



**NELSON POPE VOORHIS**  
*environmental • land use • planning*

January 21, 2022

Town of Riverhead  
Planning Board  
200 Howell Avenue  
Riverhead, NY 11901  
Attn.: Joann Waski, Chair

**RE: Breezy Hill Group VI, LLC, 1792 Middle Road, Calverton  
Responses to Town Consultant Comments on the Draft EIS  
Supplemental Sound Level Measurements & Impact Analysis  
Comments dated 12/01/2021; Submission dated 01/21/2022  
NPV No. 17060**

Dear Madam Chair:

This submission provides the Supplemental Sound Level Measurements & Impact Analysis that are referenced in my submission letter dated January 18, 2022 (Item 18). This supplemental report address comments regarding noise analysis made by Jeffrey L. Seeman, environmental consultant to the Planning Board as documented in the review memo dated December 1, 2021.

Please receive this report as part of the 10-day written comment period following the close of the Draft EIS hearing that occurred on January 20, 2022. This document and all comments and responses provided during the Draft EIS comment period will be incorporated into the Final EIS.

Our office will prepare a draft of the Final EIS based on this comment period record, and will assist the Planning Board and staff in finalizing the Final EIS as requested. Thank you and please feel free to contact me should you have any questions.

Sincerely,

**NELSON POPE VOORHIS**

Charles J. Voorhis, CEP, AICP  
Principal

cc: Town Planning Board Members

Town Jefferson Murphree, Administrator, Town Planning Dept.  
Bob Kozakiewicz, Esq., Town Attorney  
Jeff Seeman, Consultant to the Town Planning Dept.  
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Carissa Collins, Associate Administrator, Town Planning Dept.  
Applicant, Sam Stasi  
Steven Losquadro, Esq., Attorney for Applicant

Att: Supplemental Sound Level Measurements & Impact Analysis; B. Laing Assoc; January 2020

# **Supplemental Sound Level Measurements and Impact Analysis**

**Breezy Hill Group VI, LLC  
1792 Middle Road, Calverton  
Town of Riverhead  
Suffolk County, New York**

**January 2022**

**Prepared for:  
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## Supplemental Sound Level Measurements and Impact Analysis

Breezy Hill Group VI, LLC  
1792 Middle Road, Calverton  
Town of Riverhead  
Suffolk County, New York

January 2022

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## **1.0 EXISTING CONDITION**

### **1.1 Purpose of Study**

B. Laing Associates, Inc. is the environmental consulting firm providing sound/noise analysis services for the proposed development of an Asphalt and Concrete Crushing and Screening Facility (Breezy Hill Group VI, LLC; herein referred to as the Project) located in Calverton, Town of Riverhead, Suffolk County, New York. The Project is proposed to be located at 1792 Middle Road which is identified as Suffolk County Tax Map District 0600, Section 100, Block 2, Lot 4.2. See attached Figure 1 - Site Location Map.

The proposed action involves the redevelopment of a 6.68-acre industrially zoned property which currently contains a residence and residential accessory structures. The existing residence on-site is proposed to be repurposed and the land use converted to an asphalt and concrete crushing and screening business including the conversion of an existing 1-to-2 story frame/stucco residence and 1.5-story frame barn/garage to office and storage space. An existing in-ground swimming pool and other minor residential accessory structures would be removed. The proposed business would have two crushing/screening equipment stations and five asphalt/concrete stockpiles. Ten-foot-deep buffers would be provided along the eastern, western, and southwestern property boundaries and 20-foot-deep buffers would be provided along the southeastern and northerly property boundaries. Existing vegetation in the southeastern and southwestern portions of the site would remain. The proposed driveway will be surfaced with RCA and topsoil and hydroseeding is proposed in non-operational areas.

B. Laing Associates, Inc. originally prepared a report titled “Sound Level Measurements and Impact Analysis” which was dated October 2020. The original report was appended in the project’s Draft Environmental Impact Statement (DEIS) as it underwent review under the State Environmental Quality Review (SEQR) process. Since that time, the Lead Agency’s consultant (Jeffrey L. Seeman, CEP) provided comments which were largely addressed in a supplemental submission, dated November 18, 2021.

One of Mr. Seeman’s comments indicated that the community characteristics within a one-mile radius of the subject site include rural and a low density of residential dwellings which pursuant to Part 360 are most closely defined as “Rural.” As such, the Final Environmental Impact Statement (FEIS) must also describe how the proposed action will comply with Part 360 requirements, which outline sound requirements for “rural” areas, regardless of zoning use districts and adjacent commercial/industrial uses.

Further, in undergoing the SEQR process, it was determined that the ambient noise data, as collected by this office and analyzed in the October 2020 report, required additional monitoring. The reason for this was the 2020 ambient noise data, which is largely a factor of local traffic, were artificially diminished due to the effects of the COVID-19 pandemic. The data were originally collected during a historic period with record lows in terms of commuting and roadway traffic. Although the 2020 data determined that the background levels in this area were higher than typical rural residential areas, the data were considered

conservative, as above. As a result of the Lead Agency comments, it was determined that additional monitoring would provide more representative data.

As such, it is purpose of this analysis to supplement the sound levels presented in the October 2020 report and provide additional data in regard to the existing ambient sound levels with data collected during January 2022. The updated sound data are more representative of a condition prior to the COVID-19 pandemic, after much of the road-traffic has rebounded since the 2020 lockdown, and associated impacts it had on roadway and commercial/industrial use-related noise. In addition, this supplemental analysis aims to describe how the proposed activities would not create a significant impact and will comply with the required sound level limits of Part 360 with regard to “rural” areas.

## 1.2 **General Sound Characteristics**

For information on general sound characteristics, please see the B. Laing Associates, October 2020, report.

## 1.3 **Sound Monitoring Methodology**

Sound/noise measurements on and around the project site were made using a Cirrus Research plc CR:171A noise meter, which was set to measure A-weighted decibel levels as a mimic of the average human ear. Ambient noise levels were measured from several locations on and adjacent to the project site. Figure 2 represents the mapped measured locations on a current aerial and these locations are depicted in Table 1. The monitoring locations for the January 2022 effort were the same as in the original October 2020 report.

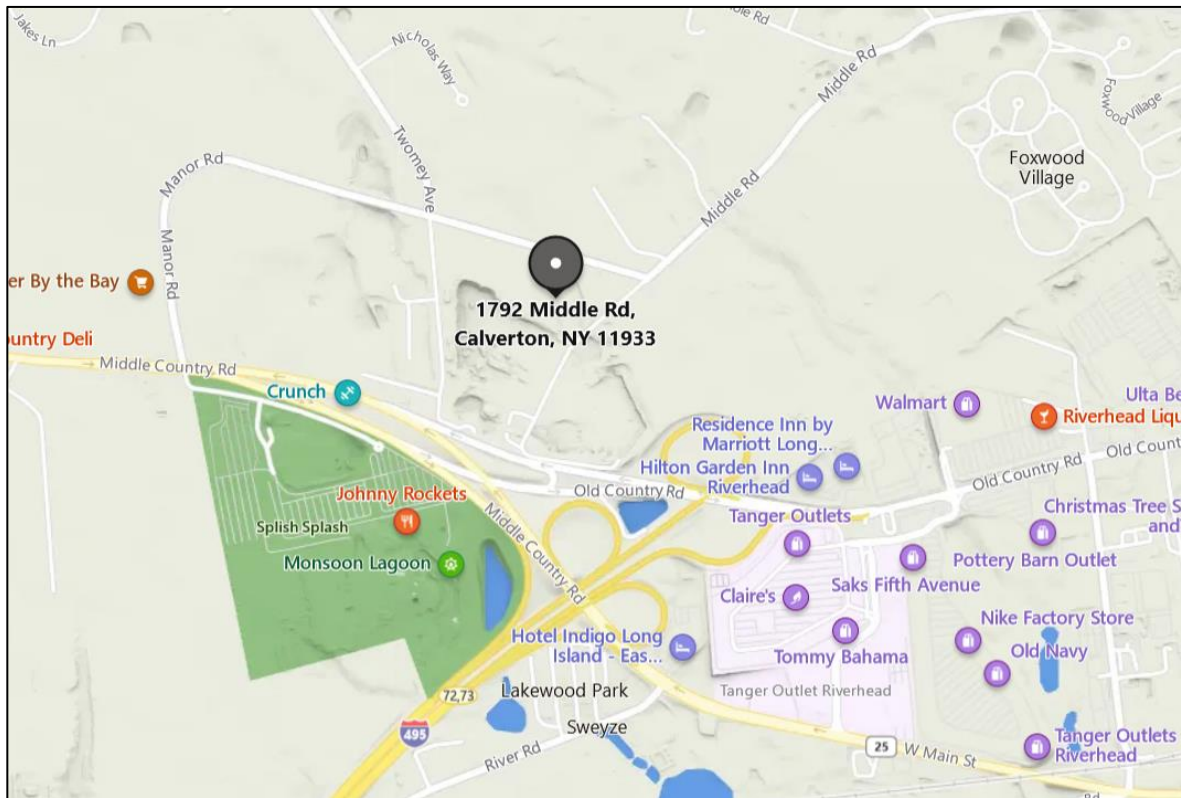
With regard to the methodology of the ambient noise analysis, there is no specific mathematical methodology that was applied to the noise measurements. The ambient readings are straightforward, taken in approximately 10-minute durations and were monitored at the listed locations for both Broadband and 1/1 Octave Band analyses, simultaneously. The measurements were taken on January 13, 2022, during both the peak-AM traffic hour, and during the off-peak midday scenario in partly cloudy to sunny conditions, with winds less than 5 knots and temperatures ranging from 27 to 41 degrees Fahrenheit (F). The monitored sound levels are presented in Table 2 (at the rear of the text) and in Appendix A of this report.

The measured levels generally relate to the local vehicle noise and industrial uses at locations measured along Manor Road and Middle Road<sup>1</sup>. Sound disturbance also exists from the proximity of the site to major roadways such as Interstate 495 (the Long Island Expressway) and Old Country/Middle Country Roads, especially during the peak-AM hour. Sound measurements were recorded largely during times when existing sound/noise sources were

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<sup>1</sup> An existing concrete and fabrication plant occurs to the southeast of the project site. As such, the roadways already experience significant traffic from cement and related trucks which made up a significant amount of traffic during the January 2022 monitoring.

expected to experience both a typical “peak” (morning commute) as well as a typical average/lull (mid-day) in the sound/noise environment.<sup>2</sup>

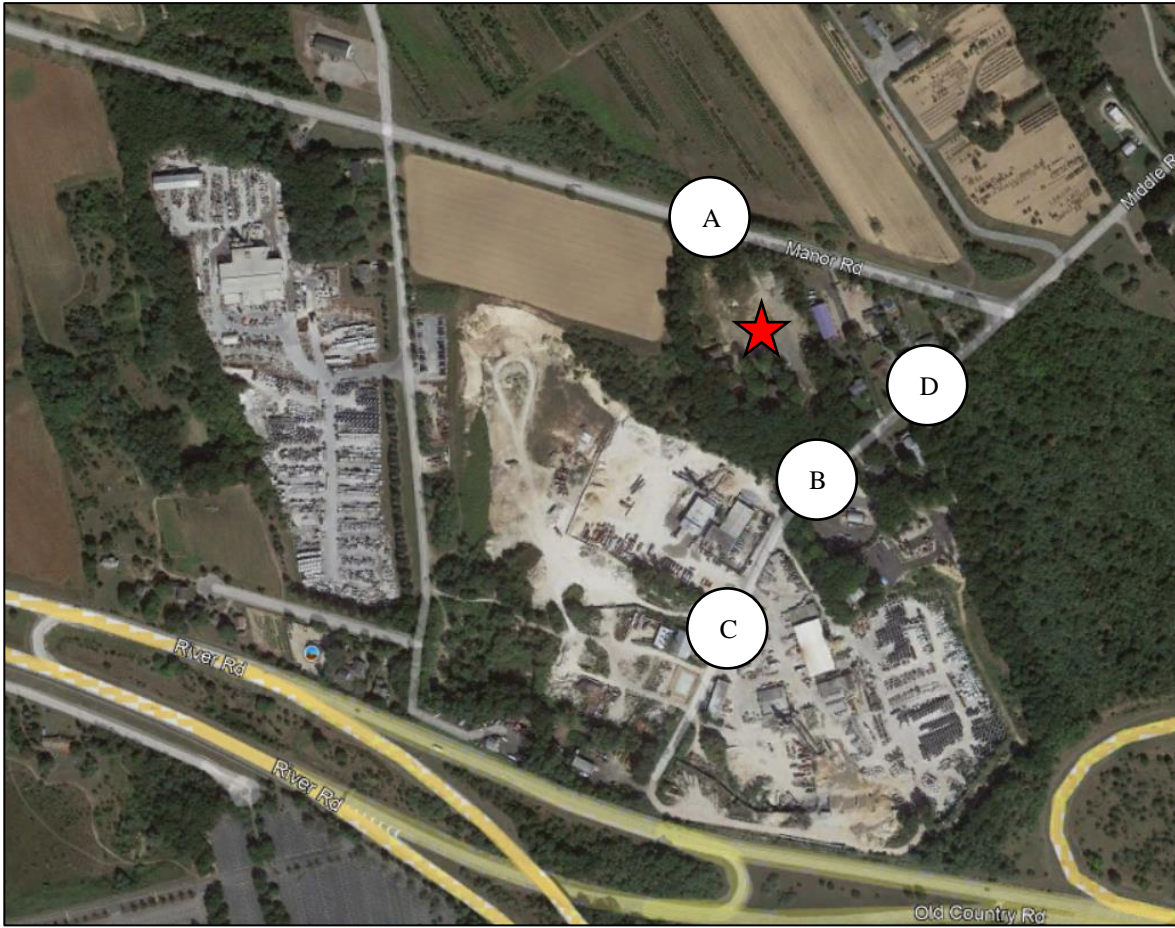


**Figure 1 – Proposed Site Location Map**

North is straight up. Site and project address denoted by gray pin.

Source: Bing Maps

<sup>2</sup> A value referred to as the “equivalent sound level,”  $L_{(eq)}$ , averages were computed/determined from the data. In this case, the  $L_{(90)}$  and  $L_{(10)}$  were also determined for the expected, “peak hour.”



**Figure 2 – Noise Analysis Monitoring Location Map**

North is straight up. Site and project address denoted by red star. Monitoring Locations A-D are denoted by white circles.

Source: Google Earth



TABLE 1 NOISE MONITORING SAMPLE LOCATIONS		
SITE ID	LOCATION	DESCRIPTION
Monitoring Location A	Manor Road Entrance	North Entrance/Exit.
Monitoring Location B	Middle Road Entrance	South Entrance/Exit
Monitoring Location C	Industrial Yards along Middle Road	0.12 Miles South of South Entrance/Exit
Monitoring Location D	Middle Road Residential	0.09 Miles North of South Entrance/Exit
Note: Locations are provided in Figure 2		

#### 1.4 Supplemental Sound Monitoring Results and Analysis – January 2022

For Monitoring Location A, sound levels were measured along the site's northern boundary at the Manor Road North Entrance. Sound measurements from the proposed project's northern location showed an  $L_{(eq)}$  of 71.7 dB(A) in the **peak-AM** hour and 70.9 dB(A) in the **mid-day** condition, on January 13, 2022. This is considerably higher than the 2020 data which showed an  $L_{(eq)}$  of 63.5 dB(A) in the AM hour.

The sound levels at Monitoring Location A result from the existing traffic on Manor Road, as well as the site's proximity to major roadways such as the Long Island Expressway and Old Country Road. The traffic along Manor Road is largely impacted as a result of the local industrial uses and limited residential community. A significant portion of the vehicles observed passing the Monitoring Location were heavy trucks for cement or other industrial uses.

For Monitoring Location B, sound levels were measured along the site's southern entrance along Middle Road. Sound measurements from the proposed project's southern location showed an  $L_{(eq)}$  of 71.6 dB(A) in the **peak-AM** hour and 70.0 dB(A) in the **mid-day** condition, on January 13, 2022. This is considerably higher than the 2020 data which showed an  $L_{(eq)}$  of 64.2 dB(A) in the AM hour.

The sound levels at Monitoring Location B result from the site's proximity to major roadways such as the Long Island Expressway and Old Country Road, as well as local traffic along Middle Road. The traffic along Middle Road, especially south of the site, is almost entirely comprised of heavy trucks for industrial use as it is a dead end with no through-traffic.

For Monitoring Location C, sound levels were measured along Middle Road in the vicinity of existing commercial/industrial uses to the south of the site. Sound measurements from the proposed project's southern location showed an  $L_{(eq)}$  of 74.3 dB(A) in the **peak-AM** hour and 61.5 dB(A) in the **mid-day** condition, on January 13, 2022. The former measurement



was considerably higher than the 2020 data which showed an  $L_{(eq)}$  of 58.9 dB(A) in the AM hour, though the latter was comparable.

The sound levels at Monitoring Location C result from the site's proximity to major roadways such as the Long Island Expressway and Old Country Road, as well as some minor traffic along Middle Road.

For Monitoring Location D, sound levels were measured along Middle Road in the vicinity of existing residential dwellings northeast of the site. Sound measurements from the proposed project's southern location showed an  $L_{(eq)}$  of 67.6 dB(A) in the **peak-AM** hour and 71.8 dB(A) in the **mid-day** condition, on January 13, 2022. This is considerably higher than the 2020 data which showed an  $L_{(eq)}$  of 60.6 dB(A) in the AM hour.

The sound levels at Monitoring Location D result from the site's proximity to major roadways such as the Long Island Expressway and Old Country Road, as well as local traffic along Middle Road. The traffic along Middle Road, especially south of the site, is almost entirely comprised of heavy trucks for industrial use as it is a dead end with no through-traffic.

A search for sensitive receptors was undertaken during monitoring efforts. Sensitive receptors are defined by the EPA as "...include, but are not limited to, hospitals, schools, daycare facilities, elderly housing and convalescent facilities." A few notable receptors, such as Splish Splash (1.4 miles), Riverhead Charter School (1.8 miles), All Saints Monastery (0.3 miles) and the Tanger Outlets (3 miles) were recorded as existing and potentially sensitive. There are no other "sensitive" noise receptors (e.g., hospitals, libraries, etc.) in the vicinity of the project sites. To the extent receptors of any kind (commercial buildings, etc.) occur, they too are already impacted as described/measured above by noise/sound levels from the local Town roads.

## 1.5 **Discussion**

Noise monitoring data results are provided in Table 2, below, which outlines the updated data collected on January 13, 2022. Evaluation of the recorded data reveals that the lowest ambient noise levels occurred along Middle Road at Monitoring Location C, in the mid-day condition. This monitoring location was conducted in the vicinity of the industrial yards on Middle Road where the ambient sound is largely dependent on vehicle activity. Middle Road, a short local road, ceases south of the project location with no outlet. As such, sound levels were dominated by truck movement when active, but occasionally truck activity was low (as in the sample period for Monitoring Location C). Measurement reports/data sheets are located at the rear of this analysis.

Monitoring Locations A and B, along Manor and Middle Roads, respectively presented the highest dB(A) levels in the peak-AM conditions. This is due to the vehicular activity along these roads during the monitoring efforts. Manor Road, especially, acts as a through-way for cars and trucks during the morning commute, and throughout the day.

In addition to commuting/passing vehicles, the sound levels at these locations are dominated/impacted by trucks servicing the adjacent industrial uses, which are active all day. This is especially clear in the results for Monitoring Location D. The mid-day condition during sampling, was 71.8 dB(A); higher than the 67.6 dB(A) sample for the peak-AM commute, showing that the disturbance at these locations is not limited to the peak traffic hours.

**TABLE 2**  
**NOISE MONITORING RESULTS**

<b>SITE ID</b>	<b>TIME</b>	<b>L<sub>(EQ)</sub></b>
Monitoring Location A	AM Peak: 07:52 a.m.	71.7 dB(A)
Monitoring Location A	Mid-day: 11:32 a.m.	70.9 dB(A)
Monitoring Location B	AM Peak: 08:45 a.m.	71.6 dB(A)
Monitoring Location B	Mid-day: 11:47 a.m.	70.0 dB(A)
Monitoring Location C	AM Peak: 08:17 a.m.	74.3 dB(A)
Monitoring Location C	Mid-day: 11:59 a.m.	61.5 dB(A)
Monitoring Location D	AM Peak: 08:31 a.m.	67.6 dB(A)
Monitoring Location D	Mid-day: 12:13 p.m.	71.8 dB(A)
Note: Locations are provided in Figure 2		

Per Part 360 (j), *Noise*, the L<sub>(eq)</sub> sound levels which are proposed to be produced by an operator or facility, where the character of the community within a one-mile radius of said facility is “rural,” is limited to 57 dB(A) between 7:00 a.m. and 10:00 p.m. As shown in Table 2, the background ambient, in the existing condition, at all monitoring locations exceeds this sound/noise level.

## 2.0 PART 360 NOISE REGULATION<sup>3</sup>

### 2.1 **Part 360 – L<sub>(eq)</sub> Energy Equivalent Sound Levels**

While the majority of land use within the vicinity of the project site falls in an industrial category. As such, any receptors located south of the Middle Road/Manor Road intersection and Manor Road already have potentially higher sound levels due to the current zoning and land use. Regardless, it was determined by the Lead Agency that the character of community within a one-mile radius of the proposed facility contains a “rural” condition and, as such, any analysis must describe how the proposed activities comply with the required sound level limits of Part 360 with regard to “rural” areas.

Per Part 360 (j) *Noise*, the owner or operator of a facility must ensure that noise (other than that occurring during construction...) resulting from equipment or operations at the facility does not exceed the following energy equivalent sound levels beyond the property line owned or controlled by the owner or operator of the facility at locations authorized for residential purposes:

<b><u>Table 3</u></b>		
<b>Part 360 Sound Level Limits</b>		
Character of Community with a one-mile radius of facility	L <sub>eq</sub> Energy Equivalent Sound Levels	
	7 a.m. to 10 p.m.	10 p.m. to 7 a.m.
Rural	57 dB(A)	47 dB(A)
Suburban	62 dB(A)	52 dB(A)
Urban	67 dB(A)	57 dB(A)

Further, Part 360 reads:

- (1) If the background sound level exceeds the referenced Leq sound level limit, the Leq sound levels from a facility sources and background sources when combined must not exceed the Leq sound level of the background sources alone by more than three dB(A), &
- (2) The background sound level, measured as Leq, is the existing ambient sound level during a period of peak acoustical energy measured in the absence of sound produced by equipment or operations at the facility.

### 3.2 **Rural Sound Limitations**

As above, the Lead Agency has indicated that the character of community within a one-mile radius of the proposed facility includes a “rural” condition. As such, the project has been analyzed with those limitations in mind. Per the January 13, 2022, ambient sound

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<sup>3</sup> For discussions regarding Town of Riverhead/NYSDEC/FHWA Criteria, see B. Laing Associates’ October 2020 report.

monitoring data, the existing background noise at this location ranged between 61.5 dB(A)<sup>4</sup> and 74.3 dB(A) as a result of proximity to major roads, nearby industrial uses, and the heavy truck-loads of the neighboring uses. As the monitored locations exceeded<sup>5</sup> the background limitations for a rural area, the Part 360 L<sub>(eq)</sub> limitations become the ambient noise levels (during a period of peak acoustical energy) plus 3 decibels. This is outlined in the following table.

<p style="text-align: center;"><b><u>Table 4</u></b>  <b>Sound Limits for Rural Communities</b></p>		
<b>Monitoring Location</b>	<b>Background Sound Level</b>	<b>Calculated L<sub>(eq)</sub> Limit for Rural Community per Part 360</b>
A	71.7 dB(A)	74.7 dB(A)
B	71.6 dB(A)	74.6 dB(A)
C	74.6 dB(A)	77.6 dB(A)
D	71.8 dB(A)	74.8 dB(A)

Per the January 13, 2022, ambient noise sample data, the locations surrounding the site are already highly disturbed by the local traffic and nearby industrial uses. The maximum sound pressure levels in the existing condition are already well above Part 360's rural L<sub>(eq)</sub> limits. As such, the calculated limit per Part 360 would allow for sound pressure levels in the mid-70's dB(A)<sup>6</sup> even for rural communities.

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<sup>4</sup> Not reflected on Table 3; see Table 2, above, for the full set of L<sub>(eq)</sub> results.

<sup>5</sup> The L<sub>(eq)</sub> for the monitored locations also exceeded the Suburban limitations, and most of the locations exceeded the Urban limitations, per Part 360.

<sup>6</sup> Due to the existing loud/disturbed existing condition.

### 3.0 SUPPLEMENTAL PROPOSED ACTION ANALYSIS

#### 3.1 **Traffic Noise Analysis**

For an analysis on potential traffic noise as a part of the proposed project, please see the B. Laing Associates, October 2020, report.

#### 3.2 **Operational Analysis**

The operational analysis as contained herein has not changed from the October 2020 report except when analyzed with respect to the updated ambient sound pressure levels, as monitored on January 13, 2022. The below analysis is largely in regard to Part 360's regulation of sound pressure levels in "rural" areas, per Section 2.0, above. See B. Laing Associates' October 2020 report for more details.

The proposed project includes an asphalt and concrete crushing and screening business including the conversion of an existing 1-to-2 story frame/stucco residence and 1.5-story frame barn/garage to office and storage space. The proposed business would have two crushing/screening equipment stations and five asphalt/concrete stockpiles. Ten-foot-deep buffers would be provided along the eastern, western and southwestern property boundaries and 20-foot-deep buffers would be provided along the southeastern and northerly property boundaries. Existing vegetation in the southeastern and southwestern portions of the site will remain. The proposed driveway will be surfaced with RCA and topsoil and hydroseeding is proposed in non-operational areas.

Equipment use for the proposed asphalt and concrete crushing and screening site would generate sound levels varied from the existing ambient level. These sound pressure levels will be loudest from within the site and will reduce with distance. Given initial source measurement standardized at 50 feet from the sound source, every doubled distance will decrease the noise level by approximately 6 dB(A).<sup>7</sup> Table 5 below provides an inventory of proposed machinery sound level specifications and the sound reduction over distance.

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<sup>7</sup> Assessing and Mitigation Noise Impacts.

<b>TABLE 5</b> <b>EQUIPMENT SOUND PRESSURE LEVELS OVER DISTANCE</b>				
Equipment/Sound Source	Average Exterior Sound Level at Source	Source Distance with Sound Reduction (dB(A))		
		50 Feet	100 Feet	200 Feet
Cat 938 M wheel loader	101.0 dB(A)	77	71	65
Cat 966 M wheel loader	109.0 dB(A)	85	79	73
EW160 E Volvo excavators	100.0 dB(A)	76	70	64
EC210B Prime Volvo excavator	104.0 dB(A)	80	74	68
Cat 299D2 compact tract loader	104.0 dB(A)	80	74	68
DE11E3S diesel generator set	88.0 dB(A)*	64	58	52
Mobirex MR 130 Z/130 Zi EVO 2	99.0 dB(A) **	75	69	63
Chieftain 1700	104 dB(A)***	80	74	68
* coming from CAT sound pressure levels in an enclosure				
** source Mobirex dealer, 99.0 dB from side with engine, and 88.5 dB from the other side				
*** source CDC Noise Assessment of Stone/Aggregate Mines				

As a result of the facility, operational sound levels will have an insignificant effect on the south property line located along Middle Road. Distances from equipment to Middle Road measure greater than 300 feet. Even if the loudest piece of equipment (Cat 966M) were running at the closest approach the sound pressure levels reaching the lot would have a resultant decibel level of 70 dB(A)<sup>8</sup>; comparable to the existing background ambient at Measuring Location B. In addition, any negligible sound pressure increase at this location would be projected onto an industrial yard.

Noise from the Chieftain 1700 crusher, which is centrally located along the northern portion of the site, has the potential to result in 74 dB(A) at the northern property line (Measuring Location A). When combined with the ambient background noise at this location (71.7 dB(A)), the resultant sound pressure level would have an additive, middling effect (for more information about this, see Table 6, below). As the difference between the ambient noise and operating sound is between 2 and 3 dB(A), the higher of the two sounds is increased by 2 dB(A); this would result in a sound pressure level at the northern property line of 76 dB(A). This is 1.3 dB(A) greater than the calculated  $L_{(eq)}$  limit for rural areas, described in Sec. 2.

<sup>8</sup> Does not include the substantial reduction gained from the wooded buffer to the south.

**Table 6**  
Approximate Addition of Sound Levels

Difference Between Two Sound Levels	Add to the Higher of the Two Sound Levels
1 dB or less	3 dB
2 to 3 dB	2 dB
4 to 9 dB	1 dB
10 dB or more	0 dB

(USEPA, Protective Noise Levels, 1978)

However, any potential for sound pressure level increase that may occur along the northern property line will be projected onto Manor Road, a major roadway in this neighborhood which is already impacted by ongoing vehicular traffic; as such, no actual impact will occur.

The property line to the west was not sampled for ambient measurements, but it is also disturbed by its proximity to Manor Road, with only an agricultural field separating it from the sound source (traffic). This property line is shielded from most of the Chieftain 1700 crusher noises by the distance (over 200' or a resultant sound pressure level 68 dB(A)), and the strategically placed stockpiles of material. The gravel ring-road is only set back 25 feet from the property line along its western side and there is a potential for truck noises to reach the property line. These will be, A. partially abated by the row of evergreens planted along the property line and B. projected onto an agricultural field, with no real impact to receptors and C. projected onto a property sandwiched between Manor Road and existing commercial/industrial uses with higher, existing ambient sound levels.

The eastern property line of the site is the receptor of greatest concern, as it was the residential properties to the east (within the intersection of Middle and Manor Roads) which prompted the need for a supplemental analysis. The eastern property line, and the residences to the east/southeast, are already disturbed per the January 13, 2022 ambient sound level measurements. With the Measuring Location D having a  $L_{eq}$  of 71.8 dB(A) in the mid-day scenario, it is clear that a considerable amount of industrial traffic, using Middle Road, is already impacting these residences. Regardless, the eastern property line is shielded by potential noise impacts from the Chieftain 1700 crusher by enough linear distance to result in a resultant sound pressure level of 68 dB(A) which would increase the background ambient by 1 dB(A)<sup>9</sup>. In addition, if several pieces of equipment were operating simultaneously, we would use the Approximate Addition of Sound Levels (Table 6) to calculate the dB(A) to a receptor. For example, at 50' from the source, if the Cat 966 M wheel loader, Chieftain 1700, EW160 E Volvo excavator, and Mobirex MR 130 Z/130 Zi EVO 2 were operating, the resultant dB(A) would total 69 dB(A) at 400 feet. The difference first between the two lowest sound pressure levels is calculated, and that result is added to the next highest source.

<sup>9</sup> A middling effect, per Table 6, above.



$$75 \text{ dB(A)} + 76 \text{ dB(A)} = 79 \text{ dB(A)}$$

$$79 \text{ dB(A)} + 80 \text{ dB(A)} = 83 \text{ dB(A)}$$

$$83 \text{ dB(A)} + 85 \text{ dB(A)} = 87 \text{ dB(A)}$$

At, 100 feet that calculated 87 dB(A) would reduce to 81 dB(A); at 200 feet to 75 dB(A); and by 400 feet, the resultant sound pressure level would be 69 dB(A). That does not consider the strategically-placed stockpiles or other factors which will both abate that further, which would reduce that noise to a negligible increase, if any at all.

The ring-road, which comes within 25 feet of the property line will be used by equipment that has the potential to cause noise impacts. However, this noise will be ephemeral and will be largely blocked by the 100'-long industrial barn immediately to the site's east as well as the row of evergreen trees planted along the property line. The residences to the east are a minimum of 200' away from where the equipment may be operating at any given time. Even if the loudest piece of equipment (Cat 966M) were operating at this distance, an unabated sound pressure level of 73 dB(A) could reach these residences. This is comparable to the ambient measured on January 13, 2022. However, the existing house and barn structure to the immediate easterly property, identified as 1776 Middle Road, will provide a screen which abates noise dispersion further to the east. Per the FHWA, "a two-story building can reduce noise levels on the side of the building away from the noise source by about 13 dB(A)." This also does not include the abatement provided by the evergreen plantings, around the property line.

Proper locations of site activities will allow noise level reduction from the source equipment, thus minimizing noise to the adjacent receptors. The proposed crusher/screening equipment have been strategically placed (1) along Manor Road where existing ambient sound levels are higher and (2) in the center of the site approximately 215 feet west of the eastern property boundary. As per Table 5, sound levels 200 feet from the source are approximately 68 dB(A) for the crusher/screening equipment.

In addition, per NYSDEC's Assessing and Mitigation Noise, "stockpiles of raw material or finished product can be an effective sound barrier if strategically placed." Stockpiles would have been intentionally placed along the western side of the eastern leg of the driveway/ring road. Lastly, site design includes ten-foot-deep buffers along the eastern, western and southwestern property boundaries and 20-foot-deep buffers along the southeastern and northerly property boundaries.

### 3.3 **Construction Sound Analysis**

For an analysis on potential construction noise as a part of the proposed project, please see the B. Laing Associates, October 2020, report. Part 360, the subject of this report, does not regulate noise "occurring during construction of the facility."

### 3.4 **Summary of Analysis**

As above, the operational equipment has the potential to be the source of sound level impacts to the local area. Specifically, the area of concern is the “potential impacts of sound level on the residential dwellings located in the immediate area [which are] best described as rural,” per the letter by Mr. Seeman on behalf of the Lead Agency.

During the original DEIS analysis, it was understandable that a (slight) impact to these residences may have been expected as the existing condition (as measured in 2020) was artificially diminished due to the COVID-19 pandemic (due to lack of industry and commuting). However, the January 13, 2022, ambient numbers show an existing condition which is clearly already disturbed by the background sound pressure levels from nearby commercial/industrial uses with  $L_{(eq)}$  levels in the low 70’s dB(A); much higher than expected for a “rural” community. This differential is accounted for the Part 360 regulations as calculated in Section 2, above.

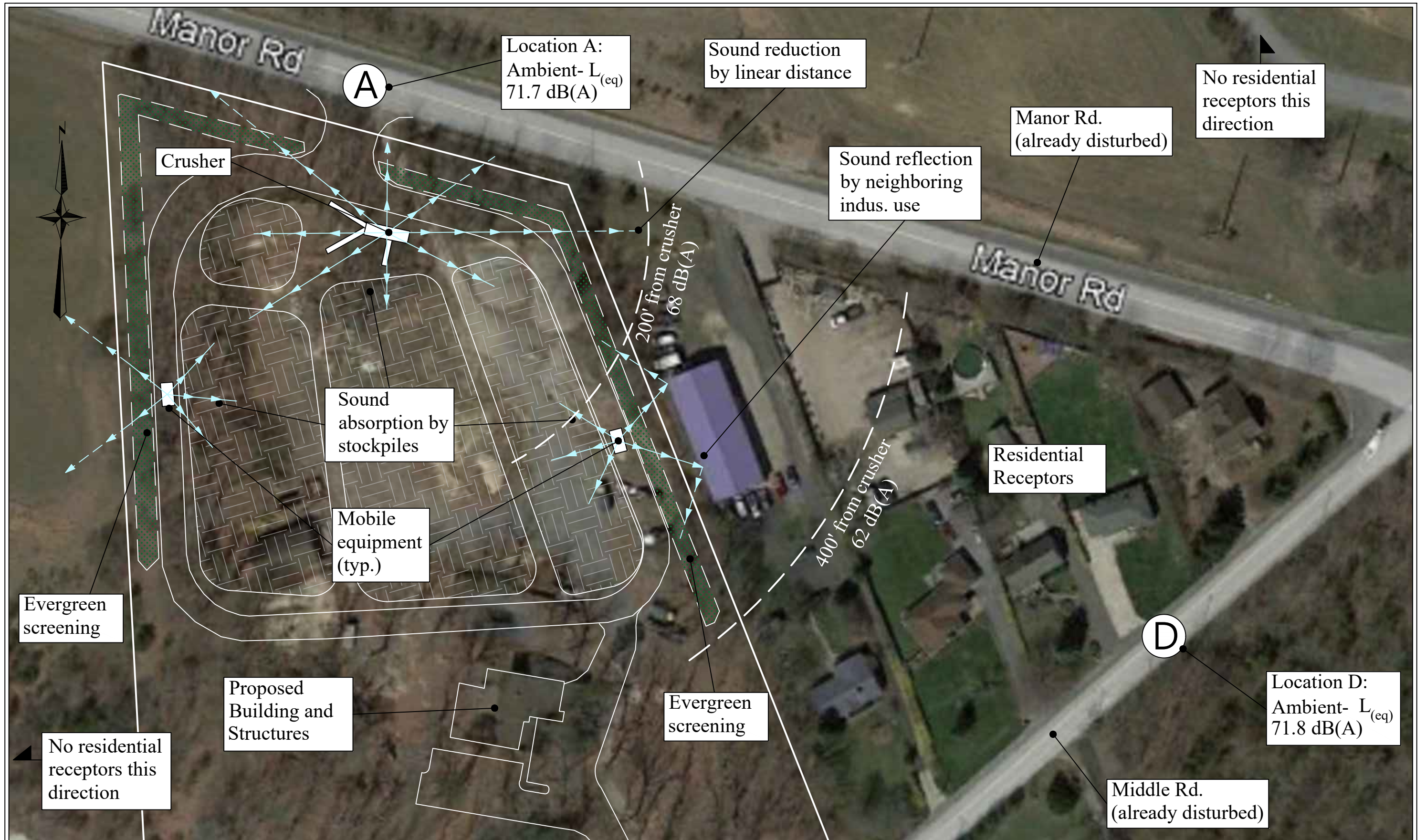
However, as above, the equipment (specifically the crushing equipment) was strategically placed in order to minimize sound impacts to the surrounding residential areas. The equipment will be placed at a considerable linear distance, and behind abating features, such that there will not be a significant sound pressure increase to these “rural” receptors. In addition, when compared to the existing ambient sound pressure levels, which are already disturbed/unusually high as measured on January 13, 2022, the proposed operational noise will not have a significant impact, even from a “rural” point of view.

## **4.0 MITIGATION**

### **4.1 Mitigation Measures**

The October 2020 analysis showed that “potential, minor noise impact[s] may occur to adjacent, residentially zoned properties to the east as a result of the proposed action.” However, that was based on conservative ambient noise data, which was artificially diminished due to the COVID-19 pandemic. In the January 2022 analysis, it was shown that the ambient conditions are already disturbed from the proximity to major roads and the nearby industrial uses, such that no substantial impacts are proposed to the nearby residences, even from a “rural” standpoint. Regardless, the same noise mitigation/abatement measures that were discussed in the original report will still be put in place.

Please see the original October 2020, B. Laing Associates, report for more information on noise abatement information.



<b>TITLE: Sound Pressure Level Figure</b> <b>AT:</b> 1792 Middle Road <b>IN:</b> Calverton <b>COUNTY:</b> Suffolk <b>STATE:</b> NY <b>FOR:</b> NPV <b>SHEET:</b> 1 of 1 - Existing Condition - Aerial		<b>PROJ #:</b> NPVCVT01 <b>DATE:</b> Jan. 19, 2022 <b>REV:</b>	<b>NOTES:</b> 1. Not a survey. Scale roughly 1" = 70.0'. 2. Existing condition aerial imagery sourced from Google Earth. 3. Based off Part 360 Permit Plan by Nelson & Pope, dated 5/12/2021; figure above not inclusive of all structures. 4. Calculated dB(A) of Chieftain 1700 crusher/screener at linear distances does not include any abatement from stockpiles or other factors. As such, it is considered conservative.	<b>B. LAING ASSOCIATES</b> <b>ENVIRONMENTAL CONSULTANTS</b> 103 Fort Salonga, Suite 5 Fort Salonga, NY 11768 (631) 261-7170 (631) 261-7454 fax <a href="http://www.blaingassociates.com">www.blaingassociates.com</a>
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## **APPENDIX A**

### **Measurement Reports**





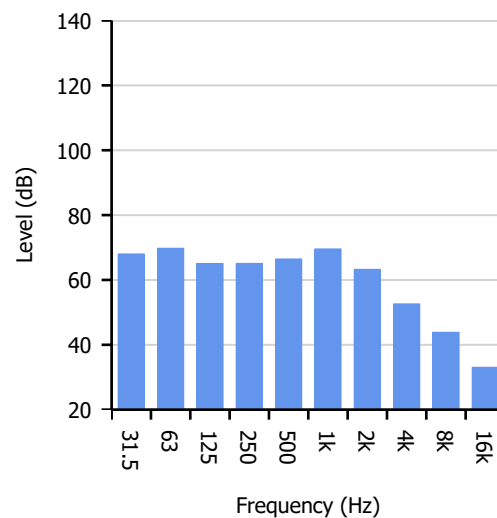
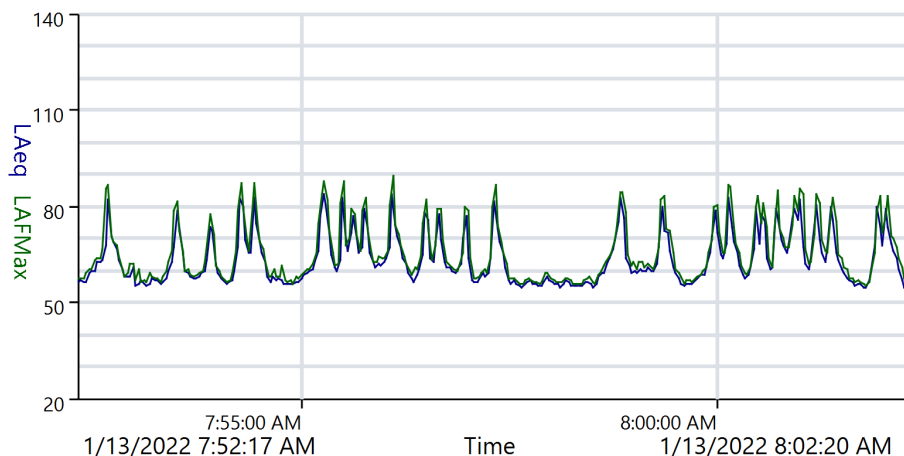
## Measurement Summary Report

**Name** 46  
**Time** 1/13/2022 7:52:17 AM **Person** **Place** **Project**  
**Duration** 00:10:03 Taylor Sturm NPVCVT01-  
**Instrument** G301840, CR:171A

### Calibration

**Before** **Offset** **After** **Offset**

Basic Values		Statistical Levels (Ln)	
LAeq	71.7 dB	LAF1	84.0 dB
LAE	99.5 dB	LAF5	79.2 dB
LAFMax	89.2 dB	LAF10	74.2 dB
		LAF50	60.5 dB
		LAF90	55.6 dB
		LAF95	55.2 dB
		LAF99	54.5 dB



### Notes

Sample Location A; AM Peak; Manor Rd. Entrance; <5kt Wind; 28F

### ReportId





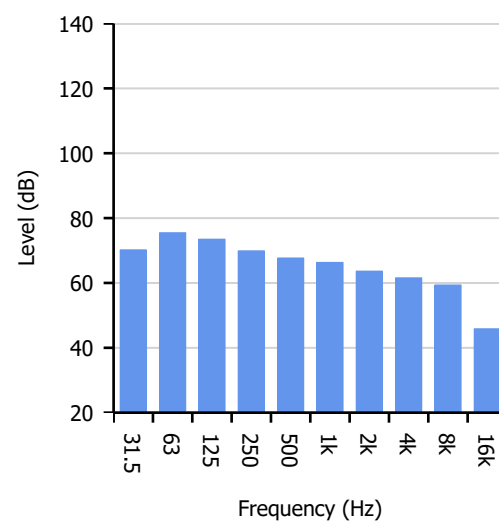
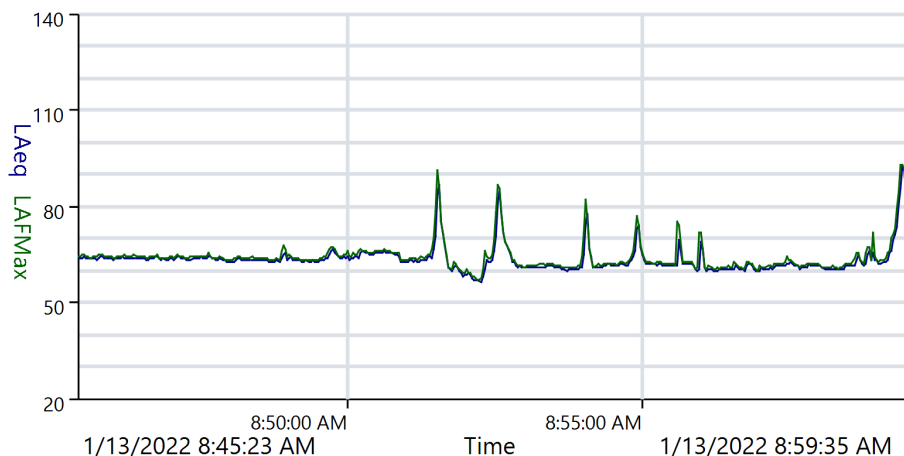
## Measurement Summary Report

**Name** 52  
**Time** 1/13/2022 8:45:23 AM **Person** Taylor Sturm **Place**  
**Duration** 00:14:12 **Project** NPVCVT01-  
**Instrument** G301840, CR:171A

### Calibration

**Before** Offset **After** Offset

Basic Values		Statistical Levels (Ln)	
LAeq	71.6 dB	LAF1	85.2 dB
LAE	100.9 dB	LAF5	69.6 dB
LAFMax	93.1 dB	LAF10	65.5 dB
		LAF50	62.8 dB
		LAF90	60.2 dB
		LAF95	59.7 dB
		LAF99	57.1 dB



### Notes

Sample Location B; AM Peak; Middle Rd. Entrance; <5kt Wind; 28F

**ReportId**







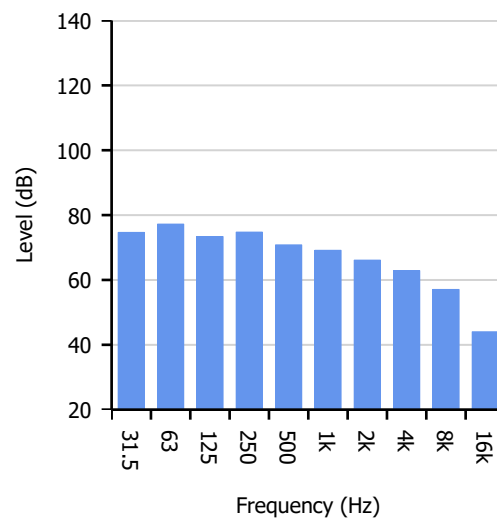
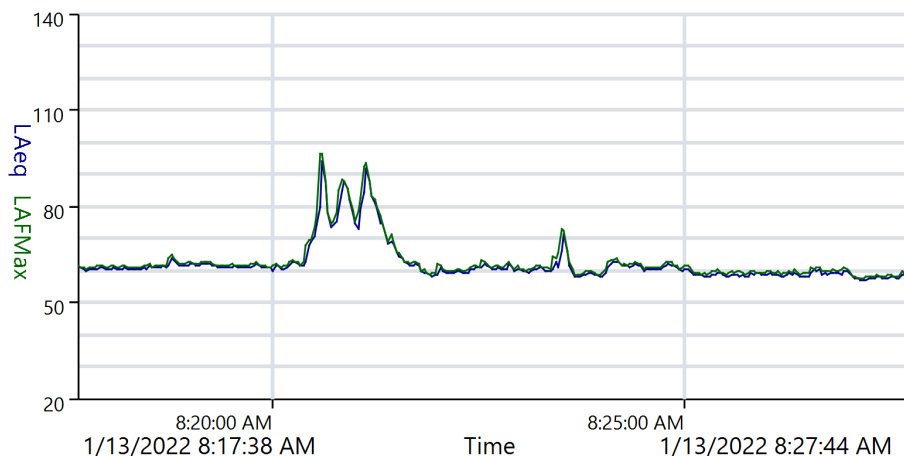
## Measurement Summary Report

**Name** 48  
**Time** 1/13/2022 8:17:38 AM **Person** Taylor Sturm **Place** **Project** NPVCVT01-  
**Duration** 00:10:06  
**Instrument** G301840, CR:171A

### Calibration

**Before** Offset **After** Offset

Basic Values		Statistical Levels (Ln)	
L <sub>Aeq</sub>	74.3 dB	LAF1	87.6 dB
L <sub>AE</sub>	102.1 dB	LAF5	77.1 dB
L <sub>AFMax</sub>	96.4 dB	LAF10	68.4 dB
		LAF50	60.3 dB
		LAF90	58.0 dB
		LAF95	57.6 dB
		LAF99	57.0 dB



### Notes

Sample Location C; AM Peak; Indus. Yards along Middle Rd.; <5kt Wind; 28F

### ReportId





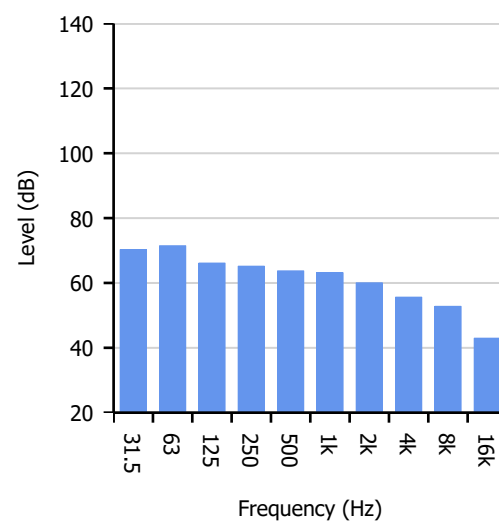
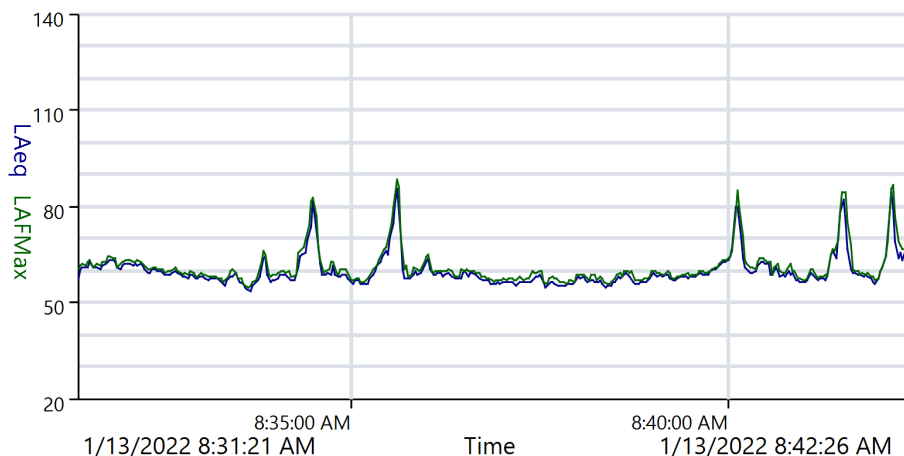
## Measurement Summary Report

**Name** 50  
**Time** 1/13/2022 8:31:21 AM **Person** Taylor Sturm **Place**  
**Duration** 00:11:05 **Project** NPVCVT01-  
**Instrument** G301840, CR:171A

### Calibration

**Before** Offset **After** Offset

Basic Values		Statistical Levels (Ln)	
L <sub>Aeq</sub>	67.6 dB	LAF1	81.7 dB
L <sub>AE</sub>	95.8 dB	LAF5	69.6 dB
L <sub>AFMax</sub>	88.4 dB	LAF10	64.2 dB
		LAF50	58.3 dB
		LAF90	55.8 dB
		LAF95	55.3 dB
		LAF99	54.4 dB



### Notes

Sample Location D; AM Peak; Middle Rd. Residential; <5kt Wind; 28F

### ReportId





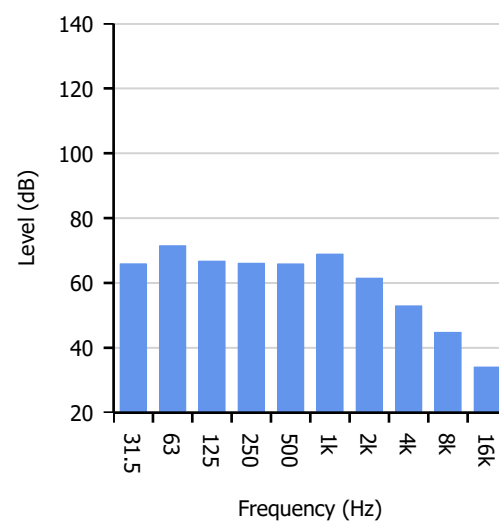
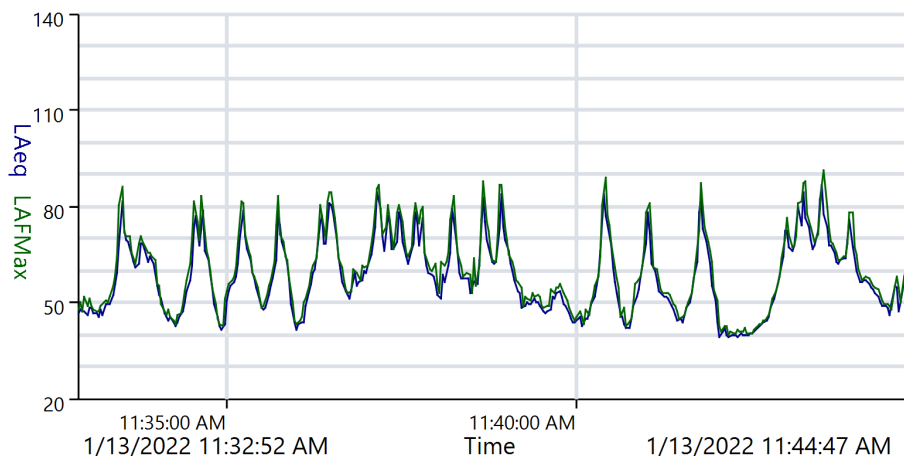
## Measurement Summary Report

**Name** 53  
**Time** 1/13/2022 11:32:52 AM **Person** Taylor Sturm **Place**  
**Duration** 00:11:55 **Project** NPVCVT01-  
**Instrument** G301840, CR:171A

### Calibration

**Before** Offset **After** Offset

Basic Values		Statistical Levels (Ln)	
LAeq	70.9 dB	LAF1	84.2 dB
LAE	99.4 dB	LAF5	77.3 dB
LAFMax	91.1 dB	LAF10	73.0 dB
		LAF50	56.3 dB
		LAF90	43.6 dB
		LAF95	41.6 dB
		LAF99	39.3 dB



### Notes

Sample Location A; Mid-day; Manor Rd. Entrance; <5kt Wind; 41F

### ReportId





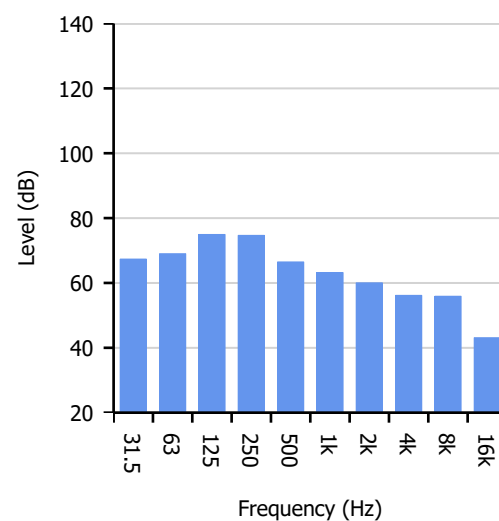
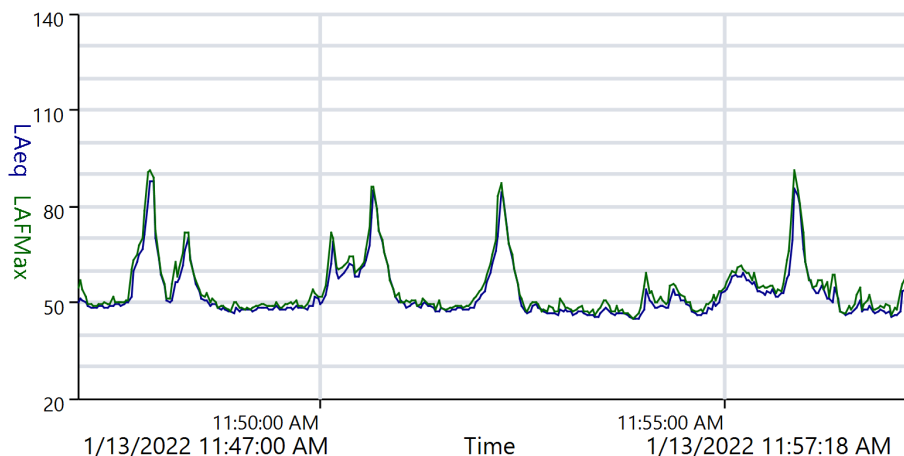
## Measurement Summary Report

**Name** 54  
**Time** 1/13/2022 11:47:00 AM **Person** **Place** **Project**  
**Duration** 00:10:18 Taylor Sturm NPVCVT01-  
**Instrument** G301840, CR:171A

### Calibration

**Before** **Offset** **After** **Offset**

Basic Values		Statistical Levels (Ln)	
LAeq	70.0 dB	LAF1	85.4 dB
LAE	97.9 dB	LAF5	70.3 dB
LAFMax	91.3 dB	LAF10	62.7 dB
		LAF50	49.1 dB
		LAF90	46.4 dB
		LAF95	45.9 dB
		LAF99	45.0 dB



### Notes

Sample Location B; Mid-day; Middle Rd. Entrance; <5kt Wind; 41F

### ReportId





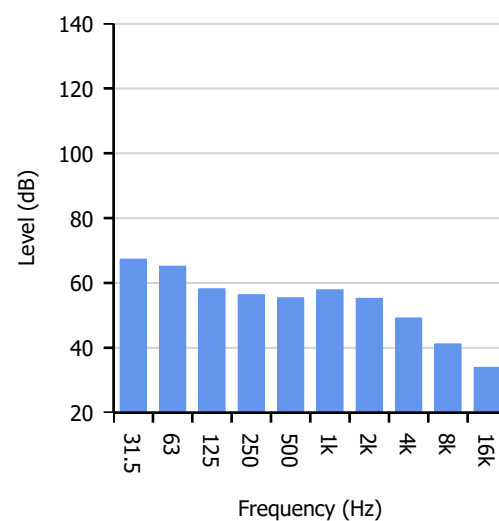
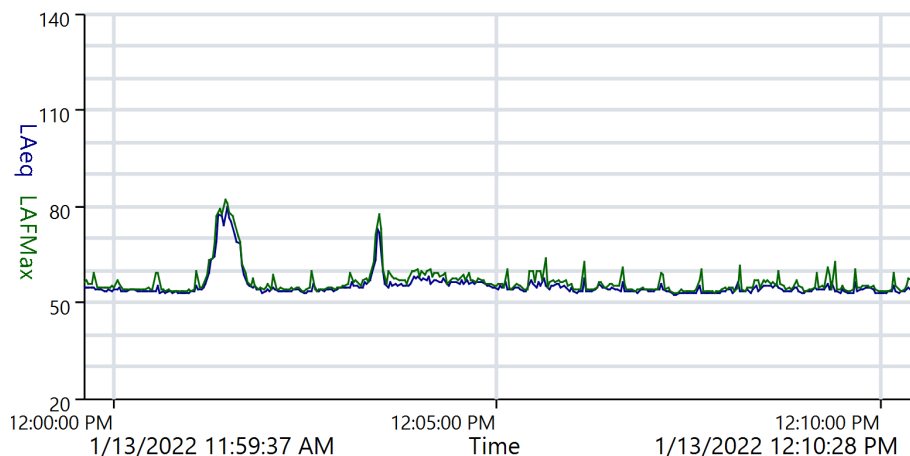
## Measurement Summary Report

**Name** 55  
**Time** 1/13/2022 11:59:37 AM **Person** Taylor Sturm **Place** **Project** NPVCVT01-  
**Duration** 00:10:51  
**Instrument** G301840, CR:171A

### Calibration

**Before** **Offset** **After** **Offset**

Basic Values		Statistical Levels (Ln)	
LAeq	61.5 dB	LAF1	76.2 dB
LAE	89.6 dB	LAF5	60.8 dB
LAFMax	81.9 dB	LAF10	57.0 dB
		LAF50	53.8 dB
		LAF90	52.9 dB
		LAF95	52.8 dB
		LAF99	52.5 dB



### Notes

Sample Location C; Mid-day; Indus. Yards along Middle Rd.; <5kt Wind; 41F

### ReportId





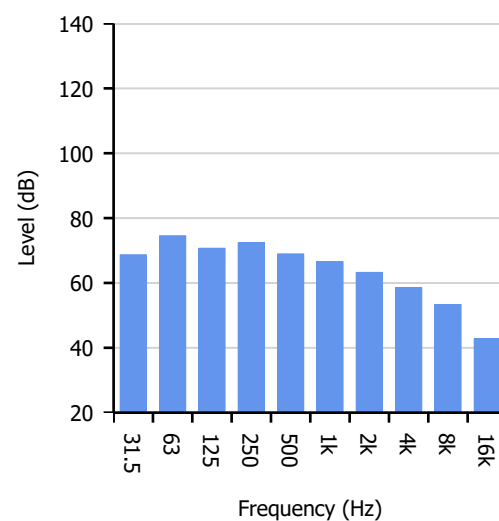
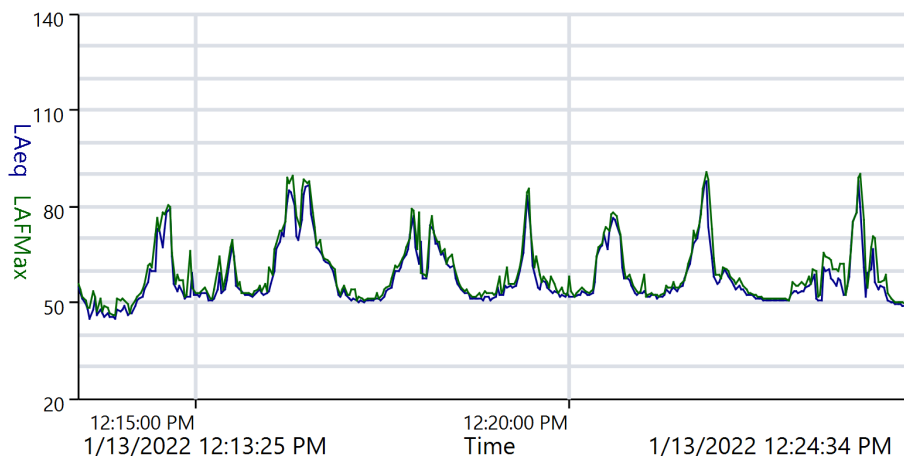
## Measurement Summary Report

**Name** 56  
**Time** 1/13/2022 12:13:25 PM **Person** Taylor Sturm **Place** **Project** NPVCVT01-  
**Duration** 00:11:09  
**Instrument** G301840, CR:171A

### Calibration

**Before** **Offset** **After** **Offset**

Basic Values		Statistical Levels (Ln)	
LAeq	71.8 dB	LAF1	86.4 dB
LAE	100.1 dB	LAF5	76.2 dB
LAFMax	90.7 dB	LAF10	70.7 dB
		LAF50	53.7 dB
		LAF90	50.2 dB
		LAF95	48.4 dB
		LAF99	45.1 dB



### Notes

Sample Location D; Mid-day; Middle Rd. Residential; <5kt Wind; 41F

### ReportId

