



MEMORANDUM

DATE: October 18, 2023

To: Jeremy Loudon, Principal, Ldn Consulting, Inc.

FROM: J.T. Stephens, Principal, Senior Noise Specialist
Moe Abushanab, Noise Engineer

SUBJECT: Existing Noise Measurements for the Power Santa Clara Valley Project in San Jose, California

INTRODUCTION

At the request of Ldn Consulting, Inc., LSA gathered ambient noise measurements at the Power Santa Clara Valley Project (project) in the City of San Jose. The purpose of the noise assessment is to evaluate the existing noise levels generated by surrounding roadways, aircraft, and other commercial uses in the vicinity of the project.

OVERVIEW OF THE EXISTING NOISE ENVIRONMENT

The dominant sources of noise in the vicinity of the project are traffic noise on SR-87, I-101, Monterey Highway, and other local roadways. Noise from aircrafts and surrounding commercial use operations also contribute to the existing noise environment.

Existing Noise Measurements

To assess noise levels at the project, two long-term 24-hour measurement and four short-term measurements (15 minutes) were gathered from September 21, 2023, to September 22, 2023. Tables A and B present the results of the existing noise measurements and Figure 1 presents the noise monitoring locations.

The results in Table A below indicate that noise levels range from 67.0 dBA to 70.8 dBA L_{dn} , the results in Table B indicate that average noise levels range from 54.9 dBA to 75.3 dBA L_{eq} .

Table A: Existing Noise Level Measurements – Long Term

| Location Number | Location Description | Noise Levels (dBA L_{eq}) | | Average Daily Noise Levels (dBA L_{dn}) | Primary Noise Sources |
|-----------------|--|------------------------------|------------------------|--|---|
| | | Daytime ¹ | Nighttime ² | | |
| LT-1 | On a tree in the vacant land located at southwest corner of Basset Street and Terraine Street, approximately 35 feet from the Terraine Street centerline and approximately 125 feet from the Bassett Street centerline | 64.6 – 68.7 | 57.5 – 69.6 | 70.8 | Traffic on SR-87 and local traffic. Aircraft noise. |
| LT-3 | On a fence, near property at 8194 Monterey Highway, approximately 135 feet away from the Monterey Highway centerline. | 62.1 – 71.2 | 54.0 – 62.1 | 67.0 | Traffic on Monterey Highway. |

Source: Compiled by LSA (October 2023).

¹ Daytime Noise Levels = noise levels during the hours of 7:00 a.m. to 10:00 p.m.

² Nighttime Noise Levels = noise levels during the hours of 10:00 p.m. to 7:00 a.m.

dBA = A-weighted decibels

ft = foot/feet

L_{dn} = day-night noise level

L_{eq} = equivalent continuous sound level

LT = long-term

Table B: Existing Noise Level Measurements – Short Term

| Location Number | Location Description | Date/Time | Average Noise Level (L_{eq}) | Primary Noise Sources |
|-----------------|---|------------------------------------|----------------------------------|---|
| ST-1 | At the end of cul-de-sac at Humboldt Street, closest to the fence by vacant land, approximately 30 feet from the center of Humboldt Street cul-de-sac | 9/21/2023 2:21 p.m. – 2:36 p.m. | 56.5 | Background noise from local traffic and nearby uses (auto repair power tools, trucks). Occasional aircraft noise. |
| ST-2 | Northwestern corner of parking lot at Santa Clara County Fairgrounds (2542 Monterey Highway), on a green pad, approximately 510 feet away from Monterey Highway centerline. | 9/21/2023 2:54 p.m. – 3:09 p.m. | 58.1 | Traffic on Monterey Highway, occasional aircraft noise. |
| ST-3 | Southeast corner of the Coyote Ranch Road intersection, approximately 40 feet from the center of intersection | 9/21/2023 4:18 p.m. – 4:33 p.m. | 54.9 | Background traffic on I-101. Occasional aircraft noise. |
| ST-4 | Southwestern corner of property at 4310 Monterey Highway, by Monte del Rey Church entrance, approximately 75 feet away from the Monterey Highway centerline. | 9/22/2023 4:56 p.m. – 5:11 p.m. | 75.3 | Traffic on Monterey Highway. Occasional aircraft noise. |

Source: Compiled by LSA (October 2023).

dBA = A-weighted decibel(s)

ft = foot/feet

L_{eq} = equivalent continuous sound level

ST = short-term

ATTACHMENT A

FIGURE

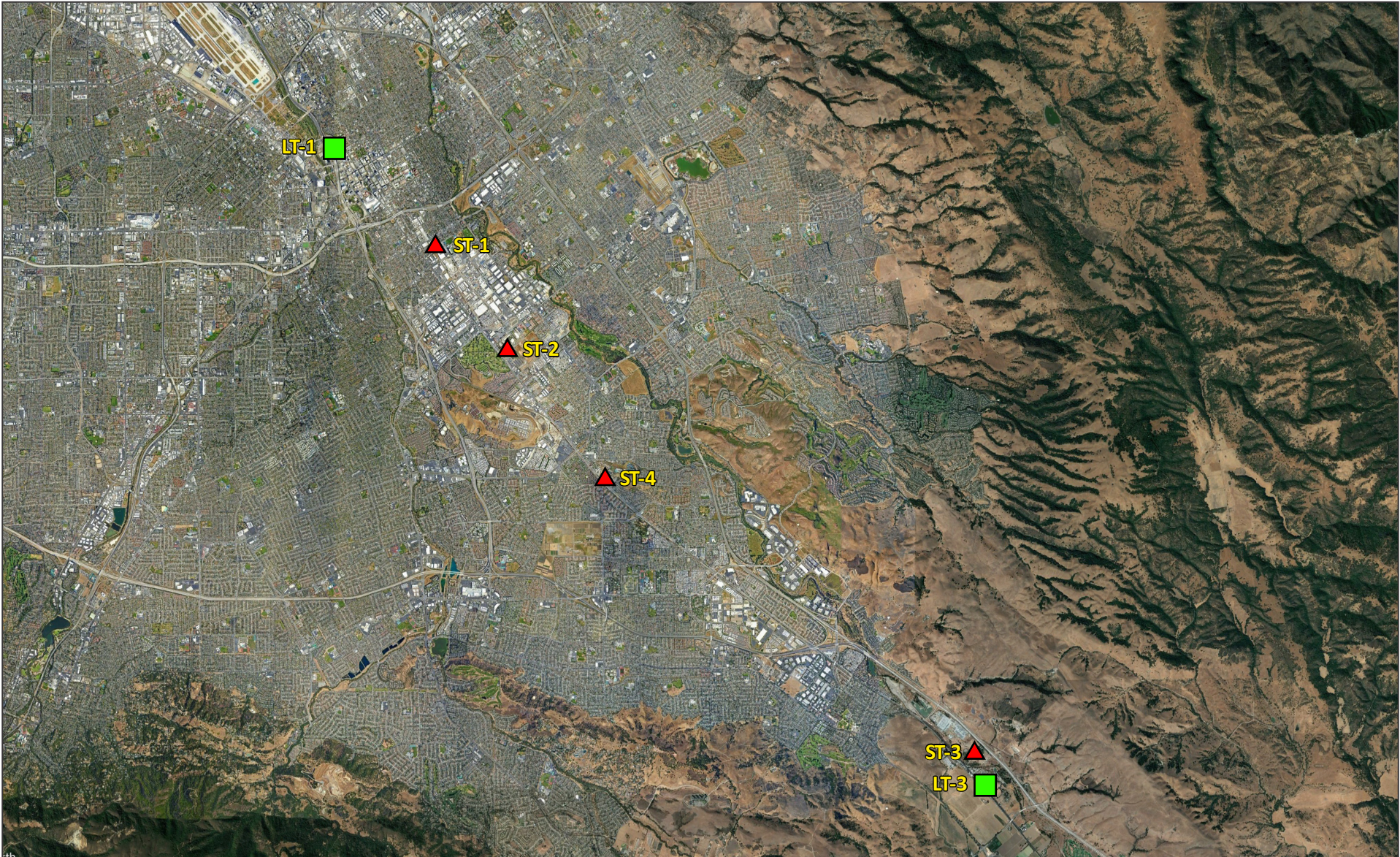




FIGURE 1

LSA



- LEGEND
-  **ST-1** Short-term Noise Monitoring Location
 -  **LT-1** Long-term Noise Monitoring Location

ATTACHMENT B

NOISE MEASUREMENT DATA SHEETS

Noise Measurement Survey – 24 HR

Project Number: 20231131
Project Name: Power Santa Clara Valley

Test Personnel: Moe Abushanab
Equipment: Spark 906RC (SN:17815)

Site Number: LT-1 Date: 9/21/2023

Time: From 3:00 p.m. To 3:00 p.m.

Site Location: On a tree in the vacant land located at southwest corner of Basset Street and Terraine Street, approximately 35 feet from the Terraine Street centerline and approximately 125 feet from the Bassett Street centerline.

Primary Noise Sources: Traffic on SR-87 and local traffic. Aircraft noise.

Comments: _____

Photo:



Long-Term (24-Hour) Noise Level Measurement Results at LT-1

| Start Time | Date | Noise Level (dBA) | | |
|------------|---------|-------------------|------------------|------------------|
| | | L _{eq} | L _{max} | L _{min} |
| 3:00 PM | 9/21/23 | 65.3 | 78.2 | 56.6 |
| 4:00 PM | 9/21/23 | 66.8 | 92.8 | 56.5 |
| 5:00 PM | 9/21/23 | 65.4 | 83.3 | 53.5 |
| 6:00 PM | 9/21/23 | 64.6 | 80.0 | 55.6 |
| 7:00 PM | 9/21/23 | 65.7 | 76.4 | 57.1 |
| 8:00 PM | 9/21/23 | 66.6 | 75.8 | 59.4 |
| 9:00 PM | 9/21/23 | 65.1 | 79.4 | 59.0 |
| 10:00 PM | 9/21/23 | 64.2 | 83.2 | 55.2 |
| 11:00 PM | 9/21/23 | 63.7 | 84.4 | 52.3 |
| 12:00 AM | 9/22/23 | 59.7 | 78.0 | 50.6 |
| 1:00 AM | 9/22/23 | 57.5 | 75.2 | 46.9 |
| 2:00 AM | 9/22/23 | 58.6 | 83.8 | 48.6 |
| 3:00 AM | 9/22/23 | 58.6 | 80.9 | 46.9 |
| 4:00 AM | 9/22/23 | 61.0 | 71.7 | 48.6 |
| 5:00 AM | 9/22/23 | 66.3 | 77.3 | 55.8 |
| 6:00 AM | 9/22/23 | 69.6 | 82.3 | 60.4 |
| 7:00 AM | 9/22/23 | 68.7 | 90.3 | 60.8 |
| 8:00 AM | 9/22/23 | 67.2 | 89.8 | 61.0 |
| 9:00 AM | 9/22/23 | 66.1 | 84.7 | 58.4 |
| 10:00 AM | 9/22/23 | 65.7 | 77.8 | 56.6 |
| 11:00 AM | 9/22/23 | 65.4 | 77.6 | 57.1 |
| 12:00 PM | 9/22/23 | 65.1 | 78.9 | 56.8 |
| 1:00 PM | 9/22/23 | 65.8 | 80.3 | 57.5 |
| 2:00 PM | 9/22/23 | 66.1 | 83.5 | 56.8 |

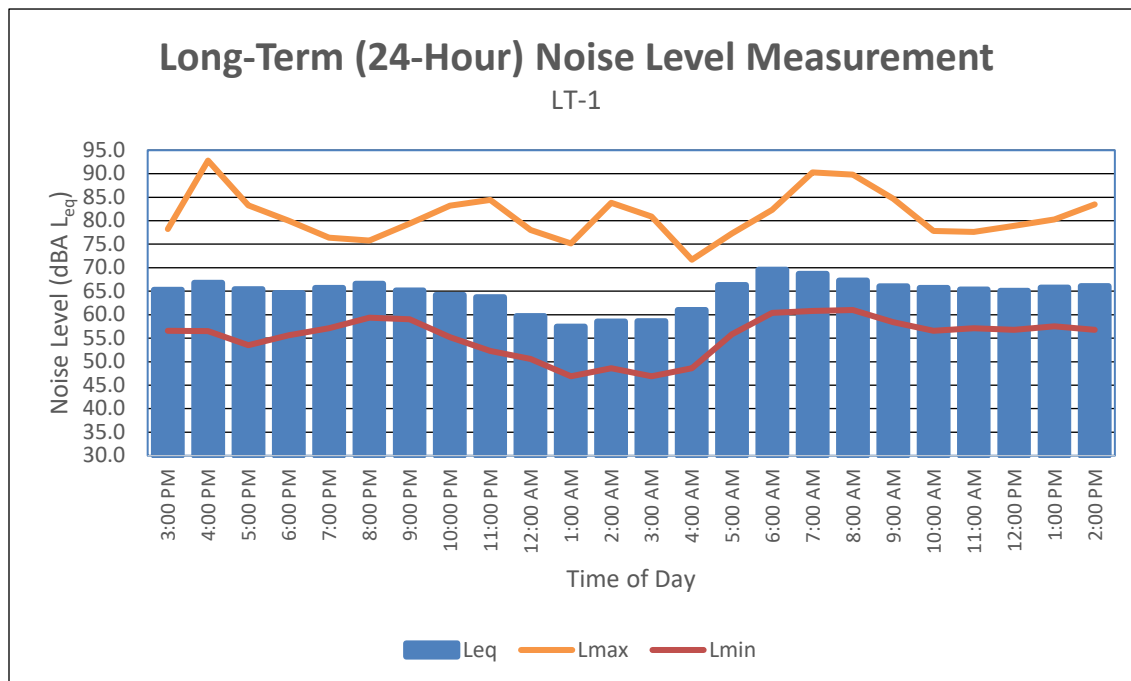
Source: Compiled by LSA Associates, Inc. (2023).

dBA = A-weighted decibel

L_{eq} = equivalent continuous sound level

L_{max} = maximum instantaneous noise level

L_{min} = minimum measured sound level



Noise Measurement Survey – 24 HR

Project Number: 20231131
Project Name: Power Santa Clara Valley

Test Personnel: Moe Abushanab
Equipment: Spark 906RC (SN:18571)

Site Number: LT-3 Date: 9/21/2023

Time: From 5:00 p.m. To 5:00 p.m.

Site Location: On a fence, near property at 8194 Monterey Highway, approximately 135 feet away from Monterey Highway centerline

Primary Noise Sources: Traffic on Monterey Highway

Comments: _____

Photo:



Long-Term (24-Hour) Noise Level Measurement Results at LT-3

| Start Time | Date | Noise Level (dBA) | | |
|------------|---------|-------------------|------------------|------------------|
| | | L _{eq} | L _{max} | L _{min} |
| 5:00 PM | 9/21/23 | 59.9 | 70.5 | 49.4 |
| 6:00 PM | 9/21/23 | 59.5 | 77.8 | 49.3 |
| 7:00 PM | 9/21/23 | 59.1 | 75.1 | 50.4 |
| 8:00 PM | 9/21/23 | 58.7 | 81.1 | 49.2 |
| 9:00 PM | 9/21/23 | 58.0 | 79.0 | 48.3 |
| 10:00 PM | 9/21/23 | 56.3 | 78.2 | 47.2 |
| 11:00 PM | 9/21/23 | 53.7 | 73.8 | 43.5 |
| 12:00 AM | 9/22/23 | 51.3 | 67.1 | 42.2 |
| 1:00 AM | 9/22/23 | 50.5 | 65.1 | 42.3 |
| 2:00 AM | 9/22/23 | 59.8 | 91.7 | 42.4 |
| 3:00 AM | 9/22/23 | 54.7 | 77.7 | 45.0 |
| 4:00 AM | 9/22/23 | 55.8 | 75.8 | 46.1 |
| 5:00 AM | 9/22/23 | 60.3 | 74.7 | 49.1 |
| 6:00 AM | 9/22/23 | 62.6 | 78.2 | 45.3 |
| 7:00 AM | 9/22/23 | 63.4 | 78.5 | 48.2 |
| 8:00 AM | 9/22/23 | 61.4 | 77.1 | 48.0 |
| 9:00 AM | 9/22/23 | 59.7 | 74.8 | 47.7 |
| 10:00 AM | 9/22/23 | 59.3 | 76.3 | 49.0 |
| 11:00 AM | 9/22/23 | 62.0 | 89.6 | 51.1 |
| 12:00 PM | 9/22/23 | 58.5 | 70.9 | 45.8 |
| 1:00 PM | 9/22/23 | 67.3 | 97.1 | 41.9 |
| 2:00 PM | 9/22/23 | 59.6 | 72.5 | 42.6 |
| 3:00 PM | 9/22/23 | 60.2 | 76.3 | 42.0 |
| 4:00 PM | 9/22/23 | 59.2 | 74.5 | 40.9 |

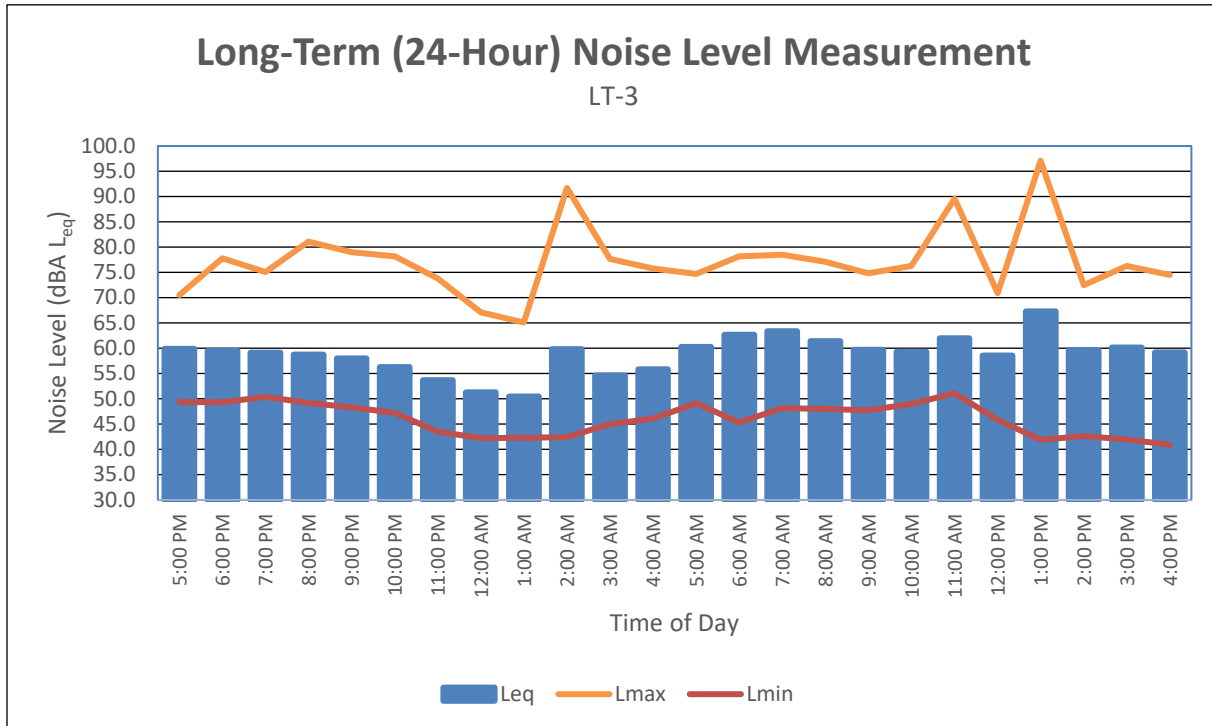
Source: Compiled by LSA Associates, Inc. (2023).

dBA = A-weighted decibel

L_{eq} = equivalent continuous sound level

L_{max} = maximum instantaneous noise level

L_{min} = minimum measured sound level



Noise Measurement Survey

Project Number: 20231131 Test Personnel: Moe Abushanab
Project Name: Power Santa Clara Valley Equipment: Larson Davis LxT

Site Number: ST-1 Date: 9/21/2023 Time: From 2:21 p.m. To 2:36 p.m.

Site Location: At the end of cul-de-sac at Humboldt Street, closest to the fence by vacant land, approximately 30 feet from the center of Humboldt Street cul-de-sac.

Primary Noise Sources: Background noise from local traffic and nearby uses (auto repair power tools, trucks). Occasional aircraft noise

Measurement Results

| | dBA |
|-------------------|------|
| L _{eq} | 56.5 |
| L _{max} | 72.0 |
| L _{min} | 43.7 |
| L _{peak} | 98.5 |
| L ₂ | 67.5 |
| L ₈ | 59.7 |
| L ₂₅ | 50.5 |
| L ₅₀ | 47.4 |
| L ₉₀ | 45.3 |
| L ₉₉ | 44.2 |
| SEL | |

Atmospheric Conditions:

| | |
|-----------------------------|------|
| Maximum Wind Velocity (mph) | 2.4 |
| Average Wind Velocity (mph) | 1.1 |
| Temperature (F) | 78.5 |
| Relative Humidity (%) | 25 |
| Comments: | |

Comments: _____

Location Photo:



Noise Measurement Survey

Project Number: 20231131 Test Personnel: Moe Abushanab
Project Name: Power Santa Clara Valley Equipment: Larson Davis LxT

Site Number: ST-2 Date: 9/21/2023 Time: From 2:54 p.m. To 3:09 p.m.

Site Location: Northwestern corner of parking lot at Santa Clara County Fairgrounds (2542 Monterey Highway), on a green pad, approximately 510 feet away from Monterey Highway centerline.

Primary Noise Sources: Traffic on Monterey Highway, occasional aircraft noise

Measurement Results

| | dBA |
|-------------------|------|
| L _{eq} | 58.1 |
| L _{max} | 72.2 |
| L _{min} | 41.7 |
| L _{peak} | 91.2 |
| L ₂ | 68.8 |
| L ₈ | 62.9 |
| L ₂₅ | 53.7 |
| L ₅₀ | 50.6 |
| L ₉₀ | 46.9 |
| L ₉₉ | 43.2 |
| SEL | |

Atmospheric Conditions:

| | |
|-----------------------------|------|
| Maximum Wind Velocity (mph) | 5.4 |
| Average Wind Velocity (mph) | 2.9 |
| Temperature (F) | 77.5 |
| Relative Humidity (%) | 35 |
| Comments: | |

Comments: _____

Location Photo:



Noise Measurement Survey

Project Number: 20231131 Test Personnel: Moe Abushanab
Project Name: Power Santa Clara Valley Equipment: Larson Davis LxT

Site Number: ST-3 Date: 9/21/2023 Time: From 4:18 p.m. To 4:33 p.m.

Site Location: Southeast corner of the Coyote Ranch Road intersection, approximately 40 feet from the center of intersection

Primary Noise Sources: Background traffic on I-101
Occasional aircraft

Measurement Results

| | dBA |
|-------------------|------|
| L _{eq} | 54.9 |
| L _{max} | 64.0 |
| L _{min} | 51.8 |
| L _{peak} | 99.5 |
| L ₂ | 58.1 |
| L ₈ | 56.6 |
| L ₂₅ | 55.4 |
| L ₅₀ | 54.4 |
| L ₉₀ | 53.0 |
| L ₉₉ | 52.3 |
| SEL | |

Atmospheric Conditions:

| | |
|-----------------------------|------|
| Maximum Wind Velocity (mph) | 3.4 |
| Average Wind Velocity (mph) | 1.4 |
| Temperature (F) | 80.0 |
| Relative Humidity (%) | 53 |
| Comments: | |

Comments: _____

Location Photo:



Noise Measurement Survey

Project Number: 20231131
Project Name: Power Santa Clara Valley

Test Personnel: Moe Abushanab
Equipment: Larson Davis LxT

Site Number: ST-4 Date: 9/22/2023 Time: From 4:56 p.m. To 5:11 p.m.

Site Location: Southwest corner of property at 4310 Monterey Highway, by Monte del Rey Church entrance, approximately 75 feet away from the Monterey highway centerline

Primary Noise Sources: Traffic on Monterey Highway

Measurement Results

| | dBA |
|-------------------|-------|
| L _{eq} | 75.3 |
| L _{max} | 96.7 |
| L _{min} | 52.4 |
| L _{peak} | 116.1 |
| L ₂ | 79.6 |
| L ₈ | 76.9 |
| L ₂₅ | 74.0 |
| L ₅₀ | 70.7 |
| L ₉₀ | 62.3 |
| L ₉₉ | 54.5 |
| SEL | |

Atmospheric Conditions:

| | |
|-----------------------------|------|
| Maximum Wind Velocity (mph) | 3.2 |
| Average Wind Velocity (mph) | 1.2 |
| Temperature (F) | 80.0 |
| Relative Humidity (%) | 50 |
| Comments: | |

Comments: _____

Location Photo:

