

Architectural & Environmental Acousticians Noise & Vibration Engineers

# Holloway Park, London

# **Construction Monitoring Report**

Client:	London Square
Ref:	CM56-22405-R0
Date:	7 December 2023
Note by:	Adam Bamford, BSc MIOA DipIOA, Principal Acoustics Consultant

### 1. INTRODUCTION

1.1 This Technical Note sets out results of the construction monitoring being carried out at the above between Monday 27<sup>th</sup> November and Saturday 2<sup>nd</sup> December 2023. 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:

#### Downwell

- Removing Block 1 piles down to 2m with muncher attachment.
- Backfilling excavations.
- Loading skips.
- Processing concrete with hydraulic muncher.
- Crushing arisings to 6f2 with crusher.

#### Horizon

- Ground remediation.
- Loading lorries

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• Screening.

#### **Careys London**

- Delivery of materials
- Drainage
- Crane base installation

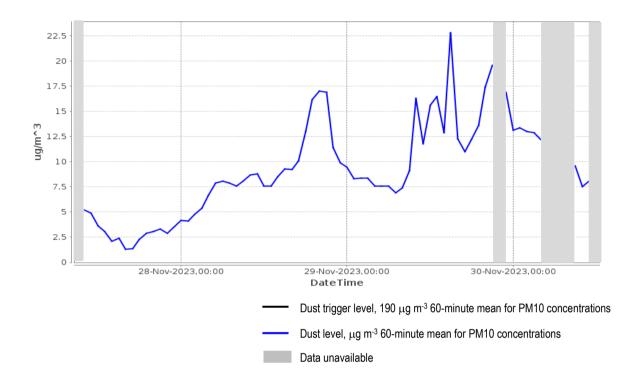
# 3. MONITORING DATA

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**





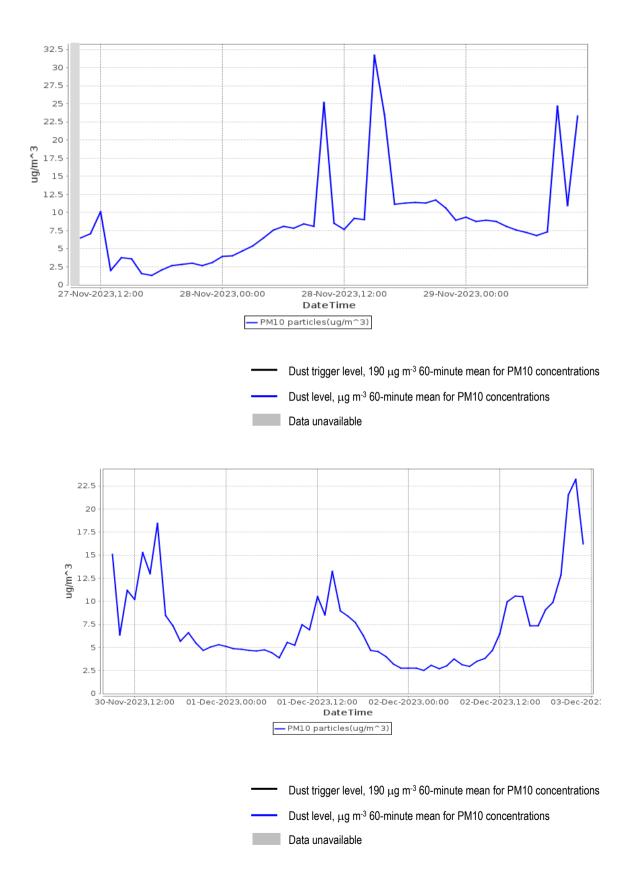
3.2 There was 56% data coverage at Location 1 for the monitoring period covered by this report. The missing data at the start of the week was due to depleted batteries whilst the site team changed them over from the weekend. The dust monitor was taken offsite on 30<sup>th</sup> November for its biennial calibration. This was discussed and agreed with the EHO at Islington. It is expected to be away for approximately two working weeks. No exceedances of the project dust limit of 190 micrograms per cubic meter were recorded during the period covered by this report.

#### Location 2

3.3 There was 0% data coverage at Location 2 for the monitoring period covered by this report. The dust monitoring unit at Location 2 has been sent off for its biennial laboratory calibration. The monitor was reinstalled on 30<sup>th</sup> November, but it has temporarily been positioned at Location 3 whilst that is sent off for its biennial calibration.



Location 3





3.4 There was 84% data coverage at Location 3 for the monitoring period covered by this report. The missing data occurred during the swapping out of the dust monitor with Location 2 on a temporary basis while the usual unit is sent off for its biennial calibration. This was discussed and agreed with the project EHO at Islington Council. The monitor is expected to be away for approximately 2 working weeks. No exceedances of the project dust criteria of 190 micrograms per cubic meter were recorded during the monitoring period covered by this report.



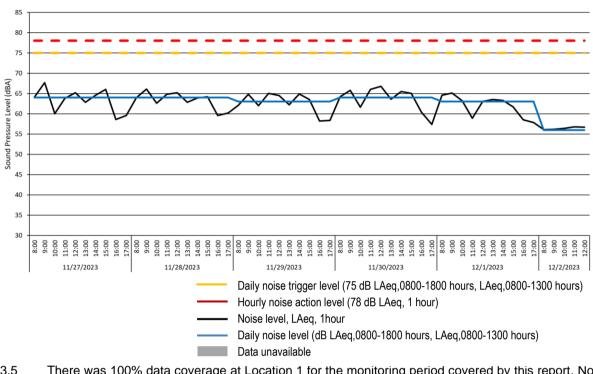
#### **Noise Monitoring Results**

#### 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]
2023-11-27	09:00:00	64.1			
2023-11-27	10:00:00	67.7			
2023-11-27	11:00:00	60.0		•	•
2023-11-27	12:00:00	63.8	• 	• 	
2023-11-27	13:00:00	65.2	• 	• 	• 
2023-11-27	14:00:00	62.8	· 	• 	
2023-11-27	15:00:00	64.6			• •
2023-11-27	16:00:00	66.0	• 		• 
2023-11-27	17:00:00	58.6			• • • •
2023-11-27	18:00:00	59.6		64.1	· 
2023-11-28	09:00:00	64.0			
2023-11-28	10:00:00	66.1			
2023-11-28	11:00:00	62.6			
2023-11-28	12:00:00	64.8			
2023-11-28	13:00:00	65.2			
2023-11-28	14:00:00	62.8			
2023-11-28	15:00:00	63.9			
2023-11-28	16:00:00	64.2			
2023-11-28	17:00:00	59.6			
2023-11-28	18:00:00	60.2	· 	63.7	
2023-11-29	09:00:00	62.1			
2023-11-29	10:00:00	64.8			
2023-11-29	11:00:00	62.0	• 	• 	• •
2023-11-29	12:00:00	65.0		• 	• •
2023-11-29	13:00:00	64.5	· 	· 	
2023-11-29	14:00:00	62.2	• 		
2023-11-29	15:00:00	64.9			• 
2023-11-29	16:00:00	63.5	· 	• 	• •
2023-11-29	17:00:00	58.2	• 	• 	•
2023-11-29	18:00:00	58.4		63.1	
2023-11-30	09:00:00	64.2	• 		• •
2023-11-30	10:00:00	65.8		• 	• 
2023-11-30	11:00:00	61.6	• 	• 	• •
2023-11-30	12:00:00	66.0		•	•
2023-11-30	13:00:00	66.8	· 	· 	
2023-11-30	14:00:00	63.6			• •
2023-11-30	15:00:00	65.5	• 		• 
2023-11-30	16:00:00	65.0	• 	• 	
2023-11-30	17:00:00	60.4	• 	• 	• 
2023-11-30	18:00:00	57.4	• 	64.4	• 
2023-12-01	09:00:00	64.6			• •
2023-12-01	10:00:00	65.1		• 	• 
2023-12-01	11:00:00	63.2	· 	· 	
2023-12-01	12:00:00	58.9	• 	• 	• •
2023-12-01	13:00:00	63.1	• 	•	•
2023-12-01	14:00:00	63.5			
2023-12-01	15:00:00	63.3	• 		•
2023-12-01	16:00:00	61.7			
2023-12-01	17:00:00	58.5			
2023-12-01	18:00:00	57.8		 62.6	
2023-12-01	09:00:00	56.1			
2023-12-02	10:00:00	56.2			
2023-12-02	11:00:00	56.4			
2023-12-02	12:00:00	56.8			
2023-12-02	12:00:00	56.7			 56.4
2022-12-02	12.00.00	50.7			50.4



Location 1 - Time History Data



3.5 There was 100% data coverage at Location 1 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.

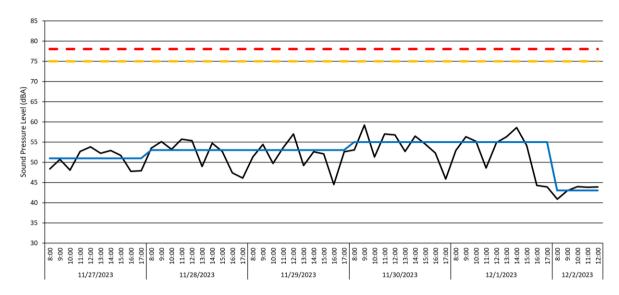


#### Location 2 - Raw Data

# Broadband Results				
Date	Time	LAeq(60min)	LAeq(10hr)	LAeq(5hr)
[YYYY-MM-DD]	[hh:mm:ss]	[dB]	[dB]	[dB]
2023-11-27	09:00:00	48.4		
2023-11-27	10:00:00	50.7		
2023-11-27	11:00:00	48.1		
2023-11-27	12:00:00	52.7		
2023-11-27 2023-11-27	13:00:00	53.8		
	14:00:00	52.2		
2023-11-27	15:00:00	52.9		
2023-11-27	16:00:00	51.7		
2023-11-27	17:00:00	47.8		
2023-11-27	18:00:00	47.9	51.2	
2023-11-28	09:00:00	53.5		
2023-11-28	10:00:00	55.1		
2023-11-28	11:00:00	53.2		
2023-11-28	12:00:00	55.7		
2023-11-28	13:00:00	55.3		
2023-11-28	14:00:00	49.0		
2023-11-28	15:00:00	54.7		
2023-11-28	16:00:00	52.7		
2023-11-28	17:00:00	47.4		
2023-11-28	18:00:00	46.1	53.3	
2023-11-29	09:00:00	51.3		
2023-11-29	10:00:00	54.4		
2023-11-29	11:00:00	49.7		
2023-11-29	12:00:00	53.6		
2023-11-29	13:00:00	57.0		
2023-11-29	14:00:00	49.2		
2023-11-29	15:00:00	52.6		
2023-11-29	16:00:00	52.1		·
2023-11-29	17:00:00	44.5		·
2023-11-29	18:00:00	52.6	52.7	•
2023-11-30	09:00:00	53.1		•
2023-11-30	10:00:00	59.2		•
2023-11-30	11:00:00	51.3		
2023-11-30	12:00:00	57.0		
2023-11-30	13:00:00	56.8		
2023-11-30	14:00:00	52.7		
2023-11-30	15:00:00	56.5		
2023-11-30	16:00:00	54.5		
2023-11-30	17:00:00	52.3		
2023-11-30	18:00:00	45.9	55.2	
2023-12-01	09:00:00	52.9		
2023-12-01	10:00:00	56.3		
2023-12-01	11:00:00	55.2		
2023-12-01	12:00:00	48.6		
2023-12-01	13:00:00	54.9		
2023-12-01	14:00:00	56.3		
2023-12-01	15:00:00	58.6		
2023-12-01	16:00:00	54.1		
2023-12-01	17:00:00	44.3		
2023-12-01	18:00:00	43.9	54.5	
2023-12-02	09:00:00	40.9		
2023-12-02	10:00:00	43.0		
2023-12-02	11:00:00	44.0		
2023-12-02	12:00:00	43.8		
2023-12-02	13:00:00	43.9		43.3



Location 2 - Time History Data



3.6 There was 100% data coverage at Location 2 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.

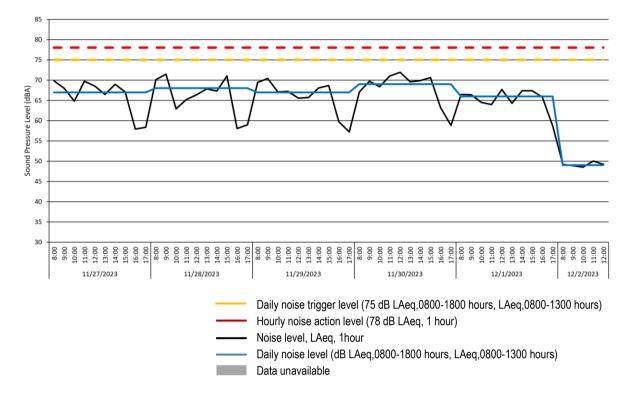


#### Location 3 - Raw Data

<pre># Broadband Results</pre>				
Date	Time	LAeq(60min)	LAeq(10hr)	LAeq(5hr)
[YYYY-MM-DD]	[hh:mm:ss]	[dB]	[dB]	[dB]
2023-11-27	09:00:00	69.8		
2023-11-27	10:00:00	68.0		
2023-11-27	11:00:00	64.8		
2023-11-27	12:00:00	69.7		
2023-11-27	13:00:00	68.5		
2023-11-27	14:00:00	66.5		
2023-11-27	15:00:00	69.0		
2023-11-27	16:00:00	67.1		
2023-11-27	17:00:00	57.9		
2023-11-27	18:00:00	58.4	67.3	
2023-11-28	09:00:00	70.1		
2023-11-28	10:00:00	71.5		
2023-11-28	11:00:00	62.9		
2023-11-28	12:00:00	65.2		
2023-11-28	13:00:00	66.4		
2023-11-28	14:00:00	67.8		
2023-11-28	15:00:00	67.3		
2023-11-28	16:00:00	71.0		
2023-11-28	17:00:00	58.1		
2023-11-28	18:00:00	59.0	67.7	•
2023-11-28	09:00:00	69.4		
2023-11-29	10:00:00	70.4		
2023-11-29	11:00:00	67.1		
2023-11-29	12:00:00	67.2		
2023-11-29	13:00:00	65.6		
2023-11-29	14:00:00	65.7		
2023-11-29	15:00:00	68.1		
2023-11-29	16:00:00	68.7		
2023-11-29	17:00:00	59.7		
2023-11-29	18:00:00	57.2	67.2	
2023-11-30	09:00:00	67.1		
2023-11-30	10:00:00	69.7		
2023-11-30	11:00:00	68.4		
2023-11-30	12:00:00	71.0		
2023-11-30	13:00:00	71.9		
2023-11-30	14:00:00	69.6		
2023-11-30	15:00:00	69.9		
2023-11-30	16:00:00	70.6		
2023-11-30	17:00:00	63.2		
2023-11-30	18:00:00	58.8	69.2	•
2023-12-01	09:00:00	66.5		•
2023-12-01	10:00:00	66.4		- • -
2023-12-01	11:00:00	64.5		
2023-12-01	12:00:00	64.0		
2023-12-01	13:00:00	67.7		
2023-12-01	14:00:00	64.3		
2023-12-01	15:00:00	67.4		
2023-12-01	16:00:00	67.4		
2023-12-01	17:00:00	65.8		
2023-12-01	18:00:00	58.7	65.8	
2023-12-02	09:00:00	49.2		
2023-12-02	10:00:00	48.9		
2023-12-02	11:00:00	48.5		
2023-12-02	12:00:00	50.0		
2023-12-02	13:00:00	49.2		49.2



Location 3 - Time-history graph



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.

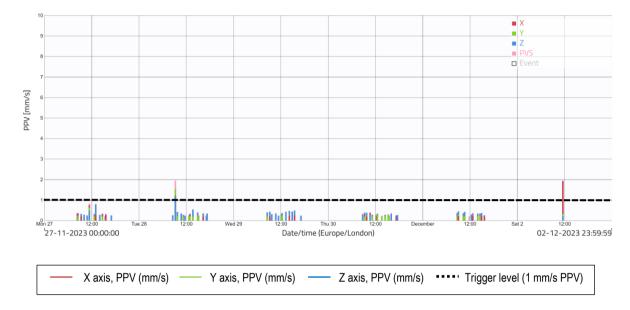
#### **Vibration Monitoring Results**

Location 1 - Raw data

Measuring po	oint:	Period:		Order	Value	Date	Time
Holloway - L1		27/11/202	3 to 02/12/2023	1	1.95	28/11/2023	09:13
				2	1.95	02/12/2023	11:33
Criteria mm/s	s PVS	Exceedance	es	3	0.83	27/11/2023	11:17
1		2		4	0.82	27/11/2023	12:59
				5	0.57	27/11/2023	13:05
				6	0.55	28/11/2023	13:39



Location 1 – Time-history graph



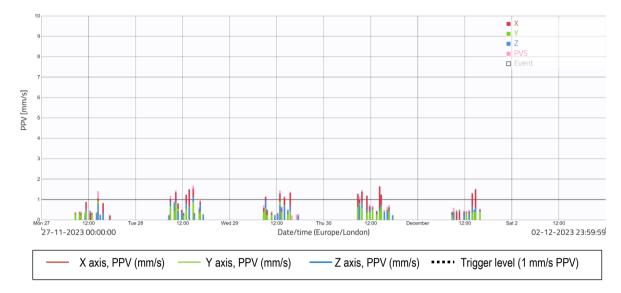
3.8 There was 100% data coverage at Location 1 for the monitoring period covered by this report. There were 2 exceedances of the project vibration trigger level of 1 mm/s PPV as shown in the raw data and graph above. The project team that confirmed that no active demolition works have taken place in this area of the site since 24<sup>th</sup> October and therefore the exceedances are believed to be due to non-construction related activities. In this location, it is likely that the residents opened and closing the main door to the residential building will cause occasional vibration spikes, given that the monitor is located on the same facade as the doors.

Measuring poin	t: Period:		Order	Value	Date	Time	Order	Value	Date	Time
Holloway - L2	27/11/202	23 to 02/12/2023	1	1.68	28/11/2023	14:43	18	1.20	30/11/202	11:01
			2	1.65	30/11/2023	14:17	19	1.18	28/11/202	08:53
Criteria mm/s P	VS Exceedan	ces	3	1.51	01/12/2023	14:44	20	1.16	28/11/202	14:51
1	34		4	1.51	28/11/2023	13:41	21	1.16	30/11/202	09:39
			5	1.46	30/11/2023	09:45	22	1.15	29/11/202	09:10
			6	1.44	29/11/2023	12:49	23	1.14	29/11/202	13:58
			7	1.44	28/11/2023	10:15	24	1.14	30/11/202	09:09
			8	1.41	28/11/2023	14:15	25	1.12	29/11/202	14:05
			9	1.41	27/11/2023	14:25	26	1.12	29/11/202	09:09
			10	1.38	29/11/2023	15:27	27	1.08	29/11/202	15:29
			11	1.37	28/11/2023	10:34	28	1.06	28/11/202	12:56
			12	1.33	01/12/2023	13:54	29	1.06	28/11/202	14:12
			13	1.29	28/11/2023	14:10	30	1.05	30/11/202	08:41
			14	1.29	30/11/2023	08:43	31	1.05	28/11/202	08:54
			15	1.25	30/11/2023	14:38	32	1.04	28/11/202	16:29
			16	1.24	30/11/2023	14:40	33	1.03	30/11/202	09:46
			17	1.24	28/11/2023	12:55	34	1.00	30/11/202	09:13

#### Location 2 - Raw data



Location 2 - Time-history graph



3.9 There was 100% data coverage at Location 2 for the monitoring period covered by this report. There were 34 exceedances of the project vibration trigger level of 1 mm/s PPV as shown in the raw data and graph above. The project team that confirmed that no active demolition works have taken place in this area of the site since 24<sup>th</sup> October and therefore the exceedances are believed to be due to non-construction related activities. In this location, it is likely that a combination of site operatives changing batteries and weather-related events (i.e. rainfall) are responsible for the recorded exceedances. 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.

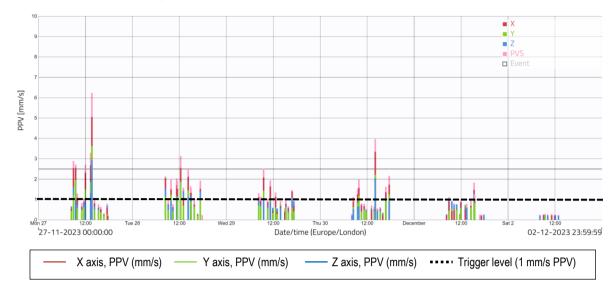


#### Location 3 - Raw data

Measuring	point:	Period:	Order	Value	Date	Time		Value	Date	Time		Value	Date	Time
- Iolloway	L3	27/11/2023 to 02/12/2023	1	6.23	27/11/2023	13:38	41	1.65	28/11/202	14:53	81	1.23	27/11/202	12:06
			2	4.39	27/11/2023	13:39	42	1.63	27/11/202	08:57	82	1.23	01/12/202	15:29
riteria mr	n/s PVS	Exceedances	3	3.97	30/11/2023	14:04	43	1.63	30/11/202	16:45	83	1.23	30/11/202	17:41
1		118	4	3.34	27/11/2023	13:26	44	1.61	30/11/202	17:31	84	1.21	28/11/202	12:42
			5	3.30	27/11/2023	13:21	45	1.60	30/11/202	09:52	85	1.20	28/11/202	15:07
			6	3.14	28/11/2023	12:20	46	1.60	27/11/202	13:22	86	1.19	29/11/202	08:21
			7	3.11	28/11/2023	12:29	47	1.58	28/11/202	13:02	87	1.19	28/11/202	12:32
			8	3.02	27/11/2023	13:44	48	1.56	27/11/202	13:24	88	1.19	28/11/202	08:23
			9	2.90	27/11/2023	08:56	49	1.54	28/11/202	17:20	89	1.19	28/11/202	11:17
			10	2.72	27/11/2023	09:29	50	1.54	28/11/202	12:48	90	1.17	28/11/202	15:19
			11	2.70	27/11/2023	11:59	51	1.54	27/11/202	13:25	91	1.17	27/11/202	12:09
			12	2.58	27/11/2023	12:00	52	1.53	28/11/202	14:53	92	1.17	27/11/202	13:41
			13	2.55	27/11/2023	13:41	53	1.53	01/12/202	15:19	93	1.16	27/11/202	09:39
			14	2.54	28/11/2023	14:15	54	1.52	30/11/202	09:33	94	1.15	28/11/202	12:58
			15	2.52	29/11/2023	09:32	55	1.51	27/11/202	13:44	95	1.14	29/11/202	08:10
			16	2.38	28/11/2023	12:22	56	1.50	27/11/202	08:38	96	1.14	29/11/202	08:46
			17	2.22	28/11/2023	12:24	57	1.50	28/11/202	17:23	97	1.13	29/11/202	08:33
			18	2.17	30/11/2023	17:37	58	1.47	27/11/202	13:21	98	1.13	30/11/202	08:27
			19	2.14	28/11/2023	08:27	59	1.47	28/11/202	12:35	99	1.12	01/12/202	08:53
			20	2.12	28/11/2023	12:42	60	1.47	29/11/202	16:48	100	1.12	27/11/202	12:10
			21	2.10	28/11/2023	12:39	61	1.45	28/11/202	14:08	101	1.11	29/11/202	11:11
			22	2.10	27/11/2023	13:47	62	1.44	27/11/202	13:34	102	1.11	30/11/202	17:38
			23	2.06	27/11/2023	13:28	63	1.43	27/11/202	08:48	103	1.10	28/11/202	12:36
			24	2.03	28/11/2023	11:18	64	1.38	28/11/202	09:40	104	1.09	28/11/202	11:12
			25	2.00	28/11/2023	14:01	65	1.35	27/11/202	13:48	105	1.09	29/11/202	09:12
			26	1.98	30/11/2023	09:50	66	1.35	28/11/202	15:04	106	1.08	30/11/202	16:48
			27	1.98	28/11/2023	09:50	67	1.34	29/11/202	12:35	107	1.08	27/11/202	12:03
			28	1.94	29/11/2023	11:14	68	1.33	28/11/202	15:06	108	1.07	28/11/202	12:46
			29	1.93	28/11/2023	17:21	69	1.33	29/11/202	11:01	109	1.04	28/11/202	08:33
			30	1.89	28/11/2023		70	1.32	28/11/202	13:44	110	1.04	27/11/202	13:35
			31	1.87	27/11/2023	13:45	71	1.31	29/11/202	08:17	111	1.04	27/11/202	11:37
				1.85	28/11/2023			1.29	28/11/202			1.04	29/11/202	
				1.84	01/12/2023			1.29	27/11/202			1.03	28/11/202	
				1.79	27/11/2023			1.28	27/11/202			1.03	28/11/202	
				1.71	28/11/2023			1.27	01/12/202		115	1.03	28/11/202	
			36	1.69	27/11/2023	13:26	76	1.26	28/11/202	15:06	116	1.02	27/11/202	12:01
				1.69	29/11/2023			1.26	27/11/202			1.02	28/11/202	
				1.69	28/11/2023			1.26	28/11/202			1.01	29/11/202	
				1.68	28/11/2023			1.25	28/11/202			1.00	29/11/202	
				1.67	27/11/2023			1.24	28/11/202			1.00	28/11/202	



Location 3 – Time-history graph



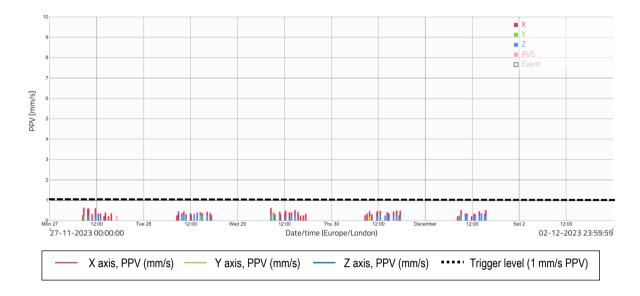
3.10 There was 100% data coverage at Location 3 for the monitoring period covered by this report. There were 120 exceedances of the project vibration trigger level of 1 mm/s PPV as shown in the raw data and graph above. The vast majority of these exceedances are being caused by plant vehicles travelling 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

point:	Period:		Order	Value	Date	Time
L4	27/11/202	3 to 02/12/2023	1	0.64	29/11/2023	08:33
			2	0.64	27/11/2023	08:43
m/s PVS	Exceedance	es	3	0.63	27/11/2023	11:40
	0		4	0.61	27/11/2023	08:43
	L4	L4 27/11/202	L4 27/11/2023 to 02/12/2023	L4 27/11/2023 to 02/12/2023 1 2 m/s PVS Exceedances 3	L4 27/11/2023 to 02/12/2023 1 0.64 2 0.64	L4 27/11/2023 to 02/12/2023 1 0.64 29/11/2023   m/s PVS Exceedances 3 0.63 27/11/2023



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.