

AIR, NOISE AND VIBRATION MONTHLY MONITORING REPORT

Prepared By:
Hajeong Lim (HRCG)

DDC Project No.: BBJ Q DSS			Period Start: 02/01/24 End 02/29/24		
DDC Pin No.: 8502020CR0046P					
Project Name: NYC Borough Based Jails System - Queens Dismantle and Swing Space					
1) Community Air Monitoring Monthly Status Summary					
TWA – Time Weighted Average mg/m ³ - milligrams per cubic meter					
Number of Workdays in a Month	Number of Air Monitoring Days in a Month	Number of Days with Dust Concentrations above Action Concentrations by Month (0.1 mg/m ³ 15 minute TWA)	Comments		
24	7	None	There are no more dismantling activities on site. Daily dust monitoring is suspended due to lack of site grading activities. Daily dust monitoring will resume when the site grading work is remobilized.		
Community Air Monitoring Monthly Excursions and Corrective Actions					
Action Concentration = 0.100 mg/m ³ 15 minute TWA above background concentration*					
Stop Work Concentration = 0.150 mg/m ³ 15 minute TWA above background concentration*					
* Background concentration values vary daily. See Prestart/Background Condition Level in the attached graphs.					
Date: Time	Maximum Dust Reading Before Corrective Action 15 Minute TWA (mg/m ³)	Maximum Dust Reading After Corrective Action 15 Minute TWA (mg/m ³)	Corrective Action		
Narrative Summary of Air Monitoring, Excursions and Corrective Actions: <i>In February 2024, dismantle related levels of Particulate Matter (PM) PM10 did not surpass Daily Permissible Exposure Limits (PEL) as set by federal standards for the 24-hour Time Weighted Average (TWA), or daily value, and did not cause air quality concerns to the public or on-site workers.</i> <i>The Design Builder, Hunter Roberts Construction Group, in conjunction with the Design Builder's environmental specialist, has successfully implemented mitigation techniques at Action Level as well as Permissible Exposure Limits (15-Minute TWA) to suppress construction activity effects on air quality throughout the project work-zone.</i>					

2) Community Noise Monitoring Monthly Summary

Units to be a weighted decibels (dBA) level

Number of Workdays in a Month	Number of Noise Monitoring Days in a Month	Number of Days with Noise Levels above Action Levels by Month	Comments
24	1	0	According to the monitoring plan for the site, the number of days performing noise monitoring (1) is the requirement of (1) days. There are no more dismantling activities on site. Noise monitoring will resume when the site grading work is remobilized.

Community Noise Monitoring Monthly Excursions and Corrective Actions

Noise Monitoring Location 1 Action Level (Day – 7 am to 5 pm / Night – 5 pm to 7 am): 75 / NA
 Noise Monitoring Location 2 Action Level (Day – 7 am to 5 pm / Night – 5 pm to 7 am): 75 / NA
 Noise Monitoring Location 3 Action Level (Day – 7 am to 5 pm / Night – 5 pm to 7 am): 69 / 68
 Noise Monitoring Location 4 Action Level (Day – 7 am to 5 pm / Night – 5 pm to 7 am): 65 / 55
 Noise Monitoring Location 5 Action Level (Day – 7 am to 5 pm / Night – 5 pm to 7 am): 68 / 67

Date Time	Location	Maximum Noise Reading before Corrective Action (dBA)	Maximum Noise Reading after Corrective Action (dBA)	Baseline Noise Level Day/Night (dBA)	Corrective Action

Narrative Summary of Noise Monitoring, Excursions and Corrective Actions:

Throughout February 2024, noise levels remained below the set thresholds at all five locations. Dismantle-related activities in the month stayed within or below the warning limit at various locations. No corrective actions were required as noise levels didn't surpass the limits due to ongoing dismantle activities.

Nighttime Action Levels are established for three residential location, location #3, #4, and #5, in case dismantling activities are performed between 5 pm and 7 am.

3) Community Vibration Monitoring Monthly Summary

Units (in/sec)

Number of Workdays in a Month	Number of Vibration Monitoring Days in a Month	Number of Days with Vibration Levels above Action Levels by Month	Comments
26	26	2	

Community Vibration Monitoring Monthly Excursions and Corrective Actions

Alert / Action Level = 0.3 in/s

Stop Work Level = 0.5 in/s

Date: Time	Maximum Vibration Level before Corrective Action (in/s)	Exceedance Duration	Maximum Vibration Level Followed Exceedance without Corrective Action (in/s)	Corrective Action
Feb 12 10:25 am at VM1 by Family Justice Center	4.56	< 30 sec	< 0.005	N/A. This exceedance event was the result of adjusting the monitor by a HRCG staff rather than construction activity. Followed by a vibration level less than 0.005 in/sec.
Feb 12 11:30 pm at VM1 by Family Justice Center	> 0.5	< 30 sec	< 0.005	N/A. This event occurred outside of construction hours and followed by a vibration level less than 0.005 in/sec. This event was likely the result of direct contact with the transducer by small animals on site rather than vibrations in the structure.

Narrative Summary of Vibration Monitoring, Excursions and Corrective Actions:

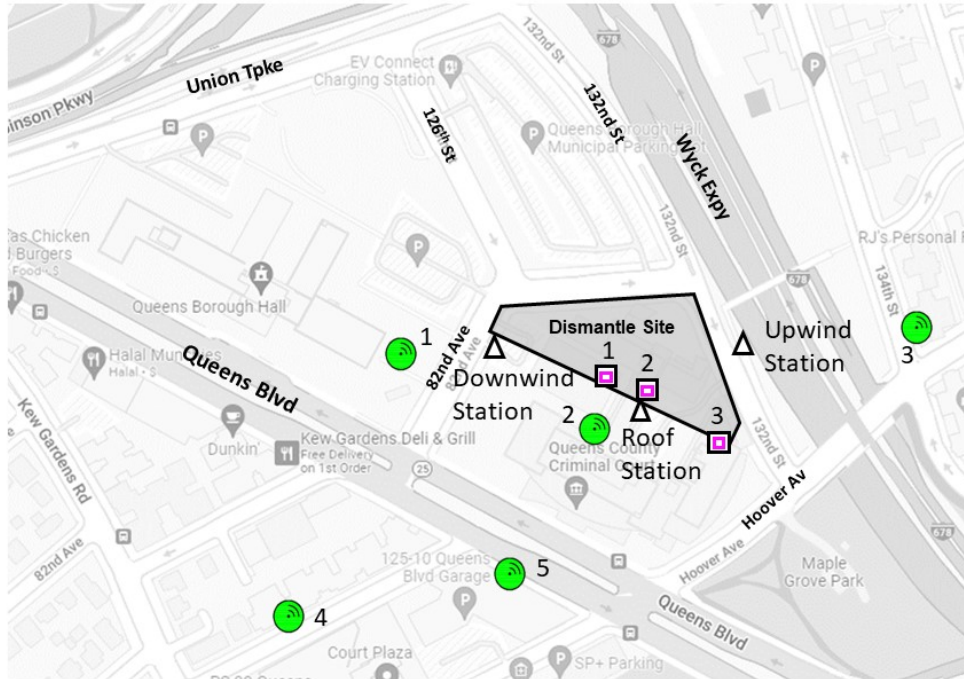
During the Month of February 2024, there was Zero vibration monitor exceedance caused by dismantle or construction activities. All monitors showed results of vibration being under the warning limit of 0.3(in/sec) / stop work limit of 0.5(in/sec), except 2/12 when the vibration monitoring equipment #1 by Family Justice Center was adjusted by a HRCG staff during the day, and when the same vibration monitoring equipment #1 by Family Justice Center was contacted by small animals on site at night.

All other monitors showed results of vibration did not exceed the warning threshold of 0.3(in/sec) / stop work threshold of 0.5 (in/sec).

ATTACHMENTS:

- 1 – Map of Monitoring Station/Locations
- 2 – Baseline Reference
- 3 – Data Plots

Environmental Monitoring Queens – 01/05/24



On 12/23/2023 per DDC/PMC's request, Upwind Station was relocated to Roof Station at DA Wing.

As of 01/05/2024 Roof Station is no longer utilized as Upwind Station. Upwind Station is restored at the sidewalk level.

- Vibration Monitor (VM)
- △ Air Monitoring Station (DM)
- Noise Monitoring Station (NM)

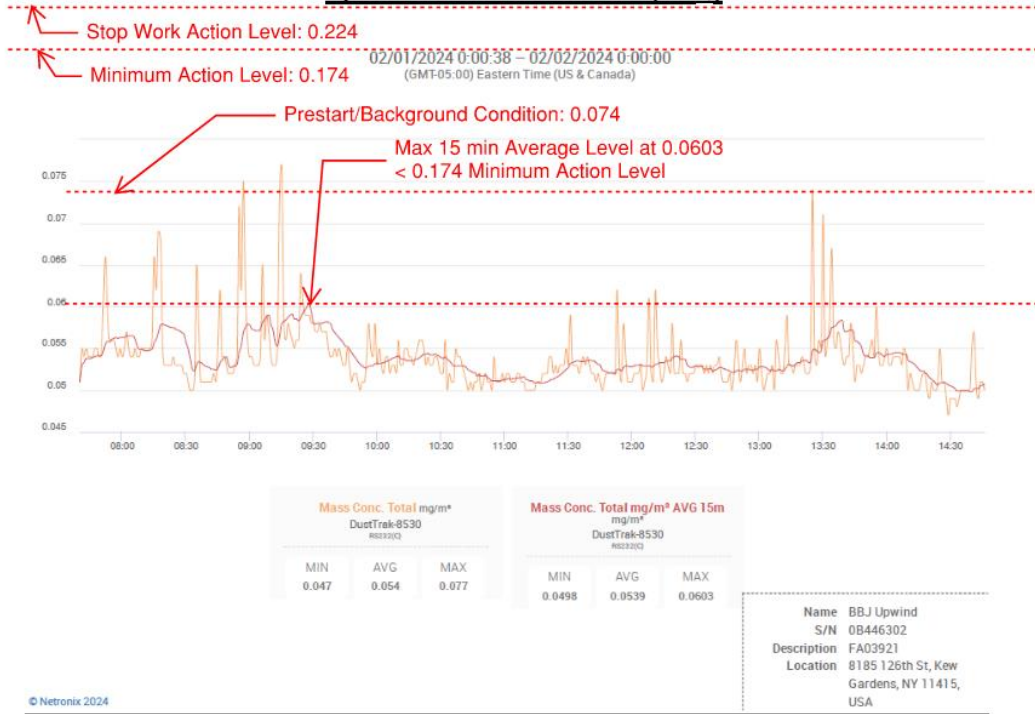
Noise Threshold Limits in dBA – Baseline Survey April 2022

Construction Noise Threshold Limits in dBA

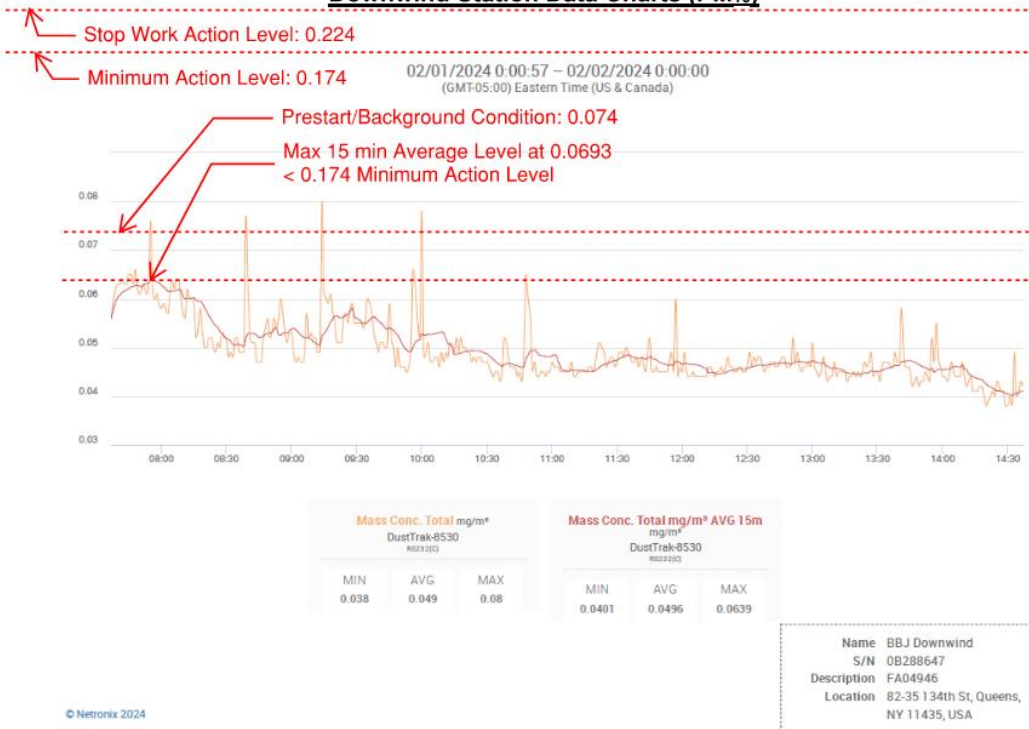
Location	Daytime L_{eq}	Nighttime L_{eq}
Adjacent to the easternmost façade of Queens Borough Hall	75	N/A
At the southwestern corner of the DA Wing	75	N/A
At the residences along 134th Street between 82nd Avenue and Hoover Avenue	69	68
At the residences on 82nd Road between Kew Gardens Road and Queens Boulevard, approximately 200 feet from Kew Gardens Road	65	55
At the residences on Queens Boulevard between 82nd Road and Lefferts Boulevard	68	67

Dismantle Activity Daily Air Monitoring on February 01, 2024

Upwind Station Data Charts (PM₁₀)

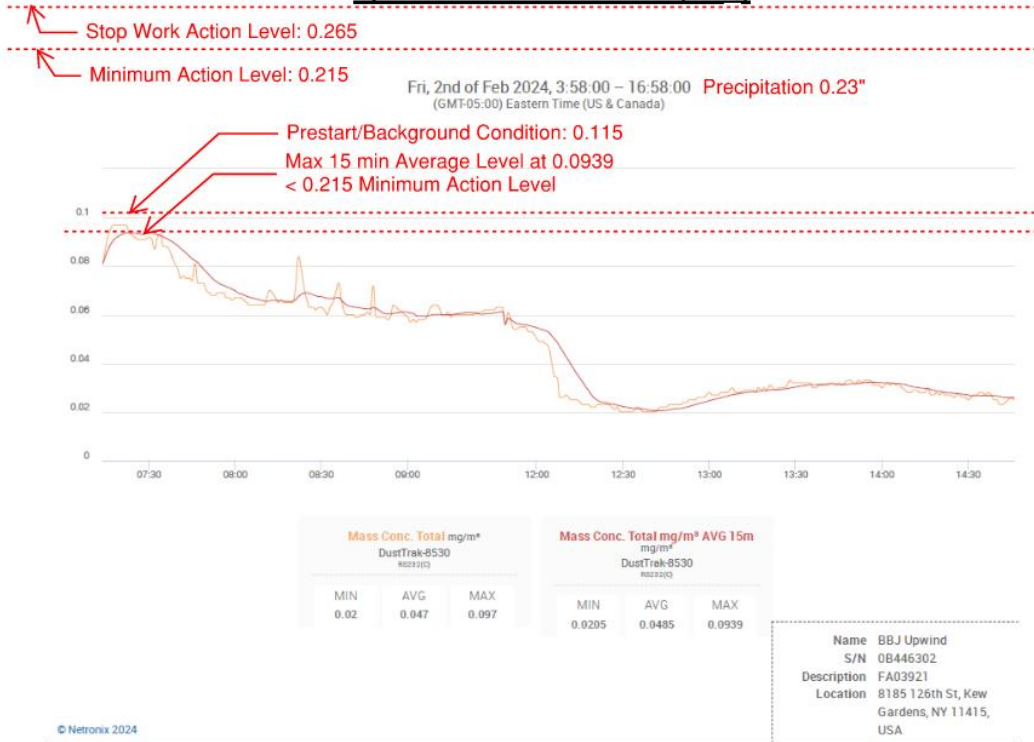


Downwind Station Data Charts (PM₁₀)

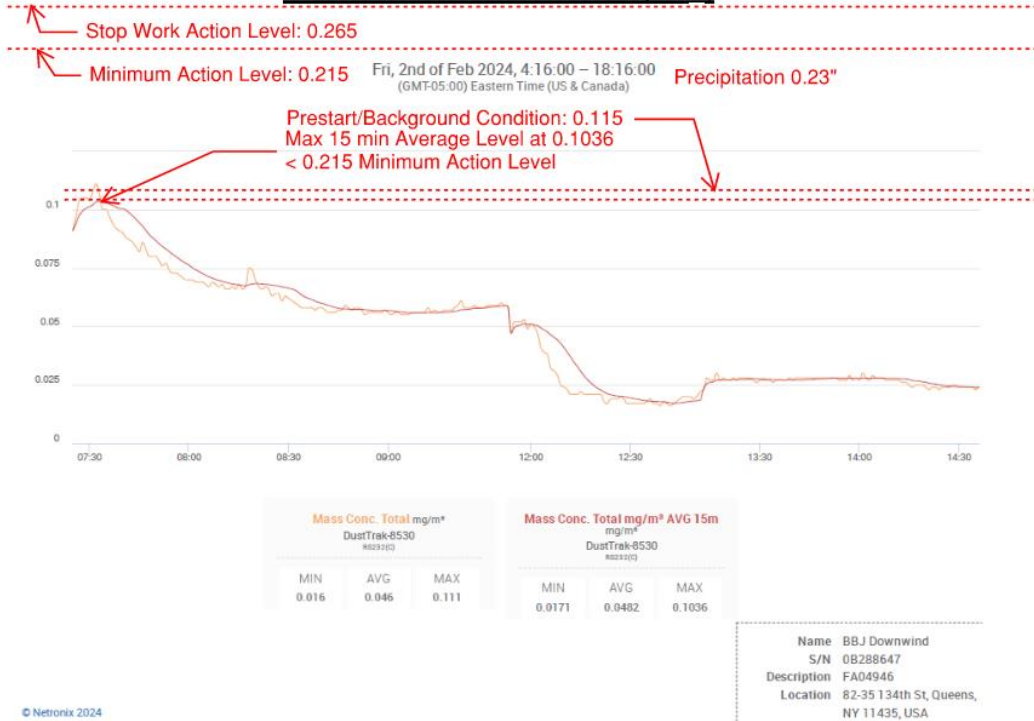


Dismantle Activity Air Daily Monitoring on February 02, 2024

Upwind Station Data Charts (PM₁₀)

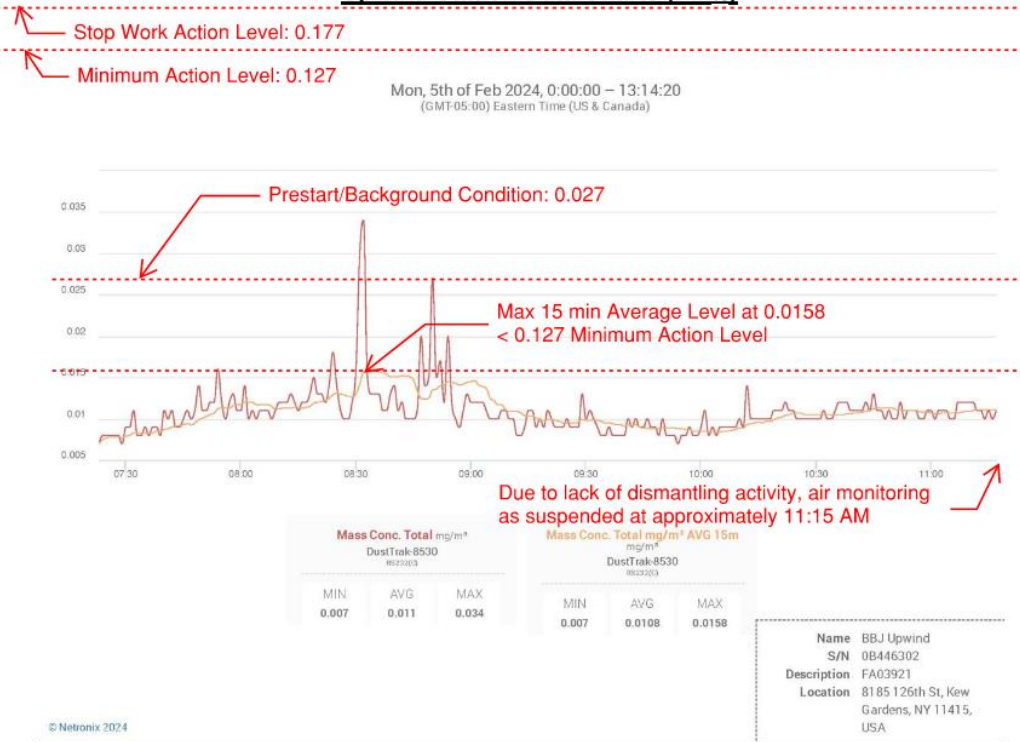


Downwind Station Data Charts (PM₁₀)



Dismantle Activity Daily Air Monitoring on February 05, 2024

Upwind Station Data Charts (PM₁₀)



Downwind Station Data Charts (PM₁₀)



Dismantle Activity Daily Air Monitoring on February 07, 2024

Upwind Station Data Charts (PM₁₀)

02/07/2024 0:00:22 – 02/08/2024 0:00:00
(GMT-05:00) Eastern Time (US & Canada)

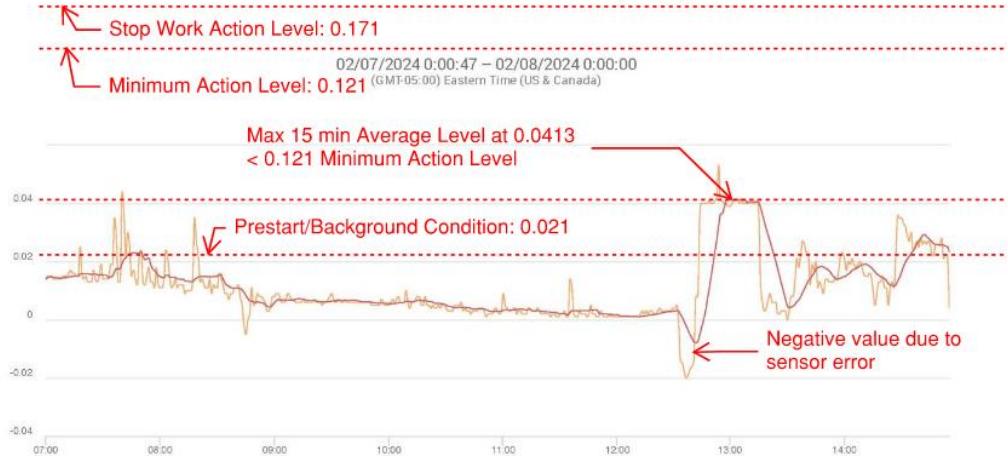


Mass Conc. Total mg/m³			Mass Conc. Total mg/m³ AVG 15m		
DustTrak-8530			DustTrak-8530		
MS22203			MS22503		
MIN	AVG	MAX	MIN	AVG	MAX
0.004	0.012	0.173	0.0058	0.0122	0.0264

Name BBJ Upwind
S/N 0B446302
Description FA03921
Location 8185 126th St, Kew
Gardens, NY 11415,
USA

© Netronix 2024

Downwind Station Data Charts (PM₁₀)

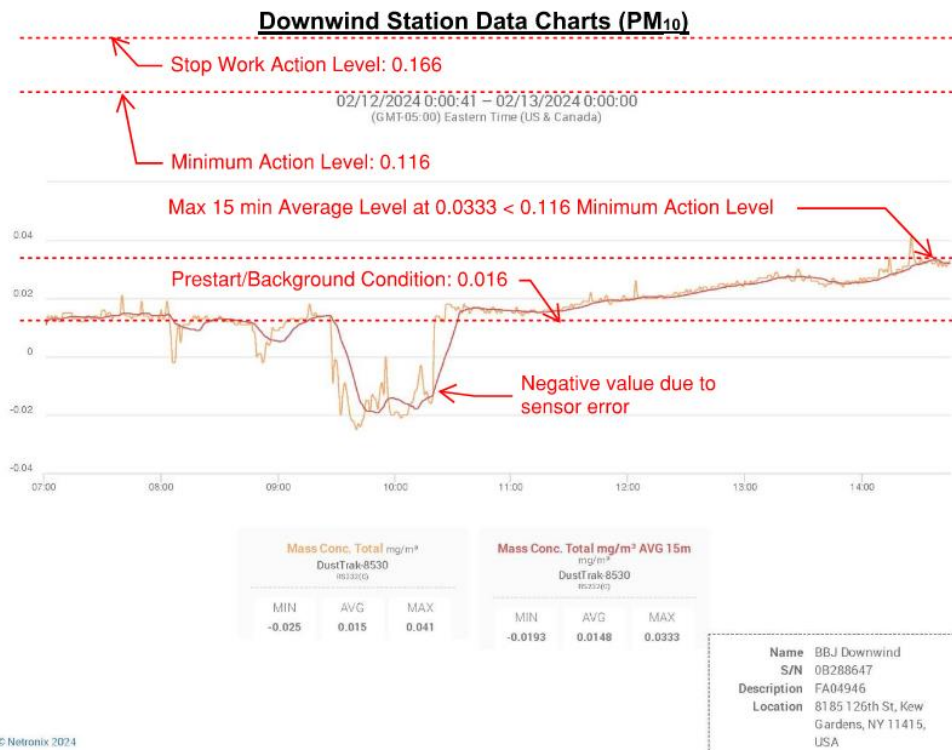
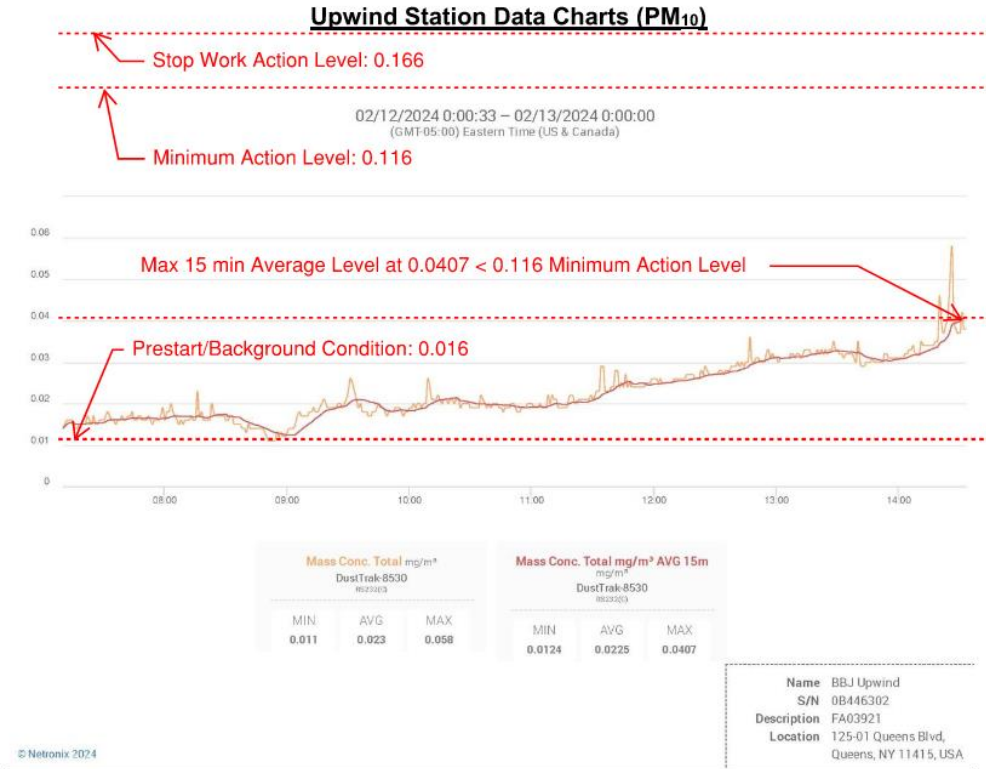


Mass Conc. Total mg/m³			Mass Conc. Total mg/m³ AVG 15m		
DustTrak-8530			DustTrak-8530		
MS13203			MS2103		
MIN	AVG	MAX	MIN	AVG	MAX
-0.02	0.011	0.053	-0.0079	0.0113	0.0413

Name BBJ Downwind
S/N 0B288647
Description FA04946
Location 125-01 Queens Blvd,
Queens, NY 11415, USA

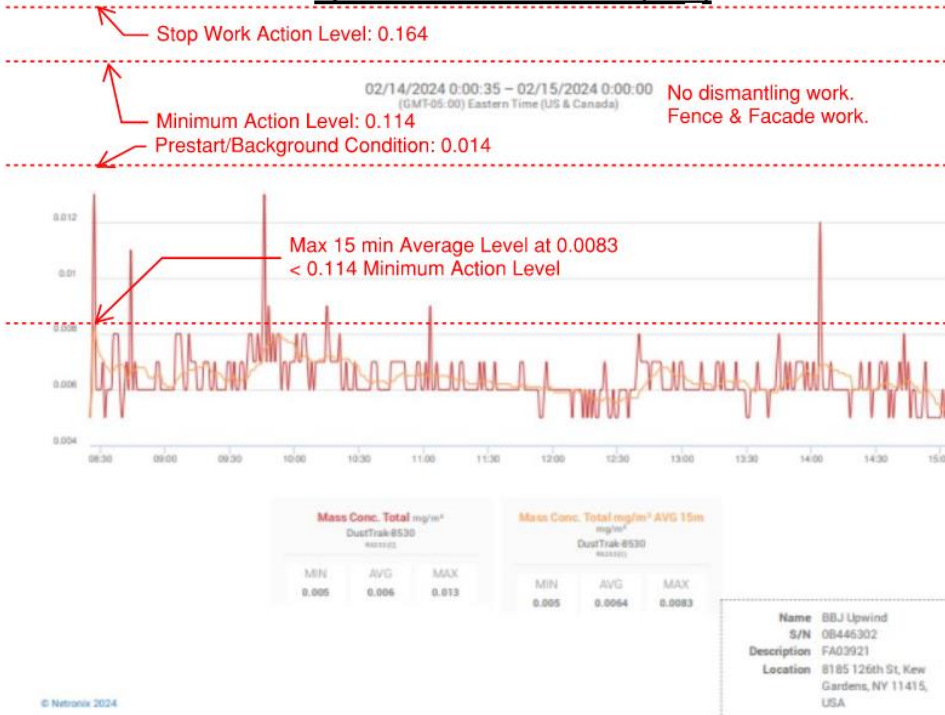
© Netronix 2024

Dismantle Activity Daily Air Monitoring on February 12, 2024

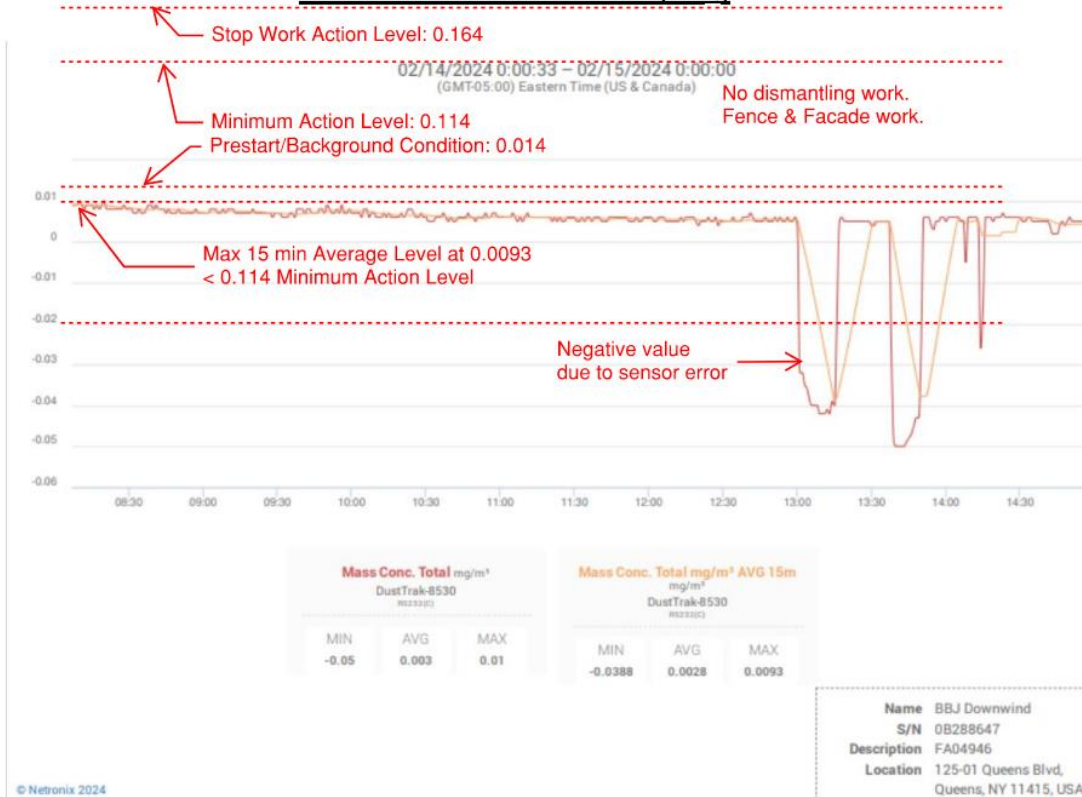


Dismantle Activity Daily Air Monitoring on February 14, 2024

Upwind Station Data Charts (PM₁₀)

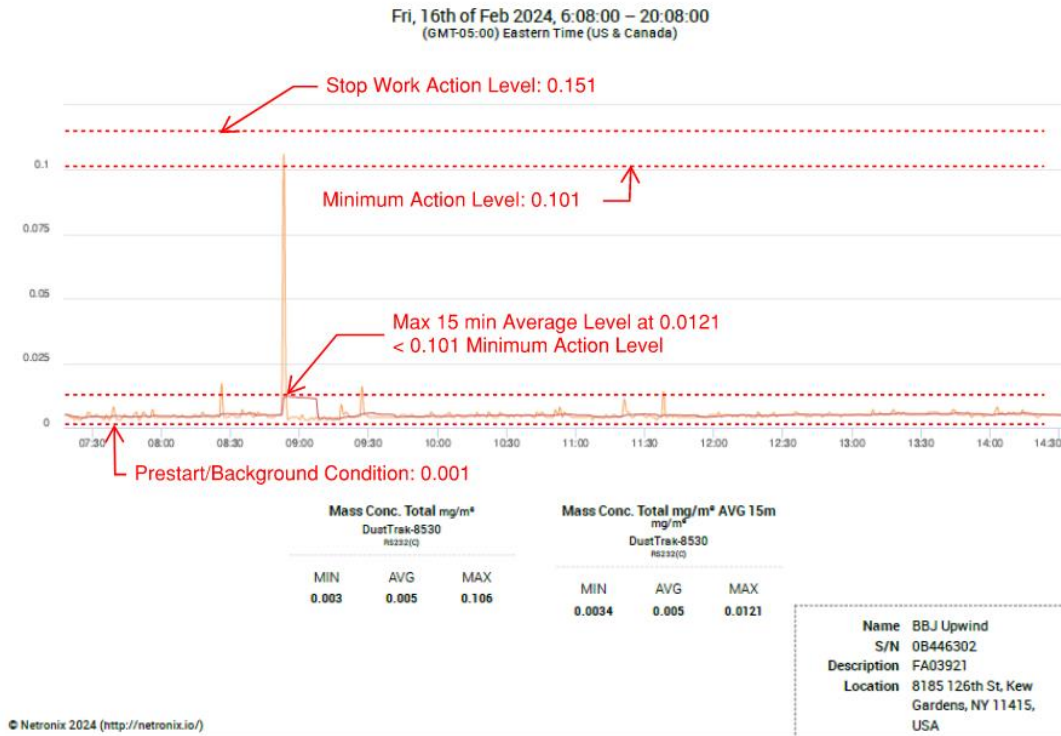


Downwind Station Data Charts (PM₁₀)

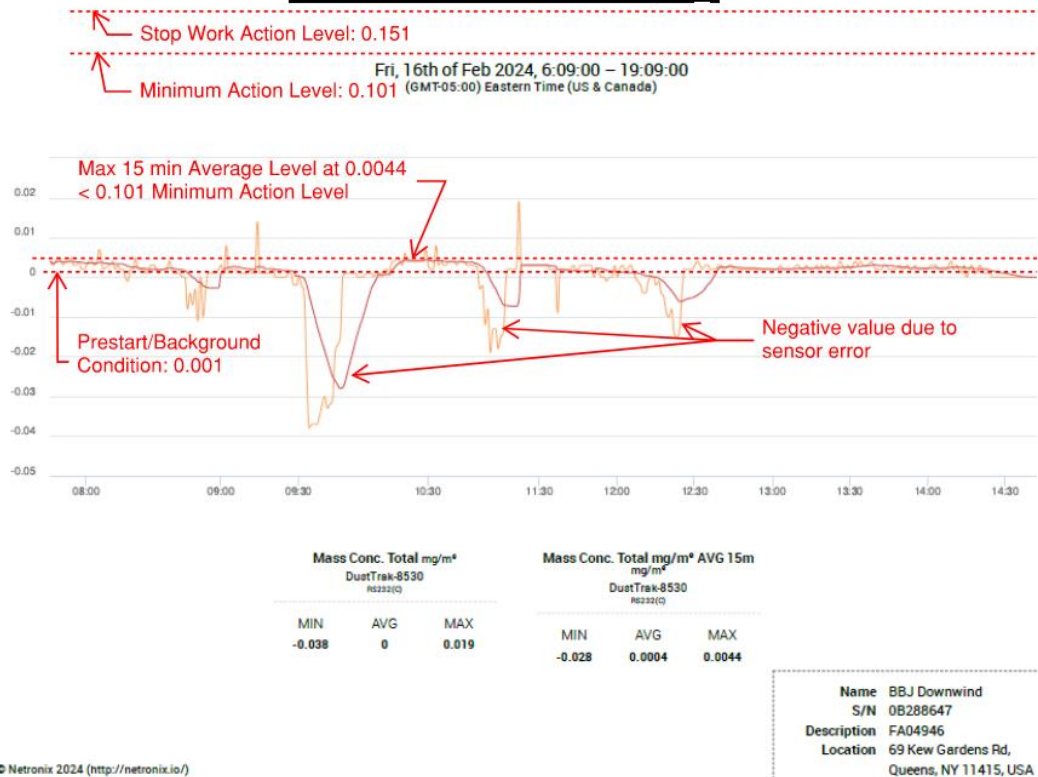


Dismantle Activity Daily Air Monitoring on February 16, 2024

Upwind Station Data Charts (PM₁₀)



Downwind Station Data Charts (PM₁₀)



Noise Monitoring – Biweekly Follow Up during Dismantle Phase V

Noise Monitoring



Project: DDC Queens Dismantle & Swing Space

Date: 2-14-2024 Wed Weather: Sunny 31°F

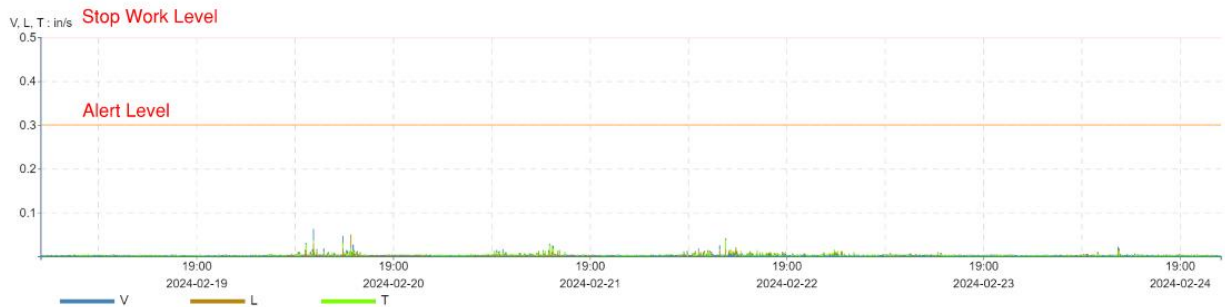
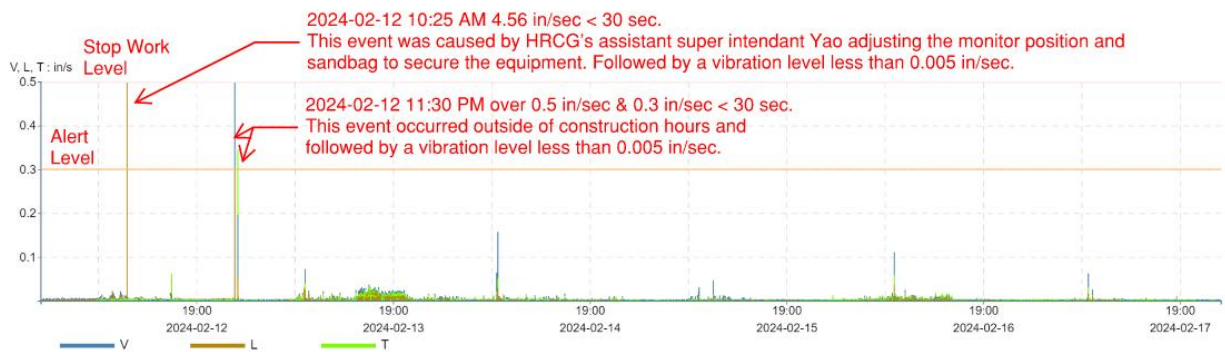
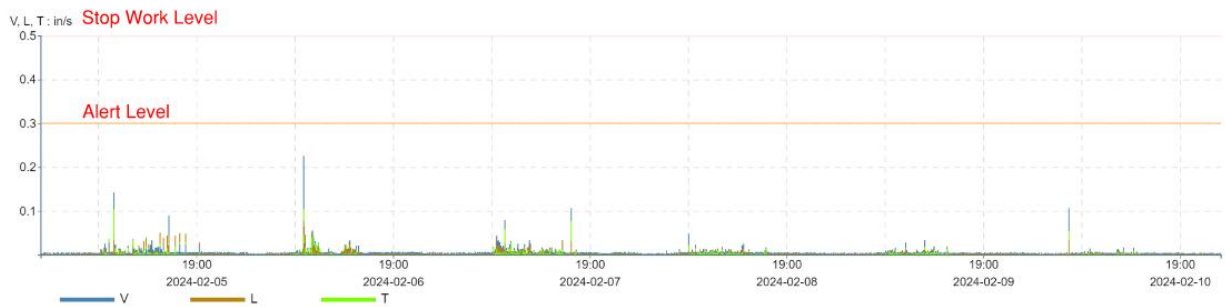
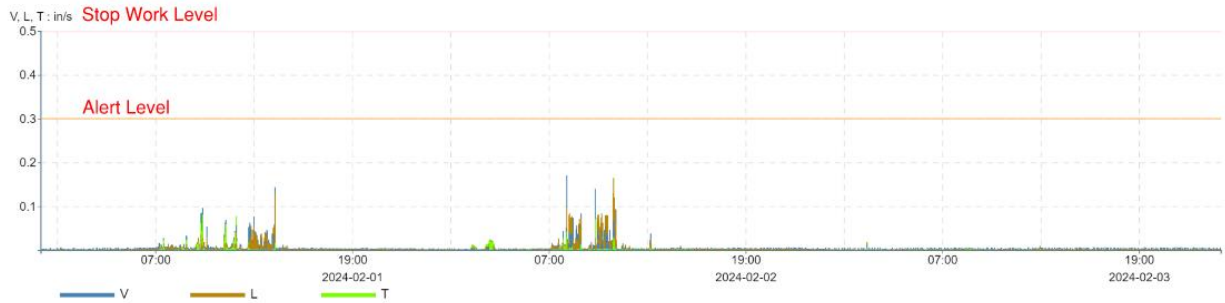
Work Activities: Install Fences & DA wing screws & sheathing

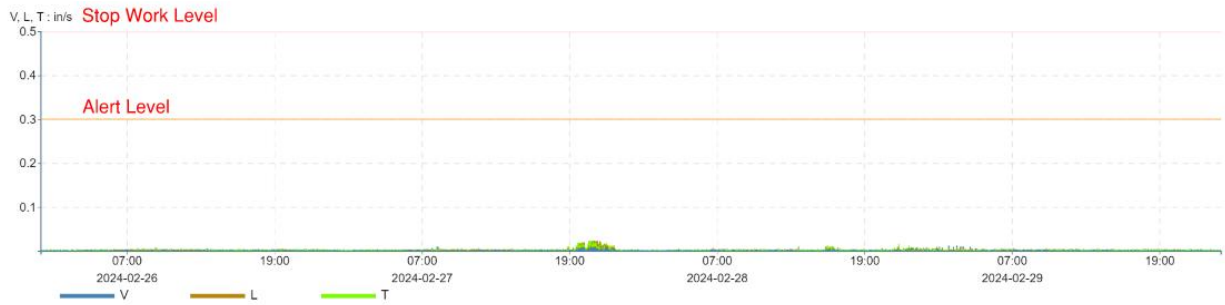
Prepared by: [Signature]

NO.	Location	Time	Noise (dBA)	Noise Threshold (Day/Night)	Note
1	Queens Borough Hall	11:24	60 <	75 dBA	N/A. Daytime noise action threshold not exceeded.
2	Southwest corner of DA wing	11:01	61 <	75 dBA	Daytime noise action threshold not exceeded.
3	Corner of 134 th ST and Hoover Ave.	1:03	68 <	69 dBA/ 68 dBA NA	Daytime noise action threshold not exceeded.
4	200 ft away from Kew Garden Road on 82 nd Road	1:27	64 <	65 dBA/ 55 dBA NA	Daytime noise action threshold not exceeded.
5	Between 82 nd road and 83 rd Ave on Queens Blvd	1:53	67 <	68 dBA/ 67 dBA NA	Daytime noise action threshold not exceeded.
Corrective Action: <u>N/A</u>					

Vibration Monitor – VM1 February 2024

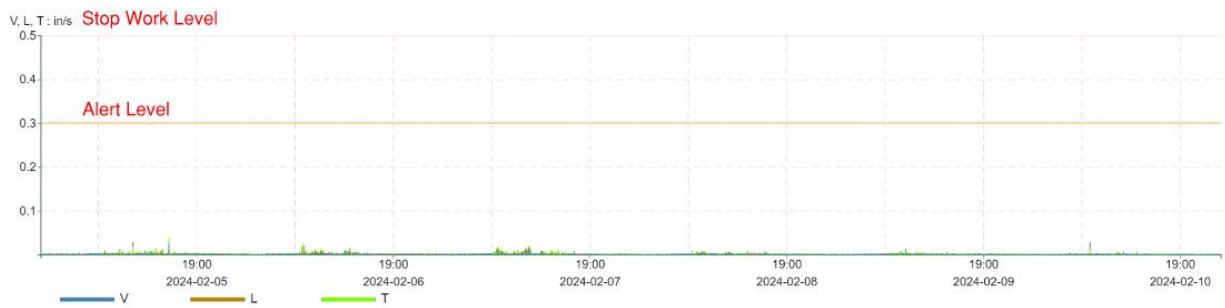
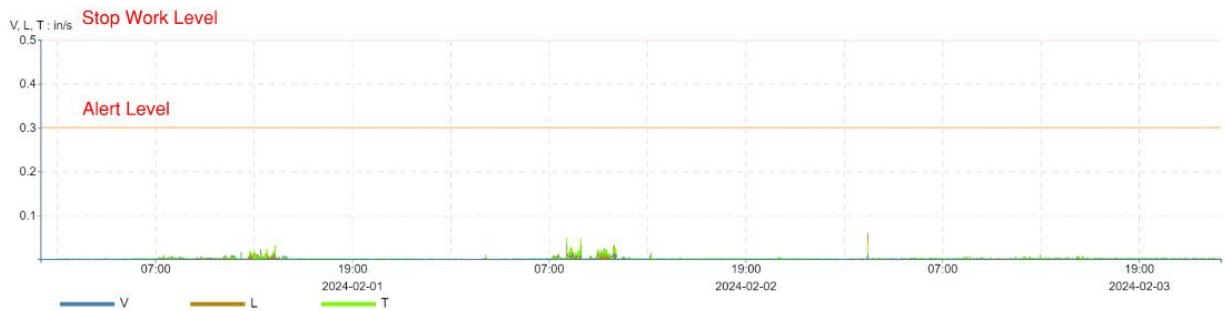
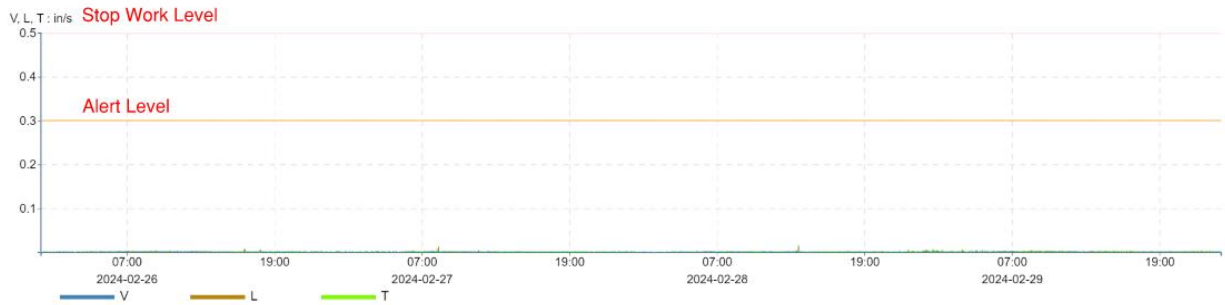
FAMILY JUSTICE CENTER – NORTHEAST CORNER

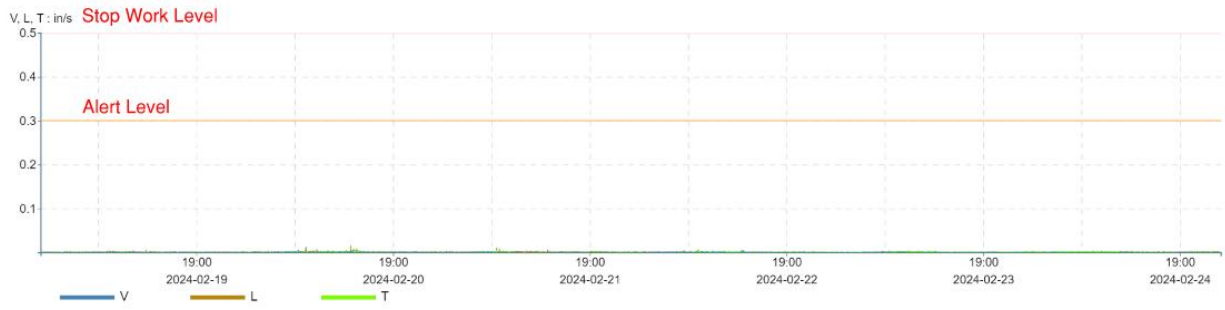
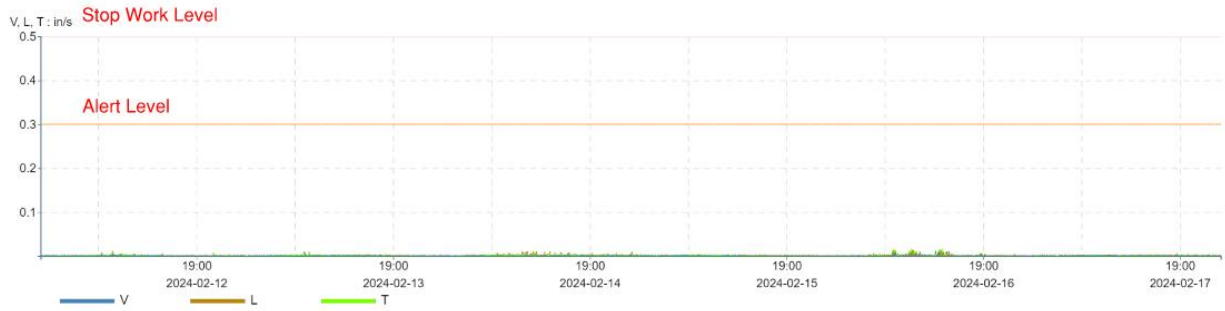




Vibration Monitor – VM2 February 2024

DA WING – NORTHWEST CORNER





Vibration Monitor – VM3 February 2024

ANNEX – BASEMENT FIRE PUMP ROOM

