

Architectural & Environmental Acousticians Noise & Vibration Engineers

Holloway Park, London

Construction Monitoring Report

Client:	London Square
Ref:	CM80-22405-R0
Date:	3 May 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 15th & Saturday 27th April 2024. The monitoring is being carried out in general agreement with the methodology in the current Section 61 Consent between the London Borough of Islington and OHOB.

2. WEEKLY ACTIVITIES

2.1 The following activities have been carried out onsite this week, in addition to the usual use of the Haul Road with site vehicles:

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- Creating a new haul road
- Tarmac works
- Working on drainage at Gate 2 and near welfare

Pure Logistic

General site works



Central Pile

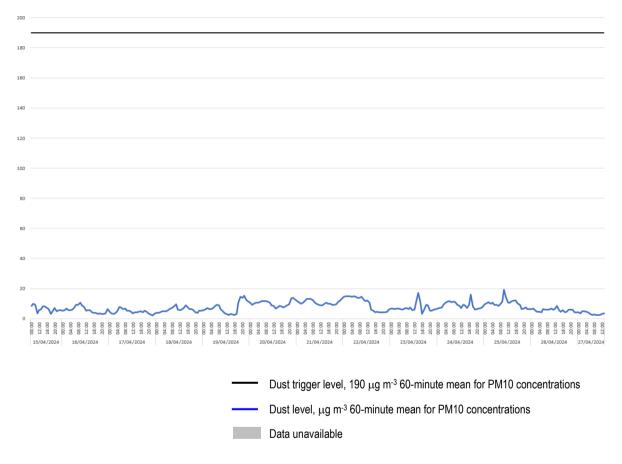
Installation of piles

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



- 3.2 There was 100% data coverage at Location 1 during construction hours for the monitoring period covered by this report.
- 3.3 No exceedances of the project dust criteria of 190 micrograms per cubic meter were recorded during the monitoring period covered by this report.



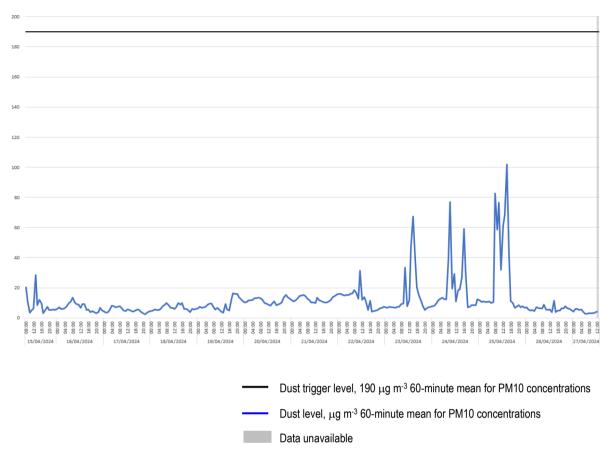
Location 2

200	20	
180	30	
160	50	
140	10	
120	20	
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80	50	
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0	man	how have
-	8 8	8 8
	Dust trigger level, 190 μg m ⁻³	60-minute mean for PM10 concentrations
	Dust level, μg m ⁻³ 60-minute r	mean for PM10 concentrations
	Data unavailable	

- 3.4 There was 99% data coverage at Location 2 during construction hours for the monitoring period covered by this report. The monitor was offline on the Tuesday 23rd April at 13:00.
- 3.5 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



- 3.6 There was 99% data coverage at Location 3 during construction hours for the monitoring period covered by this report. The monitor was offline on Saturday 27th April at 13:00.
- 3.7 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

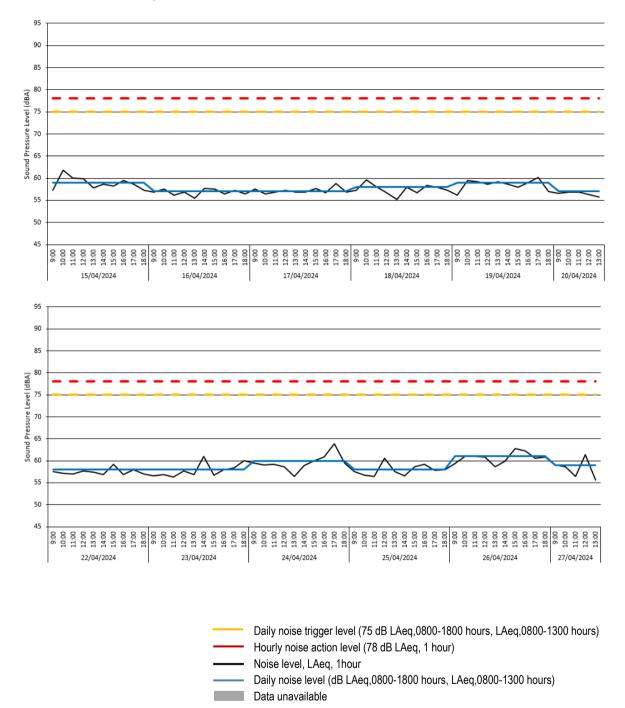
	Time [hh:mm:ss] 09:00:00 12:00:00 12:00:00 14:00:00 14:00:00 15:00:00 15:00:00 11:00:00 12:00:00 11:00:00 12:00				
# Broadband Results Date	Time	LAeg(60min)	LAeg(7hr)	LAeg(10hr)	LAeg(5hr)
[YYYY-MM-DD] 2024-04-15	[hh:mm:ss] 09:00:00	[dB]	[dB]	[dB]	[dB]
2024-04-15	10:00:00	61.8	-1-	-1-	-1-
2024-04-15	11:00:00	60.0	212	212	212
2024-04-15	13:00:00	57.8	-1-	-1-	-1-
2024-04-15	14:00:00	58.7	2:2	2:2	2:2
2024-04-15	16:00:00	59.5	-1-	-1-	-1-
2024-04-15 2024-04-15	17:00:00 18:00:00	58.7	2:2	59.1	2:2
2024-04-16	09:00:00	56.9	-1-		-1-
2024-04-16	10:00:00	57.6	212	212	2:2
2024-04-16	12:00:00	56.9	-1-	-1-	-1-
2024-04-16	13:00:00	57.7	2:2	2:2	2:2
2024-04-16	15:00:00	57.6			
2024-04-16	17:00:00	57.3	2,2	202	2,2
2024-04-16	18:00:00	56.5		56.9	
2024-04-17 2024-04-17	10:00:00	56.5	2:2	212	2:2
2024-04-17	11:00:00	56.8			
2024-04-17 2024-04-17	12:00:00	56.9	2:2	212	2:2
2024-04-17	14:00:00	56.9			
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2024-04-17	17:00:00	58.8		247.5	
2024-04-17 2024-04-18	09:00:00	57.2	2:2	57.2	2:2
2024-04-18	10:00:00	59.6			
2024-04-18	12:00:00	56.7	2,2	2:2	2:2
2024-04-18	13:00:00	55.2			
2024-04-18	15:00:00	56.7	2,2	2:2	2;2
2024-04-18	16:00:00	58.4	-1-	-1-	
2022-04-15 2024-04-15 2024-04-15 2024-04-15 2024-04-15 2024-04-15 2024-04-15 2024-04-15 2024-04-16 2024-04-17 2024-04-17 2024-04-17 2024-04-17 2024-04-17 2024-04-17 2024-04-17 2024-04-17 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-19 2024-04-19 2024-04-19 2024-04-19 2024-04-19 2024-04-19 2024-04-19 2024-04-19 2024-04-19 2024-04-20 2024-04-20 2024-04-20 2024-04-20 2024-04-21 2024-04-21 2024-04-22	17:00:00	58.0	2;2	57.6	2;2
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2024-04-19 2024-04-19	13:00:00	59.2	2:2	2:2	2:2
2024-04-19	15:00:00	57.9	-1-	-1-	-1-
2024-04-19	16:00:00	59.1	212	212	212
2024-04-19	18:00:00	57.0	-1-	58.7	-1-
2024-04-20	09:00:00	56.6	212	212	212
2024-04-20	11:00:00	56.8	-1-	-1-	-1-
2024-04-20	12:00:00	56.3	212	212	56.5
2024-04-21	18:00:00	2474	-1-	55.5	
2024-04-22	09:00:00	57.6	212	212	212
2024-04-22	11:00:00	57.0	-1-	-1-	-1-
2024-04-22	12:00:00	57.7	212	212	212
2024-04-22	14:00:00	56.9	-:-	-:-	-:-
2024-04-22	15:00:00	59.2	212	212	212
2024-04-22	17:00:00	58.0	-1-		-1-
2024-04-22 2024-04-23	18:00:00	57.0	212	57.5	212
2024-04-23	10:00:00	56.9	-1-	-1-	-1-
2024-04-23	11:00:00	56.3	212	212	212
2024-04-23	13:00:00	56.9	-1-	-1-	-1-
2024-04-23	14:00:00	61.0 56.7	212	212	212
2024-04-23	16:00:00	57.9		-1-	-1-
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2024-04-24	09:00:00	59.5	-1-		212
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2024-04-24	12:00:00	58.7	-12	-12	212
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2024-04-25 2024-04-25	09:00:00	57.5	2:2	2;2	2(2
2024-04-25	10:00:00 11:00:00	57.5 56.7 56.4 60.5	-1-		
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2024-04-25	14:00:00	56.6		-1-	
2024-04-25	15:00:00 16:00:00	58.6	2:2		2;2
2024-04-25	17:00:00	57.8	-1-		
2024-04-25	18:00:00 09:00:00	57.9	2:2	58.1	2;2
2024-04-26	10:00:00	61.0	-1-		
2024-04-26	11:00:00 12:00:00	61.0	2:2		2;2
2024-04-26	13:00:00	58.6	-1-	-1-	
2024-04-26	14:00:00	59.9 62.8	2:2	212	2:2
2024-04-26	14:00:00 15:00:00 16:00:00	62.2	-1-		
2024-04-26	17:00:00 18:00:00 09:00:00	60.6		60.9	2;2
2024-04-27	09:00:00	59.0	-1-		
2024-04-27	10:00:00 11:00:00	57.66 58.62 59.89 57.89 57.89 57.89 57.89 59.86 61.00 60.66 59.86 62.26 60.90 62.26 60.90 588.64	212		2;2
2024-04-27	12:00:00 13:00:00	56.4 61.4 55.6			
2024-04-25 2024-04-25 2024-04-25 2024-04-25 2024-04-25 2024-04-26 2024-04-26 2024-04-26 2024-04-26 2024-04-26 2024-04-26 2024-04-26 2024-04-26 2024-04-26 2024-04-26 2024-04-26 2024-04-27 2024-04-27 2024-04-27 2024-04-27	13:00:00	55.6			58.7

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Location 1 - Time History Data



- 3.8 There was 100% data coverage at Location 1 during construction hours for the monitoring period covered by this report. The monitor was offline between:
- 3.9 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.

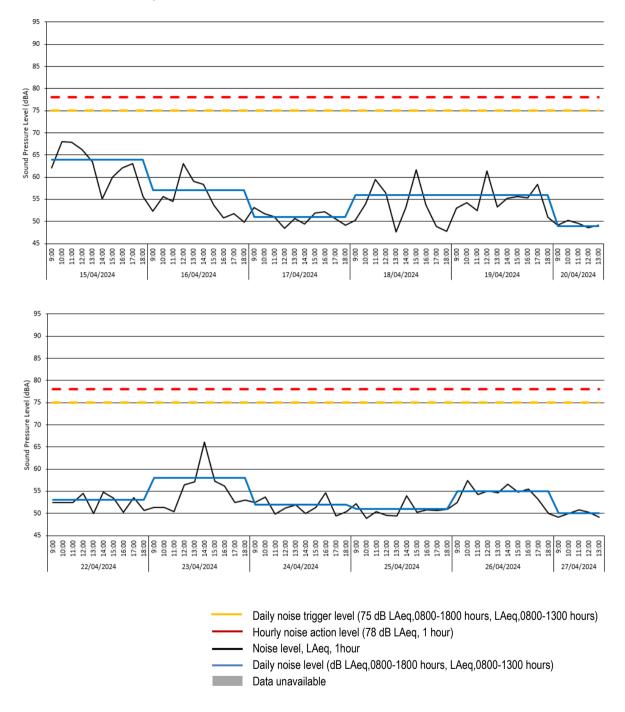


Location 2 - Raw Data

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# Broadband Results Date	Time	LAcq(60min)	LAeg(10hr)	LAeg(Shr)
[YYYY-MM-DD] 2024-04-15	[hh:mn:ss]	[d8]	[d8]	[d8]
2024-04-15	10:00:00	68.0		
2024-04-15	11:00:00	67.8		
2024-04-15	13:00:00	63.4		
2024-04-15	14:00:00	55.1	212	212
2024-04-15	16:00:00	62.1		
2024-04-15	17:00:00	63.1	64.1	212
2024-04-16	09:00:00	52.3		
2024-04-16	10:00:00	55.6	212	212
2024-04-16	12:00:00	63.1		
2024-04-16 2024-04-16	13:00:00	59.1		
2024-04-16	15:00:00	53.7		
2024-04-16	17:00:00	51.8		
2024-04-16	18:00:00	49.8	57.0	
2024-04-17	10:00:00	51.7		222
2024-04-17	11:00:00	51.0		
2024-04-17	13:00:00	50.7		
2024-04-17	14:00:00	49.4		
2024-04-17	16:00:00	52.2		
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2024-04-18	09:00:00	50.3		
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2024-04-18	12:00:00	56.5		
2024-04-18 2024-04-18	13:00:00 14:00:00	47.6		
2024-04-18	15:00:00	61.7		
2024-04-18 2024-04-18	17:00:00	48.9		
2024-04-18	18:00:00	47.7	55.8	
2024-04-19	10:00:00	54.2		
2024-04-19	11:00:00	52.5		
2024-04-19	13:00:00	53.3		
2024-04-19	14:00:00	55.2		
2024-04-19	16:00:00	55.3		
2024-04-19	17:00:00	58.3	56.1	212
2024-04-20	09:00:00	49.2		
2024-04-20 2024-04-20	10:00:00	50.3		
2024-04-20	12:00:00	48.6		
2024-04-20 2024-04-21	13:00:00 18:00:00	49.1	48.9	49.4
2024-04-22	09:00:00	52.4		
2024-04-22	11:00:00	52.4		
2024-04-22	12:00:00	54.5		
2024-04-22	14:00:00	54.8		
2024-04-22	15:00:00	53.4	212	212
2024-04-22	17:00:00	53.6		
2024-04-22 2024-04-23	18:00:00 09:00:00	50.6 51.3	52.7	
2024-04-23	10:00:00	51.4		
2024-04-23	12:00:00	50.4		
2024-04-23	13:00:00	57.1		
2024-04-23	15:00:00	57.3		
2024-04-23	16:00:00	56.2		
2024-04-23	18:00:00	53.0	58.3	
2024-04-24 2024-04-24	09:00:00	52.4		
2024-04-24	11:00:00	49.8		
2024-04-24	13:00:00	51.9		
2024-04-24	14:00:00 15:00:00	50.0		
2024-04-24 2024-04-24	16:00:00	51.3 54.7		
2024-04-24 2024-04-24	17:00:00 18:00:00	49.4 50.4	51.8	22
2024-04-25	09-00-00	52.2		
2024-04-25 2024-04-25	10:00:00 11:00:00	48.9		
2024-04-25	12:00:00	49.6		
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2024-04-25	15:00:00	50.2		
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2024-04-25	18:00:00	50.9	51.0	
2024-04-26 2024-04-26	09:00:00 10:00:00 11:00:00	57.4	22	222
2024-04-26 2024-04-26	11:00:00		22	22
2024-04-26	12:00:00 13:00:00	54.6		
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	11:00:00	20.0		
	11:00:00 12:00:00 13:00:00	50.8 50.2 49.2	22	49.9



Location 2 - Time History Data



- 3.10 There was 100% data coverage at Location 2 during construction hours for the monitoring period covered by this report.
- 3.11 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.



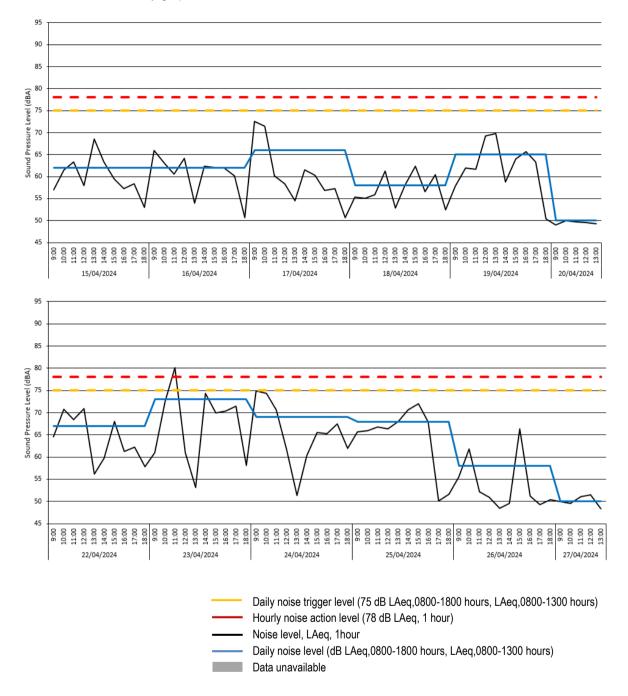
Location 3 - Raw Data

# Broadband Results Date	Time	LAeg(60min)	LAeg(10hr)	LAeg(Shr)
[YYYY-MM-DD] 2024-04-15	[hh:mm:ss] 09:00:00	[dB] 57.0	[dB]	[d8]
2024-04-15	10:00:00 11:00:00 12:00:00 13:00:00 14:00:00 15:00:00 16:00:00	61.6		
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2024-04-15	15:00:00	59.4		
2024-04-15	16:00:00	57.3	2-2	212
2024-04-15	18:00:00	53.0	62.1	
2024-04-16	09:00:00	65.9	222	11
2024-04-16	11:00:00	60.5		
2024-04-16	13:00:00	53.9		
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2024-04-16	16:00:00	62.0		
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2024-04-17	09:00:00	72.6		
2024-04-17	11:00:00	60.1		
2024-04-17	12:00:00	58.4		2.2
2024-04-17	14:00:00	61.5		
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2024-04-17	17:00:00	57.2	227.0	
2024-04-18	09:00:00	55.4		
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2024-04-18	12:00:00	61.3		
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2024-04-18	15:00:00	62.3		
2024-04-18	17:00:00	60.4		
2024-04-18 2024-04-19	18:00:00	52.5	58.2	11
2024-04-19	10:00:00	61.9		
2024-04-19	12:00:00	69.3		
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2024-04-19	15:00:00	64.0		
2024-04-19 2024-04-19	16:00:00	65.6		
2024-04-19	18:00:00	50.4	64.9	
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2024-04-13 2024-04-15 2024-04-16 2024-04-16 2024-04-16 2024-04-16 2024-04-16 2024-04-16 2024-04-16 2024-04-16 2024-04-16 2024-04-16 2024-04-16 2024-04-17 2024-04-17 2024-04-17 2024-04-17 2024-04-17 2024-04-17 2024-04-17 2024-04-17 2024-04-17 2024-04-17 2024-04-17 2024-04-17 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-18 2024-04-19 2024-04-19 2024-04-19 2024-04-19 2024-04-19 2024-04-19 2024-04-19 2024-04-19 2024-04-19 2024-04-19 2024-04-19 2024-04-19 2024-04-19 2024-04-19 2024-04-19 2024-04-19 2024-04-19 2024-04-19 2024-04-20 2024-04-20 2024-04-20 2024-04-20 2024-04-20 2024-04-20 2024-04-20 2024-04-20 2024-04-20 2024-04-20 2024-04-20 2024-04-20 2024-04-20 2024-04-21 2024-04-22 2024-04-22 2024-04-22 2024-04-22 2024-04-22 2024-04-22 2024-04-22 2024-04-22 2024-04-22 2024-04-22 2024-04-23 2024-04-24 2024-04-24 2024-04-24 2024-04-24	13:00:00	LAG(GOMIN) [57.0 [61:3] [57.0 [61:3] [57:0]	48.4	49.5
2024-04-22	09:00:00	64.5	1.1	
2024-04-22	11:00:00	68.4		
2024-04-22	12:00:00	70.9	2-2	212
2024-04-22	14:00:00	59.8		
2024-04-22	16:00:00	61.3		
2024-04-22 2024-04-22	17:00:00	62.2 57.8	66.5	212
2024-04-23	09:00:00	61.0		
2024-04-23	11:00:00	80.1		
2024-04-23	12:00:00	61.0	1.1	212
2024-04-23	14:00:00	74.3		
2024-04-23	16:00:00	70.4		
2024-04-23	17:00:00	71.4	72 7	212
2024-04-24	09:00:00	74.9	72.7	
2024-04-24 2024-04-24	10:00:00 11:00:00 12:00:00	74.4		22
2024-04-24	12:00:00 13:00:00	58.1 74.9 74.4 70.6 61.7 51.3		222
2024-04-24		60.3		
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2024-04-25 2024-04-25	10:00:00	65.7 66.0 66.8 66.3	22	22
2024-04-25	12:00:00	66.3		
2024-04-25 2024-04-25 2024-04-25	14:00:00	70.6	22	22
2024-04-25 2024-04-25	15:00:00	72.0		22
2024-04-25 2024-04-25 2024-04-25	17:00:00	50.1		
2024-04-25 2024-04-26 2024-04-26	17:00:00 18:00:00 10:00:00 10:00:00 12:00:00 12:00:00 14:00:00 14:00:00 15:00	55.5		22
2024-04-26 2024-04-26	10:00:00 11:00:00	61.8 52.2	22	22
2024-04-26	12:00:00	50.9		
2024-04-26	14:00:00	49.6	·	22
2024-04-26	15:00:00 16:00:00	66.4 51.2		22
2024-04-26 2024-04-26 2024-04-26 2024-04-26 2024-04-26 2024-04-26 2024-04-26 2024-04-26	17:00:00	52.2 50.9 48.5 49.6 66.4 51.2 49.3 50.4 50.0	58.4	
2024-04-26		50.0		22
2024-04-27 2024-04-27	11:00:00	49.5	22	22
2024-04-26 2024-04-26 2024-04-27 2024-04-27 2024-04-27 2024-04-27 2024-04-27	12:00:00 13:00:00	51.5 48.3		50.2
2024-04-27	a.d. 500 . 500			

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Location 3 – Time-history graph



- 3.13 There was 100% data coverage at Location 3 during construction hours for the monitoring period covered by this report.
- 3.14 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: Holloway - L1		asuring point: Period:		Order	Value	Date	Time
		15/04/202	15/04/2024 to 27/04/2024			25/04/2024	11:19
				2	1.64	26/04/2024	14:31
Criteria mm/s PVS		Exceedances		3	1.56	25/04/2024	11:43
1.0		8		4	1.32	26/04/2024	09:17
				5	1.27	24/04/2024	13:36
				6	1.09	22/04/2024	16:24
				7	1.09	23/04/2024	09:32
				8	1.06	25/04/2024	11:18
				9	0.84	17/04/2024	08:15
				10	0.75	27/04/2024	08:25

Location 1 - Time-history graph



- 3.15 There was 100% data coverage at Location 1 during construction hours for the monitoring period covered by this report. There were eight exceedances of the project vibration trigger level of 1 mm/s PPV as shown in the raw data and graph above. The highest recorded vibration level occurred on Thursday 25th April at 11:19, with a recorded level of 2 mm/s PPV. It is worth noting from the raw data above that the exceedances are sporadic and are likely to have been caused by individual, short-lived events, rather than continuous activity at this location. This will continue to be monitored.
- 3.16 The majority of exceedances at this location are believed to be due to non-construction related activities. In this location, it is likely that the residents opening 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. Furthermore, the site team confirmed that alerts generated on Friday 26th April were not caused by site activity, as no works were taking place in the area at the time. It

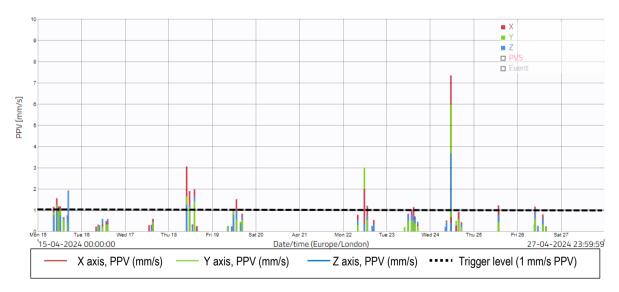


is possible that the remaining exceedances recorded at this location over the current monitoring period were also caused by non-construction related activity.

Location 2 - Raw data

Measuring point:		Period:		Order	Value	Date	Time	Order	Value	Date	Time
Holloway - L2		15/04/202	4 to 27/04/2024	1	8.04	24/04/2024	11:30	31	1.22	15/04/2024	12:24
				2	3.25	18/04/2024	09:59	32	1.22	23/04/2024	14:59
Criteria m	nm/s PVS	Exceedan	ces	3	3.12	22/04/2024	11:51	33	1.21	24/04/2024	15:46
1.0		51		4	3.00	18/04/2024	10:00	34	1.20	15/04/2024	10:02
				5	2.51	18/04/2024	14:18	35	1.19	19/04/2024	11:56
				6	2.38	18/04/2024	14:16	36	1.18	26/04/2024	09:58
				7	2.06	18/04/2024	11:36	37	1.18	26/04/2024	09:59
				8	2.02	15/04/2024	10:29	38	1.17	15/04/2024	09:48
				9	1.95	18/04/2024	14:23	39	1.15	15/04/2024	11:48
				10	1.93	15/04/2024	16:48	40	1.14	25/04/2024	13:51
				11	1.90	24/04/2024	11:26	41	1.14	24/04/2024	11:39
				12	1.80	19/04/2024	13:25	42	1.12	23/04/2024	15:28
				13	1.58	15/04/2024	10:25	43	1.12	15/04/2024	10:00
				14	1.58	18/04/2024	10:22	44		19/04/2024	11:57
				15	1.56	18/04/2024	10:28	45	1.10	23/04/2024	13:54
				16	1.42	15/04/2024	16:47	46	1.09	15/04/2024	10:04
				17		15/04/2024	10:05	47		15/04/2024	10:20
				18	1.38	26/04/2024	09:49	48	1.04	15/04/2024	09:45
				19	1.35	18/04/2024	14:19	49	1.04	18/04/2024	10:27
				20	1.34	15/04/2024	08:48	50	1.02	26/04/2024	09:50
				21	1.33	15/04/2024	10:08	51	1.02	23/04/2024	13:53
				22	1.33	19/04/2024	11:45	52	0.99	22/04/2024	13:33
				23	1.33	15/04/2024	09:46	53	0.98	23/04/2024	11:59
				24			14:25	54		23/04/2024	15:25
				25	1.29	15/04/2024	11:31	55		23/04/2024	13:15
				26		25/04/2024	13:42	56	0.96	26/04/2024	09:48
				27			12:25	57		23/04/2024	11:43
				28		22/04/2024	13:25	58	0.95	23/04/2024	15:29
				29	1.24	15/04/2024	11:43	59	0.95	26/04/2024	14:08
				30	1.23	15/04/2024	09:40	60	0.95	19/04/2024	11:46

Location 2 - Time-history graph



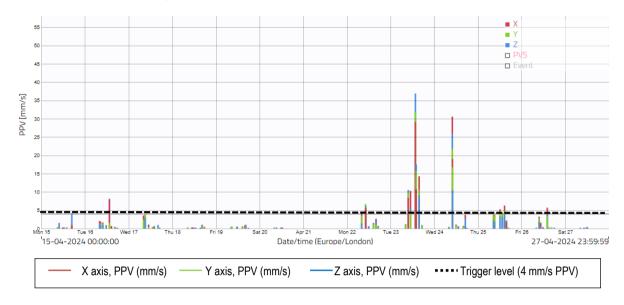


- 3.17 There was 100% data coverage at Location 2 during construction hours for the monitoring period covered by this report. There were 51 exceedances of the project vibration trigger level of 1.0 mm/s PPV, which are shown in the raw data and graph above. The highest recorded vibration level occurred on Wednesday 24th April at 11:30, with a recorded level of 8.0 mm/s PPV. It is possible that the sensor may have accidentally been knocked. This is supported by the fact that no other similar vibration levels were recorded, and this was a one-off reading. Furthermore, the site team confirmed that alerts generated on Thursday 18th and Friday 26th April were not caused by site activity, as no works were taking place in the area at the time. This will continue to be monitored.
- 3.18 Additionally, 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.

Measuring	point:	Period:	Orde		Date	Time	Order	Value	Date	Time	Order	Value	Date	Time
Holloway -	L3	15/04/2024 to 27/04	2024	1 46.36	23/04/2024	13:39	31		24/04/2024	08:46	61	6.28	24/04/2024	09:05
				2 34.38	24/04/2024	09:57	32	8.65	23/04/2024	10:38	62	6.27	24/04/2024	09:07
Criteria mn	n/s PVS	Exceedances		3 33.59	24/04/2024	09:58	33		16/04/2024	13:27	63	6.22	25/04/2024	12:09
4.0		125		4 32.65	24/04/2024	09:59	34	8.53	23/04/2024	13:47	64	6.06	22/04/2024	10:23
				5 31.63	24/04/2024	08:50	35	8.50	23/04/2024	13:50	65	5.99	24/04/2024	08:42
				6 23.84	23/04/2024	14:05	36		23/04/2024	13:46	66	5.98	22/04/2024	10:20
				7 23.59	24/04/2024	10:02	37		24/04/2024	08:53	67	5.98	23/04/2024	15:59
				8 22.71	24/04/2024	09:56	38		23/04/2024	15:45	68	5.95	23/04/2024	10:59
				9 20.14	24/04/2024	09:08	39		23/04/2024	15:57	69	5.91	23/04/2024	10:32
			1	0 17.82	23/04/2024	15:42	40		23/04/2024	10:39	70	5.85	23/04/2024	13:51
			1	1 17.81	24/04/2024	10:00	41	7.93	23/04/2024	13:18	71	5.79	23/04/2024	13:22
			1	2 15.66	24/04/2024	10:01	42		23/04/2024	10:04	72	5.77	25/04/2024	11:03
			1	3 15.40	24/04/2024	08:43	43		23/04/2024	13:19	73	5.76	22/04/2024	08:07
			1	4 13.91	23/04/2024	09:43	44		24/04/2024	08:45	74	5.73	22/04/2024	11:29
			1	5 13.81	24/04/2024	08:40	45		22/04/2024	10:21	75	5.70	25/04/2024	13:22
			1	6 13.10	24/04/2024	08:44	46		23/04/2024	13:41	76	5.70	24/04/2024	09:54
			1	7 12.64	24/04/2024	10:04	47		23/04/2024	10:55	77	5.66	25/04/2024	14:20
			1	8 11.92	23/04/2024	10:41	48		25/04/2024	14:39	78	5.63	23/04/2024	10:54
			1	9 11.66	23/04/2024	10:58	49		22/04/2024	11:18	79	5.62	23/04/2024	10:36
			2		24/04/2024	08:47	50		25/04/2024	14:32	80	5.55	25/04/2024	09:10
			2	1 10.32	23/04/2024	14:00	51		25/04/2024	14:25	81	5.54	26/04/2024	14:14
			2	2 10.14	23/04/2024	15:47	52		22/04/2024	09:53	82	5.54	23/04/2024	16:16
			2	3 10.01	23/04/2024	10:40	53		26/04/2024	14:10	83	5.40	24/04/2024	09:20
			2		23/04/2024	14:10	54		22/04/2024	10:17	84		25/04/2024	14:52
			2		23/04/2024	15:58	55		24/04/2024	09:37	85		23/04/2024	13:24
			2	6 9.47	24/04/2024	09:06	56		25/04/2024	14:38	86	5.29	25/04/2024	08:37
			1	7 9.44	24/04/2024	08:41	57		25/04/2024	15:02	87	5.27	24/04/2024	09:18
			2	8 9.38	24/04/2024	10:03	58		23/04/2024	10:37	88	5.20	23/04/2024	15:12
			2	9 9.04	22/04/2024	10:16	59		22/04/2024	10:19	89	5.17	25/04/2024	15:10
			3	0 8.76	23/04/2024	09:44	60	6.29	23/04/2024	13:17	90	5.17	24/04/2024	17:05



Location 3 – Time-history graph



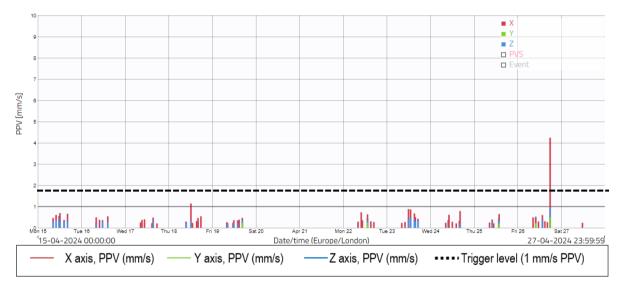
- 3.19 There was 100% data coverage at Location 3 during construction hours for the monitoring period covered by this report. There were 125 exceedances of the project vibration trigger level of 4.0 mm/s PPV, which are shown in the raw data and graph above. The highest recorded vibration level occurred on Tuesday 23rd April at 13:39, with a recorded level of 46.4 mm/s PPV. The site team confirmed that, due to the drainage works at Gate 2, heavy machinery (including 20 Tonne vehicles) drove within very close proximity of the monitor. Due to the close proximity in these cases, the high recorded levels are likely to have been localised and, therefore, likely to have been significantly lower at the nearest sensitive receptor. This will continue to be monitored; however, it is our understanding that no vibration complaints were received due to this work.
- 3.20 As above, it is understood that the majority of exceedances were likely to have been caused onsite vehicles moving material within the vicinity of the monitor this has been confirmed by the site team. It is possible that the higher vibration levels recorded over this period were also caused by vehicle movements (i.e. when a lorry drives over an uneven part of ground near the monitor, a high vibration level can be recorded).
- 3.21 It was also confirmed by the site team that trial holes were excavated within the vicinity of the vibration monitor, which took place on Monday 22nd and Tuesday 23rd April.
- 3.22 In addition, 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.
- 3.23 However, due to the proximity between the vibration sensor and the nearest sensitive receptor, it follows that the vibration levels at this position would have been lower than shown at the sensor location.



3.24 Cass Allen will continue to review noise and vibration emissions and advise on any further practicable measures to minimise vibration.

Measuring point:		Period:		Order	Value	Date	Time
Holloway	- L4	15/04/202	4 to 27/04/2024	1	4.35	26/04/2024	17:54
				2	1.17	18/04/2024	12:17
Criteria mm/s PVS		Exceedances		3	0.88	23/04/2024	11:58
1.0		2		4	0.87	23/04/2024	13:07
				5	0.80	24/04/2024	16:21
				6	0.73	22/04/2024	09:59
				7	0.73	23/04/2024	11:37
				8	0.71	23/04/2024	11:23
				9	0.70	23/04/2024	11:44
				10	0.70	15/04/2024	12:14

Location 4 – Time-history graph



3.25 There was 100% data coverage at Location 4 during construction hours for the monitoring period covered by this report. There were two exceedances of the project vibration trigger level of 1.0 mm/s PPV, which are shown in the raw data and graph above. The highest recorded vibration level occurred on Friday 26th April at 17:54, with a recorded level of 4.4 mm/s PPV. Although this recorded level is a relatively small exceedance of the vibration trigger level, this will continue to be monitored. It is also worth noting that the vibration sensor is fixed to the garden wall of a private residential dwelling and the monitor is located next to a child's play area. It is, therefore, possible that exceedances at this location may have been caused by non-construction related activity.