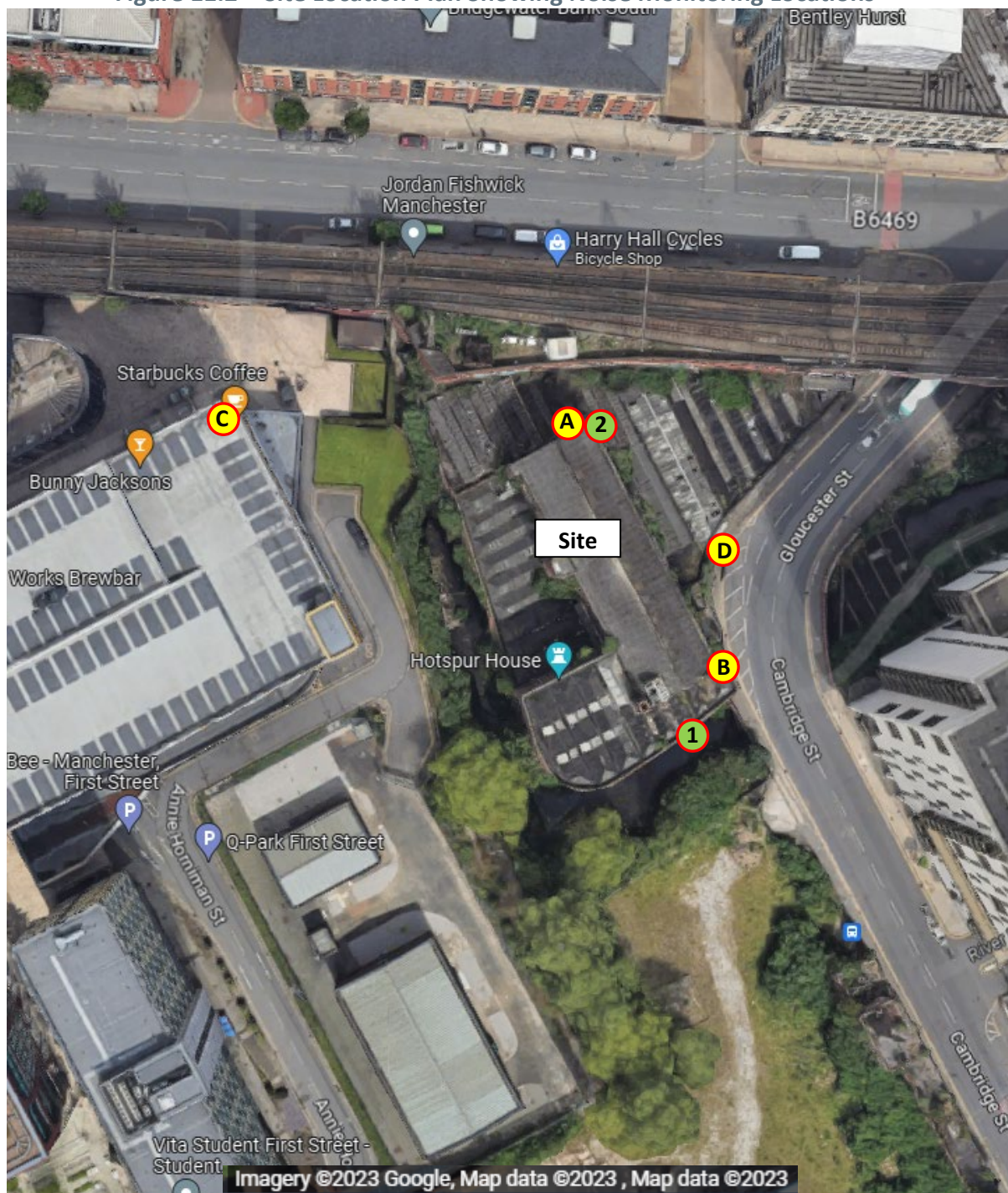


Appendix 11.1 – Noise Survey Details

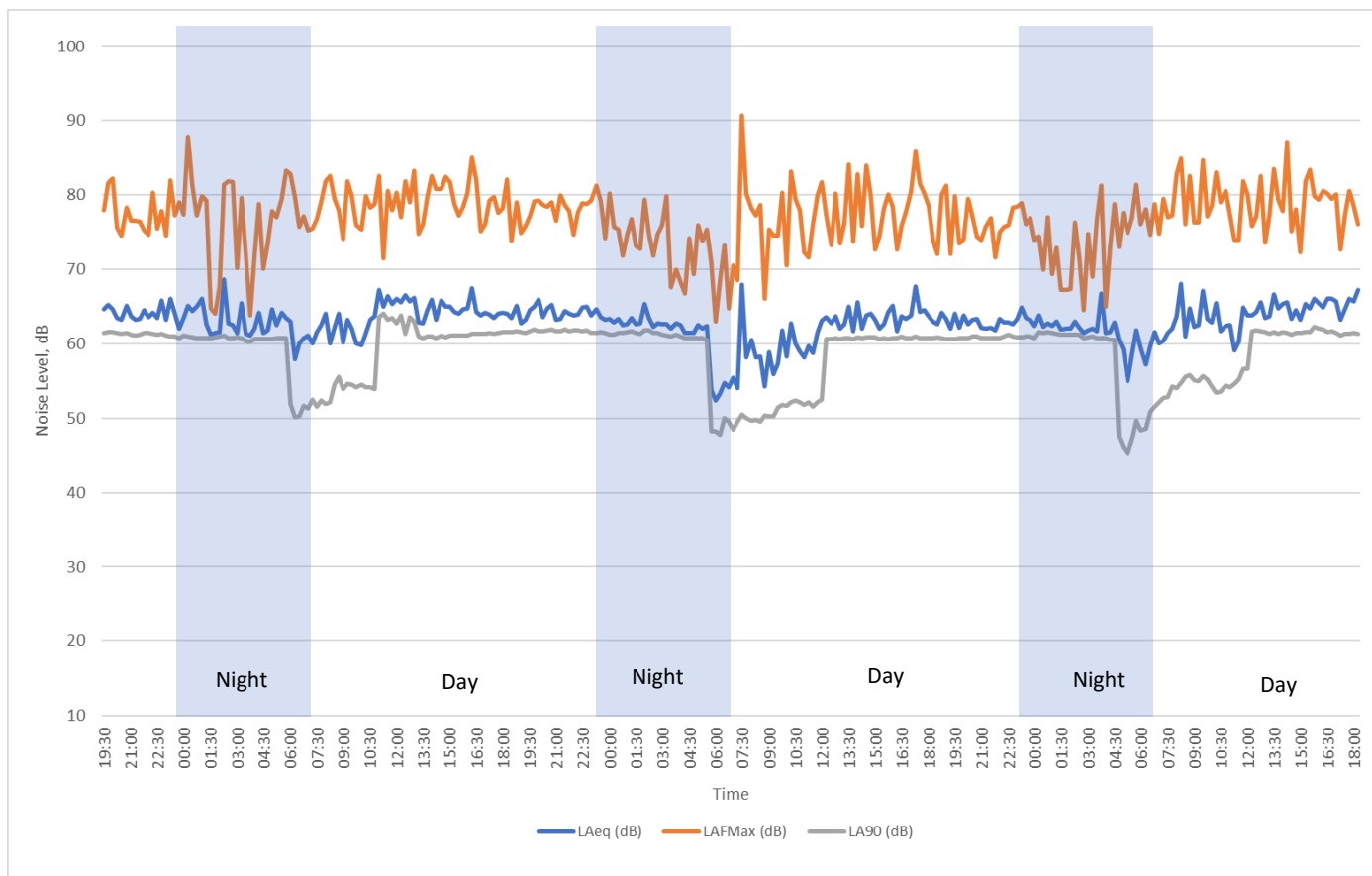
	September 2023					
Date & Time of Survey:	Unattended: 1930h on Friday 8 September to 1800h on Monday 11 September 2023.					
Date & Time of Survey:	Attended: Spot Check measurements only between 0000h and 0100h on Sat 9 September and 1400h to 1415h on Monday 11 September 2023.					
Personnel:	Andy Burke (AEC).					
Equipment Used:	Unattended: Cirrus CR:171B Real Time Analyser (AEC Kit 3) & Cirrus CR:171B Real Time Analyser (AEC Kit 5).					
	Attended: B&K 2260 Real Time Analyser (AEC Kit 2).					
Calibration:	The sound level analysers, which conform to BS EN 61672-1: 2013 ' <i>Electroacoustics – Sound level meters - Part 1 Specifications</i> ' for Class 1 Type Z meters, were in calibration and check calibrated before and after the measurement periods. There was no significant drift of calibration. Calibration certificates are available on request.					
Weather Conditions:	Below are the approximate weather conditions for the period.					
	Date	Period	Wet/Dry	Temp°C	Wind Speed & Direction	Cloud Cover
	8 to 9 Sep	Day & Night	Dry	23°C	Little or no wind.	50%
	9 Sep	Day & Night	Dry	29°C Day 23°C Night	Little or no wind.	30%
	10 Sep	Day & Night	Some rain	26°C Day 19°C Night	Little or no wind.	80%
	11 Sep	Day	Dry	19°C	Little or no wind.	
Measurement Locations:	Unattended: Measurements were undertaken at two locations on the building. The microphone was connected via an extension cable to the sound level meter and fixed externally at a location 1m from the building façade in each location which are identified on Figure 10.2 which forms part of Appendix 10.1 and described below: A – On the northern façade of the building at 4th floor level (Circa 13m), overlooking the railway. B – On the eastern façade of the building at 2nd floor level, overlooking Cambridge St.					
Measurement Locations:	Attended: Measurements were undertaken at 2 locations around the development site. Identified as C and D on Figure 1 and described below. C – On the corner of Q Park, approximately 10th Storey level, overlooking the railway. D – On Cambridge St at ground floor level.					
Measurement Details:	Unattended: Measurements were logged continuously over 1s for post processing and assessment. Location A was selected to measure railway noise and B to measure noise from road traffic. Attended: Measurements were logged over 1 minute periods. Location C was selected to measure railway noise and D to measure road traffic noise. All measurements were undertaken in terms of L_{eq}, L_{10}, L_{90}, and L_{max}.					
Façade / Free-Field:	Unattended: Façade. Attended: Free-field.					
Measured Data:	Full results for the unattended measurements are given in Graphs A1 and A2 and the unattended spot check noise level data is presented in Table A1. Full octave band spectrum noise data was obtained for all measurements.					

	May 2018					
Date & Time of Survey:	Unattended: 1630h on Thursday 17 May 2018 to 0120h on Monday 21 May 2018.					
Personnel:	Paul Knowles & Matthew Jones (AEC).					
Equipment Used:	Cirrus CR:171B Real Time Analyser (AEC Kit 3).					
Calibration:	The sound level analyser, which conform to BS EN 61672-1: 2013 ' <i>Electroacoustics – Sound level meters - Part 1 Specifications</i> ' for Class 1 Type Z meters, was in calibration and check calibrated before and after the measurement periods. There was no significant drift of calibration. Calibration certificates are available on request.					
Weather Conditions:	<i>Below are the approximate weather conditions for the period.</i>					
	Date	Period	Wet/Dry	Temp°C	Wind Speed & Direction	Cloud Cover
	--	Day	Dry	18°C	Little or no wind.	20%
	--	Night	Dry	10°C	Little or no wind.	20%
Measurement Locations:	Unattended: Measurements were undertaken at two locations on the building. The microphone was connected via an extension cable to the sound level meter and fixed externally at a location 1m from the building façade in each location which are identified on Figure 10.2 which forms part of Appendix 10.1 and described below: 1 – On the southern façade at 3rd floor level, overlooking Cambridge St. 2 – On the northern façade at 4th floor level (Circa 13m high), overlooking the railway.					
Measurement Details:	Unattended: Measurements were logged continuously over 1s for post processing and assessment. Location A was selected to measure railway noise and B to measure noise from road traffic. All measurements were undertaken in terms of L_{eq}, L_{10}, L_{90}, and L_{max}.					
Façade / Free-Field:	Unattended: Façade.					
Measured Data:	Full results for the unattended measurements are given in Graphs B1 and B2. Full octave band spectrum noise data was obtained for all measurements.					

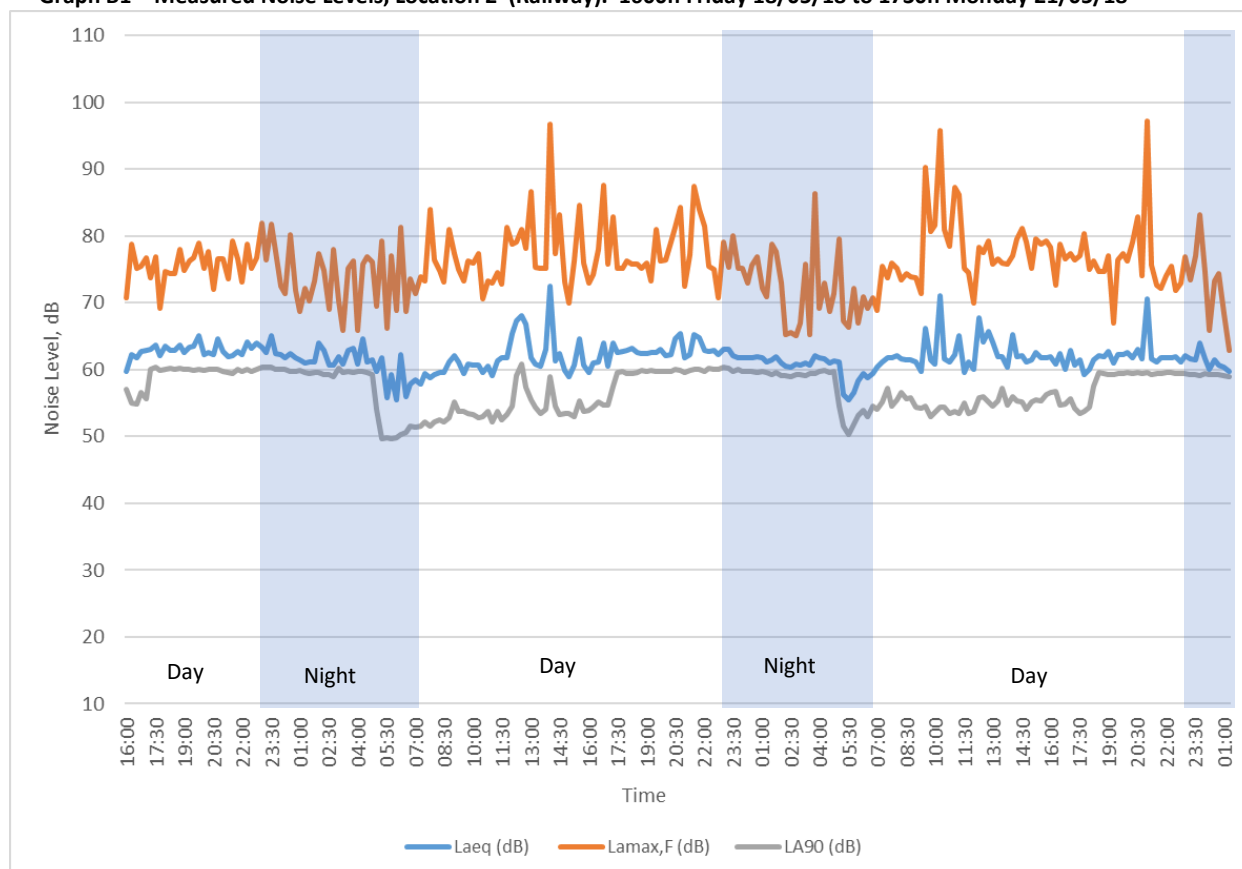
Figure 11.2 - Site Location Plan Showing Noise Monitoring Locations



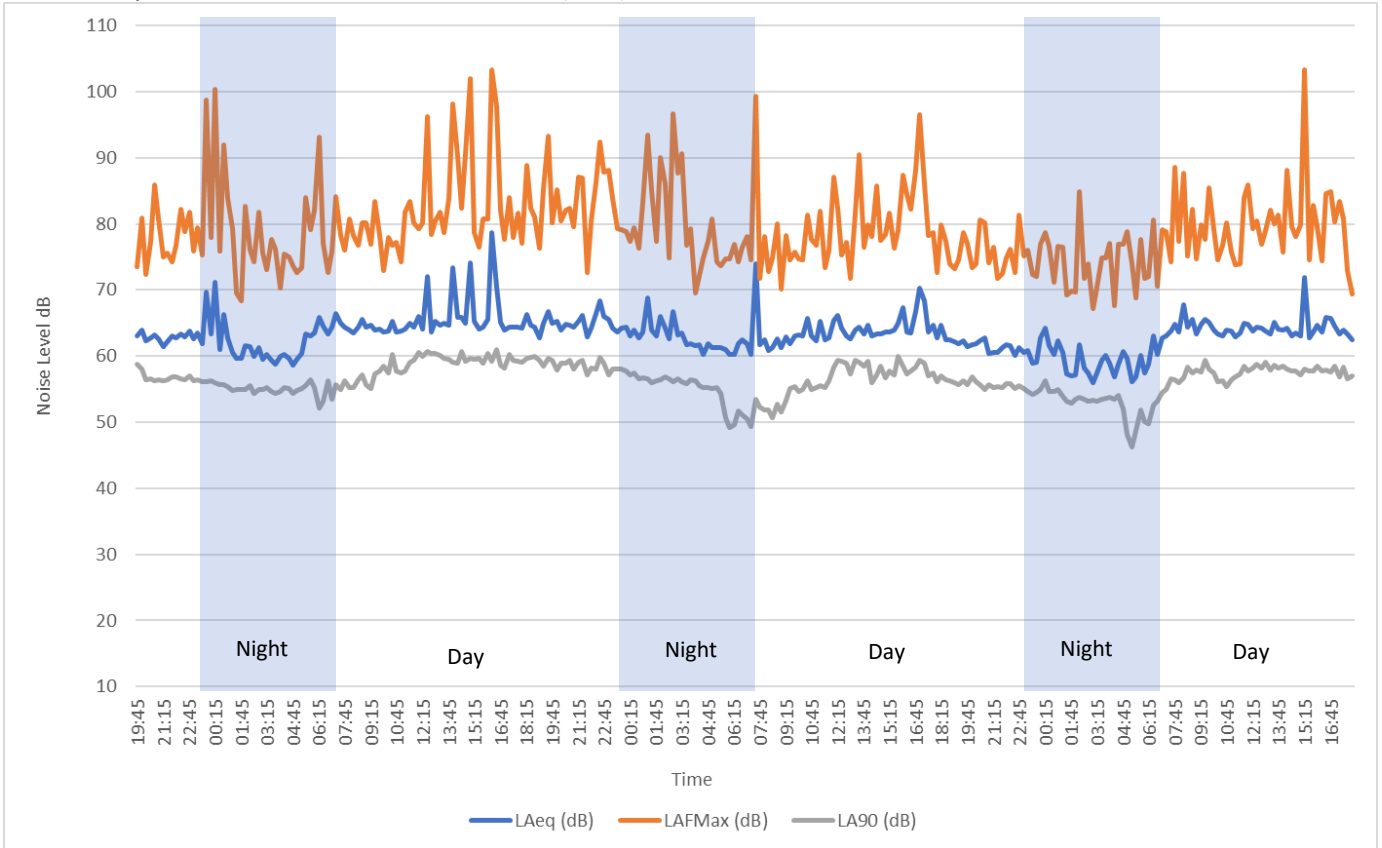
Graph A1 – Measured Noise Levels, Location A (Railway). 1930h Friday 8/09/23 to 1730h Monday 11/09/23



Graph B1 – Measured Noise Levels, Location 2 (Railway). 1600h Friday 18/05/18 to 1730h Monday 21/05/18



Graph A2 - Measured Noise Levels, Location B (Road). 1945h Fri 8/09/23 to 1730h Mon 11/09/23



Graph B1 – Measured Noise Levels, Location 1 (Road). 1645h Thursday 18/05/18 to 1615h Friday 29/05/18

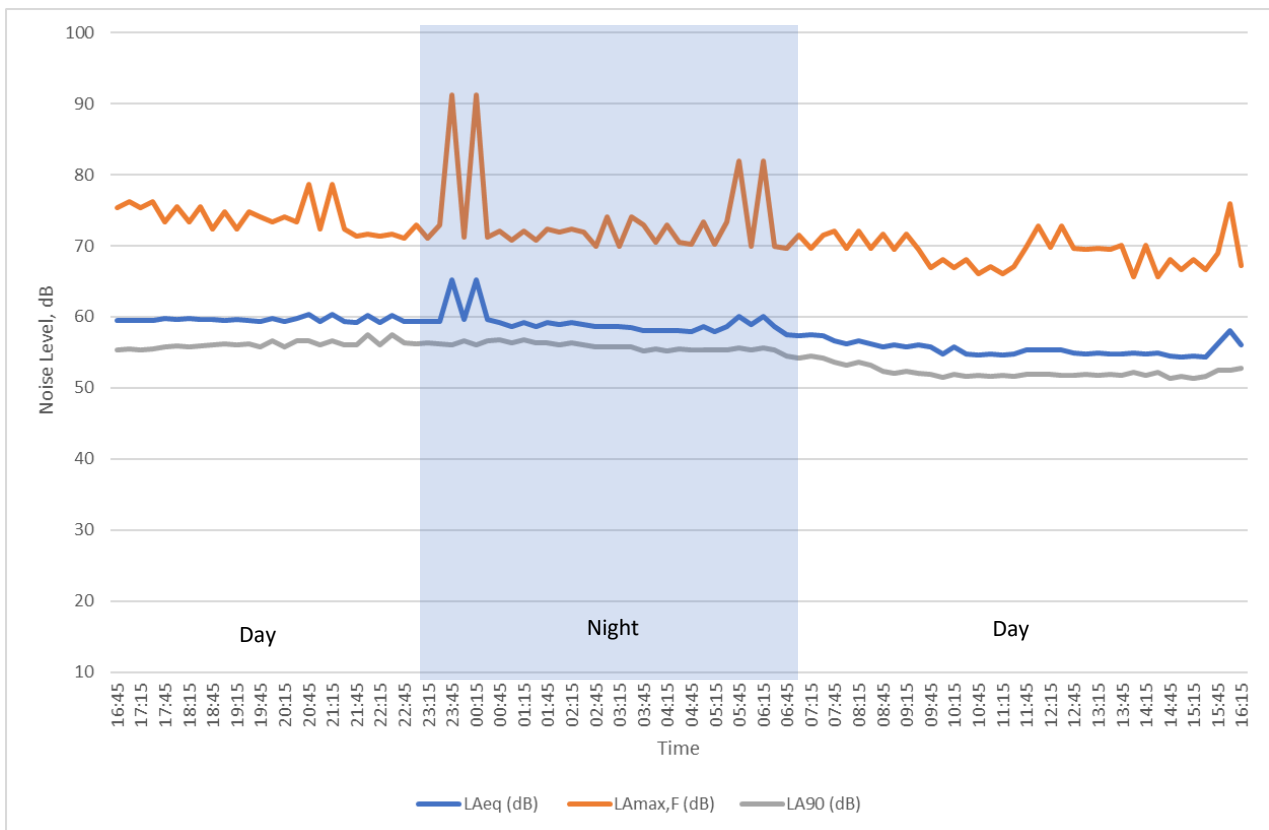


TABLE A1 – Attended Measured Noise Levels

Location (Date)	Period, h	Noise Level, dB			Comments
		L _{Aeq}	L _{Amax, F}	L _{A90}	
C (8/09/23)	23:58	57	64	55	Plant at rear of loco express, road traffic & pedestrians
	23:59	57	63	55	
	00:00	58	66	56	
	00:01	66	75	56	As above, includes train pass
	00:02	67	74	57	As above, includes train pass
	00:03	57	61	55	Plant at rear of loco express, road traffic & pedestrians
	00:04	58	64	55	
	00:05	58	63	56	
	00:06	57	61	55	
	00:07	62	71	55	As above, includes train pass
	00:08	57	61	55	Plant at rear of loco express, road traffic & pedestrians
	00:09	58	68	55	
	00:10	56	59	55	
	00:11	58	66	54	
	00:12	59	67	56	As above, includes siren
	00:13	57	63	55	Plant at rear of loco express, road traffic & pedestrians
	00:14	60	75	57	
	00:15	62	72	56	
	00:16	69	85	57	As above, includes very noisy car
	00:17	58	62	57	Plant at rear of loco express, road traffic & pedestrians
	00:18	59	65	56	
	00:19	58	68	55	
	00:20	56	62	53	
	00:21	56	60	53	As above, includes train pass
	00:22	67	77	55	
	00:23	64	75	56	
	00:24	55	59	53	Plant at rear of loco express, road traffic & pedestrians
	00:25	55	57	53	
	00:26	54	56	53	
	00:27	62	75	54	As above, includes siren
C	Above period	61	85	54	All sources discussed above
C (level 2)	0040-0045	60	73	53	As above with noise from people sat outside bar on GF of car park.
D (11/09/23)	1400-1415	65	82	58	Road traffic noise.