

Ref: P25-136-M01v1
Project: Domett Street, Manchester
Date: 12 December 2025
To: Jacqueline Brown – John Southworth
From: David Thurstan BSc MIOA – Principal Consultant

Subject: Acoustic Verification Assessment

1. This memo sets out the details and findings of recent acoustic verification testing carried out for the Domett Street development in Manchester.

Planning Condition

2. The following condition relates to a scheme of noise mitigation for the development.

“15. The development hereby approved shall only be implemented in accordance with the details contained within the Noise Mitigation Scheme prepared by Hepworth Acoustics (Ref: P25-136-R01v2) dated 1 May 2025, received by the City Council as Local Planning Authority on 2 May 2025. The approved noise insulation scheme shall be completed before any of the residential units are occupied.

Upon completion of the development and prior to first occupation of the apartments hereby approved, a verification report shall be submitted to and approved in writing by the City Council as Local Planning Authority in order to validate the works undertaken conform to the recommendations and requirements contained within the report. The report should contain details of post completion testing to confirm that the internal noise criteria has been met. Any instances of nonconformity with the recommendations contained within the report shall be detailed, along with any measures required to ensure compliance with the internal noise criteria.”

Noise Criteria

3. The ‘Manchester City Council Planning & Noise Technical Guidance 2022’ document provides guidance for assessing the potential impact on residential developments and recommends the following noise limits or acoustic design criteria:
 - Bedrooms (night-time - 23.00 - 07.00) 30 dB $L_{Aeq,T}$ (individual noise events should not normally exceed 45 dB $L_{Amax,F}$ by more than 10 times)
 - Living Rooms (daytime - 07.00 - 23.00) 35 dB $L_{Aeq,T}$
4. These acoustic criteria correspond to guidance set out in British Standard 8233: 2014, ‘Guidance on sound insulation and noise reduction for buildings’ and have been used for the assessment of the verification noise measurements.

Noise Survey

5. Automatic data-logging sound analysers were installed in the living room/kitchen and bedroom of the closest plot (i.e. Plot 2) to Old Market Street to measure noise levels in consecutive 5-minute periods from approximately 11:30 hours on Wednesday 10 to 10:30 hours on Thursday 11 December 2025.
6. The noise measurements were carried out with NTi XL2/XL3 'Class 1' Sound Level Meters (serial no. A2A-20361-E0 & A3A-01451-F0) located in the centre of the room and with a microphone height of approximately 1.4m above floor level. Calibration checks were carried out both before and after the measurement period with no variance in levels observed. Audio was also recorded during the monitoring period to help identify noise sources contributing to the measured noise levels. Trickle vents were open for the duration of the survey.
7. The rooms were empty and unfurnished with no carpet. It is therefore to be expected that internal noise levels will be further reduced once the rooms are occupied and furnished, due to the reduction in reverberation that will result from installation of floor finishes and furnishings.
8. To account for these reverberation effects, reverberation time (RT) measurements were undertaken in one third octave bands in the living room and bedroom. The measured values have been used in conjunction with standardised reverberation times for a typical furnished habitable room (i.e. 0.5 seconds as set out in BS8233) to determine a set of corrections applicable to the measured internal noise levels, and hence determine the equivalent levels that would be anticipated in the bedroom/living room once occupied and furnished. The calculations correcting the ambient and maximum noise levels are enclosed.
9. Weather conditions during the measurements were dry, mild (7 to 12°C), partially cloudy, with an occasional south-westerly breeze (<4m/s). The weather conditions during the noise survey were suitable for the purposes of determining the noise ingress.
10. A summary of the noise levels measured over the daytime and night-time periods is shown in Table 1, with full results enclosed in the charts. The development is still very much an active construction site. Therefore, only the measured noise levels outside of the site construction hours have been considered in this assessment (i.e. 17:30 to 07:00 hours).

Table 1: Summary of Measured Noise Levels (dB)

Location	Night-time		Daytime
	L_{AFmax}^+	$L_{Aeq,8hr}^+$	$L_{Aeq,16hr}^{**}$
Plot 2 – Living room/Kitchen	N/A	N/A	30
Plot 2 – Bedroom	23 – 55	25	30

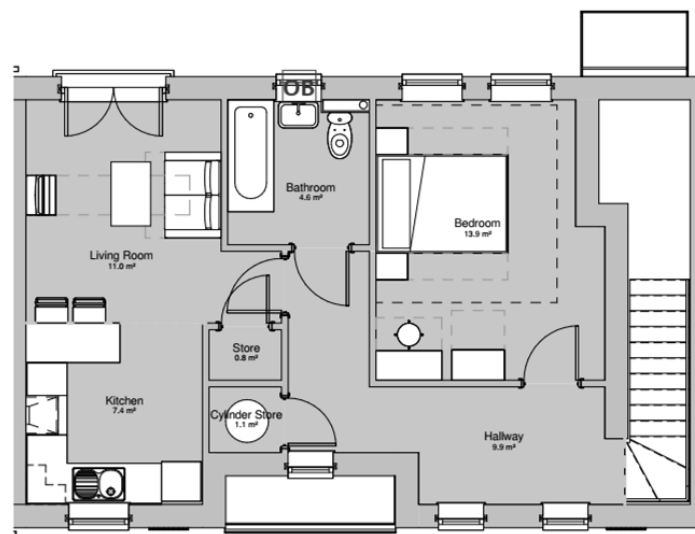
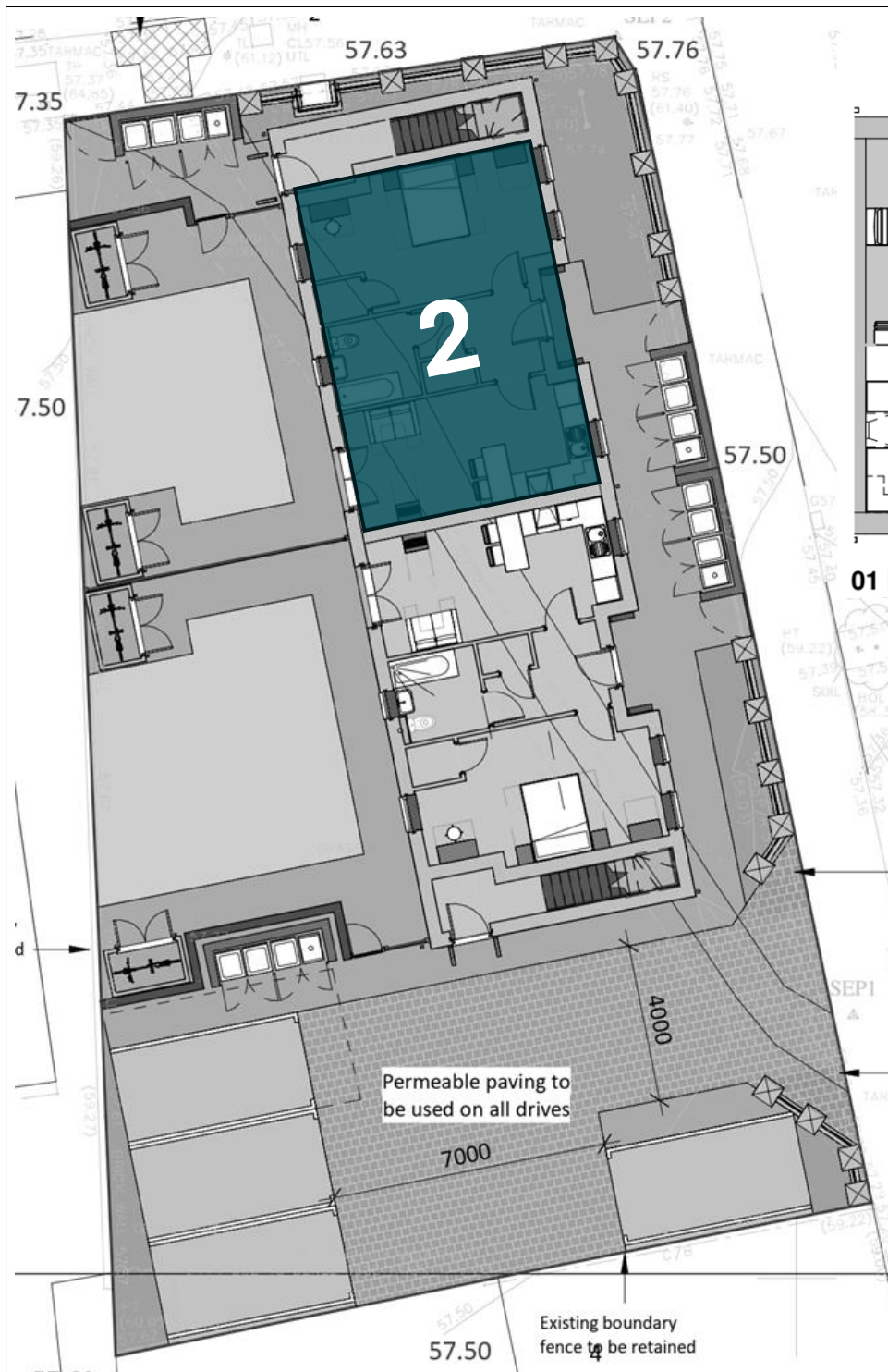
* 16 hour is based on measurements between 17:30 to 23:00 hours following the end of ongoing site works

+ All results have been corrected for the influence of reverberation

11. These are low levels of noise during the daytime and at night. From review of the audio the noise climate was generally road traffic and other extraneous intermittent sources such as loud motorbikes.
12. The noise survey covered a daytime/evening period including a rush hour period. Nevertheless, the daytime noise levels were well below the internal daytime noise criterion.
13. The 10th highest maximum at night in the bedroom was 43 dB L_{AFmax} , which is within the night-time peak noise criteria.

Conclusion

14. The results of the noise measurements demonstrate that the installed glazing and ventilation scheme meets the noise criteria required by Condition 15 of the Planning Approval.
15. We therefore conclude that the requirements of the planning conditions have been met and no further works are required.



01 First Floor Plan (56m²) (Including stair) 01

Key:

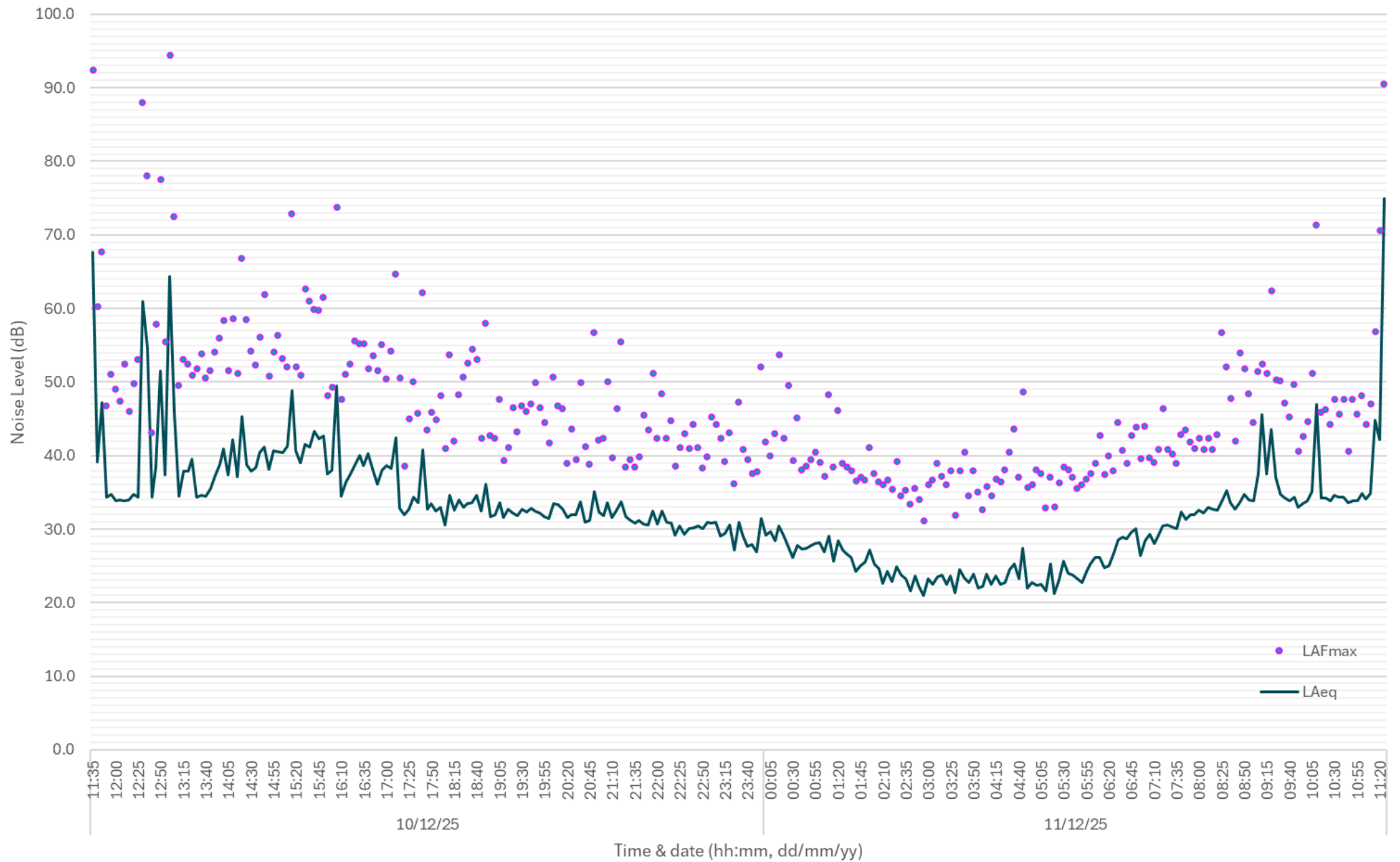


Project: P25-136

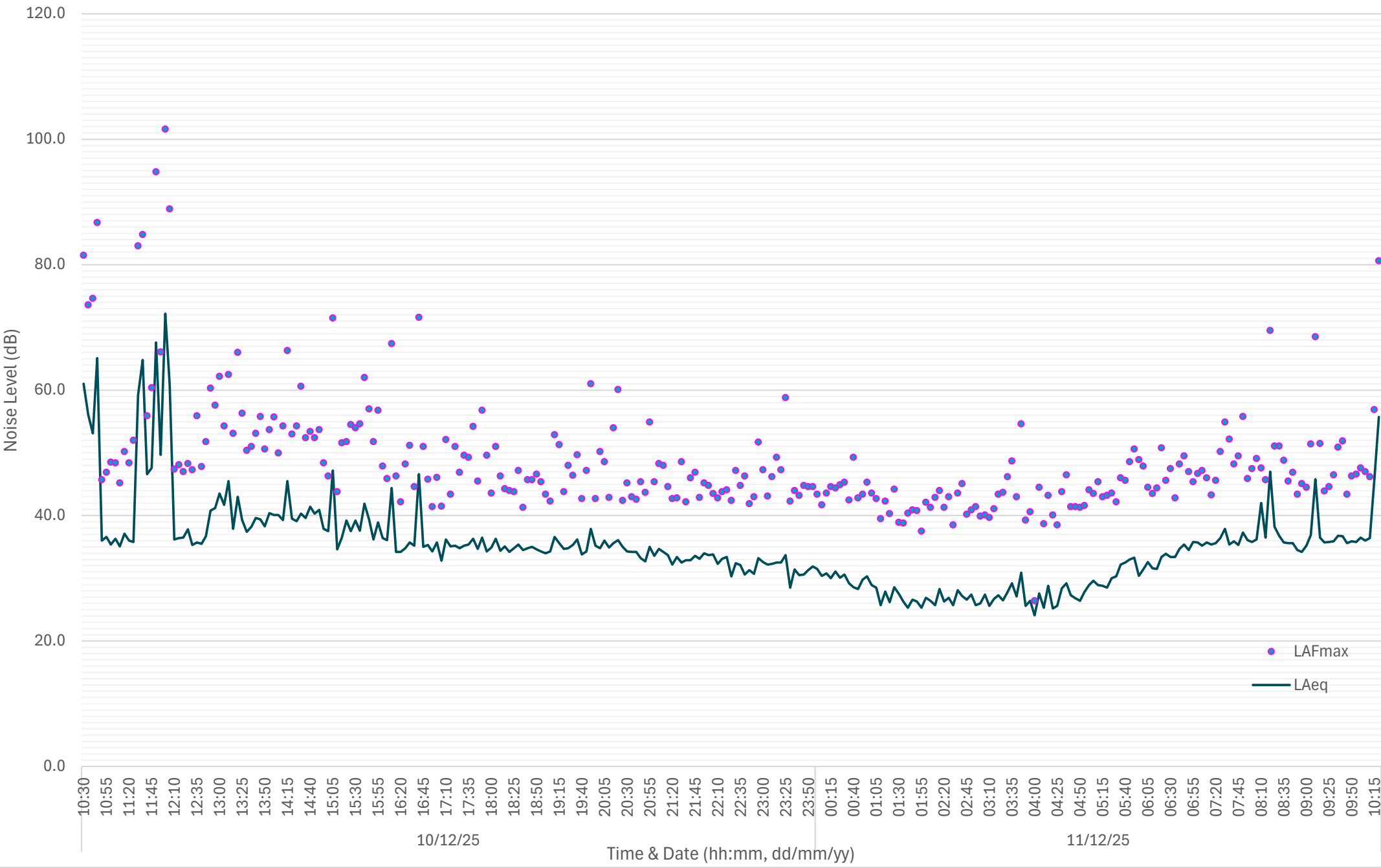
Ref: **Figure 1**

Title: Site location & plot position

Plot 2 - Living Room



Plot 2 - Bedroom



Daytime - Living room/kitchen

Description	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	dBA
$L_{Aeq,T}$	42.0	39.3	34.9	29.8	28.0	29.8	37.5	28.1	26.0	22.7	22.5	23.1	25.5	24.2	20.7	18.9	14.0	12.6	12.7	9.2	8.7	7.8	7.3	6.8	33
Measured T_{60}	0.62	0.95	0.98	0.72	0.44	0.58	0.67	0.87	0.83	0.88	0.85	1.14	1.29	1.38	1.27	1.06	0.97	0.91	0.90	0.90	0.84	0.82	0.66	0.58	
Reverberation Correction (c	-0.9	-2.8	-2.9	-1.6	0.6	-0.6	-1.3	-2.4	-2.2	-2.5	-2.3	-3.6	-4.1	-4.4	-4.0	-3.2	-2.9	-2.6	-2.5	-2.6	-2.2	-2.1	-1.2	-0.6	
Resulting $L_{Aeq,T}$	41.1	36.5	32.0	28.2	28.6	29.2	36.2	25.7	23.8	20.2	20.2	19.5	21.4	19.8	16.7	15.7	11.1	10.0	10.2	6.6	6.5	5.7	6.1	6.2	30

Daytime - Bedroom

Description	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	dBA
$L_{Aeq,T}$	34.4	32.2	37.9	28.0	31.9	30.0	32.2	32.8	29.4	25.3	26.0	26.2	27.4	27.9	22.5	18.6	16.8	13.4	12.5	8.5	6.7	6.2	6.0	5.5	35
Measured T_{60}	0.64	0.94	0.74	1.21	0.56	1.86	1.55	1.05	1.78	1.56	1.56	1.48	1.64	1.38	1.41	1.41	1.06	1.08	1.11	1.02	1.00	0.88	0.80	0.63	
Reverberation Correction (dl	-1.1	-2.7	-1.7	-3.8	-0.5	-5.7	-4.9	-3.2	-5.5	-4.9	-4.9	-4.7	-5.2	-4.4	-4.5	-4.5	-3.3	-3.3	-3.5	-3.1	-3.0	-2.5	-2.0	-1.0	
Resulting $L_{Aeq,T}$	33.3	29.5	36.2	24.2	31.4	24.3	27.3	29.6	23.9	20.4	21.1	21.5	22.2	23.5	18.0	14.1	13.5	10.1	9.0	5.4	3.7	3.7	4.0	4.5	30

Night-time - bedroom

Description	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	dBA
L_{AFmax} , 10th highest	48.8	44.6	51.4	41.7	54.6	46.0	45.0	45.9	40.4	36.9	40.0	37.5	38.8	40.0	34.4	29.2	27.5	23.6	25.1	19.3	15.3	16.4	10.5	7.7	47
Measured T_{60}	1.27	0.81	0.90	0.92	1.08	1.25	1.64	1.45	1.33	1.49	1.38	1.59	1.49	1.68	1.66	1.41	1.27	1.15	1.18	1.12	1.08	0.93	0.75	0.64	
Reverberation Correction (dl	-4.0	-2.1	-2.5	-2.6	-3.3	-4.0	-5.1	-4.6	-4.2	-4.7	-4.4	-5.0	-4.7	-5.3	-5.2	-4.5	-4.0	-3.6	-3.7	-3.5	-3.3	-2.7	-1.8	-1.1	
Resulting L_{AFmax}	44.8	42.5	48.9	39.1	51.3	42.0	39.9	41.3	36.2	32.2	35.6	32.5	34.1	34.7	29.2	24.7	23.5	20.0	21.4	15.8	12.0	13.7	8.7	6.6	43

Description	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	dBA
$L_{Aeq,T}$	27.4	25.6	31.8	21.3	28.6	24.1	25.9	26.4	23.3	20.5	21.7	22.3	23.1	24.3	18.4	15.0	13.5	10.4	9.3	6.9	6.0	6.1	5.9	5.4	30
Measured T_{60}	1.27	0.81	0.90	0.92	1.08	1.25	1.64	1.45	1.33	1.49	1.38	1.59	1.49	1.68	1.66	1.41	1.27	1.15	1.18	1.12	1.08	0.93	0.75	0.64	
Reverberation Correction (dl	-4.0	-2.1	-2.5	-2.6	-3.3	-4.0	-5.1	-4.6	-4.2	-4.7	-4.4	-5.0	-4.7	-5.3	-5.2	-4.5	-4.0	-3.6	-3.7	-3.5	-3.3	-2.7	-1.8	-1.1	
Resulting $L_{Aeq,T}$	23.4	23.5	29.3	18.7	25.3	20.1	20.8	21.8	19.1	15.8	17.3	17.3	18.4	19.0	13.2	10.5	9.5	6.8	5.6	3.4	2.7	3.4	4.1	4.3	25