

Holloway Park, London

Construction Monitoring Report

Client: London Square
Ref: CM69-22405-R0
Date: 30 January 2024
Note by: Anthony Coraci, MSc DipIOA MIOA, Senior Acoustics Consultant

1. INTRODUCTION

1.1 This Technical Note sets out results of the construction monitoring being carried out at the above site between Monday 22nd January and Saturday 27th January 2024. The monitoring is being carried out in accordance with the methodology set out in the Cass Allen response (reference LR03-22405-R0 dated 27 October 2023) to a S60 warning letter issued to Downwell Demolition Ltd.

2. WEEKLY ACTIVITIES

2.1 The following activities have been carried out onsite this week:

Horizon

- Crushing crush to Type 1

Kesel

- Refurbishment of site welfare cabins

Trident

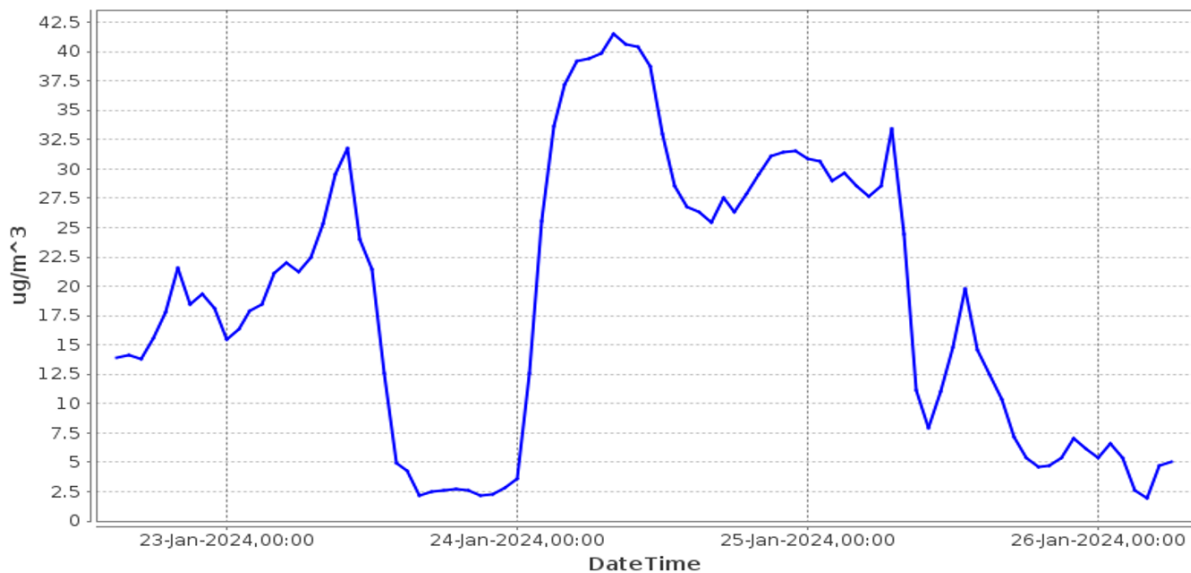
- Installing electrics and water supplies to the welfare cabins

3. MONITORING DATA

3.1 This section sets out a summary of the monitoring data that has been recorded onsite and provides a discussion of any exceedances and best practicable means incorporated by the site team if exceedances were believed to be construction related.

Dust Monitoring Results

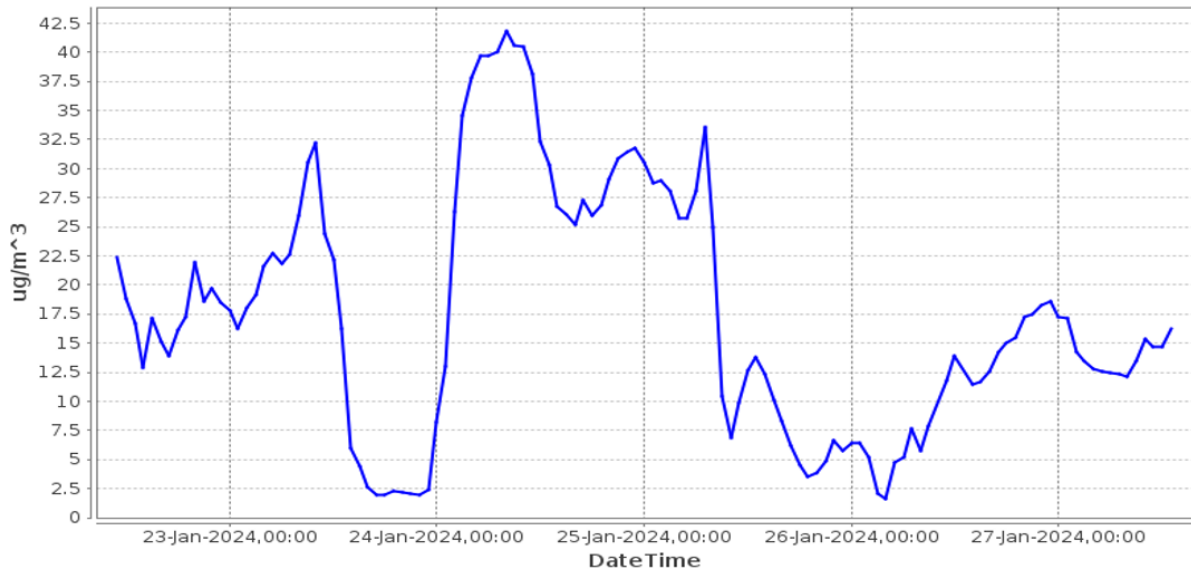
Location 1



- Dust trigger level, 190 $\mu\text{g m}^{-3}$ 60-minute mean for PM10 concentrations
- Dust level, $\mu\text{g m}^{-3}$ 60-minute mean for PM10 concentrations
- Data unavailable

3.2 There was 60% data coverage at Location 1 for the monitoring period covered by this report. A faulty cable was identified at this monitoring location, which Cass Allen replaced on 29th January 2024. The missing data was likely to have been caused either by the fault with the cable, or battery outages. It is expected that normal data collection will resume going forward, due to the faulty cable having been replaced.

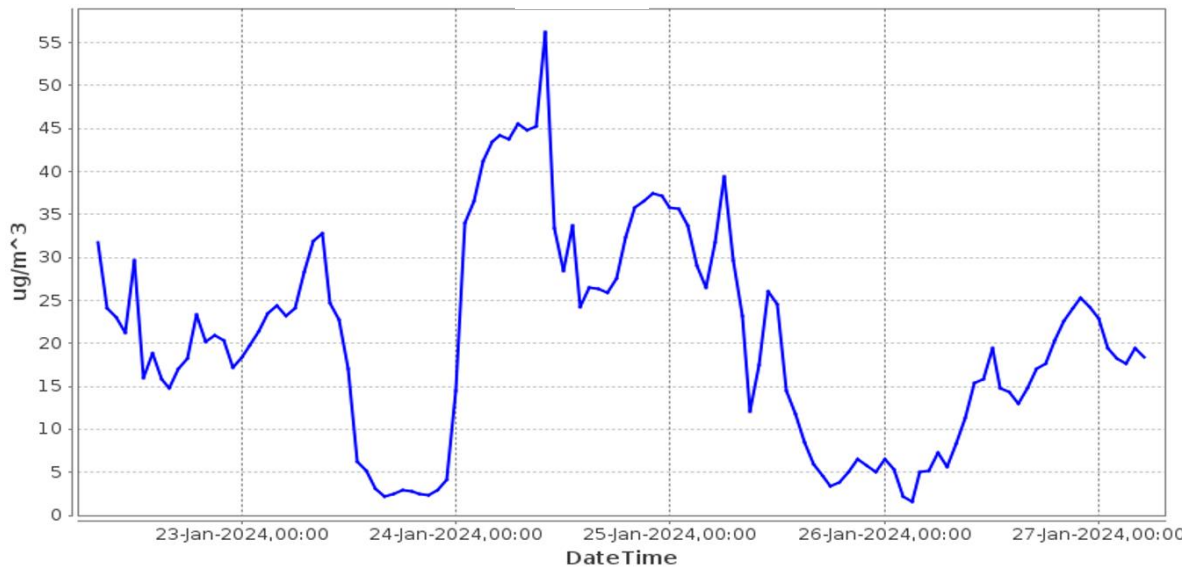
Location 2



- Dust trigger level, 190 $\mu\text{g m}^{-3}$ 60-minute mean for PM10 concentrations
- Dust level, $\mu\text{g m}^{-3}$ 60-minute mean for PM10 concentrations
- Data unavailable

3.3 There was 96% data coverage at Location 2 during construction hours for the monitoring period covered by this report. The monitor was offline for the first two working hours of Monday 22nd January, before the battery change was completed. No exceedances of the project dust criteria of 190 micrograms per cubic meter were recorded during the monitoring period covered by this report.

Location 3



- Dust trigger level, 190 $\mu\text{g m}^{-3}$ 60-minute mean for PM10 concentrations
- Dust level, $\mu\text{g m}^{-3}$ 60-minute mean for PM10 concentrations
- Data unavailable

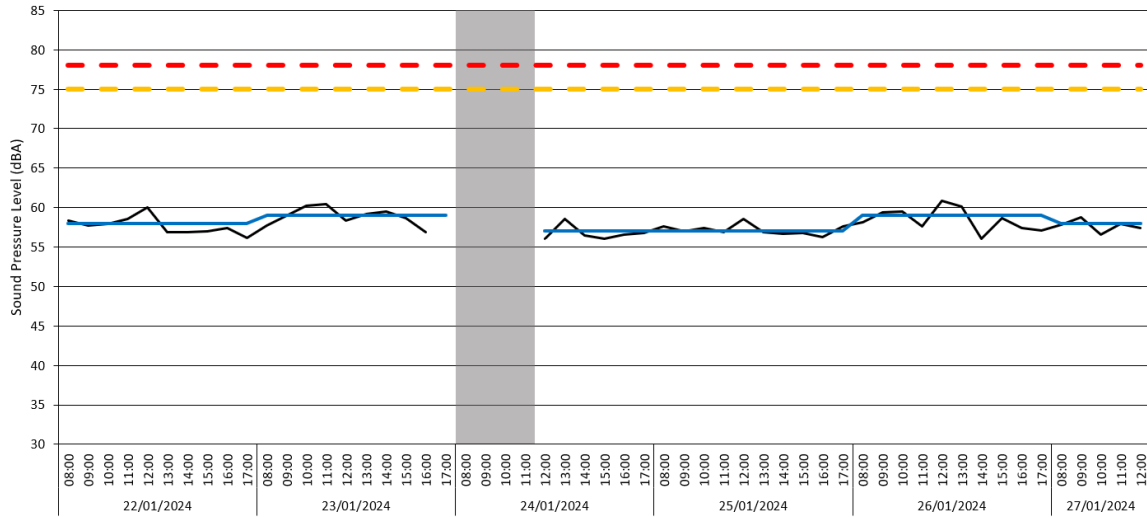
3.4 There was 91% data coverage at Location 3 for the monitoring period covered by this report. The monitor was offline on Saturday 27th January due to a drained battery (this has since been resolved). No exceedances of the project dust criteria of 190 micrograms per cubic meter were recorded during the monitoring period covered by this report.

Noise Monitoring Results

Location 1 – Raw Data

# Broadband Results	Date	Time	LAeq(60min)	LAeq(7hr)	LAeq(10hr)	LAeq(5hr)
	[YYYY-MM-DD]	[hh:mm:ss]	[dB]	[dB]	[dB]	[dB]
	2024-01-22	09:00:00	58.3	--	--	--
	2024-01-22	10:00:00	57.7	--	--	--
	2024-01-22	11:00:00	57.9	--	--	--
	2024-01-22	12:00:00	58.6	--	--	--
	2024-01-22	13:00:00	60.0	--	--	--
	2024-01-22	14:00:00	56.9	--	--	--
	2024-01-22	15:00:00	56.9	--	--	--
	2024-01-22	16:00:00	57.0	--	--	--
	2024-01-22	17:00:00	57.4	--	--	--
	2024-01-22	18:00:00	56.2	--	57.8	--
	2024-01-23	09:00:00	57.7	--	--	--
	2024-01-23	10:00:00	59.0	--	--	--
	2024-01-23	11:00:00	60.2	--	--	--
	2024-01-23	12:00:00	60.4	--	--	--
	2024-01-23	13:00:00	58.4	--	--	--
	2024-01-23	14:00:00	59.2	--	--	--
	2024-01-23	15:00:00	59.5	--	--	--
	2024-01-23	16:00:00	58.7	--	--	--
	2024-01-23	17:00:00	56.9	--	--	--
	2024-01-24	13:00:00	56.1	--	--	--
	2024-01-24	14:00:00	58.6	--	--	--
	2024-01-24	15:00:00	56.5	--	--	--
	2024-01-24	16:00:00	56.1	--	--	--
	2024-01-24	17:00:00	56.6	--	--	--
	2024-01-24	18:00:00	56.8	--	--	--
	2024-01-25	09:00:00	57.6	--	--	--
	2024-01-25	10:00:00	57.0	--	--	--
	2024-01-25	11:00:00	57.4	--	--	--
	2024-01-25	12:00:00	56.9	--	--	--
	2024-01-25	13:00:00	58.6	--	--	--
	2024-01-25	14:00:00	56.9	--	--	--
	2024-01-25	15:00:00	56.7	--	--	--
	2024-01-25	16:00:00	56.8	--	--	--
	2024-01-25	17:00:00	56.3	--	--	--
	2024-01-25	18:00:00	57.6	--	57.2	--
	2024-01-26	09:00:00	58.1	--	--	--
	2024-01-26	10:00:00	59.4	--	--	--
	2024-01-26	11:00:00	59.5	--	--	--
	2024-01-26	12:00:00	57.6	--	--	--
	2024-01-26	13:00:00	60.9	--	--	--
	2024-01-26	14:00:00	60.1	--	--	--
	2024-01-26	15:00:00	56.1	--	--	--
	2024-01-26	16:00:00	58.7	--	--	--
	2024-01-26	17:00:00	57.4	--	--	--
	2024-01-26	18:00:00	57.1	--	58.7	--
	2024-01-27	09:00:00	57.8	--	--	--
	2024-01-27	10:00:00	58.8	--	--	--
	2024-01-27	11:00:00	56.6	--	--	--
	2024-01-27	12:00:00	57.9	--	--	--
	2024-01-27	13:00:00	57.4	--	--	57.8

Location 1 – Time History Data



- Daily noise trigger level (75 dB LAeq, 0800-1800 hours, LAeq, 0800-1300 hours)
- - - Hourly noise action level (78 dB LAeq, 1 hour)
- Noise level, LAeq, 1 hour
- Daily noise level (dB LAeq, 0800-1800 hours, LAeq, 0800-1300 hours)
- Data unavailable

3.5 There was 93% data coverage at Location 1 for the monitoring period covered by this report. The monitor was offline between 08:00 & 11:00 on Wednesday 24th January due to a drained battery. No exceedances of the project hourly noise criteria of 78 dB LAeq nor the daily project noise limit of 75 dB LAeq (0800-1800 hours) were recorded during the monitoring period covered by this report.

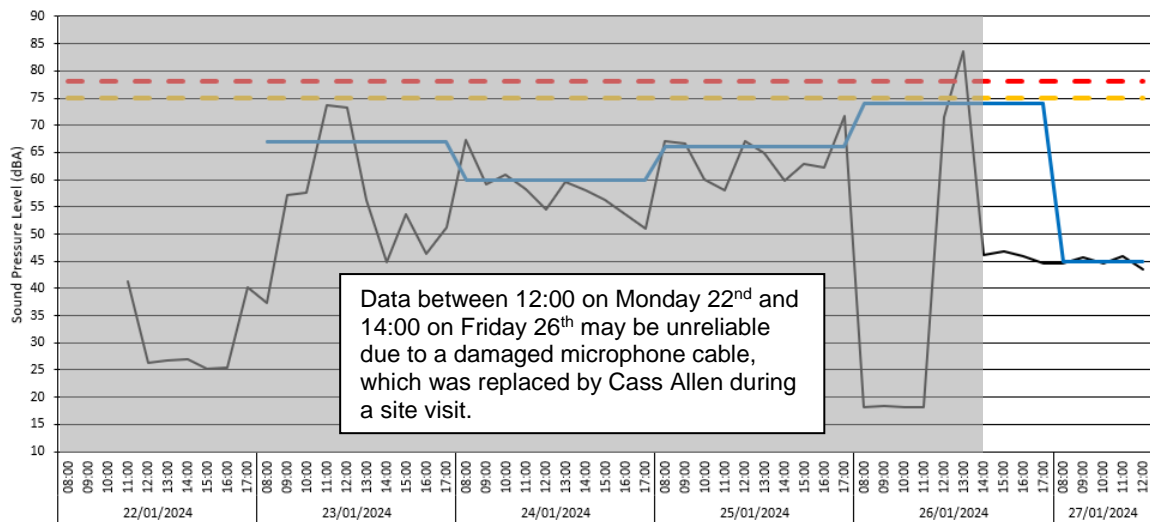
Location 2 – Raw Data

Broadband Results

Date [YYYY-MM-DD]	Time [hh:mm:ss]	LAeq(60min) [dB]	LAeq(10hr) [dB]	LAeq(5hr) [dB]
2024-01-22	12:00:00	41.3	--	--
2024-01-22	13:00:00	26.3	--	--
2024-01-22	14:00:00	26.8	--	--
2024-01-22	15:00:00	26.9	--	--
2024-01-22	16:00:00	25.3	--	--
2024-01-22	17:00:00	25.5	--	--
2024-01-22	18:00:00	40.1	--	--
2024-01-23	09:00:00	37.3	--	--
2024-01-23	10:00:00	57.1	--	--
2024-01-23	11:00:00	57.7	--	--
2024-01-23	12:00:00	73.6	--	--
2024-01-23	13:00:00	73.3	--	--
2024-01-23	14:00:00	56.2	--	--
2024-01-23	15:00:00	44.9	--	--
2024-01-23	16:00:00	53.7	--	--
2024-01-23	17:00:00	46.3	--	--
2024-01-23	18:00:00	51.3	66.7	--
2024-01-24	09:00:00	67.2	--	--
2024-01-24	10:00:00	59.1	--	--
2024-01-24	11:00:00	61.0	--	--
2024-01-24	12:00:00	58.2	--	--
2024-01-24	13:00:00	54.5	--	--
2024-01-24	14:00:00	59.6	--	--
2024-01-24	15:00:00	58.1	--	--
2024-01-24	16:00:00	56.3	--	--
2024-01-24	17:00:00	53.7	--	--
2024-01-24	18:00:00	51.0	60.2	--
2024-01-25	09:00:00	67.1	--	--
2024-01-25	10:00:00	66.6	--	--
2024-01-25	11:00:00	60.0	--	--
2024-01-25	12:00:00	58.1	--	--
2024-01-25	13:00:00	67.0	--	--
2024-01-25	14:00:00	64.9	--	--
2024-01-25	15:00:00	59.8	--	--
2024-01-25	16:00:00	62.8	--	--
2024-01-25	17:00:00	62.2	--	--
2024-01-25	18:00:00	71.7	65.9	--
2024-01-26	09:00:00	18.2	--	--
2024-01-26	10:00:00	18.3	--	--
2024-01-26	11:00:00	18.2	--	--
2024-01-26	12:00:00	18.2	--	--
2024-01-26	13:00:00	71.4	--	--
2024-01-26	14:00:00	83.6	--	--
2024-01-26	15:00:00	46.1	--	--
2024-01-26	16:00:00	46.7	--	--
2024-01-26	17:00:00	45.9	--	--
2024-01-26	18:00:00	44.6	73.9	--
2024-01-27	09:00:00	44.5	--	--
2024-01-27	10:00:00	45.7	--	--
2024-01-27	11:00:00	44.5	--	--
2024-01-27	12:00:00	45.9	--	--
2024-01-27	13:00:00	43.6	--	44.9

Data between 12:00 on Monday 22nd and 14:00 on Friday 26th may be unreliable due to a damaged microphone cable, which was replaced by Cass Allen during a site visit.

Location 2 – Time History Data



- Daily noise trigger level (75 dB LAeq,0800-1800 hours, LAeq,0800-1300 hours)
- Hourly noise action level (78 dB LAeq, 1 hour)
- Noise level, LAeq, 1hour
- Daily noise level (dB LAeq,0800-1800 hours, LAeq,0800-1300 hours)
- Data unavailable

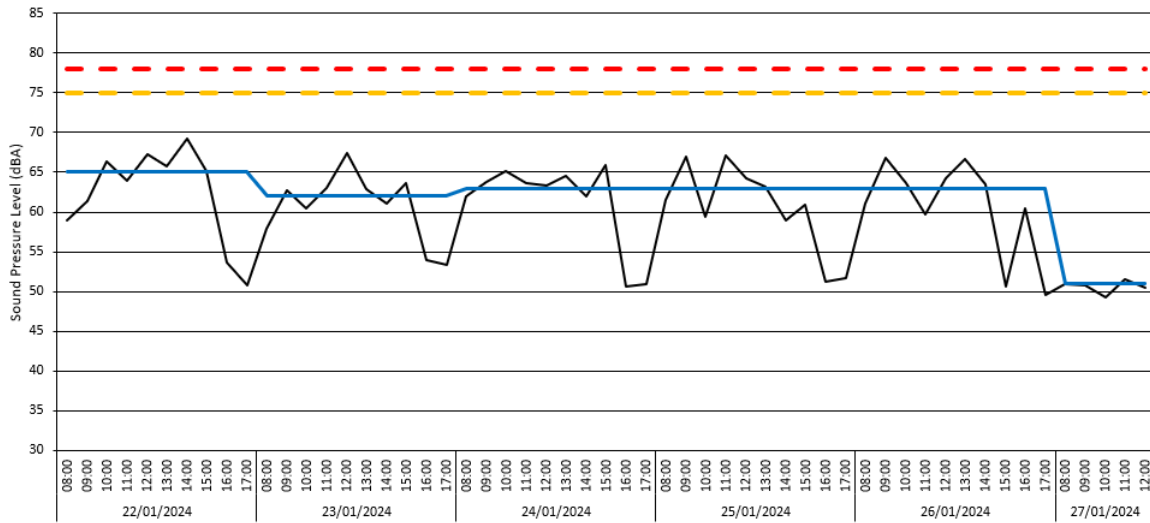
3.6 There was 93% data coverage at Location 2 for the monitoring period covered by this report. However, data between 12:00 on Monday 22nd and 14:00 on Friday 26th not accurately recorded due to a damaged microphone cable, which was resolved by Cass Allen during a site visit on Friday 26th. Consequently, it is expected that normal data collection will take place going forward. No exceedances of the project hourly noise criteria of 78 dB LAeq nor the daily project noise limit of 75 dB LAeq (0800-1800 hours) were recorded during the monitoring period covered by this report.

Location 3 – Raw Data

Broadband Results

Date [YYYY-MM-DD]	Time [hh:mm:ss]	LAeq(60min) [dB]	LAeq(10hr) [dB]	LAeq(5hr) [dB]
2024-01-22	09:00:00	58.9	--	--
2024-01-22	10:00:00	61.4	--	--
2024-01-22	11:00:00	66.3	--	--
2024-01-22	12:00:00	63.9	--	--
2024-01-22	13:00:00	67.3	--	--
2024-01-22	14:00:00	65.7	--	--
2024-01-22	15:00:00	69.2	--	--
2024-01-22	16:00:00	65.1	--	--
2024-01-22	17:00:00	53.7	--	--
2024-01-22	18:00:00	50.8	64.7	--
2024-01-23	09:00:00	57.9	--	--
2024-01-23	10:00:00	62.7	--	--
2024-01-23	11:00:00	60.4	--	--
2024-01-23	12:00:00	63.0	--	--
2024-01-23	13:00:00	67.4	--	--
2024-01-23	14:00:00	62.9	--	--
2024-01-23	15:00:00	61.1	--	--
2024-01-23	16:00:00	63.7	--	--
2024-01-23	17:00:00	54.0	--	--
2024-01-23	18:00:00	53.4	62.3	--
2024-01-24	09:00:00	61.9	--	--
2024-01-24	10:00:00	63.8	--	--
2024-01-24	11:00:00	65.2	--	--
2024-01-24	12:00:00	63.6	--	--
2024-01-24	13:00:00	63.4	--	--
2024-01-24	14:00:00	64.5	--	--
2024-01-24	15:00:00	61.9	--	--
2024-01-24	16:00:00	65.9	--	--
2024-01-24	17:00:00	50.6	--	--
2024-01-24	18:00:00	50.9	63.1	--
2024-01-25	09:00:00	61.5	--	--
2024-01-25	10:00:00	67.0	--	--
2024-01-25	11:00:00	59.4	--	--
2024-01-25	12:00:00	67.1	--	--
2024-01-25	13:00:00	64.2	--	--
2024-01-25	14:00:00	63.2	--	--
2024-01-25	15:00:00	58.9	--	--
2024-01-25	16:00:00	60.9	--	--
2024-01-25	17:00:00	51.2	--	--
2024-01-25	18:00:00	51.6	62.9	--
2024-01-26	09:00:00	61.1	--	--
2024-01-26	10:00:00	66.8	--	--
2024-01-26	11:00:00	63.6	--	--
2024-01-26	12:00:00	59.7	--	--
2024-01-26	13:00:00	64.3	--	--
2024-01-26	14:00:00	66.7	--	--
2024-01-26	15:00:00	63.5	--	--
2024-01-26	16:00:00	50.6	--	--
2024-01-26	17:00:00	60.4	--	--
2024-01-26	18:00:00	49.5	63.1	--
2024-01-27	09:00:00	50.9	--	--
2024-01-27	10:00:00	50.8	--	--
2024-01-27	11:00:00	49.2	--	--
2024-01-27	12:00:00	51.5	--	--
2024-01-27	13:00:00	50.5	--	50.6

Location 3 – Time-history graph



- Daily noise trigger level (75 dB LAeq,0800-1800 hours, LAeq,0800-1300 hours)
- - - Hourly noise action level (78 dB LAeq, 1 hour)
- Noise level, LAeq, 1hour
- Daily noise level (dB LAeq,0800-1800 hours, LAeq,0800-1300 hours)
- Data unavailable

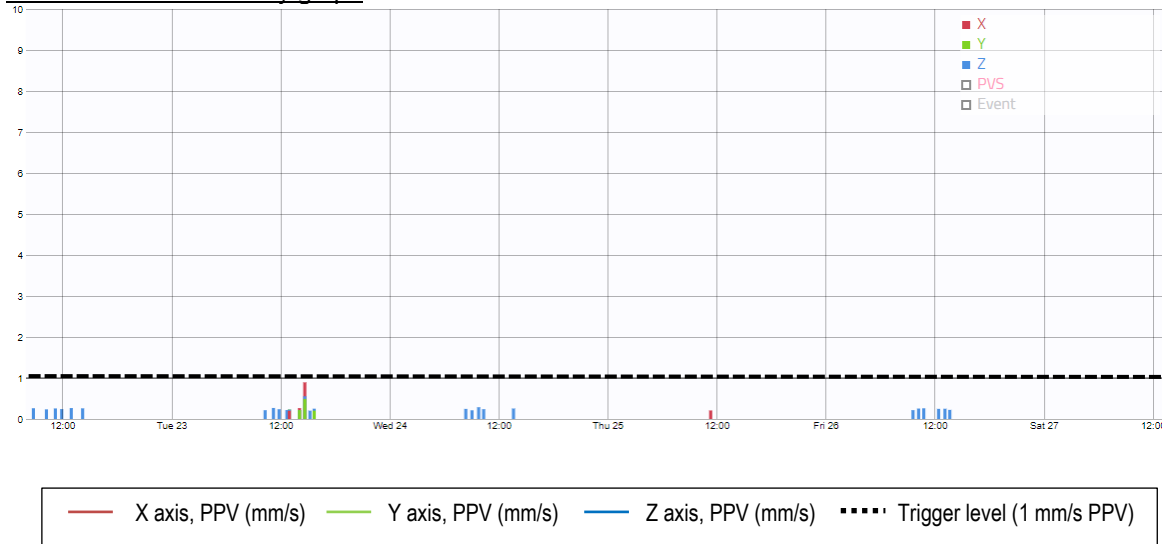
3.7 There was 100% data coverage at Location 3 for the monitoring period covered by this report. No exceedances of the project hourly noise criteria of 78 dB LAeq nor the daily project noise limit of 75 dB LAeq (0800-1800 hours) were recorded during the monitoring period covered by this report.

Vibration Monitoring Results

Location 1 – Raw data

Measuring point:	Period:	Order	Value	Date	Time
Holloway - L1	22/01/2024 to 27/01/2024	1	0.92	23/01/2024	14:38
		2	0.30	23/01/2024	15:42
Criteria mm/s PVS	Exceedances	3	0.30	24/01/2024	09:49
1.0	0	4	0.29	24/01/2024	10:21
		5	0.29	23/01/2024	14:05
		6	0.28	23/01/2024	14:41
		7	0.28	22/01/2024	11:02
		8	0.27	24/01/2024	13:38
		9	0.27	23/01/2024	11:02
		10	0.27	23/01/2024	14:18

Location 1 – Time-history graph

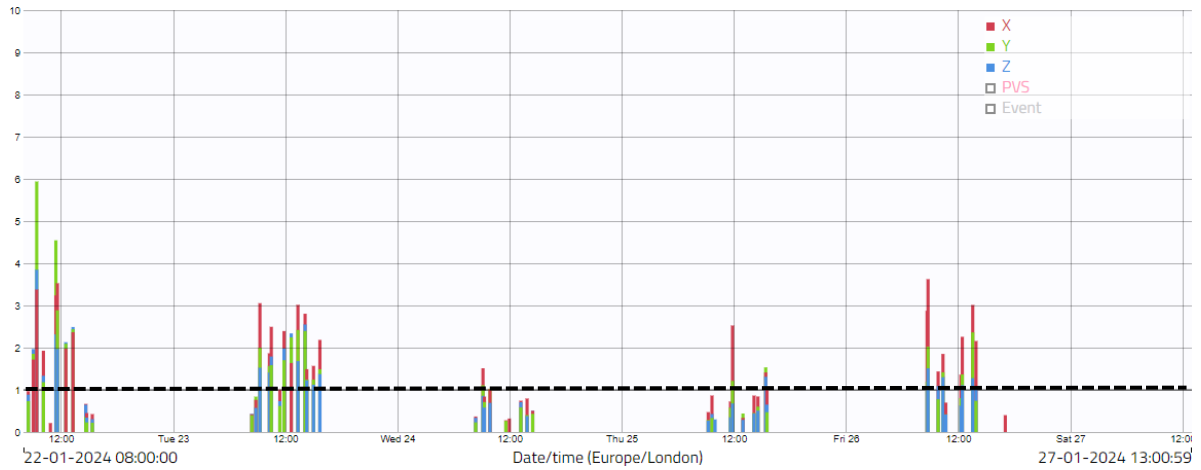


3.8 There was 100% data coverage at Location 1 for the monitoring period covered by this report. There were no exceedances of the project vibration trigger level of 1 mm/s PPV as shown in the raw data and graph above.

Location 2 – Raw data

Measuring point:	Period:	Order	Value	Date	Time	Order	Value	Date	Time	Order	Value	Date	Time
Holloway - L2	22/01/2024 to 27/01/2024	1	6.49	22/01/2024	09:24	31	2.62	23/01/20	12:58	61	2.00	22/01/20	12:01
		2	5.21	22/01/2024	11:27	32	2.55	22/01/20	12:32	62	1.99	23/01/20	13:11
Criteria mm/s PVS	Exceedances	3	3.75	22/01/2024	09:23	33	2.55	25/01/20	11:51	63	1.94	23/01/20	11:43
1	347	4	3.72	22/01/2024	11:31	34	2.52	23/01/20	13:12	64	1.89	22/01/20	13:05
		5	3.70	26/01/2024	08:46	35	2.51	26/01/20	08:46	65	1.87	23/01/20	09:27
		6	3.62	26/01/2024	13:34	36	2.50	22/01/20	09:03	66	1.84	26/01/20	08:44
		7	3.59	22/01/2024	11:37	37	2.46	26/01/20	12:26	67	1.84	25/01/20	15:24
		8	3.54	22/01/2024	11:21	38	2.42	22/01/20	11:17	68	1.83	22/01/20	12:07
		9	3.54	22/01/2024	11:24	39	2.39	26/01/20	12:58	69	1.83	25/01/20	15:22
		10	3.54	22/01/2024	11:46	40	2.34	23/01/20	15:42	70	1.82	22/01/20	12:09
		11	3.30	22/01/2024	11:33	41	2.33	26/01/20	13:54	71	1.81	23/01/20	09:07
		12	3.21	23/01/2024	13:21	42	2.33	22/01/20	11:28	72	1.80	22/01/20	12:13
		13	3.19	23/01/2024	14:07	43	2.33	23/01/20	10:42	73	1.80	23/01/20	15:01
		14	3.13	23/01/2024	09:17	44	2.29	22/01/20	11:25	74	1.80	23/01/20	11:47
		15	3.11	22/01/2024	11:37	45	2.29	23/01/20	15:26	75	1.79	23/01/20	15:29
		16	3.03	23/01/2024	13:21	46	2.17	26/01/20	08:50	76	1.78	26/01/20	09:19
		17	3.02	23/01/2024	09:19	47	2.17	23/01/20	11:50	77	1.78	23/01/20	13:22
		18	2.96	22/01/2024	09:22	48	2.15	23/01/20	12:56	78	1.77	22/01/20	12:29
		19	2.95	22/01/2024	11:43	49	2.14	22/01/20	13:00	79	1.76	23/01/20	14:18
		20	2.92	26/01/2024	08:38	50	2.14	26/01/20	13:48	80	1.76	23/01/20	13:15
		21	2.90	26/01/2024	08:38	51	2.14	26/01/20	10:22	81	1.74	22/01/20	09:50
		22	2.82	22/01/2024	11:18	52	2.12	22/01/20	10:08	82	1.74	23/01/20	10:21
		23	2.81	23/01/2024	11:53	53	2.09	22/01/20	12:42	83	1.73	22/01/20	12:03
		24	2.75	23/01/2024	14:05	54	2.07	22/01/20	12:03	84	1.73	23/01/20	09:36
		25	2.71	22/01/2024	13:18	55	2.07	23/01/20	13:12	85	1.72	23/01/20	10:29
		26	2.70	23/01/2024	10:31	56	2.06	22/01/20	12:06	86	1.72	23/01/20	09:22
		27	2.70	22/01/2024	09:32	57	2.06	23/01/20	12:43	87	1.69	23/01/20	14:01
		28	2.68	22/01/2024	13:12	58	2.02	23/01/20	15:45	88	1.68	23/01/20	10:44
		29	2.65	23/01/2024	12:39	59	2.02	23/01/20	10:18	89	1.68	22/01/20	12:10
		30	2.63	26/01/2024	13:26	60	2.00	26/01/20	09:19	90	1.66	23/01/20	15:14

Location 2 – Time-history graph



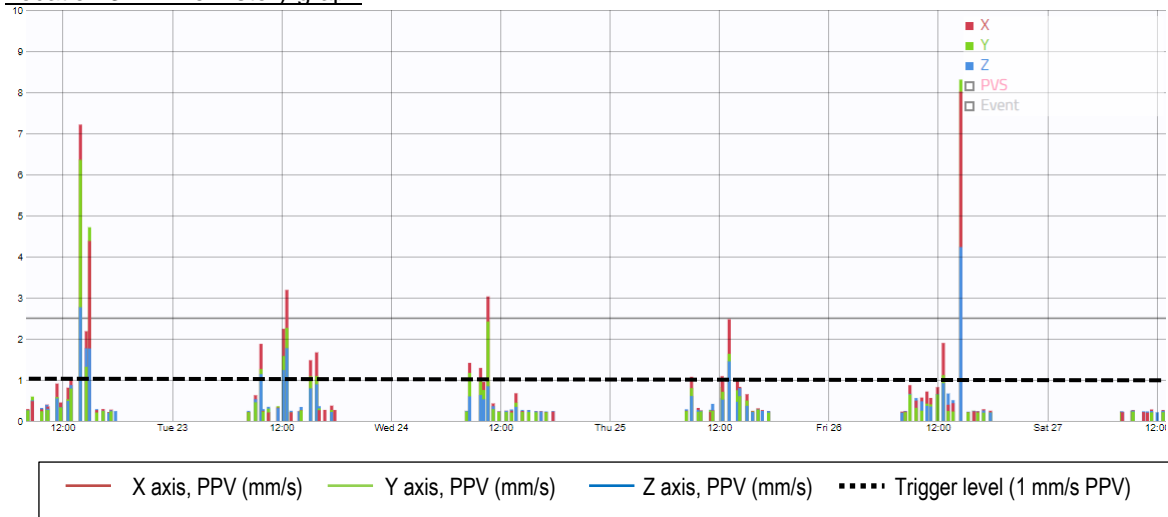
— X axis, PPV (mm/s) — Y axis, PPV (mm/s) — Z axis, PPV (mm/s) - - - - - Trigger level (1 mm/s PPV)

3.9 There was 100% data coverage at Location 2 for the monitoring period covered by this report. There were 347 exceedances of the project vibration trigger level of 1 mm/s PPV, a selection of which is shown in the raw data and graph above. It is understood that the majority of exceedances were likely to have been caused by processing equipment within the proximity of the monitor. However, to demonstrate BPM, the site team relocated the crush heap to a less sensitive area on site, so as to reduce the number of exceedances. Furthermore, it is our understanding that one of the residents behind the monitoring location has some form of workshop with power tools at the rear of their garden. Any operation of these tools could also generate vibration alerts.

Location 3 – Raw data

Measuring point:	Period:	Order	Value	Date	Time	Order	Value	Date	Time	Order	Value	Date	Time
Holloway - L3	22/01/2024 to 27/01/2024	1	11.35	26/01/2024	14:30	31	1.91	22/01/20	14:41	61	1.14	22/01/20	14:01
		2	9.23	22/01/2024	13:57	32	1.86	22/01/20	14:38	62	1.13	24/01/20	08:53
		3	6.10	22/01/2024	14:57	33	1.84	24/01/20	08:38	63	1.13	25/01/20	12:20
		4	4.72	22/01/2024	14:59	34	1.84	23/01/20	15:12	64	1.11	22/01/20	11:23
		5	4.11	23/01/2024	12:35	35	1.82	22/01/20	14:38	65	1.08	26/01/20	08:56
		6	3.67	24/01/2024	10:39	36	1.82	22/01/20	14:38	66	1.03	26/01/20	11:57
		7	3.37	26/01/2024	14:33	37	1.80	23/01/20	12:42	67	1.03	25/01/20	14:15
		8	3.32	22/01/2024	15:00	38	1.76	25/01/20	13:31	68	1.01	22/01/20	12:36
		9	3.09	22/01/2024	14:02	39	1.74	23/01/20	12:30	69	1.01	23/01/20	15:10
		10	2.82	22/01/2024	14:37	40	1.63	22/01/20	14:01				
		11	2.78	23/01/2024	12:14	41	1.58	22/01/20	15:01				
		12	2.75	25/01/2024	13:06	42	1.55	24/01/20	09:50				
		13	2.74	22/01/2024	13:58	43	1.46	23/01/20	09:22				
		14	2.57	22/01/2024	14:37	44	1.45	23/01/20	09:42				
		15	2.51	23/01/2024	12:37	45	1.41	23/01/20	15:24				
		16	2.47	25/01/2024	13:31	46	1.36	25/01/20	12:19				
		17	2.41	22/01/2024	13:55	47	1.30	23/01/20	12:39				
		18	2.40	22/01/2024	14:56	48	1.29	22/01/20	12:55				
		19	2.33	22/01/2024	14:48	49	1.29	25/01/20	08:53				
		20	2.27	22/01/2024	14:51	50	1.27	24/01/20	08:40				
		21	2.26	23/01/2024	09:45	51	1.26	25/01/20	14:01				
		22	2.21	23/01/2024	12:29	52	1.26	22/01/20	15:09				
		23	2.15	23/01/2024	12:36	53	1.25	23/01/20	12:13				
		24	2.12	26/01/2024	12:35	54	1.21	24/01/20	10:11				
		25	2.05	22/01/2024	14:53	55	1.19	23/01/20	12:29				
		26	2.04	22/01/2024	14:10	56	1.18	25/01/20	12:23				
		27	1.99	23/01/2024	15:52	57	1.18	23/01/20	09:26				
		28	1.95	23/01/2024	12:39	58	1.16	23/01/20	09:13				
		29	1.93	22/01/2024	14:56	59	1.15	24/01/20	10:12				
		30	1.91	22/01/2024	14:00	60	1.15	24/01/20	08:43				

Location 3 – Time-history graph

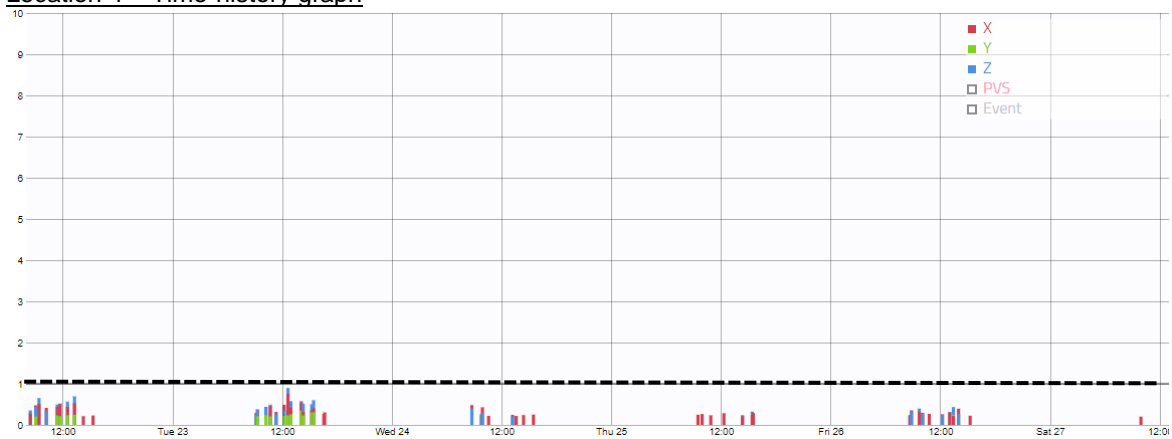


3.10 There was 100% data coverage at Location 3 for the monitoring period covered by this report. There were 69 exceedances of the project vibration trigger level of 1 mm/s PPV as shown in the raw data and graph above. The two largest exceedances recorded in the raw data overpage (11.35 mm/s on the 26th January and 9.23 mm/s on the 22nd January) were caused by site operatives changing batteries and can therefore be disregarded. The vast majority of the remaining exceedances are being caused by plant vehicles travelling along the haulage road which is directly in front of where the vibration monitor is currently located. These movements are unavoidable and there are no reasonably practicable measures that the site team can implement to reduce these emissions at this time.

Location 4 – Raw data

Measuring point:	Period:	Order	Value	Date	Time
Holloway - L4	22/01/2024 to 27/01/2024	1	1.00	23/01/2024	12:39
		2	0.77	22/01/2024	09:24
Criteria mm/s PVS	Exceedances	3	0.76	22/01/2024	13:18
1	0	4	0.65	23/01/2024	12:58
		5	0.65	22/01/2024	09:23
		6	0.64	23/01/2024	14:05
		7	0.63	23/01/2024	15:26
		8	0.62	23/01/2024	14:07
		9	0.62	22/01/2024	12:32
		10	0.57	23/01/2024	10:13

Location 4 – Time-history graph



3.11 There was 100% data coverage at Location 4 for the monitoring period covered by this report. There were no exceedances of the project vibration trigger level of 1 mm/s PPV as shown in the raw data and graph above.