
3	Inverter	58.7	33	33	1	1314	32.0	26.7
	Transformer (pad mounted)	53	5	5	1	1314	48.4	4.6
4	Inverter	58.7	33	33	1	1598	33.7	25.0
	Transformer (pad mounted)	53	5	5	1	1598	50.1	2.9
5	Inverter	58.7	33	33	2	5865	45.0	16.7
	Transformer (pad mounted)	53	5	5	1	5865	61.4	0.0
6	Inverter	58.7	33	33	1	5641	44.7	14.0
	Transformer (pad mounted)	53	5	5	1	5641	61.0	0.0
7	Inverter	58.7	33	33	1	6455	45.8	12.9
	Transformer (pad mounted)	53	5	5	1	6455	62.2	0.0
8	Inverter	58.7	33	33	2	8525	48.2	13.5
	Transformer (pad mounted)	53	5	5	1	8525	64.6	0.0
9	Inverter	58.7	33	33	2	9460	49.1	12.6
	Transformer (pad mounted)	53	5	5	1	9460	65.5	0.0
10	Inverter	58.7	33	33	2	8663	48.4	13.3
	Transformer (pad mounted)	53	5	5	1	8663	64.8	0.0
11	Inverter	58.7	33	33	2	7201	46.8	14.9
	Transformer (pad mounted)	53	5	5	1	7201	63.2	0.0
12	Inverter	58.7	33	33	2	6260	45.6	16.1
	Transformer (pad mounted)	53	5	5	1	6260	62.0	0.0
13	Inverter	58.7	33	33	2	5191	43.9	17.8
	Transformer (pad mounted)	53	5	5	1	5191	60.3	0.0
14	Inverter	58.7	33	33	2	4246	42.2	19.5
	Transformer (pad mounted)	53	5	5	1	4246	58.6	0.0
15	Inverter	58.7	33	33	2	3449	40.4	21.3
	Transformer (pad mounted)	53	5	5	1	3449	56.8	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	58.7	33	2	1426	32.7	29.0
	Transformer (pad mounted)	53	5	1	1426	49.1	3.9
17	Inverter	58.7	33	2	2837	38.7	23.0
	Transformer (pad mounted)	53	5	1	2837	55.1	0.0
18	Inverter	58.7	33	2	2358	37.1	24.6
	Transformer (pad mounted)	53	5	1	2358	53.5	0.0
19	Inverter	58.7	33	2	3775	41.2	20.5
	Transformer (pad mounted)	53	5	1	3775	57.6	0.0
20	Inverter	58.7	33	2	4773	43.2	18.5
	Transformer (pad mounted)	53	5	1	4773	59.6	0.0
21	Inverter	58.7	33	2	5931	45.1	16.6
	Transformer (pad mounted)	53	5	1	5931	61.5	0.0
22	Inverter	58.7	33	2	7415	47.0	14.7
	Transformer (pad mounted)	53	5	1	7415	63.4	0.0
23	Inverter	58.7	33	2	9656	49.3	12.4
	Transformer (pad mounted)	53	5	1	9656	65.7	0.0
24	Inverter	58.7	33	2	10778	50.3	11.4
	Transformer (pad mounted)	53	5	1	10778	66.7	0.0
25	Inverter	58.7	33	2	10523	50.1	11.6
	Transformer (pad mounted)	53	5	1	10523	66.5	0.0
26	Inverter	58.7	33	2	9664	49.3	12.4
	Transformer (pad mounted)	53	5	1	9664	65.7	0.0
27	Inverter	58.7	33	2	8454	48.2	13.5
	Transformer (pad mounted)	53	5	1	8454	64.6	0.0
28	Inverter	58.7	33	2	7906	47.6	14.1
	Transformer (pad mounted)	53	5	1	7906	64.0	0.0
29	Inverter	58.7	33	2	7322	46.9	14.8
	Transformer (pad mounted)	53	5	1	7322	63.3	0.0
30	Inverter	58.7	33	2	6718	46.2	15.5
	Transformer (pad mounted)	53	5	1	6718	62.6	0.0
31	Inverter	58.7	33	2	6020	45.2	16.5

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	6020	61.6
32	Inverter	58.7		33	2	5487	44.4
	Transformer (pad mounted)	53		5	1	5487	60.8
33	Inverter	58.7		33	2	5064	43.7
	Transformer (pad mounted)	53		5	1	5064	60.1
34	Inverter	58.7		33	2	10605	50.1
	Transformer (pad mounted)	53		5	1	10605	66.5
	Substation Stepup Transformer	60		5	1	3263	56.3
<b>Total</b>							<b>35.5 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	58.7	33	1	2345	37.0	21.7
	Transformer (pad mounted)	53	5	1	2345	53.4	0.0
2	Inverter	58.7	33	1	2718	38.3	20.4
	Transformer (pad mounted)	53	5	1	2718	54.7	0.0
3	Inverter	58.7	33	1	1348	32.2	26.5
	Transformer (pad mounted)	53	5	1	1348	48.6	4.4
4	Inverter	58.7	33	1	1926	35.3	23.4
	Transformer (pad mounted)	53	5	1	1926	51.7	1.3
5	Inverter	58.7	33	2	6197	45.5	16.2
	Transformer (pad mounted)	53	5	1	6197	61.9	0.0
6	Inverter	58.7	33	1	5961	45.1	13.6
	Transformer (pad mounted)	53	5	1	5961	61.5	0.0
7	Inverter	58.7	33	1	6772	46.2	12.5
	Transformer (pad mounted)	53	5	1	6772	62.6	0.0
8	Inverter	58.7	33	2	8803	48.5	13.2
	Transformer (pad mounted)	53	5	1	8803	64.9	0.0
9	Inverter	58.7	33	2	9741	49.4	12.3
	Transformer (pad mounted)	53	5	1	9741	65.8	0.0
10	Inverter	58.7	33	2	8921	48.6	13.1
	Transformer (pad mounted)	53	5	1	8921	65.0	0.0
11	Inverter	58.7	33	2	7450	47.1	14.6
	Transformer (pad mounted)	53	5	1	7450	63.5	0.0
12	Inverter	58.7	33	2	6501	45.9	15.8
	Transformer (pad mounted)	53	5	1	6501	62.3	0.0
13	Inverter	58.7	33	2	5418	44.3	17.4
	Transformer (pad mounted)	53	5	1	5418	60.7	0.0
14	Inverter	58.7	33	2	4454	42.6	19.1
	Transformer (pad mounted)	53	5	1	4454	59.0	0.0
15	Inverter	58.7	33	2	3629	40.8	20.9
	Transformer (pad mounted)	53	5	1	3629	57.2	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	58.7	33	2	1590	33.7	28.1
	Transformer (pad mounted)	53	5	1	1590	50.0	3.0
17	Inverter	58.7	33	2	2937	39.0	22.7
	Transformer (pad mounted)	53	5	1	2937	55.4	0.0
18	Inverter	58.7	33	2	2379	37.2	24.6
	Transformer (pad mounted)	53	5	1	2379	53.5	0.0
19	Inverter	58.7	33	2	3775	41.2	20.5
	Transformer (pad mounted)	53	5	1	3775	57.6	0.0
20	Inverter	58.7	33	2	4876	43.4	18.3
	Transformer (pad mounted)	53	5	1	4876	59.8	0.0
21	Inverter	58.7	33	2	6087	45.3	16.4
	Transformer (pad mounted)	53	5	1	6087	61.7	0.0
22	Inverter	58.7	33	2	7608	47.3	14.5
	Transformer (pad mounted)	53	5	1	7608	63.6	0.0
23	Inverter	58.7	33	2	9886	49.5	12.2
	Transformer (pad mounted)	53	5	1	9886	65.9	0.0
24	Inverter	58.7	33	2	10992	50.5	11.3
	Transformer (pad mounted)	53	5	1	10992	66.8	0.0
25	Inverter	58.7	33	2	10715	50.2	11.5
	Transformer (pad mounted)	53	5	1	10715	66.6	0.0
26	Inverter	58.7	33	2	9844	49.5	12.2
	Transformer (pad mounted)	53	5	1	9844	65.9	0.0
27	Inverter	58.7	33	2	8610	48.3	13.4
	Transformer (pad mounted)	53	5	1	8610	64.7	0.0
28	Inverter	58.7	33	2	8048	47.7	14.0
	Transformer (pad mounted)	53	5	1	8048	64.1	0.0
29	Inverter	58.7	33	2	7445	47.1	14.6
	Transformer (pad mounted)	53	5	1	7445	63.5	0.0
30	Inverter	58.7	33	2	6816	46.3	15.4
	Transformer (pad mounted)	53	5	1	6816	62.7	0.0
31	Inverter	58.7	33	2	6092	45.3	16.4

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	6092	61.7
32	Inverter	58.7		33	2	5517	44.5
	Transformer (pad mounted)	53		5	1	5517	60.9
33	Inverter	58.7		33	2	5019	43.6
	Transformer (pad mounted)	53		5	1	5019	60.0
34	Inverter	58.7		33	2	10768	50.3
	Transformer (pad mounted)	53		5	1	10768	66.7
	Substation Stepup Transformer	60		5	1	3164	56.0
<b>Total</b>							<b>35.0 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	58.7	33	1	2421	37.3	21.4
	Transformer (pad mounted)	53	5	1	2421	53.7	0.0
2	Inverter	58.7	33	1	3461	40.4	18.3
	Transformer (pad mounted)	53	5	1	3461	56.8	0.0
3	Inverter	58.7	33	1	1497	33.1	25.6
	Transformer (pad mounted)	53	5	1	1497	49.5	3.5
4	Inverter	58.7	33	1	2891	38.9	19.8
	Transformer (pad mounted)	53	5	1	2891	55.2	0.0
5	Inverter	58.7	33	2	7308	46.9	14.8
	Transformer (pad mounted)	53	5	1	7308	63.3	0.0
6	Inverter	58.7	33	1	7113	46.7	12.0
	Transformer (pad mounted)	53	5	1	7113	63.1	0.0
7	Inverter	58.7	33	1	7929	47.6	11.1
	Transformer (pad mounted)	53	5	1	7929	64.0	0.0
8	Inverter	58.7	33	2	9977	49.6	12.1
	Transformer (pad mounted)	53	5	1	9977	66.0	0.0
9	Inverter	58.7	33	2	10915	50.4	11.3
	Transformer (pad mounted)	53	5	1	10915	66.8	0.0
10	Inverter	58.7	33	2	10083	49.7	12.0
	Transformer (pad mounted)	53	5	1	10083	66.1	0.0
11	Inverter	58.7	33	2	8607	48.3	13.4
	Transformer (pad mounted)	53	5	1	8607	64.7	0.0
12	Inverter	58.7	33	2	7652	47.3	14.4
	Transformer (pad mounted)	53	5	1	7652	63.7	0.0
13	Inverter	58.7	33	2	6557	46.0	15.7
	Transformer (pad mounted)	53	5	1	6557	62.4	0.0
14	Inverter	58.7	33	2	5575	44.6	17.2
	Transformer (pad mounted)	53	5	1	5575	60.9	0.0
15	Inverter	58.7	33	2	4722	43.1	18.6
	Transformer (pad mounted)	53	5	1	4722	59.5	0.0



Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	58.7	33	2	2702	38.3	23.4
	Transformer (pad mounted)	53	5	1	2702	54.7	0.0
17	Inverter	58.7	33	2	3921	41.5	20.2
	Transformer (pad mounted)	53	5	1	3921	57.9	0.0
18	Inverter	58.7	33	2	3241	39.8	21.9
	Transformer (pad mounted)	53	5	1	3241	56.2	0.0
19	Inverter	58.7	33	2	4529	42.8	19.0
	Transformer (pad mounted)	53	5	1	4529	59.1	0.0
20	Inverter	58.7	33	2	5830	44.9	16.8
	Transformer (pad mounted)	53	5	1	5830	61.3	0.0
21	Inverter	58.7	33	2	7127	46.7	15.0
	Transformer (pad mounted)	53	5	1	7127	63.1	0.0
22	Inverter	58.7	33	2	8699	48.4	13.3
	Transformer (pad mounted)	53	5	1	8699	64.8	0.0
23	Inverter	58.7	33	2	11023	50.5	11.2
	Transformer (pad mounted)	53	5	1	11023	66.9	0.0
24	Inverter	58.7	33	2	12107	51.3	10.4
	Transformer (pad mounted)	53	5	1	12107	67.7	0.0
25	Inverter	58.7	33	2	11799	51.1	10.6
	Transformer (pad mounted)	53	5	1	11799	67.5	0.0
26	Inverter	58.7	33	2	10909	50.4	11.3
	Transformer (pad mounted)	53	5	1	10909	66.8	0.0
27	Inverter	58.7	33	2	9638	49.3	12.4
	Transformer (pad mounted)	53	5	1	9638	65.7	0.0
28	Inverter	58.7	33	2	9052	48.8	12.9
	Transformer (pad mounted)	53	5	1	9052	65.2	0.0
29	Inverter	58.7	33	2	8416	48.1	13.6
	Transformer (pad mounted)	53	5	1	8416	64.5	0.0
30	Inverter	58.7	33	2	7741	47.4	14.3
	Transformer (pad mounted)	53	5	1	7741	63.8	0.0
31	Inverter	58.7	33	2	6966	46.5	15.2

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq	
	Transformer (pad mounted)	53		5	1	6966	62.9	
32	Inverter	58.7		33	2	6304	45.6	
	Transformer (pad mounted)	53		5	1	6304	62.0	
33	Inverter	58.7		33	2	5615	44.6	
	Transformer (pad mounted)	53		5	1	5615	61.0	
34	Inverter	58.7		33	2	11805	51.1	
	Transformer (pad mounted)	53		5	1	11805	67.5	
	Substation Stepup Transformer	60		5	1	3677	57.3	
<b>Total</b>							<b>32.9</b>	<b>dBA Leq</b>

Group #	Source	Source Noise		Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
		Reference Distance Feet	Level dBA Leq				
1	Inverter	58.7	33	1	3955	41.6	17.1
	Transformer (pad mounted)	53	5	1	3955	58.0	0.0
2	Inverter	58.7	33	1	5160	43.9	14.8
	Transformer (pad mounted)	53	5	1	5160	60.3	0.0
3	Inverter	58.7	33	1	3148	39.6	19.1
	Transformer (pad mounted)	53	5	1	3148	56.0	0.0
4	Inverter	58.7	33	1	4571	42.8	15.9
	Transformer (pad mounted)	53	5	1	4571	59.2	0.0
5	Inverter	58.7	33	2	8913	48.6	13.1
	Transformer (pad mounted)	53	5	1	8913	65.0	0.0
6	Inverter	58.7	33	1	8647	48.4	10.3
	Transformer (pad mounted)	53	5	1	8647	64.8	0.0
7	Inverter	58.7	33	1	9448	49.1	9.6
	Transformer (pad mounted)	53	5	1	9448	65.5	0.0
8	Inverter	58.7	33	2	11304	50.7	11.0
	Transformer (pad mounted)	53	5	1	11304	67.1	0.0
9	Inverter	58.7	33	2	12244	51.4	10.3
	Transformer (pad mounted)	53	5	1	12244	67.8	0.0
10	Inverter	58.7	33	2	11316	50.7	11.0
	Transformer (pad mounted)	53	5	1	11316	67.1	0.0
11	Inverter	58.7	33	2	9818	49.5	12.2
	Transformer (pad mounted)	53	5	1	9818	65.9	0.0
12	Inverter	58.7	33	2	8845	48.6	13.1
	Transformer (pad mounted)	53	5	1	8845	65.0	0.0
13	Inverter	58.7	33	2	7723	47.4	14.3
	Transformer (pad mounted)	53	5	1	7723	63.8	0.0
14	Inverter	58.7	33	2	6707	46.2	15.6
	Transformer (pad mounted)	53	5	1	6707	62.6	0.0
15	Inverter	58.7	33	2	5811	44.9	16.8
	Transformer (pad mounted)	53	5	1	5811	61.3	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	58.7	33	2	3961	41.6	20.1
	Transformer (pad mounted)	53	5	1	3961	58.0	0.0
17	Inverter	58.7	33	2	4844	43.3	18.4
	Transformer (pad mounted)	53	5	1	4844	59.7	0.0
18	Inverter	58.7	33	2	4051	41.8	19.9
	Transformer (pad mounted)	53	5	1	4051	58.2	0.0
19	Inverter	58.7	33	2	5027	43.7	18.1
	Transformer (pad mounted)	53	5	1	5027	60.0	0.0
20	Inverter	58.7	33	2	6579	46.0	15.7
	Transformer (pad mounted)	53	5	1	6579	62.4	0.0
21	Inverter	58.7	33	2	8008	47.7	14.0
	Transformer (pad mounted)	53	5	1	8008	64.1	0.0
22	Inverter	58.7	33	2	9678	49.3	12.4
	Transformer (pad mounted)	53	5	1	9678	65.7	0.0
23	Inverter	58.7	33	2	12125	51.3	10.4
	Transformer (pad mounted)	53	5	1	12125	67.7	0.0
24	Inverter	58.7	33	2	13124	52.0	9.7
	Transformer (pad mounted)	53	5	1	13124	68.4	0.0
25	Inverter	58.7	33	2	12720	51.7	10.0
	Transformer (pad mounted)	53	5	1	12720	68.1	0.0
26	Inverter	58.7	33	2	11788	51.1	10.7
	Transformer (pad mounted)	53	5	1	11788	67.4	0.0
27	Inverter	58.7	33	2	10440	50.0	11.7
	Transformer (pad mounted)	53	5	1	10440	66.4	0.0
28	Inverter	58.7	33	2	9809	49.5	12.2
	Transformer (pad mounted)	53	5	1	9809	65.9	0.0
29	Inverter	58.7	33	2	9116	48.8	12.9
	Transformer (pad mounted)	53	5	1	9116	65.2	0.0
30	Inverter	58.7	33	2	8364	48.1	13.6
	Transformer (pad mounted)	53	5	1	8364	64.5	0.0
31	Inverter	58.7	33	2	7518	47.2	14.6

Prairie Solar Sidney, Illinois

Scenario: Receiver R11 With Inverter Sound Reduction Kit

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	7518	63.5
32	Inverter	58.7		33	2	6731	46.2
	Transformer (pad mounted)	53		5	1	6731	62.6
33	Inverter	58.7		33	2	5778	44.9
	Transformer (pad mounted)	53		5	1	5778	61.3
34	Inverter	58.7		33	2	12600	51.6
	Transformer (pad mounted)	53		5	1	12600	68.0
	Substation Stepup Transformer	60		5	1	3927	57.9
<b>Total</b>							<b>30.5 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	58.7	33	1	7454	47.1	11.6
	Transformer (pad mounted)	53	5	1	7454	63.5	0.0
2	Inverter	58.7	33	1	7235	46.8	11.9
	Transformer (pad mounted)	53	5	1	7235	63.2	0.0
3	Inverter	58.7	33	1	6469	45.8	12.9
	Transformer (pad mounted)	53	5	1	6469	62.2	0.0
4	Inverter	58.7	33	1	6215	45.5	13.2
	Transformer (pad mounted)	53	5	1	6215	61.9	0.0
5	Inverter	58.7	33	2	8254	48.0	13.7
	Transformer (pad mounted)	53	5	1	8254	64.4	0.0
6	Inverter	58.7	33	1	7511	47.1	11.6
	Transformer (pad mounted)	53	5	1	7511	63.5	0.0
7	Inverter	58.7	33	1	8025	47.7	11.0
	Transformer (pad mounted)	53	5	1	8025	64.1	0.0
8	Inverter	58.7	33	2	8477	48.2	13.5
	Transformer (pad mounted)	53	5	1	8477	64.6	0.0
9	Inverter	58.7	33	2	9304	49.0	12.7
	Transformer (pad mounted)	53	5	1	9304	65.4	0.0
10	Inverter	58.7	33	2	8068	47.8	13.9
	Transformer (pad mounted)	53	5	1	8068	64.2	0.0
11	Inverter	58.7	33	2	6728	46.2	15.5
	Transformer (pad mounted)	53	5	1	6728	62.6	0.0
12	Inverter	58.7	33	2	5899	45.0	16.7
	Transformer (pad mounted)	53	5	1	5899	61.4	0.0
13	Inverter	58.7	33	2	5009	43.6	18.1
	Transformer (pad mounted)	53	5	1	5009	60.0	0.0
14	Inverter	58.7	33	2	4298	42.3	19.4
	Transformer (pad mounted)	53	5	1	4298	58.7	0.0
15	Inverter	58.7	33	2	3789	41.2	20.5
	Transformer (pad mounted)	53	5	1	3789	57.6	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	58.7	33	2	4215	42.1	19.6
	Transformer (pad mounted)	53	5	1	4215	58.5	0.0
17	Inverter	58.7	33	2	3123	39.5	22.2
	Transformer (pad mounted)	53	5	1	3123	55.9	0.0
18	Inverter	58.7	33	2	3015	39.2	22.5
	Transformer (pad mounted)	53	5	1	3015	55.6	0.0
19	Inverter	58.7	33	2	1809	34.8	26.9
	Transformer (pad mounted)	53	5	1	1809	51.2	1.8
20	Inverter	58.7	33	2	2833	38.7	23.0
	Transformer (pad mounted)	53	5	1	2833	55.1	0.0
21	Inverter	58.7	33	2	4128	41.9	19.8
	Transformer (pad mounted)	53	5	1	4128	58.3	0.0
22	Inverter	58.7	33	2	5742	44.8	16.9
	Transformer (pad mounted)	53	5	1	5742	61.2	0.0
23	Inverter	58.7	33	2	8279	48.0	13.7
	Transformer (pad mounted)	53	5	1	8279	64.4	0.0
24	Inverter	58.7	33	2	8913	48.6	13.1
	Transformer (pad mounted)	53	5	1	8913	65.0	0.0
25	Inverter	58.7	33	2	8261	48.0	13.7
	Transformer (pad mounted)	53	5	1	8261	64.4	0.0
26	Inverter	58.7	33	2	7287	46.9	14.8
	Transformer (pad mounted)	53	5	1	7287	63.3	0.0
27	Inverter	58.7	33	2	5863	45.0	16.7
	Transformer (pad mounted)	53	5	1	5863	61.4	0.0
28	Inverter	58.7	33	2	5190	43.9	17.8
	Transformer (pad mounted)	53	5	1	5190	60.3	0.0
29	Inverter	58.7	33	2	4441	42.6	19.1
	Transformer (pad mounted)	53	5	1	4441	59.0	0.0
30	Inverter	58.7	33	2	3619	40.8	20.9
	Transformer (pad mounted)	53	5	1	3619	57.2	0.0
31	Inverter	58.7	33	2	2774	38.5	23.2

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	2774	54.9
32	Inverter	58.7		33	2	1893	35.2
	Transformer (pad mounted)	53		5	1	1893	51.6
33	Inverter	58.7		33	2	656	26.0
	Transformer (pad mounted)	53		5	1	656	42.4
34	Inverter	58.7		33	2	7831	47.5
	Transformer (pad mounted)	53		5	1	7831	63.9
	Substation Stepup Transformer	60		5	1	1958	51.9
<b>Total</b>							<b>38.3 dBA Leq</b>



Group #	Source	Source Noise		Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
		Reference Distance Feet	Level dBA Leq				
1	Inverter	58.7	33	1	8158	47.9	10.8
	Transformer (pad mounted)	53	5	1	8158	64.3	0.0
2	Inverter	58.7	33	1	7908	47.6	11.1
	Transformer (pad mounted)	53	5	1	7908	64.0	0.0
3	Inverter	58.7	33	1	7174	46.7	12.0
	Transformer (pad mounted)	53	5	1	7174	63.1	0.0
4	Inverter	58.7	33	1	6888	46.4	12.3
	Transformer (pad mounted)	53	5	1	6888	62.8	0.0
5	Inverter	58.7	33	2	8719	48.4	13.3
	Transformer (pad mounted)	53	5	1	8719	64.8	0.0
6	Inverter	58.7	33	1	7943	47.6	11.1
	Transformer (pad mounted)	53	5	1	7943	64.0	0.0
7	Inverter	58.7	33	1	8409	48.1	10.6
	Transformer (pad mounted)	53	5	1	8409	64.5	0.0
8	Inverter	58.7	33	2	8647	48.4	13.3
	Transformer (pad mounted)	53	5	1	8647	64.8	0.0
9	Inverter	58.7	33	2	9438	49.1	12.6
	Transformer (pad mounted)	53	5	1	9438	65.5	0.0
10	Inverter	58.7	33	2	8172	47.9	13.8
	Transformer (pad mounted)	53	5	1	8172	64.3	0.0
11	Inverter	58.7	33	2	6902	46.4	15.3
	Transformer (pad mounted)	53	5	1	6902	62.8	0.0
12	Inverter	58.7	33	2	6132	45.4	16.3
	Transformer (pad mounted)	53	5	1	6132	61.8	0.0
13	Inverter	58.7	33	2	5327	44.2	17.6
	Transformer (pad mounted)	53	5	1	5327	60.6	0.0
14	Inverter	58.7	33	2	4712	43.1	18.6
	Transformer (pad mounted)	53	5	1	4712	59.5	0.0
15	Inverter	58.7	33	2	4300	42.3	19.4
	Transformer (pad mounted)	53	5	1	4300	58.7	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	58.7	33	2	4890	43.4	18.3
	Transformer (pad mounted)	53	5	1	4890	59.8	0.0
17	Inverter	58.7	33	2	3733	41.1	20.6
	Transformer (pad mounted)	53	5	1	3733	57.5	0.0
18	Inverter	58.7	33	2	3691	41.0	20.7
	Transformer (pad mounted)	53	5	1	3691	57.4	0.0
19	Inverter	58.7	33	2	2411	37.3	24.4
	Transformer (pad mounted)	53	5	1	2411	53.7	0.0
20	Inverter	58.7	33	2	3135	39.6	22.2
	Transformer (pad mounted)	53	5	1	3135	55.9	0.0
21	Inverter	58.7	33	2	4264	42.2	19.5
	Transformer (pad mounted)	53	5	1	4264	58.6	0.0
22	Inverter	58.7	33	2	5775	44.9	16.8
	Transformer (pad mounted)	53	5	1	5775	61.3	0.0
23	Inverter	58.7	33	2	8259	48.0	13.7
	Transformer (pad mounted)	53	5	1	8259	64.4	0.0
24	Inverter	58.7	33	2	8798	48.5	13.2
	Transformer (pad mounted)	53	5	1	8798	64.9	0.0
25	Inverter	58.7	33	2	8095	47.8	13.9
	Transformer (pad mounted)	53	5	1	8095	64.2	0.0
26	Inverter	58.7	33	2	7128	46.7	15.0
	Transformer (pad mounted)	53	5	1	7128	63.1	0.0
27	Inverter	58.7	33	2	5720	44.8	16.9
	Transformer (pad mounted)	53	5	1	5720	61.2	0.0
28	Inverter	58.7	33	2	5057	43.7	18.0
	Transformer (pad mounted)	53	5	1	5057	60.1	0.0
29	Inverter	58.7	33	2	4324	42.3	19.4
	Transformer (pad mounted)	53	5	1	4324	58.7	0.0
30	Inverter	58.7	33	2	3525	40.6	21.1
	Transformer (pad mounted)	53	5	1	3525	57.0	0.0
31	Inverter	58.7	33	2	2759	38.4	23.3

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq	
	Transformer (pad mounted)	53		5	1	2759	54.8	
32	Inverter	58.7		33	2	1974	35.5	
	Transformer (pad mounted)	53		5	1	1974	51.9	
33	Inverter	58.7		33	2	1047	30.0	
	Transformer (pad mounted)	53		5	1	1047	46.4	
34	Inverter	58.7		33	2	7585	47.2	
	Transformer (pad mounted)	53		5	1	7585	63.6	
	Substation Stepup Transformer	60		5	1	2663	54.5	
<b>Total</b>							<b>36.0</b>	<b>dBA Leq</b>

Group #	Source	Source Noise		Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
		Reference Distance Feet	Level dBA Leq				
1	Inverter	58.7	33	1	8386	48.1	10.6
	Transformer (pad mounted)	53	5	1	8386	64.5	0.0
2	Inverter	58.7	33	1	7968	47.7	11.0
	Transformer (pad mounted)	53	5	1	7968	64.0	0.0
3	Inverter	58.7	33	1	7433	47.1	11.6
	Transformer (pad mounted)	53	5	1	7433	63.4	0.0
4	Inverter	58.7	33	1	6957	46.5	12.2
	Transformer (pad mounted)	53	5	1	6957	62.9	0.0
5	Inverter	58.7	33	2	8368	48.1	13.6
	Transformer (pad mounted)	53	5	1	8368	64.5	0.0
6	Inverter	58.7	33	1	7556	47.2	11.5
	Transformer (pad mounted)	53	5	1	7556	63.6	0.0
7	Inverter	58.7	33	1	7964	47.7	11.0
	Transformer (pad mounted)	53	5	1	7964	64.0	0.0
8	Inverter	58.7	33	2	8012	47.7	14.0
	Transformer (pad mounted)	53	5	1	8012	64.1	0.0
9	Inverter	58.7	33	2	8775	48.5	13.2
	Transformer (pad mounted)	53	5	1	8775	64.9	0.0
10	Inverter	58.7	33	2	7497	47.1	14.6
	Transformer (pad mounted)	53	5	1	7497	63.5	0.0
11	Inverter	58.7	33	2	6277	45.6	16.1
	Transformer (pad mounted)	53	5	1	6277	62.0	0.0
12	Inverter	58.7	33	2	5558	44.5	17.2
	Transformer (pad mounted)	53	5	1	5558	60.9	0.0
13	Inverter	58.7	33	2	4842	43.3	18.4
	Transformer (pad mounted)	53	5	1	4842	59.7	0.0
14	Inverter	58.7	33	2	4344	42.4	19.3
	Transformer (pad mounted)	53	5	1	4344	58.8	0.0
15	Inverter	58.7	33	2	4071	41.8	19.9
	Transformer (pad mounted)	53	5	1	4071	58.2	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	58.7	33	2	4986	43.6	18.1
	Transformer (pad mounted)	53	5	1	4986	60.0	0.0
17	Inverter	58.7	33	2	3690	41.0	20.7
	Transformer (pad mounted)	53	5	1	3690	57.4	0.0
18	Inverter	58.7	33	2	3818	41.3	20.4
	Transformer (pad mounted)	53	5	1	3818	57.7	0.0
19	Inverter	58.7	33	2	2423	37.3	24.4
	Transformer (pad mounted)	53	5	1	2423	53.7	0.0
20	Inverter	58.7	33	2	2693	38.2	23.5
	Transformer (pad mounted)	53	5	1	2693	54.6	0.0
21	Inverter	58.7	33	2	3640	40.9	20.9
	Transformer (pad mounted)	53	5	1	3640	57.2	0.0
22	Inverter	58.7	33	2	5071	43.7	18.0
	Transformer (pad mounted)	53	5	1	5071	60.1	0.0
23	Inverter	58.7	33	2	7521	47.2	14.6
	Transformer (pad mounted)	53	5	1	7521	63.5	0.0
24	Inverter	58.7	33	2	8029	47.7	14.0
	Transformer (pad mounted)	53	5	1	8029	64.1	0.0
25	Inverter	58.7	33	2	7317	46.9	14.8
	Transformer (pad mounted)	53	5	1	7317	63.3	0.0
26	Inverter	58.7	33	2	6352	45.7	16.0
	Transformer (pad mounted)	53	5	1	6352	62.1	0.0
27	Inverter	58.7	33	2	4949	43.5	18.2
	Transformer (pad mounted)	53	5	1	4949	59.9	0.0
28	Inverter	58.7	33	2	4290	42.3	19.4
	Transformer (pad mounted)	53	5	1	4290	58.7	0.0
29	Inverter	58.7	33	2	3564	40.7	21.0
	Transformer (pad mounted)	53	5	1	3564	57.1	0.0
30	Inverter	58.7	33	2	2780	38.5	23.2
	Transformer (pad mounted)	53	5	1	2780	54.9	0.0
31	Inverter	58.7	33	2	2069	35.9	25.8

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq	
	Transformer (pad mounted)	53		5	1	2069	52.3	
32	Inverter	58.7		33	2	1406	32.6	
	Transformer (pad mounted)	53		5	1	1406	49.0	
33	Inverter	58.7		33	2	1075	30.3	
	Transformer (pad mounted)	53		5	1	1075	46.6	
34	Inverter	58.7		33	2	6800	46.3	
	Transformer (pad mounted)	53		5	1	6800	62.7	
	Substation Stepup Transformer	60		5	1	2998	55.6	
<b>Total</b>							<b>36.8</b>	<b>dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	58.7	33	1	9600	49.3	9.4
	Transformer (pad mounted)	53	5	1	9600	65.7	0.0
2	Inverter	58.7	33	1	8829	48.5	10.2
	Transformer (pad mounted)	53	5	1	8829	64.9	0.0
3	Inverter	58.7	33	1	8735	48.5	10.2
	Transformer (pad mounted)	53	5	1	8735	64.8	0.0
4	Inverter	58.7	33	1	7879	47.6	11.1
	Transformer (pad mounted)	53	5	1	7879	64.0	0.0
5	Inverter	58.7	33	2	8132	47.8	13.9
	Transformer (pad mounted)	53	5	1	8132	64.2	0.0
6	Inverter	58.7	33	1	7247	46.8	11.9
	Transformer (pad mounted)	53	5	1	7247	63.2	0.0
7	Inverter	58.7	33	1	7447	47.1	11.6
	Transformer (pad mounted)	53	5	1	7447	63.5	0.0
8	Inverter	58.7	33	2	6798	46.3	15.4
	Transformer (pad mounted)	53	5	1	6798	62.7	0.0
9	Inverter	58.7	33	2	7428	47.0	14.7
	Transformer (pad mounted)	53	5	1	7428	63.4	0.0
10	Inverter	58.7	33	2	6127	45.4	16.3
	Transformer (pad mounted)	53	5	1	6127	61.8	0.0
11	Inverter	58.7	33	2	5186	43.9	17.8
	Transformer (pad mounted)	53	5	1	5186	60.3	0.0
12	Inverter	58.7	33	2	4731	43.1	18.6
	Transformer (pad mounted)	53	5	1	4731	59.5	0.0
13	Inverter	58.7	33	2	4421	42.5	19.2
	Transformer (pad mounted)	53	5	1	4421	58.9	0.0
14	Inverter	58.7	33	2	4377	42.5	19.3
	Transformer (pad mounted)	53	5	1	4377	58.8	0.0
15	Inverter	58.7	33	2	4532	42.8	19.0
	Transformer (pad mounted)	53	5	1	4532	59.1	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	58.7	33	2	6085	45.3	16.4
	Transformer (pad mounted)	53	5	1	6085	61.7	0.0
17	Inverter	58.7	33	2	4641	43.0	18.7
	Transformer (pad mounted)	53	5	1	4641	59.4	0.0
18	Inverter	58.7	33	2	5082	43.8	18.0
	Transformer (pad mounted)	53	5	1	5082	60.1	0.0
19	Inverter	58.7	33	2	3714	41.0	20.7
	Transformer (pad mounted)	53	5	1	3714	57.4	0.0
20	Inverter	58.7	33	2	2878	38.8	22.9
	Transformer (pad mounted)	53	5	1	2878	55.2	0.0
21	Inverter	58.7	33	2	2852	38.7	23.0
	Transformer (pad mounted)	53	5	1	2852	55.1	0.0
22	Inverter	58.7	33	2	3678	40.9	20.8
	Transformer (pad mounted)	53	5	1	3678	57.3	0.0
23	Inverter	58.7	33	2	5843	45.0	16.7
	Transformer (pad mounted)	53	5	1	5843	61.4	0.0
24	Inverter	58.7	33	2	6157	45.4	16.3
	Transformer (pad mounted)	53	5	1	6157	61.8	0.0
25	Inverter	58.7	33	2	5376	44.2	17.5
	Transformer (pad mounted)	53	5	1	5376	60.6	0.0
26	Inverter	58.7	33	2	4440	42.6	19.1
	Transformer (pad mounted)	53	5	1	4440	59.0	0.0
27	Inverter	58.7	33	2	3115	39.5	22.2
	Transformer (pad mounted)	53	5	1	3115	55.9	0.0
28	Inverter	58.7	33	2	2526	37.7	24.0
	Transformer (pad mounted)	53	5	1	2526	54.1	0.0
29	Inverter	58.7	33	2	1937	35.4	26.3
	Transformer (pad mounted)	53	5	1	1937	51.8	1.2
30	Inverter	58.7	33	2	1472	33.0	28.7
	Transformer (pad mounted)	53	5	1	1472	49.4	3.6
31	Inverter	58.7	33	2	1548	33.4	28.3



Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	1548	49.8
32	Inverter	58.7		33	2	1945	35.4
	Transformer (pad mounted)	53		5	1	1945	51.8
33	Inverter	58.7		33	2	2831	38.7
	Transformer (pad mounted)	53		5	1	2831	55.1
34	Inverter	58.7		33	2	4768	43.2
	Transformer (pad mounted)	53		5	1	4768	59.6
	Substation Stepup Transformer	60		5	1	4671	59.4
<b>Total</b>							<b>36.7 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	58.7	33	1	10350	49.9	8.8
	Transformer (pad mounted)	53	5	1	10350	66.3	0.0
2	Inverter	58.7	33	1	9430	49.1	9.6
	Transformer (pad mounted)	53	5	1	9430	65.5	0.0
3	Inverter	58.7	33	1	9534	49.2	9.5
	Transformer (pad mounted)	53	5	1	9534	65.6	0.0
4	Inverter	58.7	33	1	8526	48.2	10.5
	Transformer (pad mounted)	53	5	1	8526	64.6	0.0
5	Inverter	58.7	33	2	8199	47.9	13.8
	Transformer (pad mounted)	53	5	1	8199	64.3	0.0
6	Inverter	58.7	33	1	7300	46.9	11.8
	Transformer (pad mounted)	53	5	1	7300	63.3	0.0
7	Inverter	58.7	33	1	7377	47.0	11.7
	Transformer (pad mounted)	53	5	1	7377	63.4	0.0
8	Inverter	58.7	33	2	6313	45.6	16.1
	Transformer (pad mounted)	53	5	1	6313	62.0	0.0
9	Inverter	58.7	33	2	6837	46.3	15.4
	Transformer (pad mounted)	53	5	1	6837	62.7	0.0
10	Inverter	58.7	33	2	5556	44.5	17.2
	Transformer (pad mounted)	53	5	1	5556	60.9	0.0
11	Inverter	58.7	33	2	4851	43.3	18.4
	Transformer (pad mounted)	53	5	1	4851	59.7	0.0
12	Inverter	58.7	33	2	4602	42.9	18.8
	Transformer (pad mounted)	53	5	1	4602	59.3	0.0
13	Inverter	58.7	33	2	4563	42.8	18.9
	Transformer (pad mounted)	53	5	1	4563	59.2	0.0
14	Inverter	58.7	33	2	4763	43.2	18.5
	Transformer (pad mounted)	53	5	1	4763	59.6	0.0
15	Inverter	58.7	33	2	5105	43.8	17.9
	Transformer (pad mounted)	53	5	1	5105	60.2	0.0

Group #	Source	Source Noise		Reference Distance	Number of Representative Units	Distance to Receiver	Distance Attenuation	Noise Level at Receiver
		Level dBA Leq	Feet					
16	Inverter	58.7	33	2	6849	46.3	15.4	
	Transformer (pad mounted)	53	5	1	6849	62.7	0.0	
17	Inverter	58.7	33	2	5405	44.3	17.4	
	Transformer (pad mounted)	53	5	1	5405	60.7	0.0	
18	Inverter	58.7	33	2	5940	45.1	16.6	
	Transformer (pad mounted)	53	5	1	5940	61.5	0.0	
19	Inverter	58.7	33	2	4640	43.0	18.8	
	Transformer (pad mounted)	53	5	1	4640	59.4	0.0	
20	Inverter	58.7	33	2	3507	40.5	21.2	
	Transformer (pad mounted)	53	5	1	3507	56.9	0.0	
21	Inverter	58.7	33	2	2973	39.1	22.6	
	Transformer (pad mounted)	53	5	1	2973	55.5	0.0	
22	Inverter	58.7	33	2	3227	39.8	21.9	
	Transformer (pad mounted)	53	5	1	3227	56.2	0.0	
23	Inverter	58.7	33	2	5050	43.7	18.0	
	Transformer (pad mounted)	53	5	1	5050	60.1	0.0	
24	Inverter	58.7	33	2	5204	44.0	17.8	
	Transformer (pad mounted)	53	5	1	5204	60.3	0.0	
25	Inverter	58.7	33	2	4377	42.5	19.3	
	Transformer (pad mounted)	53	5	1	4377	58.8	0.0	
26	Inverter	58.7	33	2	3482	40.5	21.2	
	Transformer (pad mounted)	53	5	1	3482	56.9	0.0	
27	Inverter	58.7	33	2	2293	36.8	24.9	
	Transformer (pad mounted)	53	5	1	2293	53.2	0.0	
28	Inverter	58.7	33	2	1851	35.0	26.7	
	Transformer (pad mounted)	53	5	1	1851	51.4	1.6	
29	Inverter	58.7	33	2	1568	33.5	28.2	
	Transformer (pad mounted)	53	5	1	1568	49.9	3.1	
30	Inverter	58.7	33	2	1642	33.9	27.8	
	Transformer (pad mounted)	53	5	1	1642	50.3	2.7	
31	Inverter	58.7	33	2	2214	36.5	25.2	

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	2214	52.9
32	Inverter	58.7		33	2	2877	38.8
	Transformer (pad mounted)	53		5	1	2877	55.2
33	Inverter	58.7		33	2	3904	41.5
	Transformer (pad mounted)	53		5	1	3904	57.9
34	Inverter	58.7		33	2	3693	41.0
	Transformer (pad mounted)	53		5	1	3693	57.4
	Substation Stepup Transformer	60		5	1	5674	61.1
<b>Total</b>							<b>36.4 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	58.7	33	1	13500	52.2	6.5
	Transformer (pad mounted)	53	5	1	13500	68.6	0.0
2	Inverter	58.7	33	1	11860	51.1	7.6
	Transformer (pad mounted)	53	5	1	11860	67.5	0.0
3	Inverter	58.7	33	1	13139	52.0	6.7
	Transformer (pad mounted)	53	5	1	13139	68.4	0.0
4	Inverter	58.7	33	1	11448	50.8	7.9
	Transformer (pad mounted)	53	5	1	11448	67.2	0.0
5	Inverter	58.7	33	2	7953	47.6	14.1
	Transformer (pad mounted)	53	5	1	7953	64.0	0.0
6	Inverter	58.7	33	1	7427	47.0	11.7
	Transformer (pad mounted)	53	5	1	7427	63.4	0.0
7	Inverter	58.7	33	1	6750	46.2	12.5
	Transformer (pad mounted)	53	5	1	6750	62.6	0.0
8	Inverter	58.7	33	2	3966	41.6	20.1
	Transformer (pad mounted)	53	5	1	3966	58.0	0.0
9	Inverter	58.7	33	2	3226	39.8	21.9
	Transformer (pad mounted)	53	5	1	3226	56.2	0.0
10	Inverter	58.7	33	2	3547	40.6	21.1
	Transformer (pad mounted)	53	5	1	3547	57.0	0.0
11	Inverter	58.7	33	2	4973	43.6	18.1
	Transformer (pad mounted)	53	5	1	4973	60.0	0.0
12	Inverter	58.7	33	2	5920	45.1	16.6
	Transformer (pad mounted)	53	5	1	5920	61.5	0.0
13	Inverter	58.7	33	2	7021	46.6	15.2
	Transformer (pad mounted)	53	5	1	7021	62.9	0.0
14	Inverter	58.7	33	2	8026	47.7	14.0
	Transformer (pad mounted)	53	5	1	8026	64.1	0.0
15	Inverter	58.7	33	2	8915	48.6	13.1
	Transformer (pad mounted)	53	5	1	8915	65.0	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	58.7	33	33	2	10875	50.4
	Transformer (pad mounted)	53	5	5	1	10875	66.7
17	Inverter	58.7	33	33	2	9891	49.5
	Transformer (pad mounted)	53	5	5	1	9891	65.9
18	Inverter	58.7	33	33	2	10697	50.2
	Transformer (pad mounted)	53	5	5	1	10697	66.6
19	Inverter	58.7	33	33	2	10084	49.7
	Transformer (pad mounted)	53	5	5	1	10084	66.1
20	Inverter	58.7	33	33	2	8405	48.1
	Transformer (pad mounted)	53	5	5	1	8405	64.5
21	Inverter	58.7	33	33	2	6907	46.4
	Transformer (pad mounted)	53	5	5	1	6907	62.8
22	Inverter	58.7	33	33	2	5184	43.9
	Transformer (pad mounted)	53	5	5	1	5184	60.3
23	Inverter	58.7	33	33	2	2625	38.0
	Transformer (pad mounted)	53	5	5	1	2625	54.4
24	Inverter	58.7	33	33	2	2059	35.9
	Transformer (pad mounted)	53	5	5	1	2059	52.3
25	Inverter	58.7	33	33	2	2941	39.0
	Transformer (pad mounted)	53	5	5	1	2941	55.4
26	Inverter	58.7	33	33	2	3779	41.2
	Transformer (pad mounted)	53	5	5	1	3779	57.6
27	Inverter	58.7	33	33	2	5092	43.8
	Transformer (pad mounted)	53	5	5	1	5092	60.2
28	Inverter	58.7	33	33	2	5733	44.8
	Transformer (pad mounted)	53	5	5	1	5733	61.2
29	Inverter	58.7	33	33	2	6453	45.8
	Transformer (pad mounted)	53	5	5	1	6453	62.2
30	Inverter	58.7	33	33	2	7252	46.8
	Transformer (pad mounted)	53	5	5	1	7252	63.2
31	Inverter	58.7	33	33	2	8070	47.8

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Scenario: Eastern Extent - Upper Portion  
With Inverter Sound Reduction Kit

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	8070	64.2
32	Inverter	58.7		33	2	8955	48.7
	Transformer (pad mounted)	53		5	1	8955	65.1
33	Inverter	58.7		33	2	10222	49.8
	Transformer (pad mounted)	53		5	1	10222	66.2
34	Inverter	58.7		33	2	3892	41.4
	Transformer (pad mounted)	53		5	1	3892	57.8
	Substation Stepup Transformer	60		5	1	11251	67.0
<b>Total</b>							<b>33.3 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	58.7	33	1	9201	48.9	9.8
	Transformer (pad mounted)	53	5	1	9201	65.3	0.0
2	Inverter	58.7	33	1	7414	47.0	11.7
	Transformer (pad mounted)	53	5	1	7414	63.4	0.0
3	Inverter	58.7	33	1	9150	48.9	9.8
	Transformer (pad mounted)	53	5	1	9150	65.2	0.0
4	Inverter	58.7	33	1	7350	47.0	11.7
	Transformer (pad mounted)	53	5	1	7350	63.3	0.0
5	Inverter	58.7	33	2	3008	39.2	22.5
	Transformer (pad mounted)	53	5	1	3008	55.6	0.0
6	Inverter	58.7	33	1	2932	39.0	19.7
	Transformer (pad mounted)	53	5	1	2932	55.4	0.0
7	Inverter	58.7	33	1	2110	36.1	22.6
	Transformer (pad mounted)	53	5	1	2110	52.5	0.5
8	Inverter	58.7	33	2	2050	35.9	25.8
	Transformer (pad mounted)	53	5	1	2050	52.3	0.7
9	Inverter	58.7	33	2	2255	36.7	25.0
	Transformer (pad mounted)	53	5	1	2255	53.1	0.0
10	Inverter	58.7	33	2	2950	39.0	22.7
	Transformer (pad mounted)	53	5	1	2950	55.4	0.0
11	Inverter	58.7	33	2	3309	40.0	21.7
	Transformer (pad mounted)	53	5	1	3309	56.4	0.0
12	Inverter	58.7	33	2	3851	41.3	20.4
	Transformer (pad mounted)	53	5	1	3851	57.7	0.0
13	Inverter	58.7	33	2	4654	43.0	18.7
	Transformer (pad mounted)	53	5	1	4654	59.4	0.0
14	Inverter	58.7	33	2	5482	44.4	17.3
	Transformer (pad mounted)	53	5	1	5482	60.8	0.0
15	Inverter	58.7	33	2	6259	45.6	16.2
	Transformer (pad mounted)	53	5	1	6259	62.0	0.0



Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	58.7	33	33	2	7631	47.3
	Transformer (pad mounted)	53	5	5	1	7631	63.7
17	Inverter	58.7	33	33	2	7303	46.9
	Transformer (pad mounted)	53	5	5	1	7303	63.3
18	Inverter	58.7	33	33	2	8036	47.7
	Transformer (pad mounted)	53	5	5	1	8036	64.1
19	Inverter	58.7	33	33	2	8165	47.9
	Transformer (pad mounted)	53	5	5	1	8165	64.3
20	Inverter	58.7	33	33	2	6835	46.3
	Transformer (pad mounted)	53	5	5	1	6835	62.7
21	Inverter	58.7	33	33	2	5802	44.9
	Transformer (pad mounted)	53	5	5	1	5802	61.3
22	Inverter	58.7	33	33	2	4921	43.5
	Transformer (pad mounted)	53	5	5	1	4921	59.9
23	Inverter	58.7	33	33	2	4303	42.3
	Transformer (pad mounted)	53	5	5	1	4303	58.7
24	Inverter	58.7	33	33	2	5460	44.4
	Transformer (pad mounted)	53	5	5	1	5460	60.8
25	Inverter	58.7	33	33	2	6018	45.2
	Transformer (pad mounted)	53	5	5	1	6018	61.6
26	Inverter	58.7	33	33	2	5950	45.1
	Transformer (pad mounted)	53	5	5	1	5950	61.5
27	Inverter	58.7	33	33	2	6136	45.4
	Transformer (pad mounted)	53	5	5	1	6136	61.8
28	Inverter	58.7	33	33	2	6335	45.7
	Transformer (pad mounted)	53	5	5	1	6335	62.1
29	Inverter	58.7	33	33	2	6630	46.1
	Transformer (pad mounted)	53	5	5	1	6630	62.5
30	Inverter	58.7	33	33	2	7033	46.6
	Transformer (pad mounted)	53	5	5	1	7033	63.0
31	Inverter	58.7	33	33	2	7415	47.0

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Scenario: Eastern Extent - Lower Portion  
With Inverter Sound Reduction Kit

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	7415	63.4
32	Inverter	58.7		33	2	8007	47.7
	Transformer (pad mounted)	53		5	1	8007	64.1
33	Inverter	58.7		33	2	9021	48.7
	Transformer (pad mounted)	53		5	1	9021	65.1
34	Inverter	58.7		33	2	6915	46.4
	Transformer (pad mounted)	53		5	1	6915	62.8
	Substation Stepup Transformer	60		5	1	9086	65.2
<b>Total</b>							<b>34.1 dBA Leq</b>

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	58.7	33	1	11778	51.1	7.6
	Transformer (pad mounted)	53	5	1	11778	67.4	0.0
2	Inverter	58.7	33	1	10967	50.4	8.3
	Transformer (pad mounted)	53	5	1	10967	66.8	0.0
3	Inverter	58.7	33	1	10914	50.4	8.3
	Transformer (pad mounted)	53	5	1	10914	66.8	0.0
4	Inverter	58.7	33	1	10033	49.7	9.0
	Transformer (pad mounted)	53	5	1	10033	66.0	0.0
5	Inverter	58.7	33	2	9852	49.5	12.2
	Transformer (pad mounted)	53	5	1	9852	65.9	0.0
6	Inverter	58.7	33	1	8952	48.7	10.0
	Transformer (pad mounted)	53	5	1	8952	65.1	0.0
7	Inverter	58.7	33	1	9009	48.7	10.0
	Transformer (pad mounted)	53	5	1	9009	65.1	0.0
8	Inverter	58.7	33	2	7757	47.4	14.3
	Transformer (pad mounted)	53	5	1	7757	63.8	0.0
9	Inverter	58.7	33	2	8181	47.9	13.8
	Transformer (pad mounted)	53	5	1	8181	64.3	0.0
10	Inverter	58.7	33	2	6943	46.5	15.2
	Transformer (pad mounted)	53	5	1	6943	62.9	0.0
11	Inverter	58.7	33	2	6409	45.8	15.9
	Transformer (pad mounted)	53	5	1	6409	62.2	0.0
12	Inverter	58.7	33	2	6234	45.5	16.2
	Transformer (pad mounted)	53	5	1	6234	61.9	0.0
13	Inverter	58.7	33	2	6218	45.5	16.2
	Transformer (pad mounted)	53	5	1	6218	61.9	0.0
14	Inverter	58.7	33	2	6378	45.7	16.0
	Transformer (pad mounted)	53	5	1	6378	62.1	0.0
15	Inverter	58.7	33	2	6647	46.1	15.6
	Transformer (pad mounted)	53	5	1	6647	62.5	0.0

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	58.7	33	2	8262	48.0	13.7
	Transformer (pad mounted)	53	5	1	8262	64.4	0.0
17	Inverter	58.7	33	2	6817	46.3	15.4
	Transformer (pad mounted)	53	5	1	6817	62.7	0.0
18	Inverter	58.7	33	2	7257	46.8	14.9
	Transformer (pad mounted)	53	5	1	7257	63.2	0.0
19	Inverter	58.7	33	2	5875	45.0	16.7
	Transformer (pad mounted)	53	5	1	5875	61.4	0.0
20	Inverter	58.7	33	2	5006	43.6	18.1
	Transformer (pad mounted)	53	5	1	5006	60.0	0.0
21	Inverter	58.7	33	2	4624	42.9	18.8
	Transformer (pad mounted)	53	5	1	4624	59.3	0.0
22	Inverter	58.7	33	2	4767	43.2	18.5
	Transformer (pad mounted)	53	5	1	4767	59.6	0.0
23	Inverter	58.7	33	2	6201	45.5	16.2
	Transformer (pad mounted)	53	5	1	6201	61.9	0.0
24	Inverter	58.7	33	2	6050	45.3	16.4
	Transformer (pad mounted)	53	5	1	6050	61.7	0.0
25	Inverter	58.7	33	2	5142	43.9	17.9
	Transformer (pad mounted)	53	5	1	5142	60.2	0.0
26	Inverter	58.7	33	2	4421	42.5	19.2
	Transformer (pad mounted)	53	5	1	4421	58.9	0.0
27	Inverter	58.7	33	2	3589	40.7	21.0
	Transformer (pad mounted)	53	5	1	3589	57.1	0.0
28	Inverter	58.7	33	2	3338	40.1	21.6
	Transformer (pad mounted)	53	5	1	3338	56.5	0.0
29	Inverter	58.7	33	2	3206	39.7	22.0
	Transformer (pad mounted)	53	5	1	3206	56.1	0.0
30	Inverter	58.7	33	2	3260	39.9	21.8
	Transformer (pad mounted)	53	5	1	3260	56.3	0.0
31	Inverter	58.7	33	2	3668	40.9	20.8

Prairie Solar Sidney, Illinois

Scenario: Northern Extent  
With Inverter Sound Reduction Kit

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	3668	57.3
32	Inverter	58.7		33	2	4118	41.9
	Transformer (pad mounted)	53		5	1	4118	58.3
33	Inverter	58.7		33	2	4858	43.4
	Transformer (pad mounted)	53		5	1	4858	59.7
34	Inverter	58.7		33	2	4224	42.1
	Transformer (pad mounted)	53		5	1	4224	58.5
	Substation Stepup Transformer	60		5	1	6771	62.6
<b>Total</b>							<b>32.8 dBA Leq</b>

Group #	Source	Source Noise		Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
		Level dBA Leq	Reference Distance Feet					
1	Inverter	58.7	53	33	1	5365	44.2	14.5
	Transformer (pad mounted)	58.7	53	33	1	5365	41.1	0.0
2	Inverter	58.7	53	33	1	3733	57.5	17.6
	Transformer (pad mounted)	58.7	53	33	1	3733	44.9	0.0
3	Inverter	58.7	53	33	1	5802	61.3	13.8
	Transformer (pad mounted)	58.7	53	33	1	5802	42.4	0.0
4	Inverter	58.7	53	33	1	4337	58.8	16.3
	Transformer (pad mounted)	58.7	53	33	1	4337	37.5	0.0
5	Inverter	58.7	53	33	2	2462	53.8	24.3
	Transformer (pad mounted)	58.7	53	33	1	2462	39.9	0.0
6	Inverter	58.7	53	33	1	3278	56.3	18.8
	Transformer (pad mounted)	58.7	53	33	1	3278	40.9	0.0
7	Inverter	58.7	53	33	1	3661	57.3	17.8
	Transformer (pad mounted)	58.7	53	33	1	3661	45.8	0.0
8	Inverter	58.7	53	33	2	6405	62.2	16.0
	Transformer (pad mounted)	58.7	53	33	1	6405	46.6	0.0
9	Inverter	58.7	53	33	2	7047	63.0	15.1
	Transformer (pad mounted)	58.7	53	33	1	7047	46.7	0.0
10	Inverter	58.7	53	33	2	7117	63.1	15.0
	Transformer (pad mounted)	58.7	53	33	1	7117	45.7	0.0
11	Inverter	58.7	53	33	2	6366	62.1	16.0
	Transformer (pad mounted)	58.7	53	33	1	6366	45.2	0.0
12	Inverter	58.7	53	33	2	6030	61.6	16.5
	Transformer (pad mounted)	58.7	53	33	1	6030	44.9	0.0
13	Inverter	58.7	53	33	2	5824	61.3	16.8
	Transformer (pad mounted)	58.7	53	33	1	5824	44.9	0.0
14	Inverter	58.7	53	33	2	5821	61.3	16.8
	Transformer (pad mounted)	58.7	53	33	1	5821	45.1	0.0
15	Inverter	58.7	53	33	2	5965	61.5	16.6
	Transformer (pad mounted)	58.7	53	5	1	5965	0.0	0.0

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Scenario: Southern Extent  
With Inverter Sound Reduction Kit

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	58.7	33	2	5866	45.0	16.7
	Transformer (pad mounted)	53	5	1	5866	61.4	0.0
17	Inverter	58.7	33	2	6561	46.0	15.7
	Transformer (pad mounted)	53	5	1	6561	62.4	0.0
18	Inverter	58.7	33	2	6900	46.4	15.3
	Transformer (pad mounted)	53	5	1	6900	62.8	0.0
19	Inverter	58.7	33	2	7862	47.5	14.2
	Transformer (pad mounted)	53	5	1	7862	63.9	0.0
20	Inverter	58.7	33	2	7464	47.1	14.6
	Transformer (pad mounted)	53	5	1	7464	63.5	0.0
21	Inverter	58.7	33	2	7419	47.0	14.7
	Transformer (pad mounted)	53	5	1	7419	63.4	0.0
22	Inverter	58.7	33	2	7735	47.4	14.3
	Transformer (pad mounted)	53	5	1	7735	63.8	0.0
23	Inverter	58.7	33	2	8570	48.3	13.4
	Transformer (pad mounted)	53	5	1	8570	64.7	0.0
24	Inverter	58.7	33	2	9862	49.5	12.2
	Transformer (pad mounted)	53	5	1	9862	65.9	0.0
25	Inverter	58.7	33	2	10134	49.7	12.0
	Transformer (pad mounted)	53	5	1	10134	66.1	0.0
26	Inverter	58.7	33	2	9687	49.4	12.4
	Transformer (pad mounted)	53	5	1	9687	65.7	0.0
27	Inverter	58.7	33	2	9183	48.9	12.8
	Transformer (pad mounted)	53	5	1	9183	65.3	0.0
28	Inverter	58.7	33	2	9013	48.7	13.0
	Transformer (pad mounted)	53	5	1	9013	65.1	0.0
29	Inverter	58.7	33	2	8881	48.6	13.1
	Transformer (pad mounted)	53	5	1	8881	65.0	0.0
30	Inverter	58.7	33	2	8808	48.5	13.2
	Transformer (pad mounted)	53	5	1	8808	64.9	0.0
31	Inverter	58.7	33	2	8664	48.4	13.3

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Scenario: Southern Extent  
With Inverter Sound Reduction Kit

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	8664	64.8
32	Inverter	58.7		33	2	8762	48.5
	Transformer (pad mounted)	53		5	1	8762	64.9
33	Inverter	58.7		33	2	9192	48.9
	Transformer (pad mounted)	53		5	1	9192	65.3
34	Inverter	58.7		33	2	10770	50.3
	Transformer (pad mounted)	53		5	1	10770	66.7
	Substation Stepup Transformer	60		5	1	8197	64.3
<b>Total</b>							<b>31.4 dBA Leq</b>



Prairie Solar Sidney, Illinois

Scenario: Western Extent - Upper Portion  
With Inverter Sound Reduction Kit

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	58.7	33	1	5235	44.0	14.7
	Transformer (pad mounted)	53	5	1	5235	60.4	0.0
2	Inverter	58.7	33	1	5665	44.7	14.0
	Transformer (pad mounted)	53	5	1	5665	61.1	0.0
3	Inverter	58.7	33	1	4219	42.1	16.6
	Transformer (pad mounted)	53	5	1	4219	58.5	0.0
4	Inverter	58.7	33	1	4741	43.1	15.6
	Transformer (pad mounted)	53	5	1	4741	59.5	0.0
5	Inverter	58.7	33	2	8270	48.0	13.7
	Transformer (pad mounted)	53	5	1	8270	64.4	0.0
6	Inverter	58.7	33	1	7765	47.4	11.3
	Transformer (pad mounted)	53	5	1	7765	63.8	0.0
7	Inverter	58.7	33	1	8480	48.2	10.5
	Transformer (pad mounted)	53	5	1	8480	64.6	0.0
8	Inverter	58.7	33	2	9800	49.5	12.3
	Transformer (pad mounted)	53	5	1	9800	65.8	0.0
9	Inverter	58.7	33	2	10718	50.2	11.5
	Transformer (pad mounted)	53	5	1	10718	66.6	0.0
10	Inverter	58.7	33	2	9638	49.3	12.4
	Transformer (pad mounted)	53	5	1	9638	65.7	0.0
11	Inverter	58.7	33	2	8154	47.9	13.9
	Transformer (pad mounted)	53	5	1	8154	64.2	0.0
12	Inverter	58.7	33	2	7193	46.8	14.9
	Transformer (pad mounted)	53	5	1	7193	63.2	0.0
13	Inverter	58.7	33	2	6090	45.3	16.4
	Transformer (pad mounted)	53	5	1	6090	61.7	0.0
14	Inverter	58.7	33	2	5099	43.8	17.9
	Transformer (pad mounted)	53	5	1	5099	60.2	0.0
15	Inverter	58.7	33	2	4234	42.2	19.5
	Transformer (pad mounted)	53	5	1	4234	58.6	0.0

Prairie Solar Sidney, Illinois

Scenario: Western Extent - Upper Portion  
With Inverter Sound Reduction Kit

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	58.7	33	33	2	3111	39.5
	Transformer (pad mounted)	53	5	5	1	3111	55.9
17	Inverter	58.7	33	33	2	3172	39.7
	Transformer (pad mounted)	53	5	5	1	3172	56.0
18	Inverter	58.7	33	33	2	2417	37.3
	Transformer (pad mounted)	53	5	5	1	2417	53.7
19	Inverter	58.7	33	33	2	2786	38.5
	Transformer (pad mounted)	53	5	5	1	2786	54.9
20	Inverter	58.7	33	33	2	4460	42.6
	Transformer (pad mounted)	53	5	5	1	4460	59.0
21	Inverter	58.7	33	33	2	5958	45.1
	Transformer (pad mounted)	53	5	5	1	5958	61.5
22	Inverter	58.7	33	33	2	7681	47.3
	Transformer (pad mounted)	53	5	5	1	7681	63.7
23	Inverter	58.7	33	33	2	10225	49.8
	Transformer (pad mounted)	53	5	5	1	10225	66.2
24	Inverter	58.7	33	33	2	11095	50.5
	Transformer (pad mounted)	53	5	5	1	11095	66.9
25	Inverter	58.7	33	33	2	10587	50.1
	Transformer (pad mounted)	53	5	5	1	10587	66.5
26	Inverter	58.7	33	33	2	9626	49.3
	Transformer (pad mounted)	53	5	5	1	9626	65.7
27	Inverter	58.7	33	33	2	8228	47.9
	Transformer (pad mounted)	53	5	5	1	8228	64.3
28	Inverter	58.7	33	33	2	7568	47.2
	Transformer (pad mounted)	53	5	5	1	7568	63.6
29	Inverter	58.7	33	33	2	6840	46.3
	Transformer (pad mounted)	53	5	5	1	6840	62.7
30	Inverter	58.7	33	33	2	6044	45.3
	Transformer (pad mounted)	53	5	5	1	6044	61.6
31	Inverter	58.7	33	33	2	5168	43.9

Prairie Solar Sidney, Illinois

Scenario: Western Extent - Upper Portion  
With Inverter Sound Reduction Kit

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	5168	60.3
32	Inverter	58.7		33	2	4318	42.3
	Transformer (pad mounted)	53		5	1	4318	58.7
33	Inverter	58.7		33	2	3250	39.9
	Transformer (pad mounted)	53		5	1	3250	56.3
34	Inverter	58.7		33	2	10345	49.9
	Transformer (pad mounted)	53		5	1	10345	66.3
	Substation Stepup Transformer	60		5	1	1607	50.1
<b>Total</b>							<b>33.0 dBA Leq</b>

Prairie Solar Sidney, Illinois

Scenario: Western Extent - Lower Portion  
With Inverter Sound Reduction Kit

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
1	Inverter	58.7	33	1	2589	37.9	20.8
	Transformer (pad mounted)	53	5	1	2589	54.3	0.0
2	Inverter	58.7	33	1	4311	42.3	16.4
	Transformer (pad mounted)	53	5	1	4311	58.7	0.0
3	Inverter	58.7	33	1	2401	37.2	21.5
	Transformer (pad mounted)	53	5	1	2401	53.6	0.0
4	Inverter	58.7	33	1	4200	42.1	16.6
	Transformer (pad mounted)	53	5	1	4200	58.5	0.0
5	Inverter	58.7	33	2	8653	48.4	13.3
	Transformer (pad mounted)	53	5	1	8653	64.8	0.0
6	Inverter	58.7	33	1	8627	48.3	10.4
	Transformer (pad mounted)	53	5	1	8627	64.7	0.0
7	Inverter	58.7	33	1	9452	49.1	9.6
	Transformer (pad mounted)	53	5	1	9452	65.5	0.0
8	Inverter	58.7	33	2	11731	51.0	10.7
	Transformer (pad mounted)	53	5	1	11731	67.4	0.0
9	Inverter	58.7	33	2	12657	51.7	10.0
	Transformer (pad mounted)	53	5	1	12657	68.1	0.0
10	Inverter	58.7	33	2	11921	51.2	10.6
	Transformer (pad mounted)	53	5	1	11921	67.5	0.0
11	Inverter	58.7	33	2	10474	50.0	11.7
	Transformer (pad mounted)	53	5	1	10474	66.4	0.0
12	Inverter	58.7	33	2	9542	49.2	12.5
	Transformer (pad mounted)	53	5	1	9542	65.6	0.0
13	Inverter	58.7	33	2	8480	48.2	13.5
	Transformer (pad mounted)	53	5	1	8480	64.6	0.0
14	Inverter	58.7	33	2	7532	47.2	14.5
	Transformer (pad mounted)	53	5	1	7532	63.6	0.0
15	Inverter	58.7	33	2	6713	46.2	15.5
	Transformer (pad mounted)	53	5	1	6713	62.6	0.0

Prairie Solar Sidney, Illinois

Scenario: Western Extent - Lower Portion  
With Inverter Sound Reduction Kit

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
16	Inverter	58.7	33	2	4674	43.0	18.7
	Transformer (pad mounted)	53	5	1	4674	59.4	0.0
17	Inverter	58.7	33	2	5972	45.2	16.6
	Transformer (pad mounted)	53	5	1	5972	61.5	0.0
18	Inverter	58.7	33	2	5311	44.1	17.6
	Transformer (pad mounted)	53	5	1	5311	60.5	0.0
19	Inverter	58.7	33	2	6592	46.0	15.7
	Transformer (pad mounted)	53	5	1	6592	62.4	0.0
20	Inverter	58.7	33	2	7893	47.6	14.1
	Transformer (pad mounted)	53	5	1	7893	64.0	0.0
21	Inverter	58.7	33	2	9160	48.9	12.8
	Transformer (pad mounted)	53	5	1	9160	65.3	0.0
22	Inverter	58.7	33	2	10691	50.2	11.5
	Transformer (pad mounted)	53	5	1	10691	66.6	0.0
23	Inverter	58.7	33	2	12943	51.9	9.8
	Transformer (pad mounted)	53	5	1	12943	68.3	0.0
24	Inverter	58.7	33	2	14066	52.6	9.1
	Transformer (pad mounted)	53	5	1	14066	69.0	0.0
25	Inverter	58.7	33	2	13799	52.4	9.3
	Transformer (pad mounted)	53	5	1	13799	68.8	0.0
26	Inverter	58.7	33	2	12926	51.9	9.9
	Transformer (pad mounted)	53	5	1	12926	68.2	0.0
27	Inverter	58.7	33	2	11679	51.0	10.7
	Transformer (pad mounted)	53	5	1	11679	67.4	0.0
28	Inverter	58.7	33	2	11104	50.5	11.2
	Transformer (pad mounted)	53	5	1	11104	66.9	0.0
29	Inverter	58.7	33	2	10478	50.0	11.7
	Transformer (pad mounted)	53	5	1	10478	66.4	0.0
30	Inverter	58.7	33	2	9810	49.5	12.2
	Transformer (pad mounted)	53	5	1	9810	65.9	0.0
31	Inverter	58.7	33	2	9037	48.8	13.0

Prairie Solar Sidney, Illinois

Scenario: Western Extent - Lower Portion  
With Inverter Sound Reduction Kit

Group #	Source	Source Noise Level dBA Leq	Source Reference Distance Feet	Number of Representative Units	Distance to Receiver Feet	Distance Attenuation dB	Noise Level at Receiver dBA Leq
	Transformer (pad mounted)	53		5	1	9037	65.1
32	Inverter	58.7		33	2	8367	48.1
	Transformer (pad mounted)	53		5	1	8367	64.5
33	Inverter	58.7		33	2	7626	47.3
	Transformer (pad mounted)	53		5	1	7626	63.7
34	Inverter	58.7		33	2	13842	52.5
	Transformer (pad mounted)	53		5	1	13842	68.8
	Substation Stepup Transformer	60		5	1	5685	61.1
<b>Total</b>							<b>30.1 dBA Leq</b>